

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	13.8	-8.7	-12.2	-19.6	13.8	-8.7	-15.0	-24.1	13.8
2:12	-8.7	-11.4	-18.1	13.8	-8.7	-11.4	-18.1	13.8	-8.7	-14.1	-22.3	13.8
3:12	-8.8	-11.4	-18.2	13.7	-8.8	-11.4	-18.2	13.7	-8.8	-14.2	-22.3	13.7
4:12	-8.8	-11.5	-18.2	13.6	-8.8	-11.5	-18.2	13.6	-8.8	-14.2	-22.3	13.6
5:12	-8.8	-11.5	-18.2	13.6	-8.8	-11.5	-18.2	13.6	-8.8	-14.2	-22.4	13.6
6:12	-8.9	-11.5	-18.3	13.4	-8.9	-11.5	-18.3	13.4	-8.9	-14.3	-22.4	13.4
7:12	-8.9	-8.9	-8.9	13.3	-8.9	-8.9	-8.9	13.3	-8.9	-9.8	-9.8	13.3
8:12	-8.9	-8.9	-8.9	13.2	-8.9	-8.9	-8.9	13.2	-8.9	-9.8	-9.8	13.2
9:12	-9.0	-9.0	-9.0	13.1	-9.0	-9.0	-9.0	13.1	-9.0	-9.8	-9.8	13.1
10:12	-9.0	-9.0	-9.0	13.0	-9.0	-9.0	-9.0	13.0	-9.0	-9.9	-9.9	13.0
11:12	-9.1	-9.1	-9.1	12.8	-9.1	-9.1	-9.1	12.8	-9.1	-9.9	-9.9	12.8
12:12	-9.1	-9.1	-9.1	12.7	-9.1	-9.1	-9.1	12.7	-9.1	-10.0	-10.0	12.7
Exposure Category C												
1:12	-8.7	-15.0	-24.1	13.8	-9.2	-17.5	-28.0	13.8	-10.8	-20.4	-32.5	13.8
2:12	-8.7	-14.1	-22.3	13.8	-8.7	-16.5	-25.9	13.8	-9.6	-19.2	-30.1	13.8
3:12	-8.8	-14.2	-22.3	13.7	-8.8	-16.5	-25.9	13.7	-9.6	-19.2	-30.1	13.7
4:12	-8.8	-14.2	-22.3	13.6	-8.8	-16.5	-25.9	13.6	-9.6	-19.3	-30.1	13.6
5:12	-8.8	-14.2	-22.4	13.6	-8.8	-16.6	-26.0	13.6	-9.7	-19.3	-30.1	13.6
6:12	-8.9	-14.3	-22.4	13.4	-8.9	-16.6	-26.0	13.4	-9.7	-19.3	-30.2	13.4
7:12	-8.9	-9.8	-9.8	13.3	-9.3	-11.4	-11.4	13.3	-10.9	-13.3	-13.3	14.2
8:12	-8.9	-9.8	-9.8	13.2	-9.4	-11.5	-11.5	13.2	-11.0	-13.4	-13.4	14.0
9:12	-9.0	-9.8	-9.8	13.1	-9.4	-11.5	-11.5	13.1	-11.0	-13.4	-13.4	13.9
10:12	-9.0	-9.9	-9.9	13.0	-9.5	-11.6	-11.6	13.0	-11.1	-13.5	-13.5	13.8
11:12	-9.1	-9.9	-9.9	12.8	-9.5	-11.6	-11.6	12.8	-11.1	-13.5	-13.5	13.7
12:12	-9.1	-10.0	-10.0	12.7	-9.5	-11.6	-11.6	12.7	-11.1	-13.6	-13.6	13.6
Exposure Category D												
1:12	-9.7	-18.5	-29.5	13.8	-11.1	-21.0	-33.4	13.8	-12.7	-23.9	-37.8	13.8
2:12	-8.7	-17.4	-27.3	13.8	-9.9	-19.8	-30.9	13.8	-11.3	-22.5	-35.0	13.8
3:12	-8.8	-17.4	-27.3	13.7	-9.9	-19.8	-30.9	13.7	-11.3	-22.5	-35.1	13.7
4:12	-8.8	-17.5	-27.3	13.6	-9.9	-19.8	-30.9	13.6	-11.4	-22.5	-35.1	13.6
5:12	-8.8	-17.5	-27.4	13.6	-9.9	-19.8	-31.0	13.6	-11.4	-22.6	-35.1	13.6
6:12	-8.9	-17.5	-27.4	13.4	-10.0	-19.9	-31.0	13.4	-11.4	-22.6	-35.2	13.4
7:12	-9.9	-12.1	-12.1	13.3	-11.3	-13.7	-13.7	14.5	-12.9	-15.7	-15.7	15.9
8:12	-9.9	-12.1	-12.1	13.2	-11.3	-13.8	-13.8	14.3	-12.9	-15.7	-15.7	15.8
9:12	-10.0	-12.2	-12.2	13.1	-11.3	-13.8	-13.8	14.2	-12.9	-15.7	-15.7	15.6
10:12	-10.0	-12.2	-12.2	13.0	-11.4	-13.9	-13.9	14.1	-13.0	-15.8	-15.8	15.5
11:12	-10.0	-12.2	-12.2	12.8	-11.4	-13.9	-13.9	14.0	-13.0	-15.8	-15.8	15.4
12:12	-10.1	-12.3	-12.3	12.7	-11.5	-13.9	-13.9	13.9	-13.1	-15.9	-15.9	15.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
70 mph

Ground Snow Load
0 psf

Up and Down (psf)

Basic Wind Speed **70 mph**
Ground Snow Load **5 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	15.1	-8.7	-12.2	-19.6	15.1	-8.7	-15.0	-24.1	15.1
2:12	-8.7	-11.4	-18.1	14.7	-8.7	-11.4	-18.1	14.7	-8.7	-14.1	-22.3	14.7
3:12	-8.8	-11.4	-18.2	14.3	-8.8	-11.4	-18.2	14.3	-8.8	-14.2	-22.3	14.3
4:12	-8.8	-11.5	-18.2	13.6	-8.8	-11.5	-18.2	13.6	-8.8	-14.2	-22.3	13.6
5:12	-8.8	-11.5	-18.2	13.6	-8.8	-11.5	-18.2	13.6	-8.8	-14.2	-22.4	13.6
6:12	-8.9	-11.5	-18.3	13.4	-8.9	-11.5	-18.3	13.4	-8.9	-14.3	-22.4	13.4
7:12	-8.9	-8.9	-8.9	13.3	-8.9	-8.9	-8.9	13.3	-8.9	-9.8	-9.8	13.3
8:12	-8.9	-8.9	-8.9	13.2	-8.9	-8.9	-8.9	13.2	-8.9	-9.8	-9.8	13.2
9:12	-9.0	-9.0	-9.0	13.1	-9.0	-9.0	-9.0	13.1	-9.0	-9.8	-9.8	13.1
10:12	-9.0	-9.0	-9.0	13.0	-9.0	-9.0	-9.0	13.0	-9.0	-9.9	-9.9	13.0
11:12	-9.1	-9.1	-9.1	12.8	-9.1	-9.1	-9.1	12.8	-9.1	-9.9	-9.9	12.8
12:12	-9.1	-9.1	-9.1	12.7	-9.1	-9.1	-9.1	12.7	-9.1	-10.0	-10.0	12.7
Exposure Category C												
1:12	-8.7	-15.0	-24.1	15.1	-9.2	-17.5	-28.0	15.1	-10.8	-20.4	-32.5	15.1
2:12	-8.7	-14.1	-22.3	14.7	-8.7	-16.5	-25.9	14.7	-9.6	-19.2	-30.1	14.7
3:12	-8.8	-14.2	-22.3	14.3	-8.8	-16.5	-25.9	14.3	-9.6	-19.2	-30.1	14.3
4:12	-8.8	-14.2	-22.3	13.6	-8.8	-16.5	-25.9	13.6	-9.6	-19.3	-30.1	13.6
5:12	-8.8	-14.2	-22.4	13.6	-8.8	-16.6	-26.0	13.6	-9.7	-19.3	-30.1	13.6
6:12	-8.9	-14.3	-22.4	13.4	-8.9	-16.6	-26.0	13.4	-9.7	-19.3	-30.2	13.4
7:12	-8.9	-9.8	-9.8	13.3	-9.3	-11.4	-11.4	13.3	-10.9	-13.3	-13.3	14.2
8:12	-8.9	-9.8	-9.8	13.2	-9.4	-11.5	-11.5	13.2	-11.0	-13.4	-13.4	14.0
9:12	-9.0	-9.8	-9.8	13.1	-9.4	-11.5	-11.5	13.1	-11.0	-13.4	-13.4	13.9
10:12	-9.0	-9.9	-9.9	13.0	-9.5	-11.6	-11.6	13.0	-11.1	-13.5	-13.5	13.8
11:12	-9.1	-9.9	-9.9	12.8	-9.5	-11.6	-11.6	12.8	-11.1	-13.5	-13.5	13.7
12:12	-9.1	-10.0	-10.0	12.7	-9.5	-11.6	-11.6	12.7	-11.1	-13.6	-13.6	13.6
Exposure Category D												
1:12	-9.7	-18.5	-29.5	15.1	-11.1	-21.0	-33.4	15.1	-12.7	-23.9	-37.8	15.1
2:12	-8.7	-17.4	-27.3	14.7	-9.9	-19.8	-30.9	14.7	-11.3	-22.5	-35.0	14.7
3:12	-8.8	-17.4	-27.3	14.3	-9.9	-19.8	-30.9	14.3	-11.3	-22.5	-35.1	14.3
4:12	-8.8	-17.5	-27.3	13.6	-9.9	-19.8	-30.9	13.6	-11.4	-22.5	-35.1	13.6
5:12	-8.8	-17.5	-27.4	13.6	-9.9	-19.8	-31.0	13.6	-11.4	-22.6	-35.1	13.6
6:12	-8.9	-17.5	-27.4	13.4	-10.0	-19.9	-31.0	13.4	-11.4	-22.6	-35.2	13.4
7:12	-9.9	-12.1	-12.1	13.3	-11.3	-13.7	-13.7	14.5	-12.9	-15.7	-15.7	15.9
8:12	-9.9	-12.1	-12.1	13.2	-11.3	-13.8	-13.8	14.3	-12.9	-15.7	-15.7	15.8
9:12	-10.0	-12.2	-12.2	13.1	-11.3	-13.8	-13.8	14.2	-12.9	-15.7	-15.7	15.6
10:12	-10.0	-12.2	-12.2	13.0	-11.4	-13.9	-13.9	14.1	-13.0	-15.8	-15.8	15.5
11:12	-10.0	-12.2	-12.2	12.8	-11.4	-13.9	-13.9	14.0	-13.0	-15.8	-15.8	15.4
12:12	-10.1	-12.3	-12.3	12.7	-11.5	-13.9	-13.9	13.9	-13.1	-15.9	-15.9	15.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W70-S5

Up and Down (psf)

Basic Wind Speed **70 mph**
Ground Snow Load **10 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	18.8	-8.7	-12.2	-19.6	18.8	-8.7	-15.0	-24.1	18.8
2:12	-8.7	-11.4	-18.1	18.1	-8.7	-11.4	-18.1	18.1	-8.7	-14.1	-22.3	18.1
3:12	-8.8	-11.4	-18.2	17.3	-8.8	-11.4	-18.2	17.3	-8.8	-14.2	-22.3	17.3
4:12	-8.8	-11.5	-18.2	14.9	-8.8	-11.5	-18.2	14.9	-8.8	-14.2	-22.3	14.9
5:12	-8.8	-11.5	-18.2	14.3	-8.8	-11.5	-18.2	14.3	-8.8	-14.2	-22.4	14.3
6:12	-8.9	-11.5	-18.3	13.7	-8.9	-11.5	-18.3	13.7	-8.9	-14.3	-22.4	13.7
7:12	-8.9	-8.9	-8.9	13.3	-8.9	-8.9	-8.9	13.3	-8.9	-9.8	-9.8	13.3
8:12	-8.9	-8.9	-8.9	13.2	-8.9	-8.9	-8.9	13.2	-8.9	-9.8	-9.8	13.2
9:12	-9.0	-9.0	-9.0	13.1	-9.0	-9.0	-9.0	13.1	-9.0	-9.8	-9.8	13.1
10:12	-9.0	-9.0	-9.0	13.0	-9.0	-9.0	-9.0	13.0	-9.0	-9.9	-9.9	13.0
11:12	-9.1	-9.1	-9.1	12.8	-9.1	-9.1	-9.1	12.8	-9.1	-9.9	-9.9	12.8
12:12	-9.1	-9.1	-9.1	12.7	-9.1	-9.1	-9.1	12.7	-9.1	-10.0	-10.0	12.7
Exposure Category C												
1:12	-8.7	-15.0	-24.1	18.8	-9.2	-17.5	-28.0	18.8	-10.8	-20.4	-32.5	18.8
2:12	-8.7	-14.1	-22.3	18.1	-8.7	-16.5	-25.9	18.1	-9.6	-19.2	-30.1	18.1
3:12	-8.8	-14.2	-22.3	17.3	-8.8	-16.5	-25.9	17.3	-9.6	-19.2	-30.1	17.3
4:12	-8.8	-14.2	-22.3	14.9	-8.8	-16.5	-25.9	14.9	-9.6	-19.3	-30.1	14.9
5:12	-8.8	-14.2	-22.4	14.3	-8.8	-16.6	-26.0	14.3	-9.7	-19.3	-30.1	14.3
6:12	-8.9	-14.3	-22.4	13.7	-8.9	-16.6	-26.0	13.7	-9.7	-19.3	-30.2	13.7
7:12	-8.9	-9.8	-9.8	13.3	-9.3	-11.4	-11.4	13.3	-10.9	-13.3	-13.3	14.2
8:12	-8.9	-9.8	-9.8	13.2	-9.4	-11.5	-11.5	13.2	-11.0	-13.4	-13.4	14.0
9:12	-9.0	-9.8	-9.8	13.1	-9.4	-11.5	-11.5	13.1	-11.0	-13.4	-13.4	13.9
10:12	-9.0	-9.9	-9.9	13.0	-9.5	-11.6	-11.6	13.0	-11.1	-13.5	-13.5	13.8
11:12	-9.1	-9.9	-9.9	12.8	-9.5	-11.6	-11.6	12.8	-11.1	-13.5	-13.5	13.7
12:12	-9.1	-10.0	-10.0	12.7	-9.5	-11.6	-11.6	12.7	-11.1	-13.6	-13.6	13.6
Exposure Category D												
1:12	-9.7	-18.5	-29.5	18.8	-11.1	-21.0	-33.4	18.8	-12.7	-23.9	-37.8	18.8
2:12	-8.7	-17.4	-27.3	18.1	-9.9	-19.8	-30.9	18.1	-11.3	-22.5	-35.0	18.1
3:12	-8.8	-17.4	-27.3	17.3	-9.9	-19.8	-30.9	17.3	-11.3	-22.5	-35.1	17.3
4:12	-8.8	-17.5	-27.3	14.5	-9.9	-19.8	-30.9	14.5	-11.4	-22.5	-35.1	14.5
5:12	-8.8	-17.5	-27.4	14.0	-9.9	-19.8	-31.0	14.0	-11.4	-22.6	-35.1	14.0
6:12	-8.9	-17.5	-27.4	13.5	-10.0	-19.9	-31.0	13.5	-11.4	-22.6	-35.2	13.5
7:12	-9.9	-12.1	-12.1	13.3	-11.3	-13.7	-13.7	14.5	-12.9	-15.7	-15.7	15.9
8:12	-9.9	-12.1	-12.1	13.2	-11.3	-13.8	-13.8	14.3	-12.9	-15.7	-15.7	15.8
9:12	-10.0	-12.2	-12.2	13.1	-11.3	-13.8	-13.8	14.2	-12.9	-15.7	-15.7	15.6
10:12	-10.0	-12.2	-12.2	13.0	-11.4	-13.9	-13.9	14.1	-13.0	-15.8	-15.8	15.5
11:12	-10.0	-12.2	-12.2	12.8	-11.4	-13.9	-13.9	14.0	-13.0	-15.8	-15.8	15.4
12:12	-10.1	-12.3	-12.3	12.7	-11.5	-13.9	-13.9	13.9	-13.1	-15.9	-15.9	15.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
70 mph
Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	22.5	-8.7	-12.2	-19.6	22.5	-8.7	-15.0	-24.1	22.5
2:12	-8.7	-11.4	-18.1	21.5	-8.7	-11.4	-18.1	21.5	-8.7	-14.1	-22.3	21.5
3:12	-8.8	-11.4	-18.2	20.3	-8.8	-11.4	-18.2	20.3	-8.8	-14.2	-22.3	20.3
4:12	-8.8	-11.5	-18.2	16.8	-8.8	-11.5	-18.2	16.8	-8.8	-14.2	-22.3	16.8
5:12	-8.8	-11.5	-18.2	15.9	-8.8	-11.5	-18.2	15.9	-8.8	-14.2	-22.4	15.9
6:12	-8.9	-11.5	-18.3	15.2	-8.9	-11.5	-18.3	15.2	-8.9	-14.3	-22.4	15.2
7:12	-8.9	-8.9	-8.9	14.4	-8.9	-8.9	-8.9	14.4	-8.9	-9.8	-9.8	14.4
8:12	-8.9	-8.9	-8.9	13.7	-8.9	-8.9	-8.9	13.7	-8.9	-9.8	-9.8	13.7
9:12	-9.0	-9.0	-9.0	13.1	-9.0	-9.0	-9.0	13.1	-9.0	-9.8	-9.8	13.1
10:12	-9.0	-9.0	-9.0	13.0	-9.0	-9.0	-9.0	13.0	-9.0	-9.9	-9.9	13.0
11:12	-9.1	-9.1	-9.1	12.8	-9.1	-9.1	-9.1	12.8	-9.1	-9.9	-9.9	12.8
12:12	-9.1	-9.1	-9.1	12.7	-9.1	-9.1	-9.1	12.7	-9.1	-10.0	-10.0	12.7
Exposure Category C												
1:12	-8.7	-15.0	-24.1	22.5	-9.2	-17.5	-28.0	22.5	-10.8	-20.4	-32.5	22.5
2:12	-8.7	-14.1	-22.3	21.5	-8.7	-16.5	-25.9	21.5	-9.6	-19.2	-30.1	21.5
3:12	-8.8	-14.2	-22.3	20.3	-8.8	-16.5	-25.9	20.3	-9.6	-19.2	-30.1	20.3
4:12	-8.8	-14.2	-22.3	16.8	-8.8	-16.5	-25.9	16.8	-9.6	-19.3	-30.1	16.8
5:12	-8.8	-14.2	-22.4	15.9	-8.8	-16.6	-26.0	15.9	-9.7	-19.3	-30.1	15.9
6:12	-8.9	-14.3	-22.4	15.2	-8.9	-16.6	-26.0	15.2	-9.7	-19.3	-30.2	15.2
7:12	-8.9	-9.8	-9.8	14.4	-9.3	-11.4	-11.4	14.4	-10.9	-13.3	-13.3	15.0
8:12	-8.9	-9.8	-9.8	13.7	-9.4	-11.5	-11.5	13.7	-11.0	-13.4	-13.4	14.4
9:12	-9.0	-9.8	-9.8	13.1	-9.4	-11.5	-11.5	13.1	-11.0	-13.4	-13.4	13.9
10:12	-9.0	-9.9	-9.9	13.0	-9.5	-11.6	-11.6	13.0	-11.1	-13.5	-13.5	13.8
11:12	-9.1	-9.9	-9.9	12.8	-9.5	-11.6	-11.6	12.8	-11.1	-13.5	-13.5	13.7
12:12	-9.1	-10.0	-10.0	12.7	-9.5	-11.6	-11.6	12.7	-11.1	-13.6	-13.6	13.6
Exposure Category D												
1:12	-9.7	-18.5	-29.5	22.5	-11.1	-21.0	-33.4	22.5	-12.7	-23.9	-37.8	22.5
2:12	-8.7	-17.4	-27.3	21.5	-9.9	-19.8	-30.9	21.5	-11.3	-22.5	-35.0	21.5
3:12	-8.8	-17.4	-27.3	20.3	-9.9	-19.8	-30.9	20.3	-11.3	-22.5	-35.1	20.3
4:12	-8.8	-17.5	-27.3	16.2	-9.9	-19.8	-30.9	16.2	-11.4	-22.5	-35.1	16.2
5:12	-8.8	-17.5	-27.4	15.5	-9.9	-19.8	-31.0	15.5	-11.4	-22.6	-35.1	15.5
6:12	-8.9	-17.5	-27.4	14.7	-10.0	-19.9	-31.0	14.7	-11.4	-22.6	-35.2	14.7
7:12	-9.9	-12.1	-12.1	14.1	-11.3	-13.7	-13.7	14.9	-12.9	-15.7	-15.7	16.0
8:12	-9.9	-12.1	-12.1	13.4	-11.3	-13.8	-13.8	14.3	-12.9	-15.7	-15.7	15.8
9:12	-10.0	-12.2	-12.2	13.1	-11.3	-13.8	-13.8	14.2	-12.9	-15.7	-15.7	15.6
10:12	-10.0	-12.2	-12.2	13.0	-11.4	-13.9	-13.9	14.1	-13.0	-15.8	-15.8	15.5
11:12	-10.0	-12.2	-12.2	12.8	-11.4	-13.9	-13.9	14.0	-13.0	-15.8	-15.8	15.4
12:12	-10.1	-12.3	-12.3	12.7	-11.5	-13.9	-13.9	13.9	-13.1	-15.9	-15.9	15.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-8.7	-12.2	-19.6	26.2	-8.7	-12.2	-19.6	26.2	-8.7	-15.0	-24.1	26.2
	2:12	-8.7	-11.4	-18.1	24.9	-8.7	-11.4	-18.1	24.9	-8.7	-14.1	-22.3	24.9
	3:12	-8.8	-11.4	-18.2	23.4	-8.8	-11.4	-18.2	23.4	-8.8	-14.2	-22.3	23.4
	4:12	-8.8	-11.5	-18.2	18.6	-8.8	-11.5	-18.2	18.6	-8.8	-14.2	-22.3	18.6
	5:12	-8.8	-11.5	-18.2	17.6	-8.8	-11.5	-18.2	17.6	-8.8	-14.2	-22.4	17.6
	6:12	-8.9	-11.5	-18.3	16.6	-8.9	-11.5	-18.3	16.6	-8.9	-14.3	-22.4	16.6
	7:12	-8.9	-8.9	-8.9	15.6	-8.9	-8.9	-8.9	15.6	-8.9	-9.8	-9.8	15.6
	8:12	-8.9	-8.9	-8.9	14.8	-8.9	-8.9	-8.9	14.8	-8.9	-9.8	-9.8	14.8
	9:12	-9.0	-9.0	-9.0	14.0	-9.0	-9.0	-9.0	14.0	-9.0	-9.8	-9.8	14.0
	10:12	-9.0	-9.0	-9.0	13.3	-9.0	-9.0	-9.0	13.3	-9.0	-9.9	-9.9	13.3
	11:12	-9.1	-9.1	-9.1	12.8	-9.1	-9.1	-9.1	12.8	-9.1	-9.9	-9.9	12.8
	12:12	-9.1	-9.1	-9.1	12.7	-9.1	-9.1	-9.1	12.7	-9.1	-10.0	-10.0	12.7
Exposure Category C	1:12	-8.7	-15.0	-24.1	26.2	-9.2	-17.5	-28.0	26.2	-10.8	-20.4	-32.5	26.2
	2:12	-8.7	-14.1	-22.3	24.9	-8.7	-16.5	-25.9	24.9	-9.6	-19.2	-30.1	24.9
	3:12	-8.8	-14.2	-22.3	23.4	-8.8	-16.5	-25.9	23.4	-9.6	-19.2	-30.1	23.4
	4:12	-8.8	-14.2	-22.3	18.6	-8.8	-16.5	-25.9	18.6	-9.6	-19.3	-30.1	18.6
	5:12	-8.8	-14.2	-22.4	17.6	-8.8	-16.6	-26.0	17.6	-9.7	-19.3	-30.1	17.6
	6:12	-8.9	-14.3	-22.4	16.6	-8.9	-16.6	-26.0	16.6	-9.7	-19.3	-30.2	16.6
	7:12	-8.9	-9.8	-9.8	15.6	-9.3	-11.4	-11.4	15.6	-10.9	-13.3	-13.3	16.2
	8:12	-8.9	-9.8	-9.8	14.8	-9.4	-11.5	-11.5	14.8	-11.0	-13.4	-13.4	15.4
	9:12	-9.0	-9.8	-9.8	14.0	-9.4	-11.5	-11.5	14.0	-11.0	-13.4	-13.4	14.6
	10:12	-9.0	-9.9	-9.9	13.3	-9.5	-11.6	-11.6	13.3	-11.1	-13.5	-13.5	14.0
	11:12	-9.1	-9.9	-9.9	12.8	-9.5	-11.6	-11.6	12.8	-11.1	-13.5	-13.5	13.7
	12:12	-9.1	-10.0	-10.0	12.7	-9.5	-11.6	-11.6	12.7	-11.1	-13.6	-13.6	13.6
Exposure Category D	1:12	-9.7	-18.5	-29.5	26.2	-11.1	-21.0	-33.4	26.2	-12.7	-23.9	-37.8	26.2
	2:12	-8.7	-17.4	-27.3	24.9	-9.9	-19.8	-30.9	24.9	-11.3	-22.5	-35.0	24.9
	3:12	-8.8	-17.4	-27.3	23.4	-9.9	-19.8	-30.9	23.4	-11.3	-22.5	-35.1	23.4
	4:12	-8.8	-17.5	-27.3	17.9	-9.9	-19.8	-30.9	17.9	-11.4	-22.5	-35.1	17.9
	5:12	-8.8	-17.5	-27.4	16.9	-9.9	-19.8	-31.0	16.9	-11.4	-22.6	-35.1	16.9
	6:12	-8.9	-17.5	-27.4	16.0	-10.0	-19.9	-31.0	16.0	-11.4	-22.6	-35.2	16.0
	7:12	-9.9	-12.1	-12.1	15.1	-11.3	-13.7	-13.7	16.0	-12.9	-15.7	-15.7	17.1
	8:12	-9.9	-12.1	-12.1	14.4	-11.3	-13.8	-13.8	15.2	-12.9	-15.7	-15.7	16.3
	9:12	-10.0	-12.2	-12.2	13.7	-11.3	-13.8	-13.8	14.5	-12.9	-15.7	-15.7	15.6
	10:12	-10.0	-12.2	-12.2	13.0	-11.4	-13.9	-13.9	14.1	-13.0	-15.8	-15.8	15.5
	11:12	-10.0	-12.2	-12.2	12.8	-11.4	-13.9	-13.9	14.0	-13.0	-15.8	-15.8	15.4
	12:12	-10.1	-12.3	-12.3	12.7	-11.5	-13.9	-13.9	13.9	-13.1	-15.9	-15.9	15.3
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **70 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	26.2	-8.7	-12.2	-19.6	26.2	-8.7	-15.0	-24.1	26.2
2:12	-8.7	-11.4	-18.1	24.9	-8.7	-11.4	-18.1	24.9	-8.7	-14.1	-22.3	24.9
3:12	-8.8	-11.4	-18.2	23.4	-8.8	-11.4	-18.2	23.4	-8.8	-14.2	-22.3	23.4
4:12	-8.8	-11.5	-18.2	20.5	-8.8	-11.5	-18.2	20.5	-8.8	-14.2	-22.3	20.5
5:12	-8.8	-11.5	-18.2	19.2	-8.8	-11.5	-18.2	19.2	-8.8	-14.2	-22.4	19.2
6:12	-8.9	-11.5	-18.3	18.0	-8.9	-11.5	-18.3	18.0	-8.9	-14.3	-22.4	18.0
7:12	-8.9	-8.9	-8.9	16.8	-8.9	-8.9	-8.9	16.8	-8.9	-9.8	-9.8	16.8
8:12	-8.9	-8.9	-8.9	15.8	-8.9	-8.9	-8.9	15.8	-8.9	-9.8	-9.8	15.8
9:12	-9.0	-9.0	-9.0	14.9	-9.0	-9.0	-9.0	14.9	-9.0	-9.8	-9.8	14.9
10:12	-9.0	-9.0	-9.0	14.1	-9.0	-9.0	-9.0	14.1	-9.0	-9.9	-9.9	14.1
11:12	-9.1	-9.1	-9.1	13.4	-9.1	-9.1	-9.1	13.4	-9.1	-9.9	-9.9	13.4
12:12	-9.1	-9.1	-9.1	12.7	-9.1	-9.1	-9.1	12.7	-9.1	-10.0	-10.0	12.7
Exposure Category C												
1:12	-8.7	-15.0	-24.1	26.2	-9.2	-17.5	-28.0	26.2	-10.8	-20.4	-32.5	26.2
2:12	-8.7	-14.1	-22.3	24.9	-8.7	-16.5	-25.9	24.9	-9.6	-19.2	-30.1	24.9
3:12	-8.8	-14.2	-22.3	23.4	-8.8	-16.5	-25.9	23.4	-9.6	-19.2	-30.1	23.4
4:12	-8.8	-14.2	-22.3	20.5	-8.8	-16.5	-25.9	20.5	-9.6	-19.3	-30.1	20.5
5:12	-8.8	-14.2	-22.4	19.2	-8.8	-16.6	-26.0	19.2	-9.7	-19.3	-30.1	19.2
6:12	-8.9	-14.3	-22.4	18.0	-8.9	-16.6	-26.0	18.0	-9.7	-19.3	-30.2	18.0
7:12	-8.9	-9.8	-9.8	16.8	-9.3	-11.4	-11.4	16.8	-10.9	-13.3	-13.3	17.4
8:12	-8.9	-9.8	-9.8	15.8	-9.4	-11.5	-11.5	15.8	-11.0	-13.4	-13.4	16.4
9:12	-9.0	-9.8	-9.8	14.9	-9.4	-11.5	-11.5	14.9	-11.0	-13.4	-13.4	15.5
10:12	-9.0	-9.9	-9.9	14.1	-9.5	-11.6	-11.6	14.1	-11.1	-13.5	-13.5	14.7
11:12	-9.1	-9.9	-9.9	13.4	-9.5	-11.6	-11.6	13.4	-11.1	-13.5	-13.5	14.0
12:12	-9.1	-10.0	-10.0	12.7	-9.5	-11.6	-11.6	12.7	-11.1	-13.6	-13.6	13.6
Exposure Category D												
1:12	-9.7	-18.5	-29.5	26.2	-11.1	-21.0	-33.4	26.2	-12.7	-23.9	-37.8	26.2
2:12	-8.7	-17.4	-27.3	24.9	-9.9	-19.8	-30.9	24.9	-11.3	-22.5	-35.0	24.9
3:12	-8.8	-17.4	-27.3	23.4	-9.9	-19.8	-30.9	23.4	-11.3	-22.5	-35.1	23.4
4:12	-8.8	-17.5	-27.3	19.6	-9.9	-19.8	-30.9	19.6	-11.4	-22.5	-35.1	19.6
5:12	-8.8	-17.5	-27.4	18.4	-9.9	-19.8	-31.0	18.4	-11.4	-22.6	-35.1	18.4
6:12	-8.9	-17.5	-27.4	17.3	-10.0	-19.9	-31.0	17.3	-11.4	-22.6	-35.2	17.3
7:12	-9.9	-12.1	-12.1	16.2	-11.3	-13.7	-13.7	17.1	-12.9	-15.7	-15.7	18.1
8:12	-9.9	-12.1	-12.1	15.3	-11.3	-13.8	-13.8	16.1	-12.9	-15.7	-15.7	17.2
9:12	-10.0	-12.2	-12.2	14.4	-11.3	-13.8	-13.8	15.3	-12.9	-15.7	-15.7	16.4
10:12	-10.0	-12.2	-12.2	13.7	-11.4	-13.9	-13.9	14.5	-13.0	-15.8	-15.8	15.6
11:12	-10.0	-12.2	-12.2	13.1	-11.4	-13.9	-13.9	14.0	-13.0	-15.8	-15.8	15.4
12:12	-10.1	-12.3	-12.3	12.7	-11.5	-13.9	-13.9	13.9	-13.1	-15.9	-15.9	15.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **70 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	27.0	-8.7	-12.2	-19.6	27.0	-8.7	-15.0	-24.1	27.0
2:12	-8.7	-11.4	-18.1	25.6	-8.7	-11.4	-18.1	25.6	-8.7	-14.1	-22.3	25.6
3:12	-8.8	-11.4	-18.2	24.0	-8.8	-11.4	-18.2	24.0	-8.8	-14.2	-22.3	24.0
4:12	-8.8	-11.5	-18.2	22.4	-8.8	-11.5	-18.2	22.4	-8.8	-14.2	-22.3	22.4
5:12	-8.8	-11.5	-18.2	20.8	-8.8	-11.5	-18.2	20.8	-8.8	-14.2	-22.4	20.8
6:12	-8.9	-11.5	-18.3	19.4	-8.9	-11.5	-18.3	19.4	-8.9	-14.3	-22.4	19.4
7:12	-8.9	-8.9	-8.9	18.0	-8.9	-8.9	-8.9	18.0	-8.9	-9.8	-9.8	18.0
8:12	-8.9	-8.9	-8.9	16.8	-8.9	-8.9	-8.9	16.8	-8.9	-9.8	-9.8	16.8
9:12	-9.0	-9.0	-9.0	15.7	-9.0	-9.0	-9.0	15.7	-9.0	-9.8	-9.8	15.7
10:12	-9.0	-9.0	-9.0	14.8	-9.0	-9.0	-9.0	14.8	-9.0	-9.9	-9.9	14.8
11:12	-9.1	-9.1	-9.1	14.0	-9.1	-9.1	-9.1	14.0	-9.1	-9.9	-9.9	14.0
12:12	-9.1	-9.1	-9.1	13.2	-9.1	-9.1	-9.1	13.2	-9.1	-10.0	-10.0	13.2
Exposure Category C												
1:12	-8.7	-15.0	-24.1	27.0	-9.2	-17.5	-28.0	27.0	-10.8	-20.4	-32.5	27.0
2:12	-8.7	-14.1	-22.3	25.6	-8.7	-16.5	-25.9	25.6	-9.6	-19.2	-30.1	25.6
3:12	-8.8	-14.2	-22.3	24.0	-8.8	-16.5	-25.9	24.0	-9.6	-19.2	-30.1	24.0
4:12	-8.8	-14.2	-22.3	22.4	-8.8	-16.5	-25.9	22.4	-9.6	-19.3	-30.1	22.4
5:12	-8.8	-14.2	-22.4	20.8	-8.8	-16.6	-26.0	20.8	-9.7	-19.3	-30.1	20.8
6:12	-8.9	-14.3	-22.4	19.4	-8.9	-16.6	-26.0	19.4	-9.7	-19.3	-30.2	19.4
7:12	-8.9	-9.8	-9.8	18.0	-9.3	-11.4	-11.4	18.0	-10.9	-13.3	-13.3	18.6
8:12	-8.9	-9.8	-9.8	16.8	-9.4	-11.5	-11.5	16.8	-11.0	-13.4	-13.4	17.4
9:12	-9.0	-9.8	-9.8	15.7	-9.4	-11.5	-11.5	15.7	-11.0	-13.4	-13.4	16.3
10:12	-9.0	-9.9	-9.9	14.8	-9.5	-11.6	-11.6	14.8	-11.1	-13.5	-13.5	15.4
11:12	-9.1	-9.9	-9.9	14.0	-9.5	-11.6	-11.6	14.0	-11.1	-13.5	-13.5	14.6
12:12	-9.1	-10.0	-10.0	13.2	-9.5	-11.6	-11.6	13.2	-11.1	-13.6	-13.6	13.9
Exposure Category D												
1:12	-9.7	-18.5	-29.5	26.2	-11.1	-21.0	-33.4	26.2	-12.7	-23.9	-37.8	26.2
2:12	-8.7	-17.4	-27.3	24.9	-9.9	-19.8	-30.9	24.9	-11.3	-22.5	-35.0	24.9
3:12	-8.8	-17.4	-27.3	23.4	-9.9	-19.8	-30.9	23.4	-11.3	-22.5	-35.1	23.4
4:12	-8.8	-17.5	-27.3	21.3	-9.9	-19.8	-30.9	21.3	-11.4	-22.5	-35.1	21.3
5:12	-8.8	-17.5	-27.4	19.9	-9.9	-19.8	-31.0	19.9	-11.4	-22.6	-35.1	19.9
6:12	-8.9	-17.5	-27.4	18.5	-10.0	-19.9	-31.0	18.5	-11.4	-22.6	-35.2	18.5
7:12	-9.9	-12.1	-12.1	17.3	-11.3	-13.7	-13.7	18.1	-12.9	-15.7	-15.7	19.2
8:12	-9.9	-12.1	-12.1	16.2	-11.3	-13.8	-13.8	17.0	-12.9	-15.7	-15.7	18.1
9:12	-10.0	-12.2	-12.2	15.2	-11.3	-13.8	-13.8	16.1	-12.9	-15.7	-15.7	17.1
10:12	-10.0	-12.2	-12.2	14.3	-11.4	-13.9	-13.9	15.2	-13.0	-15.8	-15.8	16.3
11:12	-10.0	-12.2	-12.2	13.6	-11.4	-13.9	-13.9	14.4	-13.0	-15.8	-15.8	15.5
12:12	-10.1	-12.3	-12.3	12.9	-11.5	-13.9	-13.9	13.9	-13.1	-15.9	-15.9	15.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
70 mph

Ground Snow Load
30 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	29.6	-8.7	-12.2	-19.6	29.6	-8.7	-15.0	-24.1	29.6
2:12	-8.7	-11.4	-18.1	27.9	-8.7	-11.4	-18.1	27.9	-8.7	-14.1	-22.3	27.9
3:12	-8.8	-11.4	-18.2	26.1	-8.8	-11.4	-18.2	26.1	-8.8	-14.2	-22.3	26.1
4:12	-8.8	-11.5	-18.2	24.3	-8.8	-11.5	-18.2	24.3	-8.8	-14.2	-22.3	24.3
5:12	-8.8	-11.5	-18.2	22.5	-8.8	-11.5	-18.2	22.5	-8.8	-14.2	-22.4	22.5
6:12	-8.9	-11.5	-18.3	20.8	-8.9	-11.5	-18.3	20.8	-8.9	-14.3	-22.4	20.8
7:12	-8.9	-8.9	-8.9	19.2	-8.9	-8.9	-8.9	19.2	-8.9	-9.8	-9.8	19.2
8:12	-8.9	-8.9	-8.9	17.8	-8.9	-8.9	-8.9	17.8	-8.9	-9.8	-9.8	17.8
9:12	-9.0	-9.0	-9.0	16.6	-9.0	-9.0	-9.0	16.6	-9.0	-9.8	-9.8	16.6
10:12	-9.0	-9.0	-9.0	15.5	-9.0	-9.0	-9.0	15.5	-9.0	-9.9	-9.9	15.5
11:12	-9.1	-9.1	-9.1	14.6	-9.1	-9.1	-9.1	14.6	-9.1	-9.9	-9.9	14.6
12:12	-9.1	-9.1	-9.1	13.8	-9.1	-9.1	-9.1	13.8	-9.1	-10.0	-10.0	13.8
Exposure Category C												
1:12	-8.7	-15.0	-24.1	29.6	-9.2	-17.5	-28.0	29.6	-10.8	-20.4	-32.5	29.6
2:12	-8.7	-14.1	-22.3	27.9	-8.7	-16.5	-25.9	27.9	-9.6	-19.2	-30.1	27.9
3:12	-8.8	-14.2	-22.3	26.1	-8.8	-16.5	-25.9	26.1	-9.6	-19.2	-30.1	26.1
4:12	-8.8	-14.2	-22.3	24.3	-8.8	-16.5	-25.9	24.3	-9.6	-19.3	-30.1	24.3
5:12	-8.8	-14.2	-22.4	22.5	-8.8	-16.6	-26.0	22.5	-9.7	-19.3	-30.1	22.5
6:12	-8.9	-14.3	-22.4	20.8	-8.9	-16.6	-26.0	20.8	-9.7	-19.3	-30.2	20.8
7:12	-8.9	-9.8	-9.8	19.2	-9.3	-11.4	-11.4	19.2	-10.9	-13.3	-13.3	19.8
8:12	-8.9	-9.8	-9.8	17.8	-9.4	-11.5	-11.5	17.8	-11.0	-13.4	-13.4	18.4
9:12	-9.0	-9.8	-9.8	16.6	-9.4	-11.5	-11.5	16.6	-11.0	-13.4	-13.4	17.2
10:12	-9.0	-9.9	-9.9	15.5	-9.5	-11.6	-11.6	15.5	-11.1	-13.5	-13.5	16.1
11:12	-9.1	-9.9	-9.9	14.6	-9.5	-11.6	-11.6	14.6	-11.1	-13.5	-13.5	15.2
12:12	-9.1	-10.0	-10.0	13.8	-9.5	-11.6	-11.6	13.8	-11.1	-13.6	-13.6	14.4
Exposure Category D												
1:12	-9.7	-18.5	-29.5	27.8	-11.1	-21.0	-33.4	27.8	-12.7	-23.9	-37.8	27.8
2:12	-8.7	-17.4	-27.3	26.3	-9.9	-19.8	-30.9	26.3	-11.3	-22.5	-35.0	26.3
3:12	-8.8	-17.4	-27.3	24.6	-9.9	-19.8	-30.9	24.6	-11.3	-22.5	-35.1	24.6
4:12	-8.8	-17.5	-27.3	23.0	-9.9	-19.8	-30.9	23.0	-11.4	-22.5	-35.1	23.0
5:12	-8.8	-17.5	-27.4	21.3	-9.9	-19.8	-31.0	21.3	-11.4	-22.6	-35.1	21.3
6:12	-8.9	-17.5	-27.4	19.8	-10.0	-19.9	-31.0	19.8	-11.4	-22.6	-35.2	19.8
7:12	-9.9	-12.1	-12.1	18.4	-11.3	-13.7	-13.7	19.2	-12.9	-15.7	-15.7	20.3
8:12	-9.9	-12.1	-12.1	17.1	-11.3	-13.8	-13.8	17.9	-12.9	-15.7	-15.7	19.0
9:12	-10.0	-12.2	-12.2	16.0	-11.3	-13.8	-13.8	16.8	-12.9	-15.7	-15.7	17.9
10:12	-10.0	-12.2	-12.2	15.0	-11.4	-13.9	-13.9	15.8	-13.0	-15.8	-15.8	16.9
11:12	-10.0	-12.2	-12.2	14.1	-11.4	-13.9	-13.9	15.0	-13.0	-15.8	-15.8	16.1
12:12	-10.1	-12.3	-12.3	13.4	-11.5	-13.9	-13.9	14.2	-13.1	-15.9	-15.9	15.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
70 mph

Ground Snow Load
35 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-12.2	-19.6	32.2	-8.7	-12.2	-19.6	32.2	-8.7	-15.0	-24.1	32.2
2:12	-8.7	-11.4	-18.1	30.3	-8.7	-11.4	-18.1	30.3	-8.7	-14.1	-22.3	30.3
3:12	-8.8	-11.4	-18.2	28.2	-8.8	-11.4	-18.2	28.2	-8.8	-14.2	-22.3	28.2
4:12	-8.8	-11.5	-18.2	26.1	-8.8	-11.5	-18.2	26.1	-8.8	-14.2	-22.3	26.1
5:12	-8.8	-11.5	-18.2	24.1	-8.8	-11.5	-18.2	24.1	-8.8	-14.2	-22.4	24.1
6:12	-8.9	-11.5	-18.3	22.2	-8.9	-11.5	-18.3	22.2	-8.9	-14.3	-22.4	22.2
7:12	-8.9	-8.9	-8.9	20.4	-8.9	-8.9	-8.9	20.4	-8.9	-9.8	-9.8	20.4
8:12	-8.9	-8.9	-8.9	18.8	-8.9	-8.9	-8.9	18.8	-8.9	-9.8	-9.8	18.8
9:12	-9.0	-9.0	-9.0	17.4	-9.0	-9.0	-9.0	17.4	-9.0	-9.8	-9.8	17.4
10:12	-9.0	-9.0	-9.0	16.2	-9.0	-9.0	-9.0	16.2	-9.0	-9.9	-9.9	16.2
11:12	-9.1	-9.1	-9.1	15.2	-9.1	-9.1	-9.1	15.2	-9.1	-9.9	-9.9	15.2
12:12	-9.1	-9.1	-9.1	14.3	-9.1	-9.1	-9.1	14.3	-9.1	-10.0	-10.0	14.3
1:12	-8.7	-15.0	-24.1	32.2	-9.2	-17.5	-28.0	32.2	-10.8	-20.4	-32.5	32.2
2:12	-8.7	-14.1	-22.3	30.3	-8.7	-16.5	-25.9	30.3	-9.6	-19.2	-30.1	30.3
3:12	-8.8	-14.2	-22.3	28.2	-8.8	-16.5	-25.9	28.2	-9.6	-19.2	-30.1	28.2
4:12	-8.8	-14.2	-22.3	26.1	-8.8	-16.5	-25.9	26.1	-9.6	-19.3	-30.1	26.1
5:12	-8.8	-14.2	-22.4	24.1	-8.8	-16.6	-26.0	24.1	-9.7	-19.3	-30.1	24.1
6:12	-8.9	-14.3	-22.4	22.2	-8.9	-16.6	-26.0	22.2	-9.7	-19.3	-30.2	22.2
7:12	-8.9	-9.8	-9.8	20.4	-9.3	-11.4	-11.4	20.4	-10.9	-13.3	-13.3	21.0
8:12	-8.9	-9.8	-9.8	18.8	-9.4	-11.5	-11.5	18.8	-11.0	-13.4	-13.4	19.5
9:12	-9.0	-9.8	-9.8	17.4	-9.4	-11.5	-11.5	17.4	-11.0	-13.4	-13.4	18.1
10:12	-9.0	-9.9	-9.9	16.2	-9.5	-11.6	-11.6	16.2	-11.1	-13.5	-13.5	16.8
11:12	-9.1	-9.9	-9.9	15.2	-9.5	-11.6	-11.6	15.2	-11.1	-13.5	-13.5	15.8
12:12	-9.1	-10.0	-10.0	14.3	-9.5	-11.6	-11.6	14.3	-11.1	-13.6	-13.6	14.9
1:12	-9.7	-18.5	-29.5	30.1	-11.1	-21.0	-33.4	30.1	-12.7	-23.9	-37.8	30.1
2:12	-8.7	-17.4	-27.3	28.4	-9.9	-19.8	-30.9	28.4	-11.3	-22.5	-35.0	28.4
3:12	-8.8	-17.4	-27.3	26.5	-9.9	-19.8	-30.9	26.5	-11.3	-22.5	-35.1	26.5
4:12	-8.8	-17.5	-27.3	24.6	-9.9	-19.8	-30.9	24.6	-11.4	-22.5	-35.1	24.6
5:12	-8.8	-17.5	-27.4	22.8	-9.9	-19.8	-31.0	22.8	-11.4	-22.6	-35.1	22.8
6:12	-8.9	-17.5	-27.4	21.0	-10.0	-19.9	-31.0	21.0	-11.4	-22.6	-35.2	21.0
7:12	-9.9	-12.1	-12.1	19.4	-11.3	-13.7	-13.7	20.3	-12.9	-15.7	-15.7	21.4
8:12	-9.9	-12.1	-12.1	18.0	-11.3	-13.8	-13.8	18.9	-12.9	-15.7	-15.7	19.9
9:12	-10.0	-12.2	-12.2	16.7	-11.3	-13.8	-13.8	17.6	-12.9	-15.7	-15.7	18.7
10:12	-10.0	-12.2	-12.2	15.6	-11.4	-13.9	-13.9	16.5	-13.0	-15.8	-15.8	17.6
11:12	-10.0	-12.2	-12.2	14.7	-11.4	-13.9	-13.9	15.5	-13.0	-15.8	-15.8	16.6
12:12	-10.1	-12.3	-12.3	13.9	-11.5	-13.9	-13.9	14.7	-13.1	-15.9	-15.9	15.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
70 mph

Ground Snow Load
40 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	35.1	-8.7	-12.2	-19.6	35.1	-8.7	-15.0	-24.1	35.1
2:12	-8.7	-11.4	-18.1	32.7	-8.7	-11.4	-18.1	32.7	-8.7	-14.1	-22.3	32.7
3:12	-8.8	-11.4	-18.2	30.4	-8.8	-11.4	-18.2	30.4	-8.8	-14.2	-22.3	30.4
4:12	-8.8	-11.5	-18.2	28.0	-8.8	-11.5	-18.2	28.0	-8.8	-14.2	-22.3	28.0
5:12	-8.8	-11.5	-18.2	25.7	-8.8	-11.5	-18.2	25.7	-8.8	-14.2	-22.4	25.7
6:12	-8.9	-11.5	-18.3	23.6	-8.9	-11.5	-18.3	23.6	-8.9	-14.3	-22.4	23.6
7:12	-8.9	-8.9	-8.9	21.6	-8.9	-8.9	-8.9	21.6	-8.9	-9.8	-9.8	21.6
8:12	-8.9	-8.9	-8.9	19.8	-8.9	-8.9	-8.9	19.8	-8.9	-9.8	-9.8	19.8
9:12	-9.0	-9.0	-9.0	18.3	-9.0	-9.0	-9.0	18.3	-9.0	-9.8	-9.8	18.3
10:12	-9.0	-9.0	-9.0	16.9	-9.0	-9.0	-9.0	16.9	-9.0	-9.9	-9.9	16.9
11:12	-9.1	-9.1	-9.1	15.8	-9.1	-9.1	-9.1	15.8	-9.1	-9.9	-9.9	15.8
12:12	-9.1	-9.1	-9.1	14.8	-9.1	-9.1	-9.1	14.8	-9.1	-10.0	-10.0	14.8
Exposure Category C												
1:12	-8.7	-15.0	-24.1	35.1	-9.2	-17.5	-28.0	35.1	-10.8	-20.4	-32.5	35.1
2:12	-8.7	-14.1	-22.3	32.7	-8.7	-16.5	-25.9	32.7	-9.6	-19.2	-30.1	32.7
3:12	-8.8	-14.2	-22.3	30.4	-8.8	-16.5	-25.9	30.4	-9.6	-19.2	-30.1	30.4
4:12	-8.8	-14.2	-22.3	28.0	-8.8	-16.5	-25.9	28.0	-9.6	-19.3	-30.1	28.0
5:12	-8.8	-14.2	-22.4	25.7	-8.8	-16.6	-26.0	25.7	-9.7	-19.3	-30.1	25.7
6:12	-8.9	-14.3	-22.4	23.6	-8.9	-16.6	-26.0	23.6	-9.7	-19.3	-30.2	23.6
7:12	-8.9	-9.8	-9.8	21.6	-9.3	-11.4	-11.4	21.6	-10.9	-13.3	-13.3	22.2
8:12	-8.9	-9.8	-9.8	19.8	-9.4	-11.5	-11.5	19.8	-11.0	-13.4	-13.4	20.5
9:12	-9.0	-9.8	-9.8	18.3	-9.4	-11.5	-11.5	18.3	-11.0	-13.4	-13.4	18.9
10:12	-9.0	-9.9	-9.9	16.9	-9.5	-11.6	-11.6	16.9	-11.1	-13.5	-13.5	17.6
11:12	-9.1	-9.9	-9.9	15.8	-9.5	-11.6	-11.6	15.8	-11.1	-13.5	-13.5	16.4
12:12	-9.1	-10.0	-10.0	14.8	-9.5	-11.6	-11.6	14.8	-11.1	-13.6	-13.6	15.4
Exposure Category D												
1:12	-9.7	-18.5	-29.5	32.5	-11.1	-21.0	-33.4	32.5	-12.7	-23.9	-37.8	32.5
2:12	-8.7	-17.4	-27.3	30.6	-9.9	-19.8	-30.9	30.6	-11.3	-22.5	-35.0	30.6
3:12	-8.8	-17.4	-27.3	28.5	-9.9	-19.8	-30.9	28.5	-11.3	-22.5	-35.1	28.5
4:12	-8.8	-17.5	-27.3	26.3	-9.9	-19.8	-30.9	26.3	-11.4	-22.5	-35.1	26.3
5:12	-8.8	-17.5	-27.4	24.3	-9.9	-19.8	-31.0	24.3	-11.4	-22.6	-35.1	24.3
6:12	-8.9	-17.5	-27.4	22.3	-10.0	-19.9	-31.0	22.3	-11.4	-22.6	-35.2	22.3
7:12	-9.9	-12.1	-12.1	20.5	-11.3	-13.7	-13.7	21.4	-12.9	-15.7	-15.7	22.5
8:12	-9.9	-12.1	-12.1	18.9	-11.3	-13.8	-13.8	19.8	-12.9	-15.7	-15.7	20.9
9:12	-10.0	-12.2	-12.2	17.5	-11.3	-13.8	-13.8	18.4	-12.9	-15.7	-15.7	19.4
10:12	-10.0	-12.2	-12.2	16.3	-11.4	-13.9	-13.9	17.1	-13.0	-15.8	-15.8	18.2
11:12	-10.0	-12.2	-12.2	15.2	-11.4	-13.9	-13.9	16.1	-13.0	-15.8	-15.8	17.2
12:12	-10.1	-12.3	-12.3	14.3	-11.5	-13.9	-13.9	15.2	-13.1	-15.9	-15.9	16.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **70 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-12.2	-19.6	38.6	-8.7	-12.2	-19.6	38.6	-8.7	-15.0	-24.1	38.6
2:12	-8.7	-11.4	-18.1	35.5	-8.7	-11.4	-18.1	35.5	-8.7	-14.1	-22.3	35.5
3:12	-8.8	-11.4	-18.2	32.5	-8.8	-11.4	-18.2	32.5	-8.8	-14.2	-22.3	32.5
4:12	-8.8	-11.5	-18.2	29.9	-8.8	-11.5	-18.2	29.9	-8.8	-14.2	-22.3	29.9
5:12	-8.8	-11.5	-18.2	27.4	-8.8	-11.5	-18.2	27.4	-8.8	-14.2	-22.4	27.4
6:12	-8.9	-11.5	-18.3	25.0	-8.9	-11.5	-18.3	25.0	-8.9	-14.3	-22.4	25.0
7:12	-8.9	-8.9	-8.9	22.8	-8.9	-8.9	-8.9	22.8	-8.9	-9.8	-9.8	22.8
8:12	-8.9	-8.9	-8.9	20.9	-8.9	-8.9	-8.9	20.9	-8.9	-9.8	-9.8	20.9
9:12	-9.0	-9.0	-9.0	19.1	-9.0	-9.0	-9.0	19.1	-9.0	-9.8	-9.8	19.1
10:12	-9.0	-9.0	-9.0	17.7	-9.0	-9.0	-9.0	17.7	-9.0	-9.9	-9.9	17.7
11:12	-9.1	-9.1	-9.1	16.4	-9.1	-9.1	-9.1	16.4	-9.1	-9.9	-9.9	16.4
12:12	-9.1	-9.1	-9.1	15.3	-9.1	-9.1	-9.1	15.3	-9.1	-10.0	-10.0	15.3
1:12	-8.7	-15.0	-24.1	38.6	-9.2	-17.5	-28.0	38.6	-10.8	-20.4	-32.5	38.6
2:12	-8.7	-14.1	-22.3	35.5	-8.7	-16.5	-25.9	35.5	-9.6	-19.2	-30.1	35.5
3:12	-8.8	-14.2	-22.3	32.5	-8.8	-16.5	-25.9	32.5	-9.6	-19.2	-30.1	32.5
4:12	-8.8	-14.2	-22.3	29.9	-8.8	-16.5	-25.9	29.9	-9.6	-19.3	-30.1	29.9
5:12	-8.8	-14.2	-22.4	27.4	-8.8	-16.6	-26.0	27.4	-9.7	-19.3	-30.1	27.4
6:12	-8.9	-14.3	-22.4	25.0	-8.9	-16.6	-26.0	25.0	-9.7	-19.3	-30.2	25.0
7:12	-8.9	-9.8	-9.8	22.8	-9.3	-11.4	-11.4	22.8	-10.9	-13.3	-13.3	23.4
8:12	-8.9	-9.8	-9.8	20.9	-9.4	-11.5	-11.5	20.9	-11.0	-13.4	-13.4	21.5
9:12	-9.0	-9.8	-9.8	19.1	-9.4	-11.5	-11.5	19.1	-11.0	-13.4	-13.4	19.8
10:12	-9.0	-9.9	-9.9	17.7	-9.5	-11.6	-11.6	17.7	-11.1	-13.5	-13.5	18.3
11:12	-9.1	-9.9	-9.9	16.4	-9.5	-11.6	-11.6	16.4	-11.1	-13.5	-13.5	17.0
12:12	-9.1	-10.0	-10.0	15.3	-9.5	-11.6	-11.6	15.3	-11.1	-13.6	-13.6	15.9
1:12	-9.7	-18.5	-29.5	35.1	-11.1	-21.0	-33.4	35.1	-12.7	-23.9	-37.8	35.1
2:12	-8.7	-17.4	-27.3	32.7	-9.9	-19.8	-30.9	32.7	-11.3	-22.5	-35.0	32.7
3:12	-8.8	-17.4	-27.3	30.4	-9.9	-19.8	-30.9	30.4	-11.3	-22.5	-35.1	30.4
4:12	-8.8	-17.5	-27.3	28.0	-9.9	-19.8	-30.9	28.0	-11.4	-22.5	-35.1	28.0
5:12	-8.8	-17.5	-27.4	25.7	-9.9	-19.8	-31.0	25.7	-11.4	-22.6	-35.1	25.7
6:12	-8.9	-17.5	-27.4	23.6	-10.0	-19.9	-31.0	23.6	-11.4	-22.6	-35.2	23.6
7:12	-9.9	-12.1	-12.1	21.6	-11.3	-13.7	-13.7	22.4	-12.9	-15.7	-15.7	23.5
8:12	-9.9	-12.1	-12.1	19.8	-11.3	-13.8	-13.8	20.7	-12.9	-15.7	-15.7	21.8
9:12	-10.0	-12.2	-12.2	18.3	-11.3	-13.8	-13.8	19.1	-12.9	-15.7	-15.7	20.2
10:12	-10.0	-12.2	-12.2	16.9	-11.4	-13.9	-13.9	17.8	-13.0	-15.8	-15.8	18.9
11:12	-10.0	-12.2	-12.2	15.8	-11.4	-13.9	-13.9	16.6	-13.0	-15.8	-15.8	17.7
12:12	-10.1	-12.3	-12.3	14.8	-11.5	-13.9	-13.9	15.6	-13.1	-15.9	-15.9	16.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
70 mph
Ground Snow Load
50 psf

Up and Down (psf)

Basic Wind Speed
70 mph

Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	45.5	-8.7	-12.2	-19.6	45.5	-8.7	-15.0	-24.1	45.5
2:12	-8.7	-11.4	-18.1	41.9	-8.7	-11.4	-18.1	41.9	-8.7	-14.1	-22.3	41.9
3:12	-8.8	-11.4	-18.2	37.8	-8.8	-11.4	-18.2	37.8	-8.8	-14.2	-22.3	37.8
4:12	-8.8	-11.5	-18.2	33.6	-8.8	-11.5	-18.2	33.6	-8.8	-14.2	-22.3	33.6
5:12	-8.8	-11.5	-18.2	30.6	-8.8	-11.5	-18.2	30.6	-8.8	-14.2	-22.4	30.6
6:12	-8.9	-11.5	-18.3	27.8	-8.9	-11.5	-18.3	27.8	-8.9	-14.3	-22.4	27.8
7:12	-8.9	-8.9	-8.9	25.2	-8.9	-8.9	-8.9	25.2	-8.9	-9.8	-9.8	25.2
8:12	-8.9	-8.9	-8.9	22.9	-8.9	-8.9	-8.9	22.9	-8.9	-9.8	-9.8	22.9
9:12	-9.0	-9.0	-9.0	20.9	-9.0	-9.0	-9.0	20.9	-9.0	-9.8	-9.8	20.9
10:12	-9.0	-9.0	-9.0	19.1	-9.0	-9.0	-9.0	19.1	-9.0	-9.9	-9.9	19.1
11:12	-9.1	-9.1	-9.1	17.6	-9.1	-9.1	-9.1	17.6	-9.1	-9.9	-9.9	17.6
12:12	-9.1	-9.1	-9.1	16.3	-9.1	-9.1	-9.1	16.3	-9.1	-10.0	-10.0	16.3
Exposure Category C												
1:12	-8.7	-15.0	-24.1	45.5	-9.2	-17.5	-28.0	45.5	-10.8	-20.4	-32.5	45.5
2:12	-8.7	-14.1	-22.3	41.9	-8.7	-16.5	-25.9	41.9	-9.6	-19.2	-30.1	41.9
3:12	-8.8	-14.2	-22.3	37.8	-8.8	-16.5	-25.9	37.8	-9.6	-19.2	-30.1	37.8
4:12	-8.8	-14.2	-22.3	33.6	-8.8	-16.5	-25.9	33.6	-9.6	-19.3	-30.1	33.6
5:12	-8.8	-14.2	-22.4	30.6	-8.8	-16.6	-26.0	30.6	-9.7	-19.3	-30.1	30.6
6:12	-8.9	-14.3	-22.4	27.8	-8.9	-16.6	-26.0	27.8	-9.7	-19.3	-30.2	27.8
7:12	-8.9	-9.8	-9.8	25.2	-9.3	-11.4	-11.4	25.2	-10.9	-13.3	-13.3	25.8
8:12	-8.9	-9.8	-9.8	22.9	-9.4	-11.5	-11.5	22.9	-11.0	-13.4	-13.4	23.5
9:12	-9.0	-9.8	-9.8	20.9	-9.4	-11.5	-11.5	20.9	-11.0	-13.4	-13.4	21.5
10:12	-9.0	-9.9	-9.9	19.1	-9.5	-11.6	-11.6	19.1	-11.1	-13.5	-13.5	19.7
11:12	-9.1	-9.9	-9.9	17.6	-9.5	-11.6	-11.6	17.6	-11.1	-13.5	-13.5	18.2
12:12	-9.1	-10.0	-10.0	16.3	-9.5	-11.6	-11.6	16.3	-11.1	-13.6	-13.6	16.9
Exposure Category D												
1:12	-9.7	-18.5	-29.5	41.4	-11.1	-21.0	-33.4	41.4	-12.7	-23.9	-37.8	41.4
2:12	-8.7	-17.4	-27.3	38.0	-9.9	-19.8	-30.9	38.0	-11.3	-22.5	-35.0	38.0
3:12	-8.8	-17.4	-27.3	34.4	-9.9	-19.8	-30.9	34.4	-11.3	-22.5	-35.1	34.4
4:12	-8.8	-17.5	-27.3	31.4	-9.9	-19.8	-30.9	31.4	-11.4	-22.5	-35.1	31.4
5:12	-8.8	-17.5	-27.4	28.7	-9.9	-19.8	-31.0	28.7	-11.4	-22.6	-35.1	28.7
6:12	-8.9	-17.5	-27.4	26.1	-10.0	-19.9	-31.0	26.1	-11.4	-22.6	-35.2	26.1
7:12	-9.9	-12.1	-12.1	23.8	-11.3	-13.7	-13.7	24.6	-12.9	-15.7	-15.7	25.7
8:12	-9.9	-12.1	-12.1	21.7	-11.3	-13.8	-13.8	22.5	-12.9	-15.7	-15.7	23.6
9:12	-10.0	-12.2	-12.2	19.8	-11.3	-13.8	-13.8	20.7	-12.9	-15.7	-15.7	21.8
10:12	-10.0	-12.2	-12.2	18.2	-11.4	-13.9	-13.9	19.1	-13.0	-15.8	-15.8	20.2
11:12	-10.0	-12.2	-12.2	16.9	-11.4	-13.9	-13.9	17.7	-13.0	-15.8	-15.8	18.8
12:12	-10.1	-12.3	-12.3	15.7	-11.5	-13.9	-13.9	16.5	-13.1	-15.9	-15.9	17.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
70 mph
Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-12.2	-19.6	52.5	-8.7	-12.2	-19.6	52.5	-8.7	-15.0	-24.1	52.5
2:12	-8.7	-11.4	-18.1	48.2	-8.7	-11.4	-18.1	48.2	-8.7	-14.1	-22.3	48.2
3:12	-8.8	-11.4	-18.2	43.4	-8.8	-11.4	-18.2	43.4	-8.8	-14.2	-22.3	43.4
4:12	-8.8	-11.5	-18.2	38.6	-8.8	-11.5	-18.2	38.6	-8.8	-14.2	-22.3	38.6
5:12	-8.8	-11.5	-18.2	34.0	-8.8	-11.5	-18.2	34.0	-8.8	-14.2	-22.4	34.0
6:12	-8.9	-11.5	-18.3	30.6	-8.9	-11.5	-18.3	30.6	-8.9	-14.3	-22.4	30.6
7:12	-8.9	-8.9	-8.9	27.6	-8.9	-8.9	-8.9	27.6	-8.9	-9.8	-9.8	27.6
8:12	-8.9	-8.9	-8.9	24.9	-8.9	-8.9	-8.9	24.9	-8.9	-9.8	-9.8	24.9
9:12	-9.0	-9.0	-9.0	22.6	-9.0	-9.0	-9.0	22.6	-9.0	-9.8	-9.8	22.6
10:12	-9.0	-9.0	-9.0	20.5	-9.0	-9.0	-9.0	20.5	-9.0	-9.9	-9.9	20.5
11:12	-9.1	-9.1	-9.1	18.8	-9.1	-9.1	-9.1	18.8	-9.1	-9.9	-9.9	18.8
12:12	-9.1	-9.1	-9.1	17.3	-9.1	-9.1	-9.1	17.3	-9.1	-10.0	-10.0	17.3
1:12	-8.7	-15.0	-24.1	52.5	-9.2	-17.5	-28.0	52.5	-10.8	-20.4	-32.5	52.5
2:12	-8.7	-14.1	-22.3	48.2	-8.7	-16.5	-25.9	48.2	-9.6	-19.2	-30.1	48.2
3:12	-8.8	-14.2	-22.3	43.4	-8.8	-16.5	-25.9	43.4	-9.6	-19.2	-30.1	43.4
4:12	-8.8	-14.2	-22.3	38.6	-8.8	-16.5	-25.9	38.6	-9.6	-19.3	-30.1	38.6
5:12	-8.8	-14.2	-22.4	34.0	-8.8	-16.6	-26.0	34.0	-9.7	-19.3	-30.1	34.0
6:12	-8.9	-14.3	-22.4	30.6	-8.9	-16.6	-26.0	30.6	-9.7	-19.3	-30.2	30.6
7:12	-8.9	-9.8	-9.8	27.6	-9.3	-11.4	-11.4	27.6	-10.9	-13.3	-13.3	28.2
8:12	-8.9	-9.8	-9.8	24.9	-9.4	-11.5	-11.5	24.9	-11.0	-13.4	-13.4	25.5
9:12	-9.0	-9.8	-9.8	22.6	-9.4	-11.5	-11.5	22.6	-11.0	-13.4	-13.4	23.2
10:12	-9.0	-9.9	-9.9	20.5	-9.5	-11.6	-11.6	20.5	-11.1	-13.5	-13.5	21.2
11:12	-9.1	-9.9	-9.9	18.8	-9.5	-11.6	-11.6	18.8	-11.1	-13.5	-13.5	19.4
12:12	-9.1	-10.0	-10.0	17.3	-9.5	-11.6	-11.6	17.3	-11.1	-13.6	-13.6	17.9
1:12	-9.7	-18.5	-29.5	47.6	-11.1	-21.0	-33.4	47.6	-12.7	-23.9	-37.8	47.6
2:12	-8.7	-17.4	-27.3	43.8	-9.9	-19.8	-30.9	43.8	-11.3	-22.5	-35.0	43.8
3:12	-8.8	-17.4	-27.3	39.5	-9.9	-19.8	-30.9	39.5	-11.3	-22.5	-35.1	39.5
4:12	-8.8	-17.5	-27.3	35.1	-9.9	-19.8	-30.9	35.1	-11.4	-22.5	-35.1	35.1
5:12	-8.8	-17.5	-27.4	31.6	-9.9	-19.8	-31.0	31.6	-11.4	-22.6	-35.1	31.6
6:12	-8.9	-17.5	-27.4	28.6	-10.0	-19.9	-31.0	28.6	-11.4	-22.6	-35.2	28.6
7:12	-9.9	-12.1	-12.1	25.9	-11.3	-13.7	-13.7	26.8	-12.9	-15.7	-15.7	27.8
8:12	-9.9	-12.1	-12.1	23.5	-11.3	-13.8	-13.8	24.3	-12.9	-15.7	-15.7	25.4
9:12	-10.0	-12.2	-12.2	21.4	-11.3	-13.8	-13.8	22.2	-12.9	-15.7	-15.7	23.3
10:12	-10.0	-12.2	-12.2	19.5	-11.4	-13.9	-13.9	20.4	-13.0	-15.8	-15.8	21.5
11:12	-10.0	-12.2	-12.2	17.9	-11.4	-13.9	-13.9	18.8	-13.0	-15.8	-15.8	19.9
12:12	-10.1	-12.3	-12.3	16.6	-11.5	-13.9	-13.9	17.4	-13.1	-15.9	-15.9	18.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
70 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	59.4	-8.7	-12.2	-19.6	59.4	-8.7	-15.0	-24.1	59.4
2:12	-8.7	-11.4	-18.1	54.5	-8.7	-11.4	-18.1	54.5	-8.7	-14.1	-22.3	54.5
3:12	-8.8	-11.4	-18.2	49.1	-8.8	-11.4	-18.2	49.1	-8.8	-14.2	-22.3	49.1
4:12	-8.8	-11.5	-18.2	43.6	-8.8	-11.5	-18.2	43.6	-8.8	-14.2	-22.3	43.6
5:12	-8.8	-11.5	-18.2	38.3	-8.8	-11.5	-18.2	38.3	-8.8	-14.2	-22.4	38.3
6:12	-8.9	-11.5	-18.3	33.4	-8.9	-11.5	-18.3	33.4	-8.9	-14.3	-22.4	33.4
7:12	-8.9	-8.9	-8.9	30.0	-8.9	-8.9	-8.9	30.0	-8.9	-9.8	-9.8	30.0
8:12	-8.9	-8.9	-8.9	26.9	-8.9	-8.9	-8.9	26.9	-8.9	-9.8	-9.8	26.9
9:12	-9.0	-9.0	-9.0	24.3	-9.0	-9.0	-9.0	24.3	-9.0	-9.8	-9.8	24.3
10:12	-9.0	-9.0	-9.0	22.0	-9.0	-9.0	-9.0	22.0	-9.0	-9.9	-9.9	22.0
11:12	-9.1	-9.1	-9.1	20.0	-9.1	-9.1	-9.1	20.0	-9.1	-9.9	-9.9	20.0
12:12	-9.1	-9.1	-9.1	18.3	-9.1	-9.1	-9.1	18.3	-9.1	-10.0	-10.0	18.3
Exposure Category C												
1:12	-8.7	-15.0	-24.1	59.4	-9.2	-17.5	-28.0	59.4	-10.8	-20.4	-32.5	59.4
2:12	-8.7	-14.1	-22.3	54.5	-8.7	-16.5	-25.9	54.5	-9.6	-19.2	-30.1	54.5
3:12	-8.8	-14.2	-22.3	49.1	-8.8	-16.5	-25.9	49.1	-9.6	-19.2	-30.1	49.1
4:12	-8.8	-14.2	-22.3	43.6	-8.8	-16.5	-25.9	43.6	-9.6	-19.3	-30.1	43.6
5:12	-8.8	-14.2	-22.4	38.3	-8.8	-16.6	-26.0	38.3	-9.7	-19.3	-30.1	38.3
6:12	-8.9	-14.3	-22.4	33.4	-8.9	-16.6	-26.0	33.4	-9.7	-19.3	-30.2	33.4
7:12	-8.9	-9.8	-9.8	30.0	-9.3	-11.4	-11.4	30.0	-10.9	-13.3	-13.3	30.6
8:12	-8.9	-9.8	-9.8	26.9	-9.4	-11.5	-11.5	26.9	-11.0	-13.4	-13.4	27.6
9:12	-9.0	-9.8	-9.8	24.3	-9.4	-11.5	-11.5	24.3	-11.0	-13.4	-13.4	24.9
10:12	-9.0	-9.9	-9.9	22.0	-9.5	-11.6	-11.6	22.0	-11.1	-13.5	-13.5	22.6
11:12	-9.1	-9.9	-9.9	20.0	-9.5	-11.6	-11.6	20.0	-11.1	-13.5	-13.5	20.6
12:12	-9.1	-10.0	-10.0	18.3	-9.5	-11.6	-11.6	18.3	-11.1	-13.6	-13.6	18.9
Exposure Category D												
1:12	-9.7	-18.5	-29.5	53.9	-11.1	-21.0	-33.4	53.9	-12.7	-23.9	-37.8	53.9
2:12	-8.7	-17.4	-27.3	49.5	-9.9	-19.8	-30.9	49.5	-11.3	-22.5	-35.0	49.5
3:12	-8.8	-17.4	-27.3	44.6	-9.9	-19.8	-30.9	44.6	-11.3	-22.5	-35.1	44.6
4:12	-8.8	-17.5	-27.3	39.6	-9.9	-19.8	-30.9	39.6	-11.4	-22.5	-35.1	39.6
5:12	-8.8	-17.5	-27.4	34.9	-9.9	-19.8	-31.0	34.9	-11.4	-22.6	-35.1	34.9
6:12	-8.9	-17.5	-27.4	31.1	-10.0	-19.9	-31.0	31.1	-11.4	-22.6	-35.2	31.1
7:12	-9.9	-12.1	-12.1	28.1	-11.3	-13.7	-13.7	28.9	-12.9	-15.7	-15.7	30.0
8:12	-9.9	-12.1	-12.1	25.3	-11.3	-13.8	-13.8	26.2	-12.9	-15.7	-15.7	27.2
9:12	-10.0	-12.2	-12.2	22.9	-11.3	-13.8	-13.8	23.8	-12.9	-15.7	-15.7	24.8
10:12	-10.0	-12.2	-12.2	20.8	-11.4	-13.9	-13.9	21.7	-13.0	-15.8	-15.8	22.7
11:12	-10.0	-12.2	-12.2	19.0	-11.4	-13.9	-13.9	19.9	-13.0	-15.8	-15.8	21.0
12:12	-10.1	-12.3	-12.3	17.5	-11.5	-13.9	-13.9	18.3	-13.1	-15.9	-15.9	19.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
70 mph

Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-12.2	-19.6	66.4	-8.7	-12.2	-19.6	66.4	-8.7	-15.0	-24.1	66.4
2:12	-8.7	-11.4	-18.1	60.9	-8.7	-11.4	-18.1	60.9	-8.7	-14.1	-22.3	60.9
3:12	-8.8	-11.4	-18.2	54.8	-8.8	-11.4	-18.2	54.8	-8.8	-14.2	-22.3	54.8
4:12	-8.8	-11.5	-18.2	48.6	-8.8	-11.5	-18.2	48.6	-8.8	-14.2	-22.3	48.6
5:12	-8.8	-11.5	-18.2	42.7	-8.8	-11.5	-18.2	42.7	-8.8	-14.2	-22.4	42.7
6:12	-8.9	-11.5	-18.3	37.1	-8.9	-11.5	-18.3	37.1	-8.9	-14.3	-22.4	37.1
7:12	-8.9	-8.9	-8.9	32.4	-8.9	-8.9	-8.9	32.4	-8.9	-9.8	-9.8	32.4
8:12	-8.9	-8.9	-8.9	29.0	-8.9	-8.9	-8.9	29.0	-8.9	-9.8	-9.8	29.0
9:12	-9.0	-9.0	-9.0	26.0	-9.0	-9.0	-9.0	26.0	-9.0	-9.8	-9.8	26.0
10:12	-9.0	-9.0	-9.0	23.4	-9.0	-9.0	-9.0	23.4	-9.0	-9.9	-9.9	23.4
11:12	-9.1	-9.1	-9.1	21.2	-9.1	-9.1	-9.1	21.2	-9.1	-9.9	-9.9	21.2
12:12	-9.1	-9.1	-9.1	19.3	-9.1	-9.1	-9.1	19.3	-9.1	-10.0	-10.0	19.3
1:12	-8.7	-15.0	-24.1	66.4	-9.2	-17.5	-28.0	66.4	-10.8	-20.4	-32.5	66.4
2:12	-8.7	-14.1	-22.3	60.9	-8.7	-16.5	-25.9	60.9	-9.6	-19.2	-30.1	60.9
3:12	-8.8	-14.2	-22.3	54.8	-8.8	-16.5	-25.9	54.8	-9.6	-19.2	-30.1	54.8
4:12	-8.8	-14.2	-22.3	48.6	-8.8	-16.5	-25.9	48.6	-9.6	-19.3	-30.1	48.6
5:12	-8.8	-14.2	-22.4	42.7	-8.8	-16.6	-26.0	42.7	-9.7	-19.3	-30.1	42.7
6:12	-8.9	-14.3	-22.4	37.1	-8.9	-16.6	-26.0	37.1	-9.7	-19.3	-30.2	37.1
7:12	-8.9	-9.8	-9.8	32.4	-9.3	-11.4	-11.4	32.4	-10.9	-13.3	-13.3	33.0
8:12	-8.9	-9.8	-9.8	29.0	-9.4	-11.5	-11.5	29.0	-11.0	-13.4	-13.4	29.6
9:12	-9.0	-9.8	-9.8	26.0	-9.4	-11.5	-11.5	26.0	-11.0	-13.4	-13.4	26.6
10:12	-9.0	-9.9	-9.9	23.4	-9.5	-11.6	-11.6	23.4	-11.1	-13.5	-13.5	24.0
11:12	-9.1	-9.9	-9.9	21.2	-9.5	-11.6	-11.6	21.2	-11.1	-13.5	-13.5	21.8
12:12	-9.1	-10.0	-10.0	19.3	-9.5	-11.6	-11.6	19.3	-11.1	-13.6	-13.6	19.9
1:12	-9.7	-18.5	-29.5	60.1	-11.1	-21.0	-33.4	60.1	-12.7	-23.9	-37.8	60.1
2:12	-8.7	-17.4	-27.3	55.2	-9.9	-19.8	-30.9	55.2	-11.3	-22.5	-35.0	55.2
3:12	-8.8	-17.4	-27.3	49.7	-9.9	-19.8	-30.9	49.7	-11.3	-22.5	-35.1	49.7
4:12	-8.8	-17.5	-27.3	44.1	-9.9	-19.8	-30.9	44.1	-11.4	-22.5	-35.1	44.1
5:12	-8.8	-17.5	-27.4	38.8	-9.9	-19.8	-31.0	38.8	-11.4	-22.6	-35.1	38.8
6:12	-8.9	-17.5	-27.4	33.8	-10.0	-19.9	-31.0	33.8	-11.4	-22.6	-35.2	33.8
7:12	-9.9	-12.1	-12.1	30.2	-11.3	-13.7	-13.7	31.1	-12.9	-15.7	-15.7	32.2
8:12	-9.9	-12.1	-12.1	27.1	-11.3	-13.8	-13.8	28.0	-12.9	-15.7	-15.7	29.1
9:12	-10.0	-12.2	-12.2	24.4	-11.3	-13.8	-13.8	25.3	-12.9	-15.7	-15.7	26.4
10:12	-10.0	-12.2	-12.2	22.1	-11.4	-13.9	-13.9	23.0	-13.0	-15.8	-15.8	24.0
11:12	-10.0	-12.2	-12.2	20.1	-11.4	-13.9	-13.9	21.0	-13.0	-15.8	-15.8	22.0
12:12	-10.1	-12.3	-12.3	18.4	-11.5	-13.9	-13.9	19.2	-13.1	-15.9	-15.9	20.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-12.2	-19.6	73.4	-8.7	-12.2	-19.6	73.4	-8.7	-15.0	-24.1	73.4
2:12	-8.7	-11.4	-18.1	67.2	-8.7	-11.4	-18.1	67.2	-8.7	-14.1	-22.3	67.2
3:12	-8.8	-11.4	-18.2	60.5	-8.8	-11.4	-18.2	60.5	-8.8	-14.2	-22.3	60.5
4:12	-8.8	-11.5	-18.2	53.6	-8.8	-11.5	-18.2	53.6	-8.8	-14.2	-22.3	53.6
5:12	-8.8	-11.5	-18.2	47.0	-8.8	-11.5	-18.2	47.0	-8.8	-14.2	-22.4	47.0
6:12	-8.9	-11.5	-18.3	40.9	-8.9	-11.5	-18.3	40.9	-8.9	-14.3	-22.4	40.9
7:12	-8.9	-8.9	-8.9	35.3	-8.9	-8.9	-8.9	35.3	-8.9	-9.8	-9.8	35.3
8:12	-8.9	-8.9	-8.9	31.0	-8.9	-8.9	-8.9	31.0	-8.9	-9.8	-9.8	31.0
9:12	-9.0	-9.0	-9.0	27.7	-9.0	-9.0	-9.0	27.7	-9.0	-9.8	-9.8	27.7
10:12	-9.0	-9.0	-9.0	24.8	-9.0	-9.0	-9.0	24.8	-9.0	-9.9	-9.9	24.8
11:12	-9.1	-9.1	-9.1	22.4	-9.1	-9.1	-9.1	22.4	-9.1	-9.9	-9.9	22.4
12:12	-9.1	-9.1	-9.1	20.3	-9.1	-9.1	-9.1	20.3	-9.1	-10.0	-10.0	20.3
Exposure Category C												
1:12	-8.7	-15.0	-24.1	73.4	-9.2	-17.5	-28.0	73.4	-10.8	-20.4	-32.5	73.4
2:12	-8.7	-14.1	-22.3	67.2	-8.7	-16.5	-25.9	67.2	-9.6	-19.2	-30.1	67.2
3:12	-8.8	-14.2	-22.3	60.5	-8.8	-16.5	-25.9	60.5	-9.6	-19.2	-30.1	60.5
4:12	-8.8	-14.2	-22.3	53.6	-8.8	-16.5	-25.9	53.6	-9.6	-19.3	-30.1	53.6
5:12	-8.8	-14.2	-22.4	47.0	-8.8	-16.6	-26.0	47.0	-9.7	-19.3	-30.1	47.0
6:12	-8.9	-14.3	-22.4	40.9	-8.9	-16.6	-26.0	40.9	-9.7	-19.3	-30.2	40.9
7:12	-8.9	-9.8	-9.8	35.3	-9.3	-11.4	-11.4	35.3	-10.9	-13.3	-13.3	35.4
8:12	-8.9	-9.8	-9.8	31.0	-9.4	-11.5	-11.5	31.0	-11.0	-13.4	-13.4	31.6
9:12	-9.0	-9.8	-9.8	27.7	-9.4	-11.5	-11.5	27.7	-11.0	-13.4	-13.4	28.3
10:12	-9.0	-9.9	-9.9	24.8	-9.5	-11.6	-11.6	24.8	-11.1	-13.5	-13.5	25.5
11:12	-9.1	-9.9	-9.9	22.4	-9.5	-11.6	-11.6	22.4	-11.1	-13.5	-13.5	23.0
12:12	-9.1	-10.0	-10.0	20.3	-9.5	-11.6	-11.6	20.3	-11.1	-13.6	-13.6	20.9
Exposure Category D												
1:12	-9.7	-18.5	-29.5	66.4	-11.1	-21.0	-33.4	66.4	-12.7	-23.9	-37.8	66.4
2:12	-8.7	-17.4	-27.3	60.9	-9.9	-19.8	-30.9	60.9	-11.3	-22.5	-35.0	60.9
3:12	-8.8	-17.4	-27.3	54.8	-9.9	-19.8	-30.9	54.8	-11.3	-22.5	-35.1	54.8
4:12	-8.8	-17.5	-27.3	48.6	-9.9	-19.8	-30.9	48.6	-11.4	-22.5	-35.1	48.6
5:12	-8.8	-17.5	-27.4	42.7	-9.9	-19.8	-31.0	42.7	-11.4	-22.6	-35.1	42.7
6:12	-8.9	-17.5	-27.4	37.1	-10.0	-19.9	-31.0	37.1	-11.4	-22.6	-35.2	37.1
7:12	-9.9	-12.1	-12.1	32.4	-11.3	-13.7	-13.7	33.2	-12.9	-15.7	-15.7	34.3
8:12	-9.9	-12.1	-12.1	29.0	-11.3	-13.8	-13.8	29.8	-12.9	-15.7	-15.7	30.9
9:12	-10.0	-12.2	-12.2	26.0	-11.3	-13.8	-13.8	26.8	-12.9	-15.7	-15.7	27.9
10:12	-10.0	-12.2	-12.2	23.4	-11.4	-13.9	-13.9	24.3	-13.0	-15.8	-15.8	25.3
11:12	-10.0	-12.2	-12.2	21.2	-11.4	-13.9	-13.9	22.0	-13.0	-15.8	-15.8	23.1
12:12	-10.1	-12.3	-12.3	19.3	-11.5	-13.9	-13.9	20.2	-13.1	-15.9	-15.9	21.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
70 mph

Ground Snow Load
100 psf

Up and Down (psf)

Basic Wind Speed
75 mph

Ground Snow Load
0 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-14.1	-22.7	13.8	-8.7	-14.1	-22.7	13.8	-9.1	-17.4	-27.9	13.8
2:12	-8.7	-13.3	-21.0	13.8	-8.7	-13.3	-21.0	13.8	-8.7	-16.4	-25.8	13.8
3:12	-8.8	-13.3	-21.0	13.7	-8.8	-13.3	-21.0	13.7	-8.8	-16.4	-25.8	13.7
4:12	-8.8	-13.3	-21.1	13.6	-8.8	-13.3	-21.1	13.6	-8.8	-16.5	-25.8	13.6
5:12	-8.8	-13.4	-21.1	13.6	-8.8	-13.4	-21.1	13.6	-8.8	-16.5	-25.9	13.6
6:12	-8.9	-13.4	-21.1	13.4	-8.9	-13.4	-21.1	13.4	-8.9	-16.5	-25.9	13.4
7:12	-8.9	-9.2	-9.2	13.3	-8.9	-9.2	-9.2	13.3	-9.3	-11.4	-11.4	13.3
8:12	-8.9	-9.2	-9.2	13.2	-8.9	-9.2	-9.2	13.2	-9.3	-11.4	-11.4	13.2
9:12	-9.0	-9.3	-9.3	13.1	-9.0	-9.3	-9.3	13.1	-9.4	-11.5	-11.5	13.1
10:12	-9.0	-9.3	-9.3	13.0	-9.0	-9.3	-9.3	13.0	-9.4	-11.5	-11.5	13.0
11:12	-9.1	-9.3	-9.3	12.8	-9.1	-9.3	-9.3	12.8	-9.5	-11.5	-11.5	12.8
12:12	-9.1	-9.4	-9.4	12.7	-9.1	-9.4	-9.4	12.7	-9.5	-11.6	-11.6	12.7
Exposure Category C												
1:12	-9.1	-17.4	-27.9	13.8	-10.7	-20.3	-32.3	13.8	-12.6	-23.6	-37.4	13.8
2:12	-8.7	-16.4	-25.8	13.8	-9.5	-19.1	-29.9	13.8	-11.2	-22.2	-34.7	13.8
3:12	-8.8	-16.4	-25.8	13.7	-9.5	-19.1	-29.9	13.7	-11.2	-22.3	-34.7	13.7
4:12	-8.8	-16.5	-25.8	13.6	-9.6	-19.2	-30.0	13.6	-11.2	-22.3	-34.7	13.6
5:12	-8.8	-16.5	-25.9	13.6	-9.6	-19.2	-30.0	13.6	-11.3	-22.3	-34.8	13.6
6:12	-8.9	-16.5	-25.9	13.4	-9.6	-19.2	-30.0	13.4	-11.3	-22.4	-34.8	13.4
7:12	-9.3	-11.4	-11.4	13.3	-10.9	-13.3	-13.3	14.1	-12.7	-15.5	-15.5	15.8
8:12	-9.3	-11.4	-11.4	13.2	-10.9	-13.3	-13.3	14.0	-12.8	-15.5	-15.5	15.6
9:12	-9.4	-11.5	-11.5	13.1	-11.0	-13.4	-13.4	13.9	-12.8	-15.6	-15.6	15.5
10:12	-9.4	-11.5	-11.5	13.0	-11.0	-13.4	-13.4	13.8	-12.8	-15.6	-15.6	15.4
11:12	-9.5	-11.5	-11.5	12.8	-11.0	-13.4	-13.4	13.6	-12.9	-15.7	-15.7	15.3
12:12	-9.5	-11.6	-11.6	12.7	-11.1	-13.5	-13.5	13.5	-12.9	-15.7	-15.7	15.2
Exposure Category D												
1:12	-11.3	-21.4	-34.0	13.8	-12.9	-24.3	-38.5	13.8	-14.8	-27.6	-43.6	13.8
2:12	-10.1	-20.2	-31.5	13.8	-11.5	-22.9	-35.6	13.8	-13.2	-26.0	-40.4	13.8
3:12	-10.1	-20.2	-31.5	13.7	-11.5	-22.9	-35.7	13.7	-13.2	-26.0	-40.4	13.7
4:12	-10.1	-20.2	-31.6	13.6	-11.6	-22.9	-35.7	13.6	-13.2	-26.0	-40.5	13.6
5:12	-10.2	-20.2	-31.6	13.6	-11.6	-23.0	-35.7	13.6	-13.2	-26.1	-40.5	13.6
6:12	-10.2	-20.3	-31.6	13.4	-11.6	-23.0	-35.8	13.4	-13.3	-26.1	-40.5	13.4
7:12	-11.5	-14.0	-14.0	14.7	-13.1	-15.9	-15.9	16.1	-14.9	-18.1	-18.1	17.8
8:12	-11.5	-14.1	-14.1	14.5	-13.1	-16.0	-16.0	16.0	-15.0	-18.2	-18.2	17.6
9:12	-11.6	-14.1	-14.1	14.4	-13.2	-16.0	-16.0	15.9	-15.0	-18.2	-18.2	17.5
10:12	-11.6	-14.1	-14.1	14.3	-13.2	-16.1	-16.1	15.7	-15.0	-18.3	-18.3	17.4
11:12	-11.7	-14.2	-14.2	14.2	-13.3	-16.1	-16.1	15.6	-15.1	-18.3	-18.3	17.3
12:12	-11.7	-14.2	-14.2	14.1	-13.3	-16.1	-16.1	15.5	-15.1	-18.3	-18.3	17.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W75-S0

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

Ground Snow Load

75 mph

5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-14.1	-22.7	15.1	-8.7	-14.1	-22.7	15.1	-9.1	-17.4	-27.9	15.1
2:12	-8.7	-13.3	-21.0	14.7	-8.7	-13.3	-21.0	14.7	-8.7	-16.4	-25.8	14.7
3:12	-8.8	-13.3	-21.0	14.3	-8.8	-13.3	-21.0	14.3	-8.8	-16.4	-25.8	14.3
4:12	-8.8	-13.3	-21.1	13.6	-8.8	-13.3	-21.1	13.6	-8.8	-16.5	-25.8	13.6
5:12	-8.8	-13.4	-21.1	13.6	-8.8	-13.4	-21.1	13.6	-8.8	-16.5	-25.9	13.6
6:12	-8.9	-13.4	-21.1	13.4	-8.9	-13.4	-21.1	13.4	-8.9	-16.5	-25.9	13.4
7:12	-8.9	-9.2	-9.2	13.3	-8.9	-9.2	-9.2	13.3	-9.3	-11.4	-11.4	13.3
8:12	-8.9	-9.2	-9.2	13.2	-8.9	-9.2	-9.2	13.2	-9.3	-11.4	-11.4	13.2
9:12	-9.0	-9.3	-9.3	13.1	-9.0	-9.3	-9.3	13.1	-9.4	-11.5	-11.5	13.1
10:12	-9.0	-9.3	-9.3	13.0	-9.0	-9.3	-9.3	13.0	-9.4	-11.5	-11.5	13.0
11:12	-9.1	-9.3	-9.3	12.8	-9.1	-9.3	-9.3	12.8	-9.5	-11.5	-11.5	12.8
12:12	-9.1	-9.4	-9.4	12.7	-9.1	-9.4	-9.4	12.7	-9.5	-11.6	-11.6	12.7
Exposure Category C												
1:12	-9.1	-17.4	-27.9	15.1	-10.7	-20.3	-32.3	15.1	-12.6	-23.6	-37.4	15.1
2:12	-8.7	-16.4	-25.8	14.7	-9.5	-19.1	-29.9	14.7	-11.2	-22.2	-34.7	14.7
3:12	-8.8	-16.4	-25.8	14.3	-9.5	-19.1	-29.9	14.3	-11.2	-22.3	-34.7	14.3
4:12	-8.8	-16.5	-25.8	13.6	-9.6	-19.2	-30.0	13.6	-11.2	-22.3	-34.7	13.6
5:12	-8.8	-16.5	-25.9	13.6	-9.6	-19.2	-30.0	13.6	-11.3	-22.3	-34.8	13.6
6:12	-8.9	-16.5	-25.9	13.4	-9.6	-19.2	-30.0	13.4	-11.3	-22.4	-34.8	13.4
7:12	-9.3	-11.4	-11.4	13.3	-10.9	-13.3	-13.3	14.1	-12.7	-15.5	-15.5	15.8
8:12	-9.3	-11.4	-11.4	13.2	-10.9	-13.3	-13.3	14.0	-12.8	-15.5	-15.5	15.6
9:12	-9.4	-11.5	-11.5	13.1	-11.0	-13.4	-13.4	13.9	-12.8	-15.6	-15.6	15.5
10:12	-9.4	-11.5	-11.5	13.0	-11.0	-13.4	-13.4	13.8	-12.8	-15.6	-15.6	15.4
11:12	-9.5	-11.5	-11.5	12.8	-11.0	-13.4	-13.4	13.6	-12.9	-15.7	-15.7	15.3
12:12	-9.5	-11.6	-11.6	12.7	-11.1	-13.5	-13.5	13.5	-12.9	-15.7	-15.7	15.2
Exposure Category D												
1:12	-11.3	-21.4	-34.0	15.1	-12.9	-24.3	-38.5	15.1	-14.8	-27.6	-43.6	15.1
2:12	-10.1	-20.2	-31.5	14.7	-11.5	-22.9	-35.6	14.7	-13.2	-26.0	-40.4	14.7
3:12	-10.1	-20.2	-31.5	14.3	-11.5	-22.9	-35.7	14.3	-13.2	-26.0	-40.4	14.3
4:12	-10.1	-20.2	-31.6	13.6	-11.6	-22.9	-35.7	13.6	-13.2	-26.0	-40.5	13.6
5:12	-10.2	-20.2	-31.6	13.6	-11.6	-23.0	-35.7	13.6	-13.2	-26.1	-40.5	13.6
6:12	-10.2	-20.3	-31.6	13.4	-11.6	-23.0	-35.8	13.4	-13.3	-26.1	-40.5	13.4
7:12	-11.5	-14.0	-14.0	14.7	-13.1	-15.9	-15.9	16.1	-14.9	-18.1	-18.1	17.8
8:12	-11.5	-14.1	-14.1	14.5	-13.1	-16.0	-16.0	16.0	-15.0	-18.2	-18.2	17.6
9:12	-11.6	-14.1	-14.1	14.4	-13.2	-16.0	-16.0	15.9	-15.0	-18.2	-18.2	17.5
10:12	-11.6	-14.1	-14.1	14.3	-13.2	-16.1	-16.1	15.7	-15.0	-18.3	-18.3	17.4
11:12	-11.7	-14.2	-14.2	14.2	-13.3	-16.1	-16.1	15.6	-15.1	-18.3	-18.3	17.3
12:12	-11.7	-14.2	-14.2	14.1	-13.3	-16.1	-16.1	15.5	-15.1	-18.3	-18.3	17.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W75-S5

Up and Down (psf)

Basic Wind Speed
75 mph

Ground Snow Load
10 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-14.1	-22.7	18.8	-8.7	-14.1	-22.7	18.8	-9.1	-17.4	-27.9	18.8
2:12	-8.7	-13.3	-21.0	18.1	-8.7	-13.3	-21.0	18.1	-8.7	-16.4	-25.8	18.1
3:12	-8.8	-13.3	-21.0	17.3	-8.8	-13.3	-21.0	17.3	-8.8	-16.4	-25.8	17.3
4:12	-8.8	-13.3	-21.1	14.9	-8.8	-13.3	-21.1	14.9	-8.8	-16.5	-25.8	14.9
5:12	-8.8	-13.4	-21.1	14.3	-8.8	-13.4	-21.1	14.3	-8.8	-16.5	-25.9	14.3
6:12	-8.9	-13.4	-21.1	13.7	-8.9	-13.4	-21.1	13.7	-8.9	-16.5	-25.9	13.7
7:12	-8.9	-9.2	-9.2	13.3	-8.9	-9.2	-9.2	13.3	-9.3	-11.4	-11.4	13.3
8:12	-8.9	-9.2	-9.2	13.2	-8.9	-9.2	-9.2	13.2	-9.3	-11.4	-11.4	13.2
9:12	-9.0	-9.3	-9.3	13.1	-9.0	-9.3	-9.3	13.1	-9.4	-11.5	-11.5	13.1
10:12	-9.0	-9.3	-9.3	13.0	-9.0	-9.3	-9.3	13.0	-9.4	-11.5	-11.5	13.0
11:12	-9.1	-9.3	-9.3	12.8	-9.1	-9.3	-9.3	12.8	-9.5	-11.5	-11.5	12.8
12:12	-9.1	-9.4	-9.4	12.7	-9.1	-9.4	-9.4	12.7	-9.5	-11.6	-11.6	12.7
1:12	-9.1	-17.4	-27.9	18.8	-10.7	-20.3	-32.3	18.8	-12.6	-23.6	-37.4	18.8
2:12	-8.7	-16.4	-25.8	18.1	-9.5	-19.1	-29.9	18.1	-11.2	-22.2	-34.7	18.1
3:12	-8.8	-16.4	-25.8	17.3	-9.5	-19.1	-29.9	17.3	-11.2	-22.3	-34.7	17.3
4:12	-8.8	-16.5	-25.8	14.9	-9.6	-19.2	-30.0	14.9	-11.2	-22.3	-34.7	14.9
5:12	-8.8	-16.5	-25.9	14.3	-9.6	-19.2	-30.0	14.3	-11.3	-22.3	-34.8	14.3
6:12	-8.9	-16.5	-25.9	13.7	-9.6	-19.2	-30.0	13.7	-11.3	-22.4	-34.8	13.7
7:12	-9.3	-11.4	-11.4	13.3	-10.9	-13.3	-13.3	14.1	-12.7	-15.5	-15.5	15.8
8:12	-9.3	-11.4	-11.4	13.2	-10.9	-13.3	-13.3	14.0	-12.8	-15.5	-15.5	15.6
9:12	-9.4	-11.5	-11.5	13.1	-11.0	-13.4	-13.4	13.9	-12.8	-15.6	-15.6	15.5
10:12	-9.4	-11.5	-11.5	13.0	-11.0	-13.4	-13.4	13.8	-12.8	-15.6	-15.6	15.4
11:12	-9.5	-11.5	-11.5	12.8	-11.0	-13.4	-13.4	13.6	-12.9	-15.7	-15.7	15.3
12:12	-9.5	-11.6	-11.6	12.7	-11.1	-13.5	-13.5	13.5	-12.9	-15.7	-15.7	15.2
1:12	-11.3	-21.4	-34.0	18.8	-12.9	-24.3	-38.5	18.8	-14.8	-27.6	-43.6	18.8
2:12	-10.1	-20.2	-31.5	18.1	-11.5	-22.9	-35.6	18.1	-13.2	-26.0	-40.4	18.1
3:12	-10.1	-20.2	-31.5	17.3	-11.5	-22.9	-35.7	17.3	-13.2	-26.0	-40.4	17.3
4:12	-10.1	-20.2	-31.6	14.5	-11.6	-22.9	-35.7	14.5	-13.2	-26.0	-40.5	14.5
5:12	-10.2	-20.2	-31.6	14.0	-11.6	-23.0	-35.7	14.0	-13.2	-26.1	-40.5	14.0
6:12	-10.2	-20.3	-31.6	13.5	-11.6	-23.0	-35.8	13.5	-13.3	-26.1	-40.5	13.5
7:12	-11.5	-14.0	-14.0	14.7	-13.1	-15.9	-15.9	16.1	-14.9	-18.1	-18.1	17.8
8:12	-11.5	-14.1	-14.1	14.5	-13.1	-16.0	-16.0	16.0	-15.0	-18.2	-18.2	17.6
9:12	-11.6	-14.1	-14.1	14.4	-13.2	-16.0	-16.0	15.9	-15.0	-18.2	-18.2	17.5
10:12	-11.6	-14.1	-14.1	14.3	-13.2	-16.1	-16.1	15.7	-15.0	-18.3	-18.3	17.4
11:12	-11.7	-14.2	-14.2	14.2	-13.3	-16.1	-16.1	15.6	-15.1	-18.3	-18.3	17.3
12:12	-11.7	-14.2	-14.2	14.1	-13.3	-16.1	-16.1	15.5	-15.1	-18.3	-18.3	17.2
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
75 mph

Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-14.1	-22.7	22.5	-8.7	-14.1	-22.7	22.5	-9.1	-17.4	-27.9	22.5
2:12	-8.7	-13.3	-21.0	21.5	-8.7	-13.3	-21.0	21.5	-8.7	-16.4	-25.8	21.5
3:12	-8.8	-13.3	-21.0	20.3	-8.8	-13.3	-21.0	20.3	-8.8	-16.4	-25.8	20.3
4:12	-8.8	-13.3	-21.1	16.8	-8.8	-13.3	-21.1	16.8	-8.8	-16.5	-25.8	16.8
5:12	-8.8	-13.4	-21.1	15.9	-8.8	-13.4	-21.1	15.9	-8.8	-16.5	-25.9	15.9
6:12	-8.9	-13.4	-21.1	15.2	-8.9	-13.4	-21.1	15.2	-8.9	-16.5	-25.9	15.2
7:12	-8.9	-9.2	-9.2	14.4	-8.9	-9.2	-9.2	14.4	-9.3	-11.4	-11.4	14.4
8:12	-8.9	-9.2	-9.2	13.7	-8.9	-9.2	-9.2	13.7	-9.3	-11.4	-11.4	13.7
9:12	-9.0	-9.3	-9.3	13.1	-9.0	-9.3	-9.3	13.1	-9.4	-11.5	-11.5	13.1
10:12	-9.0	-9.3	-9.3	13.0	-9.0	-9.3	-9.3	13.0	-9.4	-11.5	-11.5	13.0
11:12	-9.1	-9.3	-9.3	12.8	-9.1	-9.3	-9.3	12.8	-9.5	-11.5	-11.5	12.8
12:12	-9.1	-9.4	-9.4	12.7	-9.1	-9.4	-9.4	12.7	-9.5	-11.6	-11.6	12.7
1:12	-9.1	-17.4	-27.9	22.5	-10.7	-20.3	-32.3	22.5	-12.6	-23.6	-37.4	22.5
2:12	-8.7	-16.4	-25.8	21.5	-9.5	-19.1	-29.9	21.5	-11.2	-22.2	-34.7	21.5
3:12	-8.8	-16.4	-25.8	20.3	-9.5	-19.1	-29.9	20.3	-11.2	-22.3	-34.7	20.3
4:12	-8.8	-16.5	-25.8	16.8	-9.6	-19.2	-30.0	16.8	-11.2	-22.3	-34.7	16.8
5:12	-8.8	-16.5	-25.9	15.9	-9.6	-19.2	-30.0	15.9	-11.3	-22.3	-34.8	15.9
6:12	-8.9	-16.5	-25.9	15.2	-9.6	-19.2	-30.0	15.2	-11.3	-22.4	-34.8	15.2
7:12	-9.3	-11.4	-11.4	14.4	-10.9	-13.3	-13.3	15.0	-12.7	-15.5	-15.5	16.3
8:12	-9.3	-11.4	-11.4	13.7	-10.9	-13.3	-13.3	14.3	-12.8	-15.5	-15.5	15.6
9:12	-9.4	-11.5	-11.5	13.1	-11.0	-13.4	-13.4	13.9	-12.8	-15.6	-15.6	15.5
10:12	-9.4	-11.5	-11.5	13.0	-11.0	-13.4	-13.4	13.8	-12.8	-15.6	-15.6	15.4
11:12	-9.5	-11.5	-11.5	12.8	-11.0	-13.4	-13.4	13.6	-12.9	-15.7	-15.7	15.3
12:12	-9.5	-11.6	-11.6	12.7	-11.1	-13.5	-13.5	13.5	-12.9	-15.7	-15.7	15.2
1:12	-11.3	-21.4	-34.0	22.5	-12.9	-24.3	-38.5	22.5	-14.8	-27.6	-43.6	22.5
2:12	-10.1	-20.2	-31.5	21.5	-11.5	-22.9	-35.6	21.5	-13.2	-26.0	-40.4	21.5
3:12	-10.1	-20.2	-31.5	20.3	-11.5	-22.9	-35.7	20.3	-13.2	-26.0	-40.4	20.3
4:12	-10.1	-20.2	-31.6	16.2	-11.6	-22.9	-35.7	16.2	-13.2	-26.0	-40.5	16.2
5:12	-10.2	-20.2	-31.6	15.5	-11.6	-23.0	-35.7	15.5	-13.2	-26.1	-40.5	15.5
6:12	-10.2	-20.3	-31.6	14.7	-11.6	-23.0	-35.8	14.7	-13.3	-26.1	-40.5	14.7
7:12	-11.5	-14.0	-14.0	15.1	-13.1	-15.9	-15.9	16.1	-14.9	-18.1	-18.1	17.8
8:12	-11.5	-14.1	-14.1	14.5	-13.1	-16.0	-16.0	16.0	-15.0	-18.2	-18.2	17.6
9:12	-11.6	-14.1	-14.1	14.4	-13.2	-16.0	-16.0	15.9	-15.0	-18.2	-18.2	17.5
10:12	-11.6	-14.1	-14.1	14.3	-13.2	-16.1	-16.1	15.7	-15.0	-18.3	-18.3	17.4
11:12	-11.7	-14.2	-14.2	14.2	-13.3	-16.1	-16.1	15.6	-15.1	-18.3	-18.3	17.3
12:12	-11.7	-14.2	-14.2	14.1	-13.3	-16.1	-16.1	15.5	-15.1	-18.3	-18.3	17.2
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-14.1	-22.7	26.2	-8.7	-14.1	-22.7	26.2	-9.1	-17.4	-27.9	26.2
2:12	-8.7	-13.3	-21.0	24.9	-8.7	-13.3	-21.0	24.9	-8.7	-16.4	-25.8	24.9
3:12	-8.8	-13.3	-21.0	23.4	-8.8	-13.3	-21.0	23.4	-8.8	-16.4	-25.8	23.4
4:12	-8.8	-13.3	-21.1	18.6	-8.8	-13.3	-21.1	18.6	-8.8	-16.5	-25.8	18.6
5:12	-8.8	-13.4	-21.1	17.6	-8.8	-13.4	-21.1	17.6	-8.8	-16.5	-25.9	17.6
6:12	-8.9	-13.4	-21.1	16.6	-8.9	-13.4	-21.1	16.6	-8.9	-16.5	-25.9	16.6
7:12	-8.9	-9.2	-9.2	15.6	-8.9	-9.2	-9.2	15.6	-9.3	-11.4	-11.4	15.6
8:12	-8.9	-9.2	-9.2	14.8	-8.9	-9.2	-9.2	14.8	-9.3	-11.4	-11.4	14.8
9:12	-9.0	-9.3	-9.3	14.0	-9.0	-9.3	-9.3	14.0	-9.4	-11.5	-11.5	14.0
10:12	-9.0	-9.3	-9.3	13.3	-9.0	-9.3	-9.3	13.3	-9.4	-11.5	-11.5	13.3
11:12	-9.1	-9.3	-9.3	12.8	-9.1	-9.3	-9.3	12.8	-9.5	-11.5	-11.5	12.8
12:12	-9.1	-9.4	-9.4	12.7	-9.1	-9.4	-9.4	12.7	-9.5	-11.6	-11.6	12.7
1:12	-9.1	-17.4	-27.9	26.2	-10.7	-20.3	-32.3	26.2	-12.6	-23.6	-37.4	26.2
2:12	-8.7	-16.4	-25.8	24.9	-9.5	-19.1	-29.9	24.9	-11.2	-22.2	-34.7	24.9
3:12	-8.8	-16.4	-25.8	23.4	-9.5	-19.1	-29.9	23.4	-11.2	-22.3	-34.7	23.4
4:12	-8.8	-16.5	-25.8	18.6	-9.6	-19.2	-30.0	18.6	-11.2	-22.3	-34.7	18.6
5:12	-8.8	-16.5	-25.9	17.6	-9.6	-19.2	-30.0	17.6	-11.3	-22.3	-34.8	17.6
6:12	-8.9	-16.5	-25.9	16.6	-9.6	-19.2	-30.0	16.6	-11.3	-22.4	-34.8	16.6
7:12	-9.3	-11.4	-11.4	15.6	-10.9	-13.3	-13.3	16.2	-12.7	-15.5	-15.5	17.4
8:12	-9.3	-11.4	-11.4	14.8	-10.9	-13.3	-13.3	15.4	-12.8	-15.5	-15.5	16.6
9:12	-9.4	-11.5	-11.5	14.0	-11.0	-13.4	-13.4	14.6	-12.8	-15.6	-15.6	15.8
10:12	-9.4	-11.5	-11.5	13.3	-11.0	-13.4	-13.4	13.9	-12.8	-15.6	-15.6	15.4
11:12	-9.5	-11.5	-11.5	12.8	-11.0	-13.4	-13.4	13.6	-12.9	-15.7	-15.7	15.3
12:12	-9.5	-11.6	-11.6	12.7	-11.1	-13.5	-13.5	13.5	-12.9	-15.7	-15.7	15.2
1:12	-11.3	-21.4	-34.0	26.2	-12.9	-24.3	-38.5	26.2	-14.8	-27.6	-43.6	26.2
2:12	-10.1	-20.2	-31.5	24.9	-11.5	-22.9	-35.6	24.9	-13.2	-26.0	-40.4	24.9
3:12	-10.1	-20.2	-31.5	23.4	-11.5	-22.9	-35.7	23.4	-13.2	-26.0	-40.4	23.4
4:12	-10.1	-20.2	-31.6	17.9	-11.6	-22.9	-35.7	17.9	-13.2	-26.0	-40.5	17.9
5:12	-10.2	-20.2	-31.6	16.9	-11.6	-23.0	-35.7	16.9	-13.2	-26.1	-40.5	16.9
6:12	-10.2	-20.3	-31.6	16.0	-11.6	-23.0	-35.8	16.0	-13.3	-26.1	-40.5	16.0
7:12	-11.5	-14.0	-14.0	16.1	-13.1	-15.9	-15.9	17.2	-14.9	-18.1	-18.1	18.5
8:12	-11.5	-14.1	-14.1	15.4	-13.1	-16.0	-16.0	16.4	-15.0	-18.2	-18.2	17.7
9:12	-11.6	-14.1	-14.1	14.7	-13.2	-16.0	-16.0	15.9	-15.0	-18.2	-18.2	17.5
10:12	-11.6	-14.1	-14.1	14.3	-13.2	-16.1	-16.1	15.7	-15.0	-18.3	-18.3	17.4
11:12	-11.7	-14.2	-14.2	14.2	-13.3	-16.1	-16.1	15.6	-15.1	-18.3	-18.3	17.3
12:12	-11.7	-14.2	-14.2	14.1	-13.3	-16.1	-16.1	15.5	-15.1	-18.3	-18.3	17.2
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **75 mph**
Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-14.1	-22.7	26.2	-8.7	-14.1	-22.7	26.2	-9.1	-17.4	-27.9	26.2
2:12	-8.7	-13.3	-21.0	24.9	-8.7	-13.3	-21.0	24.9	-8.7	-16.4	-25.8	24.9
3:12	-8.8	-13.3	-21.0	23.4	-8.8	-13.3	-21.0	23.4	-8.8	-16.4	-25.8	23.4
4:12	-8.8	-13.3	-21.1	20.5	-8.8	-13.3	-21.1	20.5	-8.8	-16.5	-25.8	20.5
5:12	-8.8	-13.4	-21.1	19.2	-8.8	-13.4	-21.1	19.2	-8.8	-16.5	-25.9	19.2
6:12	-8.9	-13.4	-21.1	18.0	-8.9	-13.4	-21.1	18.0	-8.9	-16.5	-25.9	18.0
7:12	-8.9	-9.2	-9.2	16.8	-8.9	-9.2	-9.2	16.8	-9.3	-11.4	-11.4	16.8
8:12	-8.9	-9.2	-9.2	15.8	-8.9	-9.2	-9.2	15.8	-9.3	-11.4	-11.4	15.8
9:12	-9.0	-9.3	-9.3	14.9	-9.0	-9.3	-9.3	14.9	-9.4	-11.5	-11.5	14.9
10:12	-9.0	-9.3	-9.3	14.1	-9.0	-9.3	-9.3	14.1	-9.4	-11.5	-11.5	14.1
11:12	-9.1	-9.3	-9.3	13.4	-9.1	-9.3	-9.3	13.4	-9.5	-11.5	-11.5	13.4
12:12	-9.1	-9.4	-9.4	12.7	-9.1	-9.4	-9.4	12.7	-9.5	-11.6	-11.6	12.7
Exposure Category C												
1:12	-9.1	-17.4	-27.9	26.2	-10.7	-20.3	-32.3	26.2	-12.6	-23.6	-37.4	26.2
2:12	-8.7	-16.4	-25.8	24.9	-9.5	-19.1	-29.9	24.9	-11.2	-22.2	-34.7	24.9
3:12	-8.8	-16.4	-25.8	23.4	-9.5	-19.1	-29.9	23.4	-11.2	-22.3	-34.7	23.4
4:12	-8.8	-16.5	-25.8	20.5	-9.6	-19.2	-30.0	20.5	-11.2	-22.3	-34.7	20.5
5:12	-8.8	-16.5	-25.9	19.2	-9.6	-19.2	-30.0	19.2	-11.3	-22.3	-34.8	19.2
6:12	-8.9	-16.5	-25.9	18.0	-9.6	-19.2	-30.0	18.0	-11.3	-22.4	-34.8	18.0
7:12	-9.3	-11.4	-11.4	16.8	-10.9	-13.3	-13.3	17.4	-12.7	-15.5	-15.5	18.6
8:12	-9.3	-11.4	-11.4	15.8	-10.9	-13.3	-13.3	16.4	-12.8	-15.5	-15.5	17.6
9:12	-9.4	-11.5	-11.5	14.9	-11.0	-13.4	-13.4	15.5	-12.8	-15.6	-15.6	16.7
10:12	-9.4	-11.5	-11.5	14.1	-11.0	-13.4	-13.4	14.7	-12.8	-15.6	-15.6	15.9
11:12	-9.5	-11.5	-11.5	13.4	-11.0	-13.4	-13.4	13.9	-12.9	-15.7	-15.7	15.3
12:12	-9.5	-11.6	-11.6	12.7	-11.1	-13.5	-13.5	13.5	-12.9	-15.7	-15.7	15.2
Exposure Category D												
1:12	-11.3	-21.4	-34.0	26.2	-12.9	-24.3	-38.5	26.2	-14.8	-27.6	-43.6	26.2
2:12	-10.1	-20.2	-31.5	24.9	-11.5	-22.9	-35.6	24.9	-13.2	-26.0	-40.4	24.9
3:12	-10.1	-20.2	-31.5	23.4	-11.5	-22.9	-35.7	23.4	-13.2	-26.0	-40.4	23.4
4:12	-10.1	-20.2	-31.6	19.6	-11.6	-22.9	-35.7	19.6	-13.2	-26.0	-40.5	19.6
5:12	-10.2	-20.2	-31.6	18.4	-11.6	-23.0	-35.7	18.4	-13.2	-26.1	-40.5	18.4
6:12	-10.2	-20.3	-31.6	17.3	-11.6	-23.0	-35.8	17.3	-13.3	-26.1	-40.5	17.3
7:12	-11.5	-14.0	-14.0	17.2	-13.1	-15.9	-15.9	18.3	-14.9	-18.1	-18.1	19.5
8:12	-11.5	-14.1	-14.1	16.3	-13.1	-16.0	-16.0	17.4	-15.0	-18.2	-18.2	18.6
9:12	-11.6	-14.1	-14.1	15.4	-13.2	-16.0	-16.0	16.5	-15.0	-18.2	-18.2	17.8
10:12	-11.6	-14.1	-14.1	14.7	-13.2	-16.1	-16.1	15.8	-15.0	-18.3	-18.3	17.4
11:12	-11.7	-14.2	-14.2	14.2	-13.3	-16.1	-16.1	15.6	-15.1	-18.3	-18.3	17.3
12:12	-11.7	-14.2	-14.2	14.1	-13.3	-16.1	-16.1	15.5	-15.1	-18.3	-18.3	17.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
75 mph

Ground Snow Load
25 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-8.7	-14.1	-22.7	27.0	-8.7	-14.1	-22.7	27.0	-9.1	-17.4	-27.9	27.0
	2:12	-8.7	-13.3	-21.0	25.6	-8.7	-13.3	-21.0	25.6	-8.7	-16.4	-25.8	25.6
	3:12	-8.8	-13.3	-21.0	24.0	-8.8	-13.3	-21.0	24.0	-8.8	-16.4	-25.8	24.0
	4:12	-8.8	-13.3	-21.1	22.4	-8.8	-13.3	-21.1	22.4	-8.8	-16.5	-25.8	22.4
	5:12	-8.8	-13.4	-21.1	20.8	-8.8	-13.4	-21.1	20.8	-8.8	-16.5	-25.9	20.8
	6:12	-8.9	-13.4	-21.1	19.4	-8.9	-13.4	-21.1	19.4	-8.9	-16.5	-25.9	19.4
	7:12	-8.9	-9.2	-9.2	18.0	-8.9	-9.2	-9.2	18.0	-9.3	-11.4	-11.4	18.0
	8:12	-8.9	-9.2	-9.2	16.8	-8.9	-9.2	-9.2	16.8	-9.3	-11.4	-11.4	16.8
	9:12	-9.0	-9.3	-9.3	15.7	-9.0	-9.3	-9.3	15.7	-9.4	-11.5	-11.5	15.7
	10:12	-9.0	-9.3	-9.3	14.8	-9.0	-9.3	-9.3	14.8	-9.4	-11.5	-11.5	14.8
	11:12	-9.1	-9.3	-9.3	14.0	-9.1	-9.3	-9.3	14.0	-9.5	-11.5	-11.5	14.0
	12:12	-9.1	-9.4	-9.4	13.2	-9.1	-9.4	-9.4	13.2	-9.5	-11.6	-11.6	13.2
Exposure Category C	1:12	-9.1	-17.4	-27.9	27.0	-10.7	-20.3	-32.3	27.0	-12.6	-23.6	-37.4	27.0
	2:12	-8.7	-16.4	-25.8	25.6	-9.5	-19.1	-29.9	25.6	-11.2	-22.2	-34.7	25.6
	3:12	-8.8	-16.4	-25.8	24.0	-9.5	-19.1	-29.9	24.0	-11.2	-22.3	-34.7	24.0
	4:12	-8.8	-16.5	-25.8	22.4	-9.6	-19.2	-30.0	22.4	-11.2	-22.3	-34.7	22.4
	5:12	-8.8	-16.5	-25.9	20.8	-9.6	-19.2	-30.0	20.8	-11.3	-22.3	-34.8	20.8
	6:12	-8.9	-16.5	-25.9	19.4	-9.6	-19.2	-30.0	19.4	-11.3	-22.4	-34.8	19.4
	7:12	-9.3	-11.4	-11.4	18.0	-10.9	-13.3	-13.3	18.6	-12.7	-15.5	-15.5	19.8
	8:12	-9.3	-11.4	-11.4	16.8	-10.9	-13.3	-13.3	17.4	-12.8	-15.5	-15.5	18.6
	9:12	-9.4	-11.5	-11.5	15.7	-11.0	-13.4	-13.4	16.3	-12.8	-15.6	-15.6	17.6
	10:12	-9.4	-11.5	-11.5	14.8	-11.0	-13.4	-13.4	15.4	-12.8	-15.6	-15.6	16.6
	11:12	-9.5	-11.5	-11.5	14.0	-11.0	-13.4	-13.4	14.6	-12.9	-15.7	-15.7	15.8
	12:12	-9.5	-11.6	-11.6	13.2	-11.1	-13.5	-13.5	13.8	-12.9	-15.7	-15.7	15.2
Exposure Category D	1:12	-11.3	-21.4	-34.0	26.2	-12.9	-24.3	-38.5	26.2	-14.8	-27.6	-43.6	26.2
	2:12	-10.1	-20.2	-31.5	24.9	-11.5	-22.9	-35.6	24.9	-13.2	-26.0	-40.4	24.9
	3:12	-10.1	-20.2	-31.5	23.4	-11.5	-22.9	-35.7	23.4	-13.2	-26.0	-40.4	23.4
	4:12	-10.1	-20.2	-31.6	21.3	-11.6	-22.9	-35.7	21.3	-13.2	-26.0	-40.5	21.3
	5:12	-10.2	-20.2	-31.6	19.9	-11.6	-23.0	-35.7	19.9	-13.2	-26.1	-40.5	19.9
	6:12	-10.2	-20.3	-31.6	18.5	-11.6	-23.0	-35.8	18.5	-13.3	-26.1	-40.5	18.5
	7:12	-11.5	-14.0	-14.0	18.3	-13.1	-15.9	-15.9	19.4	-14.9	-18.1	-18.1	20.6
	8:12	-11.5	-14.1	-14.1	17.2	-13.1	-16.0	-16.0	18.3	-15.0	-18.2	-18.2	19.5
	9:12	-11.6	-14.1	-14.1	16.2	-13.2	-16.0	-16.0	17.3	-15.0	-18.2	-18.2	18.5
	10:12	-11.6	-14.1	-14.1	15.4	-13.2	-16.1	-16.1	16.4	-15.0	-18.3	-18.3	17.7
	11:12	-11.7	-14.2	-14.2	14.6	-13.3	-16.1	-16.1	15.7	-15.1	-18.3	-18.3	17.3
	12:12	-11.7	-14.2	-14.2	14.1	-13.3	-16.1	-16.1	15.5	-15.1	-18.3	-18.3	17.2
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
	2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
	3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
	4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
	5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
	6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
	7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
	8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
	9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
	10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
	11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **75 mph**

Ground Snow Load **30 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-14.1	-22.7	29.6	-8.7	-14.1	-22.7	29.6	-9.1	-17.4	-27.9	29.6
2:12	-8.7	-13.3	-21.0	27.9	-8.7	-13.3	-21.0	27.9	-8.7	-16.4	-25.8	27.9
3:12	-8.8	-13.3	-21.0	26.1	-8.8	-13.3	-21.0	26.1	-8.8	-16.4	-25.8	26.1
4:12	-8.8	-13.3	-21.1	24.3	-8.8	-13.3	-21.1	24.3	-8.8	-16.5	-25.8	24.3
5:12	-8.8	-13.4	-21.1	22.5	-8.8	-13.4	-21.1	22.5	-8.8	-16.5	-25.9	22.5
6:12	-8.9	-13.4	-21.1	20.8	-8.9	-13.4	-21.1	20.8	-8.9	-16.5	-25.9	20.8
7:12	-8.9	-9.2	-9.2	19.2	-8.9	-9.2	-9.2	19.2	-9.3	-11.4	-11.4	19.2
8:12	-8.9	-9.2	-9.2	17.8	-8.9	-9.2	-9.2	17.8	-9.3	-11.4	-11.4	17.8
9:12	-9.0	-9.3	-9.3	16.6	-9.0	-9.3	-9.3	16.6	-9.4	-11.5	-11.5	16.6
10:12	-9.0	-9.3	-9.3	15.5	-9.0	-9.3	-9.3	15.5	-9.4	-11.5	-11.5	15.5
11:12	-9.1	-9.3	-9.3	14.6	-9.1	-9.3	-9.3	14.6	-9.5	-11.5	-11.5	14.6
12:12	-9.1	-9.4	-9.4	13.8	-9.1	-9.4	-9.4	13.8	-9.5	-11.6	-11.6	13.8
Exposure Category C												
1:12	-9.1	-17.4	-27.9	29.6	-10.7	-20.3	-32.3	29.6	-12.6	-23.6	-37.4	29.6
2:12	-8.7	-16.4	-25.8	27.9	-9.5	-19.1	-29.9	27.9	-11.2	-22.2	-34.7	27.9
3:12	-8.8	-16.4	-25.8	26.1	-9.5	-19.1	-29.9	26.1	-11.2	-22.3	-34.7	26.1
4:12	-8.8	-16.5	-25.8	24.3	-9.6	-19.2	-30.0	24.3	-11.2	-22.3	-34.7	24.3
5:12	-8.8	-16.5	-25.9	22.5	-9.6	-19.2	-30.0	22.5	-11.3	-22.3	-34.8	22.5
6:12	-8.9	-16.5	-25.9	20.8	-9.6	-19.2	-30.0	20.8	-11.3	-22.4	-34.8	20.8
7:12	-9.3	-11.4	-11.4	19.2	-10.9	-13.3	-13.3	19.8	-12.7	-15.5	-15.5	21.0
8:12	-9.3	-11.4	-11.4	17.8	-10.9	-13.3	-13.3	18.4	-12.8	-15.5	-15.5	19.6
9:12	-9.4	-11.5	-11.5	16.6	-11.0	-13.4	-13.4	17.2	-12.8	-15.6	-15.6	18.4
10:12	-9.4	-11.5	-11.5	15.5	-11.0	-13.4	-13.4	16.1	-12.8	-15.6	-15.6	17.3
11:12	-9.5	-11.5	-11.5	14.6	-11.0	-13.4	-13.4	15.2	-12.9	-15.7	-15.7	16.4
12:12	-9.5	-11.6	-11.6	13.8	-11.1	-13.5	-13.5	14.4	-12.9	-15.7	-15.7	15.6
Exposure Category D												
1:12	-11.3	-21.4	-34.0	27.8	-12.9	-24.3	-38.5	27.8	-14.8	-27.6	-43.6	27.8
2:12	-10.1	-20.2	-31.5	26.3	-11.5	-22.9	-35.6	26.3	-13.2	-26.0	-40.4	26.3
3:12	-10.1	-20.2	-31.5	24.6	-11.5	-22.9	-35.7	24.6	-13.2	-26.0	-40.4	24.6
4:12	-10.1	-20.2	-31.6	23.0	-11.6	-22.9	-35.7	23.0	-13.2	-26.0	-40.5	23.0
5:12	-10.2	-20.2	-31.6	21.3	-11.6	-23.0	-35.7	21.3	-13.2	-26.1	-40.5	21.3
6:12	-10.2	-20.3	-31.6	19.8	-11.6	-23.0	-35.8	19.8	-13.3	-26.1	-40.5	19.8
7:12	-11.5	-14.0	-14.0	19.4	-13.1	-15.9	-15.9	20.5	-14.9	-18.1	-18.1	21.7
8:12	-11.5	-14.1	-14.1	18.1	-13.1	-16.0	-16.0	19.2	-15.0	-18.2	-18.2	20.4
9:12	-11.6	-14.1	-14.1	17.0	-13.2	-16.0	-16.0	18.1	-15.0	-18.2	-18.2	19.3
10:12	-11.6	-14.1	-14.1	16.0	-13.2	-16.1	-16.1	17.1	-15.0	-18.3	-18.3	18.3
11:12	-11.7	-14.2	-14.2	15.1	-13.3	-16.1	-16.1	16.2	-15.1	-18.3	-18.3	17.5
12:12	-11.7	-14.2	-14.2	14.4	-13.3	-16.1	-16.1	15.5	-15.1	-18.3	-18.3	17.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
75 mph

Ground Snow Load
35 psf

Up and Down (psf)

Basic Wind Speed
75 mph

Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-14.1	-22.7	32.2	-8.7	-14.1	-22.7	32.2	-9.1	-17.4	-27.9	32.2
2:12	-8.7	-13.3	-21.0	30.3	-8.7	-13.3	-21.0	30.3	-8.7	-16.4	-25.8	30.3
3:12	-8.8	-13.3	-21.0	28.2	-8.8	-13.3	-21.0	28.2	-8.8	-16.4	-25.8	28.2
4:12	-8.8	-13.3	-21.1	26.1	-8.8	-13.3	-21.1	26.1	-8.8	-16.5	-25.8	26.1
5:12	-8.8	-13.4	-21.1	24.1	-8.8	-13.4	-21.1	24.1	-8.8	-16.5	-25.9	24.1
6:12	-8.9	-13.4	-21.1	22.2	-8.9	-13.4	-21.1	22.2	-8.9	-16.5	-25.9	22.2
7:12	-8.9	-9.2	-9.2	20.4	-8.9	-9.2	-9.2	20.4	-9.3	-11.4	-11.4	20.4
8:12	-8.9	-9.2	-9.2	18.8	-8.9	-9.2	-9.2	18.8	-9.3	-11.4	-11.4	18.8
9:12	-9.0	-9.3	-9.3	17.4	-9.0	-9.3	-9.3	17.4	-9.4	-11.5	-11.5	17.4
10:12	-9.0	-9.3	-9.3	16.2	-9.0	-9.3	-9.3	16.2	-9.4	-11.5	-11.5	16.2
11:12	-9.1	-9.3	-9.3	15.2	-9.1	-9.3	-9.3	15.2	-9.5	-11.5	-11.5	15.2
12:12	-9.1	-9.4	-9.4	14.3	-9.1	-9.4	-9.4	14.3	-9.5	-11.6	-11.6	14.3
Exposure Category C												
1:12	-9.1	-17.4	-27.9	32.2	-10.7	-20.3	-32.3	32.2	-12.6	-23.6	-37.4	32.2
2:12	-8.7	-16.4	-25.8	30.3	-9.5	-19.1	-29.9	30.3	-11.2	-22.2	-34.7	30.3
3:12	-8.8	-16.4	-25.8	28.2	-9.5	-19.1	-29.9	28.2	-11.2	-22.3	-34.7	28.2
4:12	-8.8	-16.5	-25.8	26.1	-9.6	-19.2	-30.0	26.1	-11.2	-22.3	-34.7	26.1
5:12	-8.8	-16.5	-25.9	24.1	-9.6	-19.2	-30.0	24.1	-11.3	-22.3	-34.8	24.1
6:12	-8.9	-16.5	-25.9	22.2	-9.6	-19.2	-30.0	22.2	-11.3	-22.4	-34.8	22.2
7:12	-9.3	-11.4	-11.4	20.4	-10.9	-13.3	-13.3	21.0	-12.7	-15.5	-15.5	22.2
8:12	-9.3	-11.4	-11.4	18.8	-10.9	-13.3	-13.3	19.4	-12.8	-15.5	-15.5	20.7
9:12	-9.4	-11.5	-11.5	17.4	-11.0	-13.4	-13.4	18.0	-12.8	-15.6	-15.6	19.3
10:12	-9.4	-11.5	-11.5	16.2	-11.0	-13.4	-13.4	16.8	-12.8	-15.6	-15.6	18.0
11:12	-9.5	-11.5	-11.5	15.2	-11.0	-13.4	-13.4	15.8	-12.9	-15.7	-15.7	17.0
12:12	-9.5	-11.6	-11.6	14.3	-11.1	-13.5	-13.5	14.9	-12.9	-15.7	-15.7	16.1
Exposure Category D												
1:12	-11.3	-21.4	-34.0	30.1	-12.9	-24.3	-38.5	30.1	-14.8	-27.6	-43.6	30.1
2:12	-10.1	-20.2	-31.5	28.4	-11.5	-22.9	-35.6	28.4	-13.2	-26.0	-40.4	28.4
3:12	-10.1	-20.2	-31.5	26.5	-11.5	-22.9	-35.7	26.5	-13.2	-26.0	-40.4	26.5
4:12	-10.1	-20.2	-31.6	24.6	-11.6	-22.9	-35.7	24.6	-13.2	-26.0	-40.5	24.6
5:12	-10.2	-20.2	-31.6	22.8	-11.6	-23.0	-35.7	22.8	-13.2	-26.1	-40.5	22.8
6:12	-10.2	-20.3	-31.6	21.0	-11.6	-23.0	-35.8	21.0	-13.3	-26.1	-40.5	21.0
7:12	-11.5	-14.0	-14.0	20.5	-13.1	-15.9	-15.9	21.5	-14.9	-18.1	-18.1	22.8
8:12	-11.5	-14.1	-14.1	19.0	-13.1	-16.0	-16.0	20.1	-15.0	-18.2	-18.2	21.3
9:12	-11.6	-14.1	-14.1	17.8	-13.2	-16.0	-16.0	18.8	-15.0	-18.2	-18.2	20.1
10:12	-11.6	-14.1	-14.1	16.6	-13.2	-16.1	-16.1	17.7	-15.0	-18.3	-18.3	19.0
11:12	-11.7	-14.2	-14.2	15.7	-13.3	-16.1	-16.1	16.8	-15.1	-18.3	-18.3	18.0
12:12	-11.7	-14.2	-14.2	14.9	-13.3	-16.1	-16.1	15.9	-15.1	-18.3	-18.3	17.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-8.7	-14.1	-22.7	35.1	-8.7	-14.1	-22.7	35.1	-9.1	-17.4	-27.9	35.1
	2:12	-8.7	-13.3	-21.0	32.7	-8.7	-13.3	-21.0	32.7	-8.7	-16.4	-25.8	32.7
	3:12	-8.8	-13.3	-21.0	30.4	-8.8	-13.3	-21.0	30.4	-8.8	-16.4	-25.8	30.4
	4:12	-8.8	-13.3	-21.1	28.0	-8.8	-13.3	-21.1	28.0	-8.8	-16.5	-25.8	28.0
	5:12	-8.8	-13.4	-21.1	25.7	-8.8	-13.4	-21.1	25.7	-8.8	-16.5	-25.9	25.7
	6:12	-8.9	-13.4	-21.1	23.6	-8.9	-13.4	-21.1	23.6	-8.9	-16.5	-25.9	23.6
	7:12	-8.9	-9.2	-9.2	21.6	-8.9	-9.2	-9.2	21.6	-9.3	-11.4	-11.4	21.6
	8:12	-8.9	-9.2	-9.2	19.8	-8.9	-9.2	-9.2	19.8	-9.3	-11.4	-11.4	19.8
	9:12	-9.0	-9.3	-9.3	18.3	-9.0	-9.3	-9.3	18.3	-9.4	-11.5	-11.5	18.3
	10:12	-9.0	-9.3	-9.3	16.9	-9.0	-9.3	-9.3	16.9	-9.4	-11.5	-11.5	16.9
	11:12	-9.1	-9.3	-9.3	15.8	-9.1	-9.3	-9.3	15.8	-9.5	-11.5	-11.5	15.8
	12:12	-9.1	-9.4	-9.4	14.8	-9.1	-9.4	-9.4	14.8	-9.5	-11.6	-11.6	14.8
Exposure Category C	1:12	-9.1	-17.4	-27.9	35.1	-10.7	-20.3	-32.3	35.1	-12.6	-23.6	-37.4	35.1
	2:12	-8.7	-16.4	-25.8	32.7	-9.5	-19.1	-29.9	32.7	-11.2	-22.2	-34.7	32.7
	3:12	-8.8	-16.4	-25.8	30.4	-9.5	-19.1	-29.9	30.4	-11.2	-22.3	-34.7	30.4
	4:12	-8.8	-16.5	-25.8	28.0	-9.6	-19.2	-30.0	28.0	-11.2	-22.3	-34.7	28.0
	5:12	-8.8	-16.5	-25.9	25.7	-9.6	-19.2	-30.0	25.7	-11.3	-22.3	-34.8	25.7
	6:12	-8.9	-16.5	-25.9	23.6	-9.6	-19.2	-30.0	23.6	-11.3	-22.4	-34.8	23.6
	7:12	-9.3	-11.4	-11.4	21.6	-10.9	-13.3	-13.3	22.2	-12.7	-15.5	-15.5	23.4
	8:12	-9.3	-11.4	-11.4	19.8	-10.9	-13.3	-13.3	20.4	-12.8	-15.5	-15.5	21.7
	9:12	-9.4	-11.5	-11.5	18.3	-11.0	-13.4	-13.4	18.9	-12.8	-15.6	-15.6	20.1
	10:12	-9.4	-11.5	-11.5	16.9	-11.0	-13.4	-13.4	17.5	-12.8	-15.6	-15.6	18.8
	11:12	-9.5	-11.5	-11.5	15.8	-11.0	-13.4	-13.4	16.4	-12.9	-15.7	-15.7	17.6
	12:12	-9.5	-11.6	-11.6	14.8	-11.1	-13.5	-13.5	15.4	-12.9	-15.7	-15.7	16.6
Exposure Category D	1:12	-11.3	-21.4	-34.0	32.5	-12.9	-24.3	-38.5	32.5	-14.8	-27.6	-43.6	32.5
	2:12	-10.1	-20.2	-31.5	30.6	-11.5	-22.9	-35.6	30.6	-13.2	-26.0	-40.4	30.6
	3:12	-10.1	-20.2	-31.5	28.5	-11.5	-22.9	-35.7	28.5	-13.2	-26.0	-40.4	28.5
	4:12	-10.1	-20.2	-31.6	26.3	-11.6	-22.9	-35.7	26.3	-13.2	-26.0	-40.5	26.3
	5:12	-10.2	-20.2	-31.6	24.3	-11.6	-23.0	-35.7	24.3	-13.2	-26.1	-40.5	24.3
	6:12	-10.2	-20.3	-31.6	22.3	-11.6	-23.0	-35.8	22.3	-13.3	-26.1	-40.5	22.3
	7:12	-11.5	-14.0	-14.0	21.5	-13.1	-15.9	-15.9	22.6	-14.9	-18.1	-18.1	23.8
	8:12	-11.5	-14.1	-14.1	19.9	-13.1	-16.0	-16.0	21.0	-15.0	-18.2	-18.2	22.2
	9:12	-11.6	-14.1	-14.1	18.5	-13.2	-16.0	-16.0	19.6	-15.0	-18.2	-18.2	20.8
	10:12	-11.6	-14.1	-14.1	17.3	-13.2	-16.1	-16.1	18.4	-15.0	-18.3	-18.3	19.6
	11:12	-11.7	-14.2	-14.2	16.2	-13.3	-16.1	-16.1	17.3	-15.1	-18.3	-18.3	18.5
	12:12	-11.7	-14.2	-14.2	15.3	-13.3	-16.1	-16.1	16.4	-15.1	-18.3	-18.3	17.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
	3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
	4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
	5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
	6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
	7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
	8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
	9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
	10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
	11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	9.4	9.9	10.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **75 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
75 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-8.7	-14.1	-22.7	38.6	-8.7	-14.1	-22.7	38.6	-9.1	-17.4	-27.9	38.6
	2:12	-8.7	-13.3	-21.0	35.5	-8.7	-13.3	-21.0	35.5	-8.7	-16.4	-25.8	35.5
	3:12	-8.8	-13.3	-21.0	32.5	-8.8	-13.3	-21.0	32.5	-8.8	-16.4	-25.8	32.5
	4:12	-8.8	-13.3	-21.1	29.9	-8.8	-13.3	-21.1	29.9	-8.8	-16.5	-25.8	29.9
	5:12	-8.8	-13.4	-21.1	27.4	-8.8	-13.4	-21.1	27.4	-8.8	-16.5	-25.9	27.4
	6:12	-8.9	-13.4	-21.1	25.0	-8.9	-13.4	-21.1	25.0	-8.9	-16.5	-25.9	25.0
	7:12	-8.9	-9.2	-9.2	22.8	-8.9	-9.2	-9.2	22.8	-9.3	-11.4	-11.4	22.8
	8:12	-8.9	-9.2	-9.2	20.9	-8.9	-9.2	-9.2	20.9	-9.3	-11.4	-11.4	20.9
	9:12	-9.0	-9.3	-9.3	19.1	-9.0	-9.3	-9.3	19.1	-9.4	-11.5	-11.5	19.1
	10:12	-9.0	-9.3	-9.3	17.7	-9.0	-9.3	-9.3	17.7	-9.4	-11.5	-11.5	17.7
	11:12	-9.1	-9.3	-9.3	16.4	-9.1	-9.3	-9.3	16.4	-9.5	-11.5	-11.5	16.4
	12:12	-9.1	-9.4	-9.4	15.3	-9.1	-9.4	-9.4	15.3	-9.5	-11.6	-11.6	15.3
Exposure Category C	1:12	-9.1	-17.4	-27.9	38.6	-10.7	-20.3	-32.3	38.6	-12.6	-23.6	-37.4	38.6
	2:12	-8.7	-16.4	-25.8	35.5	-9.5	-19.1	-29.9	35.5	-11.2	-22.2	-34.7	35.5
	3:12	-8.8	-16.4	-25.8	32.5	-9.5	-19.1	-29.9	32.5	-11.2	-22.3	-34.7	32.5
	4:12	-8.8	-16.5	-25.8	29.9	-9.6	-19.2	-30.0	29.9	-11.2	-22.3	-34.7	29.9
	5:12	-8.8	-16.5	-25.9	27.4	-9.6	-19.2	-30.0	27.4	-11.3	-22.3	-34.8	27.4
	6:12	-8.9	-16.5	-25.9	25.0	-9.6	-19.2	-30.0	25.0	-11.3	-22.4	-34.8	25.0
	7:12	-9.3	-11.4	-11.4	22.8	-10.9	-13.3	-13.3	23.4	-12.7	-15.5	-15.5	24.6
	8:12	-9.3	-11.4	-11.4	20.9	-10.9	-13.3	-13.3	21.4	-12.8	-15.5	-15.5	22.7
	9:12	-9.4	-11.5	-11.5	19.1	-11.0	-13.4	-13.4	19.7	-12.8	-15.6	-15.6	21.0
	10:12	-9.4	-11.5	-11.5	17.7	-11.0	-13.4	-13.4	18.2	-12.8	-15.6	-15.6	19.5
	11:12	-9.5	-11.5	-11.5	16.4	-11.0	-13.4	-13.4	17.0	-12.9	-15.7	-15.7	18.2
	12:12	-9.5	-11.6	-11.6	15.3	-11.1	-13.5	-13.5	15.9	-12.9	-15.7	-15.7	17.1
Exposure Category D	1:12	-11.3	-21.4	-34.0	35.1	-12.9	-24.3	-38.5	35.1	-14.8	-27.6	-43.6	35.1
	2:12	-10.1	-20.2	-31.5	32.7	-11.5	-22.9	-35.6	32.7	-13.2	-26.0	-40.4	32.7
	3:12	-10.1	-20.2	-31.5	30.4	-11.5	-22.9	-35.7	30.4	-13.2	-26.0	-40.4	30.4
	4:12	-10.1	-20.2	-31.6	28.0	-11.6	-22.9	-35.7	28.0	-13.2	-26.0	-40.5	28.0
	5:12	-10.2	-20.2	-31.6	25.7	-11.6	-23.0	-35.7	25.7	-13.2	-26.1	-40.5	25.7
	6:12	-10.2	-20.3	-31.6	23.6	-11.6	-23.0	-35.8	23.6	-13.3	-26.1	-40.5	23.6
	7:12	-11.5	-14.0	-14.0	22.6	-13.1	-15.9	-15.9	23.7	-14.9	-18.1	-18.1	24.9
	8:12	-11.5	-14.1	-14.1	20.8	-13.1	-16.0	-16.0	21.9	-15.0	-18.2	-18.2	23.2
	9:12	-11.6	-14.1	-14.1	19.3	-13.2	-16.0	-16.0	20.4	-15.0	-18.2	-18.2	21.6
	10:12	-11.6	-14.1	-14.1	17.9	-13.2	-16.1	-16.1	19.0	-15.0	-18.3	-18.3	20.3
	11:12	-11.7	-14.2	-14.2	16.8	-13.3	-16.1	-16.1	17.8	-15.1	-18.3	-18.3	19.1
	12:12	-11.7	-14.2	-14.2	15.8	-13.3	-16.1	-16.1	16.8	-15.1	-18.3	-18.3	18.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
	2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
	3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
	4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
	5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
	6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
	7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
	8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
	9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
	10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
	11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-14.1	-22.7	45.5	-8.7	-14.1	-22.7	45.5	-9.1	-17.4	-27.9	45.5
2:12	-8.7	-13.3	-21.0	41.9	-8.7	-13.3	-21.0	41.9	-8.7	-16.4	-25.8	41.9
3:12	-8.8	-13.3	-21.0	37.8	-8.8	-13.3	-21.0	37.8	-8.8	-16.4	-25.8	37.8
4:12	-8.8	-13.3	-21.1	33.6	-8.8	-13.3	-21.1	33.6	-8.8	-16.5	-25.8	33.6
5:12	-8.8	-13.4	-21.1	30.6	-8.8	-13.4	-21.1	30.6	-8.8	-16.5	-25.9	30.6
6:12	-8.9	-13.4	-21.1	27.8	-8.9	-13.4	-21.1	27.8	-8.9	-16.5	-25.9	27.8
7:12	-8.9	-9.2	-9.2	25.2	-8.9	-9.2	-9.2	25.2	-9.3	-11.4	-11.4	25.2
8:12	-8.9	-9.2	-9.2	22.9	-8.9	-9.2	-9.2	22.9	-9.3	-11.4	-11.4	22.9
9:12	-9.0	-9.3	-9.3	20.9	-9.0	-9.3	-9.3	20.9	-9.4	-11.5	-11.5	20.9
10:12	-9.0	-9.3	-9.3	19.1	-9.0	-9.3	-9.3	19.1	-9.4	-11.5	-11.5	19.1
11:12	-9.1	-9.3	-9.3	17.6	-9.1	-9.3	-9.3	17.6	-9.5	-11.5	-11.5	17.6
12:12	-9.1	-9.4	-9.4	16.3	-9.1	-9.4	-9.4	16.3	-9.5	-11.6	-11.6	16.3
Exposure Category C												
1:12	-9.1	-17.4	-27.9	45.5	-10.7	-20.3	-32.3	45.5	-12.6	-23.6	-37.4	45.5
2:12	-8.7	-16.4	-25.8	41.9	-9.5	-19.1	-29.9	41.9	-11.2	-22.2	-34.7	41.9
3:12	-8.8	-16.4	-25.8	37.8	-9.5	-19.1	-29.9	37.8	-11.2	-22.3	-34.7	37.8
4:12	-8.8	-16.5	-25.8	33.6	-9.6	-19.2	-30.0	33.6	-11.2	-22.3	-34.7	33.6
5:12	-8.8	-16.5	-25.9	30.6	-9.6	-19.2	-30.0	30.6	-11.3	-22.3	-34.8	30.6
6:12	-8.9	-16.5	-25.9	27.8	-9.6	-19.2	-30.0	27.8	-11.3	-22.4	-34.8	27.8
7:12	-9.3	-11.4	-11.4	25.2	-10.9	-13.3	-13.3	25.8	-12.7	-15.5	-15.5	27.0
8:12	-9.3	-11.4	-11.4	22.9	-10.9	-13.3	-13.3	23.5	-12.8	-15.5	-15.5	24.7
9:12	-9.4	-11.5	-11.5	20.9	-11.0	-13.4	-13.4	21.5	-12.8	-15.6	-15.6	22.7
10:12	-9.4	-11.5	-11.5	19.1	-11.0	-13.4	-13.4	19.7	-12.8	-15.6	-15.6	20.9
11:12	-9.5	-11.5	-11.5	17.6	-11.0	-13.4	-13.4	18.2	-12.9	-15.7	-15.7	19.4
12:12	-9.5	-11.6	-11.6	16.3	-11.1	-13.5	-13.5	16.9	-12.9	-15.7	-15.7	18.1
Exposure Category D												
1:12	-11.3	-21.4	-34.0	41.4	-12.9	-24.3	-38.5	41.4	-14.8	-27.6	-43.6	41.4
2:12	-10.1	-20.2	-31.5	38.0	-11.5	-22.9	-35.6	38.0	-13.2	-26.0	-40.4	38.0
3:12	-10.1	-20.2	-31.5	34.4	-11.5	-22.9	-35.7	34.4	-13.2	-26.0	-40.4	34.4
4:12	-10.1	-20.2	-31.6	31.4	-11.6	-22.9	-35.7	31.4	-13.2	-26.0	-40.5	31.4
5:12	-10.2	-20.2	-31.6	28.7	-11.6	-23.0	-35.7	28.7	-13.2	-26.1	-40.5	28.7
6:12	-10.2	-20.3	-31.6	26.1	-11.6	-23.0	-35.8	26.1	-13.3	-26.1	-40.5	26.1
7:12	-11.5	-14.0	-14.0	24.8	-13.1	-15.9	-15.9	25.8	-14.9	-18.1	-18.1	27.1
8:12	-11.5	-14.1	-14.1	22.7	-13.1	-16.0	-16.0	23.7	-15.0	-18.2	-18.2	25.0
9:12	-11.6	-14.1	-14.1	20.8	-13.2	-16.0	-16.0	21.9	-15.0	-18.2	-18.2	23.1
10:12	-11.6	-14.1	-14.1	19.2	-13.2	-16.1	-16.1	20.3	-15.0	-18.3	-18.3	21.6
11:12	-11.7	-14.2	-14.2	17.9	-13.3	-16.1	-16.1	18.9	-15.1	-18.3	-18.3	20.2
12:12	-11.7	-14.2	-14.2	16.7	-13.3	-16.1	-16.1	17.8	-15.1	-18.3	-18.3	19.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **75 mph**

Ground Snow Load **60 psf**

Up and Down (psf)

Basic Wind Speed
75 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-14.1	-22.7	52.5	-8.7	-14.1	-22.7	52.5	-9.1	-17.4	-27.9	52.5
2:12	-8.7	-13.3	-21.0	48.2	-8.7	-13.3	-21.0	48.2	-8.7	-16.4	-25.8	48.2
3:12	-8.8	-13.3	-21.0	43.4	-8.8	-13.3	-21.0	43.4	-8.8	-16.4	-25.8	43.4
4:12	-8.8	-13.3	-21.1	38.6	-8.8	-13.3	-21.1	38.6	-8.8	-16.5	-25.8	38.6
5:12	-8.8	-13.4	-21.1	34.0	-8.8	-13.4	-21.1	34.0	-8.8	-16.5	-25.9	34.0
6:12	-8.9	-13.4	-21.1	30.6	-8.9	-13.4	-21.1	30.6	-8.9	-16.5	-25.9	30.6
7:12	-8.9	-9.2	-9.2	27.6	-8.9	-9.2	-9.2	27.6	-9.3	-11.4	-11.4	27.6
8:12	-8.9	-9.2	-9.2	24.9	-8.9	-9.2	-9.2	24.9	-9.3	-11.4	-11.4	24.9
9:12	-9.0	-9.3	-9.3	22.6	-9.0	-9.3	-9.3	22.6	-9.4	-11.5	-11.5	22.6
10:12	-9.0	-9.3	-9.3	20.5	-9.0	-9.3	-9.3	20.5	-9.4	-11.5	-11.5	20.5
11:12	-9.1	-9.3	-9.3	18.8	-9.1	-9.3	-9.3	18.8	-9.5	-11.5	-11.5	18.8
12:12	-9.1	-9.4	-9.4	17.3	-9.1	-9.4	-9.4	17.3	-9.5	-11.6	-11.6	17.3
1:12	-9.1	-17.4	-27.9	52.5	-10.7	-20.3	-32.3	52.5	-12.6	-23.6	-37.4	52.5
2:12	-8.7	-16.4	-25.8	48.2	-9.5	-19.1	-29.9	48.2	-11.2	-22.2	-34.7	48.2
3:12	-8.8	-16.4	-25.8	43.4	-9.5	-19.1	-29.9	43.4	-11.2	-22.3	-34.7	43.4
4:12	-8.8	-16.5	-25.8	38.6	-9.6	-19.2	-30.0	38.6	-11.2	-22.3	-34.7	38.6
5:12	-8.8	-16.5	-25.9	34.0	-9.6	-19.2	-30.0	34.0	-11.3	-22.3	-34.8	34.0
6:12	-8.9	-16.5	-25.9	30.6	-9.6	-19.2	-30.0	30.6	-11.3	-22.4	-34.8	30.6
7:12	-9.3	-11.4	-11.4	27.6	-10.9	-13.3	-13.3	28.2	-12.7	-15.5	-15.5	29.4
8:12	-9.3	-11.4	-11.4	24.9	-10.9	-13.3	-13.3	25.5	-12.8	-15.5	-15.5	26.7
9:12	-9.4	-11.5	-11.5	22.6	-11.0	-13.4	-13.4	23.2	-12.8	-15.6	-15.6	24.4
10:12	-9.4	-11.5	-11.5	20.5	-11.0	-13.4	-13.4	21.1	-12.8	-15.6	-15.6	22.4
11:12	-9.5	-11.5	-11.5	18.8	-11.0	-13.4	-13.4	19.4	-12.9	-15.7	-15.7	20.6
12:12	-9.5	-11.6	-11.6	17.3	-11.1	-13.5	-13.5	17.9	-12.9	-15.7	-15.7	19.1
1:12	-11.3	-21.4	-34.0	47.6	-12.9	-24.3	-38.5	47.6	-14.8	-27.6	-43.6	47.6
2:12	-10.1	-20.2	-31.5	43.8	-11.5	-22.9	-35.6	43.8	-13.2	-26.0	-40.4	43.8
3:12	-10.1	-20.2	-31.5	39.5	-11.5	-22.9	-35.7	39.5	-13.2	-26.0	-40.4	39.5
4:12	-10.1	-20.2	-31.6	35.1	-11.6	-22.9	-35.7	35.1	-13.2	-26.0	-40.5	35.1
5:12	-10.2	-20.2	-31.6	31.6	-11.6	-23.0	-35.7	31.6	-13.2	-26.1	-40.5	31.6
6:12	-10.2	-20.3	-31.6	28.6	-11.6	-23.0	-35.8	28.6	-13.3	-26.1	-40.5	28.6
7:12	-11.5	-14.0	-14.0	26.9	-13.1	-15.9	-15.9	28.0	-14.9	-18.1	-18.1	29.2
8:12	-11.5	-14.1	-14.1	24.5	-13.1	-16.0	-16.0	25.6	-15.0	-18.2	-18.2	26.8
9:12	-11.6	-14.1	-14.1	22.4	-13.2	-16.0	-16.0	23.5	-15.0	-18.2	-18.2	24.7
10:12	-11.6	-14.1	-14.1	20.5	-13.2	-16.1	-16.1	21.6	-15.0	-18.3	-18.3	22.8
11:12	-11.7	-14.2	-14.2	18.9	-13.3	-16.1	-16.1	20.0	-15.1	-18.3	-18.3	21.3
12:12	-11.7	-14.2	-14.2	17.6	-13.3	-16.1	-16.1	18.7	-15.1	-18.3	-18.3	19.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
75 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-14.1	-22.7	59.4	-8.7	-14.1	-22.7	59.4	-9.1	-17.4	-27.9	59.4
2:12	-8.7	-13.3	-21.0	54.5	-8.7	-13.3	-21.0	54.5	-8.7	-16.4	-25.8	54.5
3:12	-8.8	-13.3	-21.0	49.1	-8.8	-13.3	-21.0	49.1	-8.8	-16.4	-25.8	49.1
4:12	-8.8	-13.3	-21.1	43.6	-8.8	-13.3	-21.1	43.6	-8.8	-16.5	-25.8	43.6
5:12	-8.8	-13.4	-21.1	38.3	-8.8	-13.4	-21.1	38.3	-8.8	-16.5	-25.9	38.3
6:12	-8.9	-13.4	-21.1	33.4	-8.9	-13.4	-21.1	33.4	-8.9	-16.5	-25.9	33.4
7:12	-8.9	-9.2	-9.2	30.0	-8.9	-9.2	-9.2	30.0	-9.3	-11.4	-11.4	30.0
8:12	-8.9	-9.2	-9.2	26.9	-8.9	-9.2	-9.2	26.9	-9.3	-11.4	-11.4	26.9
9:12	-9.0	-9.3	-9.3	24.3	-9.0	-9.3	-9.3	24.3	-9.4	-11.5	-11.5	24.3
10:12	-9.0	-9.3	-9.3	22.0	-9.0	-9.3	-9.3	22.0	-9.4	-11.5	-11.5	22.0
11:12	-9.1	-9.3	-9.3	20.0	-9.1	-9.3	-9.3	20.0	-9.5	-11.5	-11.5	20.0
12:12	-9.1	-9.4	-9.4	18.3	-9.1	-9.4	-9.4	18.3	-9.5	-11.6	-11.6	18.3
Exposure Category C												
1:12	-9.1	-17.4	-27.9	59.4	-10.7	-20.3	-32.3	59.4	-12.6	-23.6	-37.4	59.4
2:12	-8.7	-16.4	-25.8	54.5	-9.5	-19.1	-29.9	54.5	-11.2	-22.2	-34.7	54.5
3:12	-8.8	-16.4	-25.8	49.1	-9.5	-19.1	-29.9	49.1	-11.2	-22.3	-34.7	49.1
4:12	-8.8	-16.5	-25.8	43.6	-9.6	-19.2	-30.0	43.6	-11.2	-22.3	-34.7	43.6
5:12	-8.8	-16.5	-25.9	38.3	-9.6	-19.2	-30.0	38.3	-11.3	-22.3	-34.8	38.3
6:12	-8.9	-16.5	-25.9	33.4	-9.6	-19.2	-30.0	33.4	-11.3	-22.4	-34.8	33.4
7:12	-9.3	-11.4	-11.4	30.0	-10.9	-13.3	-13.3	30.6	-12.7	-15.5	-15.5	31.8
8:12	-9.3	-11.4	-11.4	26.9	-10.9	-13.3	-13.3	27.5	-12.8	-15.5	-15.5	28.8
9:12	-9.4	-11.5	-11.5	24.3	-11.0	-13.4	-13.4	24.9	-12.8	-15.6	-15.6	26.1
10:12	-9.4	-11.5	-11.5	22.0	-11.0	-13.4	-13.4	22.6	-12.8	-15.6	-15.6	23.8
11:12	-9.5	-11.5	-11.5	20.0	-11.0	-13.4	-13.4	20.6	-12.9	-15.7	-15.7	21.8
12:12	-9.5	-11.6	-11.6	18.3	-11.1	-13.5	-13.5	18.9	-12.9	-15.7	-15.7	20.1
Exposure Category D												
1:12	-11.3	-21.4	-34.0	53.9	-12.9	-24.3	-38.5	53.9	-14.8	-27.6	-43.6	53.9
2:12	-10.1	-20.2	-31.5	49.5	-11.5	-22.9	-35.6	49.5	-13.2	-26.0	-40.4	49.5
3:12	-10.1	-20.2	-31.5	44.6	-11.5	-22.9	-35.7	44.6	-13.2	-26.0	-40.4	44.6
4:12	-10.1	-20.2	-31.6	39.6	-11.6	-22.9	-35.7	39.6	-13.2	-26.0	-40.5	39.6
5:12	-10.2	-20.2	-31.6	34.9	-11.6	-23.0	-35.7	34.9	-13.2	-26.1	-40.5	34.9
6:12	-10.2	-20.3	-31.6	31.1	-11.6	-23.0	-35.8	31.1	-13.3	-26.1	-40.5	31.1
7:12	-11.5	-14.0	-14.0	29.1	-13.1	-15.9	-15.9	30.2	-14.9	-18.1	-18.1	31.4
8:12	-11.5	-14.1	-14.1	26.3	-13.1	-16.0	-16.0	27.4	-15.0	-18.2	-18.2	28.6
9:12	-11.6	-14.1	-14.1	23.9	-13.2	-16.0	-16.0	25.0	-15.0	-18.2	-18.2	26.2
10:12	-11.6	-14.1	-14.1	21.8	-13.2	-16.1	-16.1	22.9	-15.0	-18.3	-18.3	24.1
11:12	-11.7	-14.2	-14.2	20.0	-13.3	-16.1	-16.1	21.1	-15.1	-18.3	-18.3	22.3
12:12	-11.7	-14.2	-14.2	18.5	-13.3	-16.1	-16.1	19.6	-15.1	-18.3	-18.3	20.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-14.1	-22.7	66.4	-8.7	-14.1	-22.7	66.4	-9.1	-17.4	-27.9	66.4
2:12	-8.7	-13.3	-21.0	60.9	-8.7	-13.3	-21.0	60.9	-8.7	-16.4	-25.8	60.9
3:12	-8.8	-13.3	-21.0	54.8	-8.8	-13.3	-21.0	54.8	-8.8	-16.4	-25.8	54.8
4:12	-8.8	-13.3	-21.1	48.6	-8.8	-13.3	-21.1	48.6	-8.8	-16.5	-25.8	48.6
5:12	-8.8	-13.4	-21.1	42.7	-8.8	-13.4	-21.1	42.7	-8.8	-16.5	-25.9	42.7
6:12	-8.9	-13.4	-21.1	37.1	-8.9	-13.4	-21.1	37.1	-8.9	-16.5	-25.9	37.1
7:12	-8.9	-9.2	-9.2	32.4	-8.9	-9.2	-9.2	32.4	-9.3	-11.4	-11.4	32.4
8:12	-8.9	-9.2	-9.2	29.0	-8.9	-9.2	-9.2	29.0	-9.3	-11.4	-11.4	29.0
9:12	-9.0	-9.3	-9.3	26.0	-9.0	-9.3	-9.3	26.0	-9.4	-11.5	-11.5	26.0
10:12	-9.0	-9.3	-9.3	23.4	-9.0	-9.3	-9.3	23.4	-9.4	-11.5	-11.5	23.4
11:12	-9.1	-9.3	-9.3	21.2	-9.1	-9.3	-9.3	21.2	-9.5	-11.5	-11.5	21.2
12:12	-9.1	-9.4	-9.4	19.3	-9.1	-9.4	-9.4	19.3	-9.5	-11.6	-11.6	19.3
Exposure Category C												
1:12	-9.1	-17.4	-27.9	66.4	-10.7	-20.3	-32.3	66.4	-12.6	-23.6	-37.4	66.4
2:12	-8.7	-16.4	-25.8	60.9	-9.5	-19.1	-29.9	60.9	-11.2	-22.2	-34.7	60.9
3:12	-8.8	-16.4	-25.8	54.8	-9.5	-19.1	-29.9	54.8	-11.2	-22.3	-34.7	54.8
4:12	-8.8	-16.5	-25.8	48.6	-9.6	-19.2	-30.0	48.6	-11.2	-22.3	-34.7	48.6
5:12	-8.8	-16.5	-25.9	42.7	-9.6	-19.2	-30.0	42.7	-11.3	-22.3	-34.8	42.7
6:12	-8.9	-16.5	-25.9	37.1	-9.6	-19.2	-30.0	37.1	-11.3	-22.4	-34.8	37.1
7:12	-9.3	-11.4	-11.4	32.4	-10.9	-13.3	-13.3	33.0	-12.7	-15.5	-15.5	34.2
8:12	-9.3	-11.4	-11.4	29.0	-10.9	-13.3	-13.3	29.6	-12.8	-15.5	-15.5	30.8
9:12	-9.4	-11.5	-11.5	26.0	-11.0	-13.4	-13.4	26.6	-12.8	-15.6	-15.6	27.8
10:12	-9.4	-11.5	-11.5	23.4	-11.0	-13.4	-13.4	24.0	-12.8	-15.6	-15.6	25.2
11:12	-9.5	-11.5	-11.5	21.2	-11.0	-13.4	-13.4	21.8	-12.9	-15.7	-15.7	23.0
12:12	-9.5	-11.6	-11.6	19.3	-11.1	-13.5	-13.5	19.9	-12.9	-15.7	-15.7	21.1
Exposure Category D												
1:12	-11.3	-21.4	-34.0	60.1	-12.9	-24.3	-38.5	60.1	-14.8	-27.6	-43.6	60.1
2:12	-10.1	-20.2	-31.5	55.2	-11.5	-22.9	-35.6	55.2	-13.2	-26.0	-40.4	55.2
3:12	-10.1	-20.2	-31.5	49.7	-11.5	-22.9	-35.7	49.7	-13.2	-26.0	-40.4	49.7
4:12	-10.1	-20.2	-31.6	44.1	-11.6	-22.9	-35.7	44.1	-13.2	-26.0	-40.5	44.1
5:12	-10.2	-20.2	-31.6	38.8	-11.6	-23.0	-35.7	38.8	-13.2	-26.1	-40.5	38.8
6:12	-10.2	-20.3	-31.6	33.8	-11.6	-23.0	-35.8	33.8	-13.3	-26.1	-40.5	33.8
7:12	-11.5	-14.0	-14.0	31.2	-13.1	-15.9	-15.9	32.3	-14.9	-18.1	-18.1	33.5
8:12	-11.5	-14.1	-14.1	28.2	-13.1	-16.0	-16.0	29.2	-15.0	-18.2	-18.2	30.5
9:12	-11.6	-14.1	-14.1	25.5	-13.2	-16.0	-16.0	26.5	-15.0	-18.2	-18.2	27.8
10:12	-11.6	-14.1	-14.1	23.1	-13.2	-16.1	-16.1	24.2	-15.0	-18.3	-18.3	25.4
11:12	-11.7	-14.2	-14.2	21.1	-13.3	-16.1	-16.1	22.2	-15.1	-18.3	-18.3	23.4
12:12	-11.7	-14.2	-14.2	19.4	-13.3	-16.1	-16.1	20.5	-15.1	-18.3	-18.3	21.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
75 mph

Ground Snow Load
90 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-14.1	-22.7	73.4	-8.7	-14.1	-22.7	73.4	-9.1	-17.4	-27.9	73.4
2:12	-8.7	-13.3	-21.0	67.2	-8.7	-13.3	-21.0	67.2	-8.7	-16.4	-25.8	67.2
3:12	-8.8	-13.3	-21.0	60.5	-8.8	-13.3	-21.0	60.5	-8.8	-16.4	-25.8	60.5
4:12	-8.8	-13.3	-21.1	53.6	-8.8	-13.3	-21.1	53.6	-8.8	-16.5	-25.8	53.6
5:12	-8.8	-13.4	-21.1	47.0	-8.8	-13.4	-21.1	47.0	-8.8	-16.5	-25.9	47.0
6:12	-8.9	-13.4	-21.1	40.9	-8.9	-13.4	-21.1	40.9	-8.9	-16.5	-25.9	40.9
7:12	-8.9	-9.2	-9.2	35.3	-8.9	-9.2	-9.2	35.3	-9.3	-11.4	-11.4	35.3
8:12	-8.9	-9.2	-9.2	31.0	-8.9	-9.2	-9.2	31.0	-9.3	-11.4	-11.4	31.0
9:12	-9.0	-9.3	-9.3	27.7	-9.0	-9.3	-9.3	27.7	-9.4	-11.5	-11.5	27.7
10:12	-9.0	-9.3	-9.3	24.8	-9.0	-9.3	-9.3	24.8	-9.4	-11.5	-11.5	24.8
11:12	-9.1	-9.3	-9.3	22.4	-9.1	-9.3	-9.3	22.4	-9.5	-11.5	-11.5	22.4
12:12	-9.1	-9.4	-9.4	20.3	-9.1	-9.4	-9.4	20.3	-9.5	-11.6	-11.6	20.3
Exposure Category C												
1:12	-9.1	-17.4	-27.9	73.4	-10.7	-20.3	-32.3	73.4	-12.6	-23.6	-37.4	73.4
2:12	-8.7	-16.4	-25.8	67.2	-9.5	-19.1	-29.9	67.2	-11.2	-22.2	-34.7	67.2
3:12	-8.8	-16.4	-25.8	60.5	-9.5	-19.1	-29.9	60.5	-11.2	-22.3	-34.7	60.5
4:12	-8.8	-16.5	-25.8	53.6	-9.6	-19.2	-30.0	53.6	-11.2	-22.3	-34.7	53.6
5:12	-8.8	-16.5	-25.9	47.0	-9.6	-19.2	-30.0	47.0	-11.3	-22.3	-34.8	47.0
6:12	-8.9	-16.5	-25.9	40.9	-9.6	-19.2	-30.0	40.9	-11.3	-22.4	-34.8	40.9
7:12	-9.3	-11.4	-11.4	35.3	-10.9	-13.3	-13.3	35.4	-12.7	-15.5	-15.5	36.6
8:12	-9.3	-11.4	-11.4	31.0	-10.9	-13.3	-13.3	31.6	-12.8	-15.5	-15.5	32.8
9:12	-9.4	-11.5	-11.5	27.7	-11.0	-13.4	-13.4	28.3	-12.8	-15.6	-15.6	29.5
10:12	-9.4	-11.5	-11.5	24.8	-11.0	-13.4	-13.4	25.4	-12.8	-15.6	-15.6	26.7
11:12	-9.5	-11.5	-11.5	22.4	-11.0	-13.4	-13.4	23.0	-12.9	-15.7	-15.7	24.2
12:12	-9.5	-11.6	-11.6	20.3	-11.1	-13.5	-13.5	20.9	-12.9	-15.7	-15.7	22.2
Exposure Category D												
1:12	-11.3	-21.4	-34.0	66.4	-12.9	-24.3	-38.5	66.4	-14.8	-27.6	-43.6	66.4
2:12	-10.1	-20.2	-31.5	60.9	-11.5	-22.9	-35.6	60.9	-13.2	-26.0	-40.4	60.9
3:12	-10.1	-20.2	-31.5	54.8	-11.5	-22.9	-35.7	54.8	-13.2	-26.0	-40.4	54.8
4:12	-10.1	-20.2	-31.6	48.6	-11.6	-22.9	-35.7	48.6	-13.2	-26.0	-40.5	48.6
5:12	-10.2	-20.2	-31.6	42.7	-11.6	-23.0	-35.7	42.7	-13.2	-26.1	-40.5	42.7
6:12	-10.2	-20.3	-31.6	37.1	-11.6	-23.0	-35.8	37.1	-13.3	-26.1	-40.5	37.1
7:12	-11.5	-14.0	-14.0	33.4	-13.1	-15.9	-15.9	34.5	-14.9	-18.1	-18.1	35.7
8:12	-11.5	-14.1	-14.1	30.0	-13.1	-16.0	-16.0	31.1	-15.0	-18.2	-18.2	32.3
9:12	-11.6	-14.1	-14.1	27.0	-13.2	-16.0	-16.0	28.1	-15.0	-18.2	-18.2	29.3
10:12	-11.6	-14.1	-14.1	24.4	-13.2	-16.1	-16.1	25.5	-15.0	-18.3	-18.3	26.7
11:12	-11.7	-14.2	-14.2	22.2	-13.3	-16.1	-16.1	23.3	-15.1	-18.3	-18.3	24.5
12:12	-11.7	-14.2	-14.2	20.3	-13.3	-16.1	-16.1	21.4	-15.1	-18.3	-18.3	22.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **75 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-16.3	-26.0	13.8	-8.7	-16.3	-26.0	13.8	-10.6	-20.0	-31.9	13.8
2:12	-8.7	-15.3	-24.1	13.8	-8.7	-15.3	-24.1	13.8	-9.4	-18.9	-29.5	13.8
3:12	-8.8	-15.3	-24.1	13.7	-8.8	-15.3	-24.1	13.7	-9.4	-18.9	-29.5	13.7
4:12	-8.8	-15.4	-24.1	13.6	-8.8	-15.4	-24.1	13.6	-9.4	-18.9	-29.6	13.6
5:12	-8.8	-15.4	-24.2	13.6	-8.8	-15.4	-24.2	13.6	-9.5	-18.9	-29.6	13.6
6:12	-8.9	-15.4	-24.2	13.4	-8.9	-15.4	-24.2	13.4	-9.5	-19.0	-29.6	13.4
7:12	-8.9	-10.6	-10.6	13.3	-8.9	-10.6	-10.6	13.3	-10.7	-13.1	-13.1	14.0
8:12	-8.9	-10.6	-10.6	13.2	-8.9	-10.6	-10.6	13.2	-10.8	-13.1	-13.1	13.9
9:12	-9.0	-10.7	-10.7	13.1	-9.0	-10.7	-10.7	13.1	-10.8	-13.2	-13.2	13.7
10:12	-9.0	-10.7	-10.7	13.0	-9.0	-10.7	-10.7	13.0	-10.9	-13.2	-13.2	13.6
11:12	-9.1	-10.8	-10.8	12.8	-9.1	-10.8	-10.8	12.8	-10.9	-13.3	-13.3	13.5
12:12	-9.1	-10.8	-10.8	12.7	-9.1	-10.8	-10.8	12.7	-10.9	-13.3	-13.3	13.4
1:12	-10.6	-20.0	-31.9	13.8	-12.4	-23.3	-36.9	13.8	-14.5	-27.0	-42.8	13.8
2:12	-9.4	-18.9	-29.5	13.8	-11.0	-21.9	-34.2	13.8	-12.9	-25.5	-39.6	13.8
3:12	-9.4	-18.9	-29.5	13.7	-11.0	-22.0	-34.2	13.7	-12.9	-25.5	-39.7	13.7
4:12	-9.4	-18.9	-29.6	13.6	-11.1	-22.0	-34.3	13.6	-12.9	-25.5	-39.7	13.6
5:12	-9.5	-18.9	-29.6	13.6	-11.1	-22.0	-34.3	13.6	-13.0	-25.6	-39.7	13.6
6:12	-9.5	-19.0	-29.6	13.4	-11.1	-22.1	-34.3	13.4	-13.0	-25.6	-39.8	13.4
7:12	-10.7	-13.1	-13.1	14.0	-12.5	-15.3	-15.3	15.6	-14.6	-17.8	-17.8	17.5
8:12	-10.8	-13.1	-13.1	13.9	-12.6	-15.3	-15.3	15.5	-14.7	-17.8	-17.8	17.4
9:12	-10.8	-13.2	-13.2	13.7	-12.6	-15.4	-15.4	15.4	-14.7	-17.9	-17.9	17.2
10:12	-10.9	-13.2	-13.2	13.6	-12.7	-15.4	-15.4	15.2	-14.8	-17.9	-17.9	17.1
11:12	-10.9	-13.3	-13.3	13.5	-12.7	-15.4	-15.4	15.1	-14.8	-17.9	-17.9	17.0
12:12	-10.9	-13.3	-13.3	13.4	-12.7	-15.5	-15.5	15.0	-14.8	-18.0	-18.0	16.9
1:12	-13.1	-24.5	-38.9	13.8	-14.9	-27.8	-44.0	13.8	-17.0	-31.6	-49.8	13.8
2:12	-11.6	-23.1	-36.0	13.8	-13.3	-26.2	-40.7	13.8	-15.2	-29.7	-46.2	13.8
3:12	-11.7	-23.1	-36.0	13.7	-13.3	-26.2	-40.8	13.7	-15.2	-29.8	-46.2	13.7
4:12	-11.7	-23.2	-36.1	13.6	-13.3	-26.2	-40.8	13.6	-15.2	-29.8	-46.2	13.6
5:12	-11.7	-23.2	-36.1	13.6	-13.4	-26.3	-40.8	13.6	-15.2	-29.8	-46.2	13.6
6:12	-11.8	-23.2	-36.1	13.4	-13.4	-26.3	-40.9	13.4	-15.3	-29.9	-46.3	13.4
7:12	-13.2	-16.1	-16.1	16.2	-15.0	-18.3	-18.3	17.9	-17.1	-20.8	-20.8	19.7
8:12	-13.3	-16.1	-16.1	16.1	-15.1	-18.3	-18.3	17.7	-17.2	-20.8	-20.8	19.6
9:12	-13.3	-16.2	-16.2	16.0	-15.1	-18.4	-18.4	17.6	-17.2	-20.9	-20.9	19.5
10:12	-13.4	-16.2	-16.2	15.9	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4
11:12	-13.4	-16.3	-16.3	15.7	-15.2	-18.4	-18.4	17.4	-17.3	-20.9	-20.9	19.3
12:12	-13.4	-16.3	-16.3	15.6	-15.2	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1

Basic Wind Speed
80 mph

Ground Snow Load
0 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-16.3	-26.0	15.1	-8.7	-16.3	-26.0	15.1	-10.6	-20.0	-31.9	15.1
2:12	-8.7	-15.3	-24.1	14.7	-8.7	-15.3	-24.1	14.7	-9.4	-18.9	-29.5	14.7
3:12	-8.8	-15.3	-24.1	14.3	-8.8	-15.3	-24.1	14.3	-9.4	-18.9	-29.5	14.3
4:12	-8.8	-15.4	-24.1	13.6	-8.8	-15.4	-24.1	13.6	-9.4	-18.9	-29.6	13.6
5:12	-8.8	-15.4	-24.2	13.6	-8.8	-15.4	-24.2	13.6	-9.5	-18.9	-29.6	13.6
6:12	-8.9	-15.4	-24.2	13.4	-8.9	-15.4	-24.2	13.4	-9.5	-19.0	-29.6	13.4
7:12	-8.9	-10.6	-10.6	13.3	-8.9	-10.6	-10.6	13.3	-10.7	-13.1	-13.1	14.0
8:12	-8.9	-10.6	-10.6	13.2	-8.9	-10.6	-10.6	13.2	-10.8	-13.1	-13.1	13.9
9:12	-9.0	-10.7	-10.7	13.1	-9.0	-10.7	-10.7	13.1	-10.8	-13.2	-13.2	13.7
10:12	-9.0	-10.7	-10.7	13.0	-9.0	-10.7	-10.7	13.0	-10.9	-13.2	-13.2	13.6
11:12	-9.1	-10.8	-10.8	12.8	-9.1	-10.8	-10.8	12.8	-10.9	-13.3	-13.3	13.5
12:12	-9.1	-10.8	-10.8	12.7	-9.1	-10.8	-10.8	12.7	-10.9	-13.3	-13.3	13.4
1:12	-10.6	-20.0	-31.9	15.1	-12.4	-23.3	-36.9	15.1	-14.5	-27.0	-42.8	15.1
2:12	-9.4	-18.9	-29.5	14.7	-11.0	-21.9	-34.2	14.7	-12.9	-25.5	-39.6	14.7
3:12	-9.4	-18.9	-29.5	14.3	-11.0	-22.0	-34.2	14.3	-12.9	-25.5	-39.7	14.3
4:12	-9.4	-18.9	-29.6	13.6	-11.1	-22.0	-34.3	13.6	-12.9	-25.5	-39.7	13.6
5:12	-9.5	-18.9	-29.6	13.6	-11.1	-22.0	-34.3	13.6	-13.0	-25.6	-39.7	13.6
6:12	-9.5	-19.0	-29.6	13.4	-11.1	-22.1	-34.3	13.4	-13.0	-25.6	-39.8	13.4
7:12	-10.7	-13.1	-13.1	14.0	-12.5	-15.3	-15.3	15.6	-14.6	-17.8	-17.8	17.5
8:12	-10.8	-13.1	-13.1	13.9	-12.6	-15.3	-15.3	15.5	-14.7	-17.8	-17.8	17.4
9:12	-10.8	-13.2	-13.2	13.7	-12.6	-15.4	-15.4	15.4	-14.7	-17.9	-17.9	17.2
10:12	-10.9	-13.2	-13.2	13.6	-12.7	-15.4	-15.4	15.2	-14.8	-17.9	-17.9	17.1
11:12	-10.9	-13.3	-13.3	13.5	-12.7	-15.4	-15.4	15.1	-14.8	-17.9	-17.9	17.0
12:12	-10.9	-13.3	-13.3	13.4	-12.7	-15.5	-15.5	15.0	-14.8	-18.0	-18.0	16.9
1:12	-13.1	-24.5	-38.9	15.1	-14.9	-27.8	-44.0	15.1	-17.0	-31.6	-49.8	15.1
2:12	-11.6	-23.1	-36.0	14.7	-13.3	-26.2	-40.7	14.7	-15.2	-29.7	-46.2	14.7
3:12	-11.7	-23.1	-36.0	14.3	-13.3	-26.2	-40.8	14.3	-15.2	-29.8	-46.2	14.3
4:12	-11.7	-23.2	-36.1	13.6	-13.3	-26.2	-40.8	13.6	-15.2	-29.8	-46.2	13.6
5:12	-11.7	-23.2	-36.1	13.6	-13.4	-26.3	-40.8	13.6	-15.2	-29.8	-46.2	13.6
6:12	-11.8	-23.2	-36.1	13.4	-13.4	-26.3	-40.9	13.4	-15.3	-29.9	-46.3	13.4
7:12	-13.2	-16.1	-16.1	16.2	-15.0	-18.3	-18.3	17.9	-17.1	-20.8	-20.8	19.7
8:12	-13.3	-16.1	-16.1	16.1	-15.1	-18.3	-18.3	17.7	-17.2	-20.8	-20.8	19.6
9:12	-13.3	-16.2	-16.2	16.0	-15.1	-18.4	-18.4	17.6	-17.2	-20.9	-20.9	19.5
10:12	-13.4	-16.2	-16.2	15.9	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4
11:12	-13.4	-16.3	-16.3	15.7	-15.2	-18.4	-18.4	17.4	-17.3	-20.9	-20.9	19.3
12:12	-13.4	-16.3	-16.3	15.6	-15.2	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1

Basic Wind Speed
80 mph

Ground Snow Load
5 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Table W80-S5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-16.3	-26.0	18.8	-8.7	-16.3	-26.0	18.8	-10.6	-20.0	-31.9	18.8
2:12	-8.7	-15.3	-24.1	18.1	-8.7	-15.3	-24.1	18.1	-9.4	-18.9	-29.5	18.1
3:12	-8.8	-15.3	-24.1	17.3	-8.8	-15.3	-24.1	17.3	-9.4	-18.9	-29.5	17.3
4:12	-8.8	-15.4	-24.1	14.9	-8.8	-15.4	-24.1	14.9	-9.4	-18.9	-29.6	14.9
5:12	-8.8	-15.4	-24.2	14.3	-8.8	-15.4	-24.2	14.3	-9.5	-18.9	-29.6	14.3
6:12	-8.9	-15.4	-24.2	13.7	-8.9	-15.4	-24.2	13.7	-9.5	-19.0	-29.6	13.7
7:12	-8.9	-10.6	-10.6	13.3	-8.9	-10.6	-10.6	13.3	-10.7	-13.1	-13.1	14.0
8:12	-8.9	-10.6	-10.6	13.2	-8.9	-10.6	-10.6	13.2	-10.8	-13.1	-13.1	13.9
9:12	-9.0	-10.7	-10.7	13.1	-9.0	-10.7	-10.7	13.1	-10.8	-13.2	-13.2	13.7
10:12	-9.0	-10.7	-10.7	13.0	-9.0	-10.7	-10.7	13.0	-10.9	-13.2	-13.2	13.6
11:12	-9.1	-10.8	-10.8	12.8	-9.1	-10.8	-10.8	12.8	-10.9	-13.3	-13.3	13.5
12:12	-9.1	-10.8	-10.8	12.7	-9.1	-10.8	-10.8	12.7	-10.9	-13.3	-13.3	13.4
Exposure Category C												
1:12	-10.6	-20.0	-31.9	18.8	-12.4	-23.3	-36.9	18.8	-14.5	-27.0	-42.8	18.8
2:12	-9.4	-18.9	-29.5	18.1	-11.0	-21.9	-34.2	18.1	-12.9	-25.5	-39.6	18.1
3:12	-9.4	-18.9	-29.5	17.3	-11.0	-22.0	-34.2	17.3	-12.9	-25.5	-39.7	17.3
4:12	-9.4	-18.9	-29.6	14.9	-11.1	-22.0	-34.3	14.9	-12.9	-25.5	-39.7	14.9
5:12	-9.5	-18.9	-29.6	14.3	-11.1	-22.0	-34.3	14.3	-13.0	-25.6	-39.7	14.3
6:12	-9.5	-19.0	-29.6	13.7	-11.1	-22.1	-34.3	13.7	-13.0	-25.6	-39.8	13.7
7:12	-10.7	-13.1	-13.1	14.0	-12.5	-15.3	-15.3	15.6	-14.6	-17.8	-17.8	17.5
8:12	-10.8	-13.1	-13.1	13.9	-12.6	-15.3	-15.3	15.5	-14.7	-17.8	-17.8	17.4
9:12	-10.8	-13.2	-13.2	13.7	-12.6	-15.4	-15.4	15.4	-14.7	-17.9	-17.9	17.2
10:12	-10.9	-13.2	-13.2	13.6	-12.7	-15.4	-15.4	15.2	-14.8	-17.9	-17.9	17.1
11:12	-10.9	-13.3	-13.3	13.5	-12.7	-15.4	-15.4	15.1	-14.8	-17.9	-17.9	17.0
12:12	-10.9	-13.3	-13.3	13.4	-12.7	-15.5	-15.5	15.0	-14.8	-18.0	-18.0	16.9
Exposure Category D												
1:12	-13.1	-24.5	-38.9	18.8	-14.9	-27.8	-44.0	18.8	-17.0	-31.6	-49.8	18.8
2:12	-11.6	-23.1	-36.0	18.1	-13.3	-26.2	-40.7	18.1	-15.2	-29.7	-46.2	18.1
3:12	-11.7	-23.1	-36.0	17.3	-13.3	-26.2	-40.8	17.3	-15.2	-29.8	-46.2	17.3
4:12	-11.7	-23.2	-36.1	14.5	-13.3	-26.2	-40.8	14.5	-15.2	-29.8	-46.2	14.5
5:12	-11.7	-23.2	-36.1	14.0	-13.4	-26.3	-40.8	14.0	-15.2	-29.8	-46.2	14.0
6:12	-11.8	-23.2	-36.1	13.5	-13.4	-26.3	-40.9	13.5	-15.3	-29.9	-46.3	13.5
7:12	-13.2	-16.1	-16.1	16.2	-15.0	-18.3	-18.3	17.9	-17.1	-20.8	-20.8	19.7
8:12	-13.3	-16.1	-16.1	16.1	-15.1	-18.3	-18.3	17.7	-17.2	-20.8	-20.8	19.6
9:12	-13.3	-16.2	-16.2	16.0	-15.1	-18.4	-18.4	17.6	-17.2	-20.9	-20.9	19.5
10:12	-13.4	-16.2	-16.2	15.9	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4
11:12	-13.4	-16.3	-16.3	15.7	-15.2	-18.4	-18.4	17.4	-17.3	-20.9	-20.9	19.3
12:12	-13.4	-16.3	-16.3	15.6	-15.2	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
80 mph

Ground Snow Load
10 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-16.3	-26.0	22.5	-8.7	-16.3	-26.0	22.5	-10.6	-20.0	-31.9	22.5
2:12	-8.7	-15.3	-24.1	21.5	-8.7	-15.3	-24.1	21.5	-9.4	-18.9	-29.5	21.5
3:12	-8.8	-15.3	-24.1	20.3	-8.8	-15.3	-24.1	20.3	-9.4	-18.9	-29.5	20.3
4:12	-8.8	-15.4	-24.1	16.8	-8.8	-15.4	-24.1	16.8	-9.4	-18.9	-29.6	16.8
5:12	-8.8	-15.4	-24.2	15.9	-8.8	-15.4	-24.2	15.9	-9.5	-18.9	-29.6	15.9
6:12	-8.9	-15.4	-24.2	15.2	-8.9	-15.4	-24.2	15.2	-9.5	-19.0	-29.6	15.2
7:12	-8.9	-10.6	-10.6	14.4	-8.9	-10.6	-10.6	14.4	-10.7	-13.1	-13.1	14.9
8:12	-8.9	-10.6	-10.6	13.7	-8.9	-10.6	-10.6	13.7	-10.8	-13.1	-13.1	14.2
9:12	-9.0	-10.7	-10.7	13.1	-9.0	-10.7	-10.7	13.1	-10.8	-13.2	-13.2	13.7
10:12	-9.0	-10.7	-10.7	13.0	-9.0	-10.7	-10.7	13.0	-10.9	-13.2	-13.2	13.6
11:12	-9.1	-10.8	-10.8	12.8	-9.1	-10.8	-10.8	12.8	-10.9	-13.3	-13.3	13.5
12:12	-9.1	-10.8	-10.8	12.7	-9.1	-10.8	-10.8	12.7	-10.9	-13.3	-13.3	13.4
1:12	-10.6	-20.0	-31.9	22.5	-12.4	-23.3	-36.9	22.5	-14.5	-27.0	-42.8	22.5
2:12	-9.4	-18.9	-29.5	21.5	-11.0	-21.9	-34.2	21.5	-12.9	-25.5	-39.6	21.5
3:12	-9.4	-18.9	-29.5	20.3	-11.0	-22.0	-34.2	20.3	-12.9	-25.5	-39.7	20.3
4:12	-9.4	-18.9	-29.6	16.8	-11.1	-22.0	-34.3	16.8	-12.9	-25.5	-39.7	16.8
5:12	-9.5	-18.9	-29.6	15.9	-11.1	-22.0	-34.3	15.9	-13.0	-25.6	-39.7	15.9
6:12	-9.5	-19.0	-29.6	15.2	-11.1	-22.1	-34.3	15.2	-13.0	-25.6	-39.8	15.2
7:12	-10.7	-13.1	-13.1	14.9	-12.5	-15.3	-15.3	16.1	-14.6	-17.8	-17.8	17.5
8:12	-10.8	-13.1	-13.1	14.2	-12.6	-15.3	-15.3	15.5	-14.7	-17.8	-17.8	17.4
9:12	-10.8	-13.2	-13.2	13.7	-12.6	-15.4	-15.4	15.4	-14.7	-17.9	-17.9	17.2
10:12	-10.9	-13.2	-13.2	13.6	-12.7	-15.4	-15.4	15.2	-14.8	-17.9	-17.9	17.1
11:12	-10.9	-13.3	-13.3	13.5	-12.7	-15.4	-15.4	15.1	-14.8	-17.9	-17.9	17.0
12:12	-10.9	-13.3	-13.3	13.4	-12.7	-15.5	-15.5	15.0	-14.8	-18.0	-18.0	16.9
1:12	-13.1	-24.5	-38.9	22.5	-14.9	-27.8	-44.0	22.5	-17.0	-31.6	-49.8	22.5
2:12	-11.6	-23.1	-36.0	21.5	-13.3	-26.2	-40.7	21.5	-15.2	-29.7	-46.2	21.5
3:12	-11.7	-23.1	-36.0	20.3	-13.3	-26.2	-40.8	20.3	-15.2	-29.8	-46.2	20.3
4:12	-11.7	-23.2	-36.1	16.2	-13.3	-26.2	-40.8	16.2	-15.2	-29.8	-46.2	16.2
5:12	-11.7	-23.2	-36.1	15.5	-13.4	-26.3	-40.8	15.5	-15.2	-29.8	-46.2	15.5
6:12	-11.8	-23.2	-36.1	14.7	-13.4	-26.3	-40.9	14.7	-15.3	-29.9	-46.3	14.7
7:12	-13.2	-16.1	-16.1	16.2	-15.0	-18.3	-18.3	17.9	-17.1	-20.8	-20.8	19.7
8:12	-13.3	-16.1	-16.1	16.1	-15.1	-18.3	-18.3	17.7	-17.2	-20.8	-20.8	19.6
9:12	-13.3	-16.2	-16.2	16.0	-15.1	-18.4	-18.4	17.6	-17.2	-20.9	-20.9	19.5
10:12	-13.4	-16.2	-16.2	15.9	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4
11:12	-13.4	-16.3	-16.3	15.7	-15.2	-18.4	-18.4	17.4	-17.3	-20.9	-20.9	19.3
12:12	-13.4	-16.3	-16.3	15.6	-15.2	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1

Basic Wind Speed
80 mph

Ground Snow Load
15 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2

Lateral

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-8.7	-16.3	-26.0	26.2	-8.7	-16.3	-26.0	26.2	-10.6	-20.0	-31.9	26.2
	2:12	-8.7	-15.3	-24.1	24.9	-8.7	-15.3	-24.1	24.9	-9.4	-18.9	-29.5	24.9
	3:12	-8.8	-15.3	-24.1	23.4	-8.8	-15.3	-24.1	23.4	-9.4	-18.9	-29.5	23.4
	4:12	-8.8	-15.4	-24.1	18.6	-8.8	-15.4	-24.1	18.6	-9.4	-18.9	-29.6	18.6
	5:12	-8.8	-15.4	-24.2	17.6	-8.8	-15.4	-24.2	17.6	-9.5	-18.9	-29.6	17.6
	6:12	-8.9	-15.4	-24.2	16.6	-8.9	-15.4	-24.2	16.6	-9.5	-19.0	-29.6	16.6
	7:12	-8.9	-10.6	-10.6	15.6	-8.9	-10.6	-10.6	15.6	-10.7	-13.1	-13.1	16.1
	8:12	-8.9	-10.6	-10.6	14.8	-8.9	-10.6	-10.6	14.8	-10.8	-13.1	-13.1	15.3
	9:12	-9.0	-10.7	-10.7	14.0	-9.0	-10.7	-10.7	14.0	-10.8	-13.2	-13.2	14.5
	10:12	-9.0	-10.7	-10.7	13.3	-9.0	-10.7	-10.7	13.3	-10.9	-13.2	-13.2	13.8
	11:12	-9.1	-10.8	-10.8	12.8	-9.1	-10.8	-10.8	12.8	-10.9	-13.3	-13.3	13.5
	12:12	-9.1	-10.8	-10.8	12.7	-9.1	-10.8	-10.8	12.7	-10.9	-13.3	-13.3	13.4
Exposure Category C	1:12	-10.6	-20.0	-31.9	26.2	-12.4	-23.3	-36.9	26.2	-14.5	-27.0	-42.8	26.2
	2:12	-9.4	-18.9	-29.5	24.9	-11.0	-21.9	-34.2	24.9	-12.9	-25.5	-39.6	24.9
	3:12	-9.4	-18.9	-29.5	23.4	-11.0	-22.0	-34.2	23.4	-12.9	-25.5	-39.7	23.4
	4:12	-9.4	-18.9	-29.6	18.6	-11.1	-22.0	-34.3	18.6	-12.9	-25.5	-39.7	18.6
	5:12	-9.5	-18.9	-29.6	17.6	-11.1	-22.0	-34.3	17.6	-13.0	-25.6	-39.7	17.6
	6:12	-9.5	-19.0	-29.6	16.6	-11.1	-22.1	-34.3	16.6	-13.0	-25.6	-39.8	16.6
	7:12	-10.7	-13.1	-13.1	16.1	-12.5	-15.3	-15.3	17.3	-14.6	-17.8	-17.8	18.7
	8:12	-10.8	-13.1	-13.1	15.3	-12.6	-15.3	-15.3	16.5	-14.7	-17.8	-17.8	17.9
	9:12	-10.8	-13.2	-13.2	14.5	-12.6	-15.4	-15.4	15.7	-14.7	-17.9	-17.9	17.2
	10:12	-10.9	-13.2	-13.2	13.8	-12.7	-15.4	-15.4	15.2	-14.8	-17.9	-17.9	17.1
	11:12	-10.9	-13.3	-13.3	13.5	-12.7	-15.4	-15.4	15.1	-14.8	-17.9	-17.9	17.0
	12:12	-10.9	-13.3	-13.3	13.4	-12.7	-15.5	-15.5	15.0	-14.8	-18.0	-18.0	16.9
Exposure Category D	1:12	-13.1	-24.5	-38.9	26.2	-14.9	-27.8	-44.0	26.2	-17.0	-31.6	-49.8	26.2
	2:12	-11.6	-23.1	-36.0	24.9	-13.3	-26.2	-40.7	24.9	-15.2	-29.7	-46.2	24.9
	3:12	-11.7	-23.1	-36.0	23.4	-13.3	-26.2	-40.8	23.4	-15.2	-29.8	-46.2	23.4
	4:12	-11.7	-23.2	-36.1	17.9	-13.3	-26.2	-40.8	17.9	-15.2	-29.8	-46.2	17.9
	5:12	-11.7	-23.2	-36.1	16.9	-13.4	-26.3	-40.8	16.9	-15.2	-29.8	-46.2	16.9
	6:12	-11.8	-23.2	-36.1	16.0	-13.4	-26.3	-40.9	16.0	-15.3	-29.9	-46.3	16.0
	7:12	-13.2	-16.1	-16.1	17.3	-15.0	-18.3	-18.3	18.5	-17.1	-20.8	-20.8	19.9
	8:12	-13.3	-16.1	-16.1	16.5	-15.1	-18.3	-18.3	17.8	-17.2	-20.8	-20.8	19.6
	9:12	-13.3	-16.2	-16.2	16.0	-15.1	-18.4	-18.4	17.6	-17.2	-20.9	-20.9	19.5
	10:12	-13.4	-16.2	-16.2	15.9	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4
	11:12	-13.4	-16.3	-16.3	15.7	-15.2	-18.4	-18.4	17.4	-17.3	-20.9	-20.9	19.3
	12:12	-13.4	-16.3	-16.3	15.6	-15.2	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

80 mph

Ground Snow Load

20 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-16.3	-26.0	26.2	-8.7	-16.3	-26.0	26.2	-10.6	-20.0	-31.9	26.2
2:12	-8.7	-15.3	-24.1	24.9	-8.7	-15.3	-24.1	24.9	-9.4	-18.9	-29.5	24.9
3:12	-8.8	-15.3	-24.1	23.4	-8.8	-15.3	-24.1	23.4	-9.4	-18.9	-29.5	23.4
4:12	-8.8	-15.4	-24.1	20.5	-8.8	-15.4	-24.1	20.5	-9.4	-18.9	-29.6	20.5
5:12	-8.8	-15.4	-24.2	19.2	-8.8	-15.4	-24.2	19.2	-9.5	-18.9	-29.6	19.2
6:12	-8.9	-15.4	-24.2	18.0	-8.9	-15.4	-24.2	18.0	-9.5	-19.0	-29.6	18.0
7:12	-8.9	-10.6	-10.6	16.8	-8.9	-10.6	-10.6	16.8	-10.7	-13.1	-13.1	17.3
8:12	-8.9	-10.6	-10.6	15.8	-8.9	-10.6	-10.6	15.8	-10.8	-13.1	-13.1	16.3
9:12	-9.0	-10.7	-10.7	14.9	-9.0	-10.7	-10.7	14.9	-10.8	-13.2	-13.2	15.3
10:12	-9.0	-10.7	-10.7	14.1	-9.0	-10.7	-10.7	14.1	-10.9	-13.2	-13.2	14.5
11:12	-9.1	-10.8	-10.8	13.4	-9.1	-10.8	-10.8	13.4	-10.9	-13.3	-13.3	13.8
12:12	-9.1	-10.8	-10.8	12.7	-9.1	-10.8	-10.8	12.7	-10.9	-13.3	-13.3	13.4
Exposure Category C												
1:12	-10.6	-20.0	-31.9	26.2	-12.4	-23.3	-36.9	26.2	-14.5	-27.0	-42.8	26.2
2:12	-9.4	-18.9	-29.5	24.9	-11.0	-21.9	-34.2	24.9	-12.9	-25.5	-39.6	24.9
3:12	-9.4	-18.9	-29.5	23.4	-11.0	-22.0	-34.2	23.4	-12.9	-25.5	-39.7	23.4
4:12	-9.4	-18.9	-29.6	20.5	-11.1	-22.0	-34.3	20.5	-12.9	-25.5	-39.7	20.5
5:12	-9.5	-18.9	-29.6	19.2	-11.1	-22.0	-34.3	19.2	-13.0	-25.6	-39.7	19.2
6:12	-9.5	-19.0	-29.6	18.0	-11.1	-22.1	-34.3	18.0	-13.0	-25.6	-39.8	18.0
7:12	-10.7	-13.1	-13.1	17.3	-12.5	-15.3	-15.3	18.5	-14.6	-17.8	-17.8	19.9
8:12	-10.8	-13.1	-13.1	16.3	-12.6	-15.3	-15.3	17.5	-14.7	-17.8	-17.8	18.9
9:12	-10.8	-13.2	-13.2	15.3	-12.6	-15.4	-15.4	16.6	-14.7	-17.9	-17.9	18.0
10:12	-10.9	-13.2	-13.2	14.5	-12.7	-15.4	-15.4	15.8	-14.8	-17.9	-17.9	17.2
11:12	-10.9	-13.3	-13.3	13.8	-12.7	-15.4	-15.4	15.1	-14.8	-17.9	-17.9	17.0
12:12	-10.9	-13.3	-13.3	13.4	-12.7	-15.5	-15.5	15.0	-14.8	-18.0	-18.0	16.9
Exposure Category D												
1:12	-13.1	-24.5	-38.9	26.2	-14.9	-27.8	-44.0	26.2	-17.0	-31.6	-49.8	26.2
2:12	-11.6	-23.1	-36.0	24.9	-13.3	-26.2	-40.7	24.9	-15.2	-29.7	-46.2	24.9
3:12	-11.7	-23.1	-36.0	23.4	-13.3	-26.2	-40.8	23.4	-15.2	-29.8	-46.2	23.4
4:12	-11.7	-23.2	-36.1	19.6	-13.3	-26.2	-40.8	19.6	-15.2	-29.8	-46.2	19.6
5:12	-11.7	-23.2	-36.1	18.4	-13.4	-26.3	-40.8	18.4	-15.2	-29.8	-46.2	18.4
6:12	-11.8	-23.2	-36.1	17.3	-13.4	-26.3	-40.9	17.3	-15.3	-29.9	-46.3	17.3
7:12	-13.2	-16.1	-16.1	18.4	-15.0	-18.3	-18.3	19.6	-17.1	-20.8	-20.8	21.0
8:12	-13.3	-16.1	-16.1	17.5	-15.1	-18.3	-18.3	18.7	-17.2	-20.8	-20.8	20.1
9:12	-13.3	-16.2	-16.2	16.6	-15.1	-18.4	-18.4	17.8	-17.2	-20.9	-20.9	19.5
10:12	-13.4	-16.2	-16.2	15.9	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4
11:12	-13.4	-16.3	-16.3	15.7	-15.2	-18.4	-18.4	17.4	-17.3	-20.9	-20.9	19.3
12:12	-13.4	-16.3	-16.3	15.6	-15.2	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1

Basic Wind Speed
80 mph

Ground Snow Load
25 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-16.3	-26.0	27.0	-8.7	-16.3	-26.0	27.0	-10.6	-20.0	-31.9	27.0
2:12	-8.7	-15.3	-24.1	25.6	-8.7	-15.3	-24.1	25.6	-9.4	-18.9	-29.5	25.6
3:12	-8.8	-15.3	-24.1	24.0	-8.8	-15.3	-24.1	24.0	-9.4	-18.9	-29.5	24.0
4:12	-8.8	-15.4	-24.1	22.4	-8.8	-15.4	-24.1	22.4	-9.4	-18.9	-29.6	22.4
5:12	-8.8	-15.4	-24.2	20.8	-8.8	-15.4	-24.2	20.8	-9.5	-18.9	-29.6	20.8
6:12	-8.9	-15.4	-24.2	19.4	-8.9	-15.4	-24.2	19.4	-9.5	-19.0	-29.6	19.4
7:12	-8.9	-10.6	-10.6	18.0	-8.9	-10.6	-10.6	18.0	-10.7	-13.1	-13.1	18.5
8:12	-8.9	-10.6	-10.6	16.8	-8.9	-10.6	-10.6	16.8	-10.8	-13.1	-13.1	17.3
9:12	-9.0	-10.7	-10.7	15.7	-9.0	-10.7	-10.7	15.7	-10.8	-13.2	-13.2	16.2
10:12	-9.0	-10.7	-10.7	14.8	-9.0	-10.7	-10.7	14.8	-10.9	-13.2	-13.2	15.3
11:12	-9.1	-10.8	-10.8	14.0	-9.1	-10.8	-10.8	14.0	-10.9	-13.3	-13.3	14.4
12:12	-9.1	-10.8	-10.8	13.2	-9.1	-10.8	-10.8	13.2	-10.9	-13.3	-13.3	13.7
1:12	-10.6	-20.0	-31.9	27.0	-12.4	-23.3	-36.9	27.0	-14.5	-27.0	-42.8	27.0
2:12	-9.4	-18.9	-29.5	25.6	-11.0	-21.9	-34.2	25.6	-12.9	-25.5	-39.6	25.6
3:12	-9.4	-18.9	-29.5	24.0	-11.0	-22.0	-34.2	24.0	-12.9	-25.5	-39.7	24.0
4:12	-9.4	-18.9	-29.6	22.4	-11.1	-22.0	-34.3	22.4	-12.9	-25.5	-39.7	22.4
5:12	-9.5	-18.9	-29.6	20.8	-11.1	-22.0	-34.3	20.8	-13.0	-25.6	-39.7	20.8
6:12	-9.5	-19.0	-29.6	19.4	-11.1	-22.1	-34.3	19.4	-13.0	-25.6	-39.8	19.4
7:12	-10.7	-13.1	-13.1	18.5	-12.5	-15.3	-15.3	19.7	-14.6	-17.8	-17.8	21.1
8:12	-10.8	-13.1	-13.1	17.3	-12.6	-15.3	-15.3	18.5	-14.7	-17.8	-17.8	19.9
9:12	-10.8	-13.2	-13.2	16.2	-12.6	-15.4	-15.4	17.4	-14.7	-17.9	-17.9	18.8
10:12	-10.9	-13.2	-13.2	15.3	-12.7	-15.4	-15.4	16.5	-14.8	-17.9	-17.9	17.9
11:12	-10.9	-13.3	-13.3	14.4	-12.7	-15.4	-15.4	15.7	-14.8	-17.9	-17.9	17.1
12:12	-10.9	-13.3	-13.3	13.7	-12.7	-15.5	-15.5	15.0	-14.8	-18.0	-18.0	16.9
1:12	-13.1	-24.5	-38.9	26.2	-14.9	-27.8	-44.0	26.2	-17.0	-31.6	-49.8	26.2
2:12	-11.6	-23.1	-36.0	24.9	-13.3	-26.2	-40.7	24.9	-15.2	-29.7	-46.2	24.9
3:12	-11.7	-23.1	-36.0	23.4	-13.3	-26.2	-40.8	23.4	-15.2	-29.8	-46.2	23.4
4:12	-11.7	-23.2	-36.1	21.3	-13.3	-26.2	-40.8	21.3	-15.2	-29.8	-46.2	21.3
5:12	-11.7	-23.2	-36.1	19.9	-13.4	-26.3	-40.8	19.9	-15.2	-29.8	-46.2	19.9
6:12	-11.8	-23.2	-36.1	18.5	-13.4	-26.3	-40.9	18.5	-15.3	-29.9	-46.3	18.5
7:12	-13.2	-16.1	-16.1	19.5	-15.0	-18.3	-18.3	20.7	-17.1	-20.8	-20.8	22.1
8:12	-13.3	-16.1	-16.1	18.4	-15.1	-18.3	-18.3	19.6	-17.2	-20.8	-20.8	21.0
9:12	-13.3	-16.2	-16.2	17.4	-15.1	-18.4	-18.4	18.6	-17.2	-20.9	-20.9	20.0
10:12	-13.4	-16.2	-16.2	16.5	-15.2	-18.4	-18.4	17.7	-17.3	-20.9	-20.9	19.4
11:12	-13.4	-16.3	-16.3	15.8	-15.2	-18.4	-18.4	17.4	-17.3	-20.9	-20.9	19.3
12:12	-13.4	-16.3	-16.3	15.6	-15.2	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1

Basic Wind Speed
80 mph

Ground Snow Load
30 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed **80 mph**
Ground Snow Load **35 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-16.3	-26.0	29.6	-8.7	-16.3	-26.0	29.6	-10.6	-20.0	-31.9	29.6
2:12	-8.7	-15.3	-24.1	27.9	-8.7	-15.3	-24.1	27.9	-9.4	-18.9	-29.5	27.9
3:12	-8.8	-15.3	-24.1	26.1	-8.8	-15.3	-24.1	26.1	-9.4	-18.9	-29.5	26.1
4:12	-8.8	-15.4	-24.1	24.3	-8.8	-15.4	-24.1	24.3	-9.4	-18.9	-29.6	24.3
5:12	-8.8	-15.4	-24.2	22.5	-8.8	-15.4	-24.2	22.5	-9.5	-18.9	-29.6	22.5
6:12	-8.9	-15.4	-24.2	20.8	-8.9	-15.4	-24.2	20.8	-9.5	-19.0	-29.6	20.8
7:12	-8.9	-10.6	-10.6	19.2	-8.9	-10.6	-10.6	19.2	-10.7	-13.1	-13.1	19.7
8:12	-8.9	-10.6	-10.6	17.8	-8.9	-10.6	-10.6	17.8	-10.8	-13.1	-13.1	18.3
9:12	-9.0	-10.7	-10.7	16.6	-9.0	-10.7	-10.7	16.6	-10.8	-13.2	-13.2	17.1
10:12	-9.0	-10.7	-10.7	15.5	-9.0	-10.7	-10.7	15.5	-10.9	-13.2	-13.2	16.0
11:12	-9.1	-10.8	-10.8	14.6	-9.1	-10.8	-10.8	14.6	-10.9	-13.3	-13.3	15.0
12:12	-9.1	-10.8	-10.8	13.8	-9.1	-10.8	-10.8	13.8	-10.9	-13.3	-13.3	14.2
Exposure Category C												
1:12	-10.6	-20.0	-31.9	29.6	-12.4	-23.3	-36.9	29.6	-14.5	-27.0	-42.8	29.6
2:12	-9.4	-18.9	-29.5	27.9	-11.0	-21.9	-34.2	27.9	-12.9	-25.5	-39.6	27.9
3:12	-9.4	-18.9	-29.5	26.1	-11.0	-22.0	-34.2	26.1	-12.9	-25.5	-39.7	26.1
4:12	-9.4	-18.9	-29.6	24.3	-11.1	-22.0	-34.3	24.3	-12.9	-25.5	-39.7	24.3
5:12	-9.5	-18.9	-29.6	22.5	-11.1	-22.0	-34.3	22.5	-13.0	-25.6	-39.7	22.5
6:12	-9.5	-19.0	-29.6	20.8	-11.1	-22.1	-34.3	20.8	-13.0	-25.6	-39.8	20.8
7:12	-10.7	-13.1	-13.1	19.7	-12.5	-15.3	-15.3	20.9	-14.6	-17.8	-17.8	22.3
8:12	-10.8	-13.1	-13.1	18.3	-12.6	-15.3	-15.3	19.5	-14.7	-17.8	-17.8	20.9
9:12	-10.8	-13.2	-13.2	17.1	-12.6	-15.4	-15.4	18.3	-14.7	-17.9	-17.9	19.7
10:12	-10.9	-13.2	-13.2	16.0	-12.7	-15.4	-15.4	17.2	-14.8	-17.9	-17.9	18.6
11:12	-10.9	-13.3	-13.3	15.0	-12.7	-15.4	-15.4	16.3	-14.8	-17.9	-17.9	17.7
12:12	-10.9	-13.3	-13.3	14.2	-12.7	-15.5	-15.5	15.5	-14.8	-18.0	-18.0	16.9
Exposure Category D												
1:12	-13.1	-24.5	-38.9	27.8	-14.9	-27.8	-44.0	27.8	-17.0	-31.6	-49.8	27.8
2:12	-11.6	-23.1	-36.0	26.3	-13.3	-26.2	-40.7	26.3	-15.2	-29.7	-46.2	26.3
3:12	-11.7	-23.1	-36.0	24.6	-13.3	-26.2	-40.8	24.6	-15.2	-29.8	-46.2	24.6
4:12	-11.7	-23.2	-36.1	23.0	-13.3	-26.2	-40.8	23.0	-15.2	-29.8	-46.2	23.0
5:12	-11.7	-23.2	-36.1	21.3	-13.4	-26.3	-40.8	21.3	-15.2	-29.8	-46.2	21.3
6:12	-11.8	-23.2	-36.1	19.8	-13.4	-26.3	-40.9	19.8	-15.3	-29.9	-46.3	19.8
7:12	-13.2	-16.1	-16.1	20.6	-15.0	-18.3	-18.3	21.8	-17.1	-20.8	-20.8	23.2
8:12	-13.3	-16.1	-16.1	19.3	-15.1	-18.3	-18.3	20.5	-17.2	-20.8	-20.8	21.9
9:12	-13.3	-16.2	-16.2	18.2	-15.1	-18.4	-18.4	19.4	-17.2	-20.9	-20.9	20.8
10:12	-13.4	-16.2	-16.2	17.2	-15.2	-18.4	-18.4	18.4	-17.3	-20.9	-20.9	19.8
11:12	-13.4	-16.3	-16.3	16.3	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.3
12:12	-13.4	-16.3	-16.3	15.6	-15.2	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed **80 mph**
Ground Snow Load **40 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-16.3	-26.0	32.2	-8.7	-16.3	-26.0	32.2	-10.6	-20.0	-31.9	32.2
2:12	-8.7	-15.3	-24.1	30.3	-8.7	-15.3	-24.1	30.3	-9.4	-18.9	-29.5	30.3
3:12	-8.8	-15.3	-24.1	28.2	-8.8	-15.3	-24.1	28.2	-9.4	-18.9	-29.5	28.2
4:12	-8.8	-15.4	-24.1	26.1	-8.8	-15.4	-24.1	26.1	-9.4	-18.9	-29.6	26.1
5:12	-8.8	-15.4	-24.2	24.1	-8.8	-15.4	-24.2	24.1	-9.5	-18.9	-29.6	24.1
6:12	-8.9	-15.4	-24.2	22.2	-8.9	-15.4	-24.2	22.2	-9.5	-19.0	-29.6	22.2
7:12	-8.9	-10.6	-10.6	20.4	-8.9	-10.6	-10.6	20.4	-10.7	-13.1	-13.1	20.9
8:12	-8.9	-10.6	-10.6	18.8	-8.9	-10.6	-10.6	18.8	-10.8	-13.1	-13.1	19.3
9:12	-9.0	-10.7	-10.7	17.4	-9.0	-10.7	-10.7	17.4	-10.8	-13.2	-13.2	17.9
10:12	-9.0	-10.7	-10.7	16.2	-9.0	-10.7	-10.7	16.2	-10.9	-13.2	-13.2	16.7
11:12	-9.1	-10.8	-10.8	15.2	-9.1	-10.8	-10.8	15.2	-10.9	-13.3	-13.3	15.7
12:12	-9.1	-10.8	-10.8	14.3	-9.1	-10.8	-10.8	14.3	-10.9	-13.3	-13.3	14.7
Exposure Category C												
1:12	-10.6	-20.0	-31.9	32.2	-12.4	-23.3	-36.9	32.2	-14.5	-27.0	-42.8	32.2
2:12	-9.4	-18.9	-29.5	30.3	-11.0	-21.9	-34.2	30.3	-12.9	-25.5	-39.6	30.3
3:12	-9.4	-18.9	-29.5	28.2	-11.0	-22.0	-34.2	28.2	-12.9	-25.5	-39.7	28.2
4:12	-9.4	-18.9	-29.6	26.1	-11.1	-22.0	-34.3	26.1	-12.9	-25.5	-39.7	26.1
5:12	-9.5	-18.9	-29.6	24.1	-11.1	-22.0	-34.3	24.1	-13.0	-25.6	-39.7	24.1
6:12	-9.5	-19.0	-29.6	22.2	-11.1	-22.1	-34.3	22.2	-13.0	-25.6	-39.8	22.2
7:12	-10.7	-13.1	-13.1	20.9	-12.5	-15.3	-15.3	22.1	-14.6	-17.8	-17.8	23.5
8:12	-10.8	-13.1	-13.1	19.3	-12.6	-15.3	-15.3	20.5	-14.7	-17.8	-17.8	21.9
9:12	-10.8	-13.2	-13.2	17.9	-12.6	-15.4	-15.4	19.1	-14.7	-17.9	-17.9	20.6
10:12	-10.9	-13.2	-13.2	16.7	-12.7	-15.4	-15.4	17.9	-14.8	-17.9	-17.9	19.3
11:12	-10.9	-13.3	-13.3	15.7	-12.7	-15.4	-15.4	16.9	-14.8	-17.9	-17.9	18.3
12:12	-10.9	-13.3	-13.3	14.7	-12.7	-15.5	-15.5	16.0	-14.8	-18.0	-18.0	17.4
Exposure Category D												
1:12	-13.1	-24.5	-38.9	30.1	-14.9	-27.8	-44.0	30.1	-17.0	-31.6	-49.8	30.1
2:12	-11.6	-23.1	-36.0	28.4	-13.3	-26.2	-40.7	28.4	-15.2	-29.7	-46.2	28.4
3:12	-11.7	-23.1	-36.0	26.5	-13.3	-26.2	-40.8	26.5	-15.2	-29.8	-46.2	26.5
4:12	-11.7	-23.2	-36.1	24.6	-13.3	-26.2	-40.8	24.6	-15.2	-29.8	-46.2	24.6
5:12	-11.7	-23.2	-36.1	22.8	-13.4	-26.3	-40.8	22.8	-15.2	-29.8	-46.2	22.8
6:12	-11.8	-23.2	-36.1	21.0	-13.4	-26.3	-40.9	21.0	-15.3	-29.9	-46.3	21.0
7:12	-13.2	-16.1	-16.1	21.6	-15.0	-18.3	-18.3	22.8	-17.1	-20.8	-20.8	24.3
8:12	-13.3	-16.1	-16.1	20.2	-15.1	-18.3	-18.3	21.4	-17.2	-20.8	-20.8	22.8
9:12	-13.3	-16.2	-16.2	18.9	-15.1	-18.4	-18.4	20.1	-17.2	-20.9	-20.9	21.6
10:12	-13.4	-16.2	-16.2	17.8	-15.2	-18.4	-18.4	19.0	-17.3	-20.9	-20.9	20.5
11:12	-13.4	-16.3	-16.3	16.9	-15.2	-18.4	-18.4	18.1	-17.3	-20.9	-20.9	19.5
12:12	-13.4	-16.3	-16.3	16.0	-15.2	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
80 mph
Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-16.3	-26.0	35.1	-8.7	-16.3	-26.0	35.1	-10.6	-20.0	-31.9	35.1
2:12	-8.7	-15.3	-24.1	32.7	-8.7	-15.3	-24.1	32.7	-9.4	-18.9	-29.5	32.7
3:12	-8.8	-15.3	-24.1	30.4	-8.8	-15.3	-24.1	30.4	-9.4	-18.9	-29.5	30.4
4:12	-8.8	-15.4	-24.1	28.0	-8.8	-15.4	-24.1	28.0	-9.4	-18.9	-29.6	28.0
5:12	-8.8	-15.4	-24.2	25.7	-8.8	-15.4	-24.2	25.7	-9.5	-18.9	-29.6	25.7
6:12	-8.9	-15.4	-24.2	23.6	-8.9	-15.4	-24.2	23.6	-9.5	-19.0	-29.6	23.6
7:12	-8.9	-10.6	-10.6	21.6	-8.9	-10.6	-10.6	21.6	-10.7	-13.1	-13.1	22.1
8:12	-8.9	-10.6	-10.6	19.8	-8.9	-10.6	-10.6	19.8	-10.8	-13.1	-13.1	20.3
9:12	-9.0	-10.7	-10.7	18.3	-9.0	-10.7	-10.7	18.3	-10.8	-13.2	-13.2	18.8
10:12	-9.0	-10.7	-10.7	16.9	-9.0	-10.7	-10.7	16.9	-10.9	-13.2	-13.2	17.4
11:12	-9.1	-10.8	-10.8	15.8	-9.1	-10.8	-10.8	15.8	-10.9	-13.3	-13.3	16.3
12:12	-9.1	-10.8	-10.8	14.8	-9.1	-10.8	-10.8	14.8	-10.9	-13.3	-13.3	15.3
1:12	-10.6	-20.0	-31.9	35.1	-12.4	-23.3	-36.9	35.1	-14.5	-27.0	-42.8	35.1
2:12	-9.4	-18.9	-29.5	32.7	-11.0	-21.9	-34.2	32.7	-12.9	-25.5	-39.6	32.7
3:12	-9.4	-18.9	-29.5	30.4	-11.0	-22.0	-34.2	30.4	-12.9	-25.5	-39.7	30.4
4:12	-9.4	-18.9	-29.6	28.0	-11.1	-22.0	-34.3	28.0	-12.9	-25.5	-39.7	28.0
5:12	-9.5	-18.9	-29.6	25.7	-11.1	-22.0	-34.3	25.7	-13.0	-25.6	-39.7	25.7
6:12	-9.5	-19.0	-29.6	23.6	-11.1	-22.1	-34.3	23.6	-13.0	-25.6	-39.8	23.6
7:12	-10.7	-13.1	-13.1	22.1	-12.5	-15.3	-15.3	23.3	-14.6	-17.8	-17.8	24.7
8:12	-10.8	-13.1	-13.1	20.3	-12.6	-15.3	-15.3	21.6	-14.7	-17.8	-17.8	23.0
9:12	-10.8	-13.2	-13.2	18.8	-12.6	-15.4	-15.4	20.0	-14.7	-17.9	-17.9	21.4
10:12	-10.9	-13.2	-13.2	17.4	-12.7	-15.4	-15.4	18.6	-14.8	-17.9	-17.9	20.1
11:12	-10.9	-13.3	-13.3	16.3	-12.7	-15.4	-15.4	17.5	-14.8	-17.9	-17.9	18.9
12:12	-10.9	-13.3	-13.3	15.3	-12.7	-15.5	-15.5	16.5	-14.8	-18.0	-18.0	17.9
1:12	-13.1	-24.5	-38.9	32.5	-14.9	-27.8	-44.0	32.5	-17.0	-31.6	-49.8	32.5
2:12	-11.6	-23.1	-36.0	30.6	-13.3	-26.2	-40.7	30.6	-15.2	-29.7	-46.2	30.6
3:12	-11.7	-23.1	-36.0	28.5	-13.3	-26.2	-40.8	28.5	-15.2	-29.8	-46.2	28.5
4:12	-11.7	-23.2	-36.1	26.3	-13.3	-26.2	-40.8	26.3	-15.2	-29.8	-46.2	26.3
5:12	-11.7	-23.2	-36.1	24.3	-13.4	-26.3	-40.8	24.3	-15.2	-29.8	-46.2	24.3
6:12	-11.8	-23.2	-36.1	22.3	-13.4	-26.3	-40.9	22.3	-15.3	-29.9	-46.3	22.3
7:12	-13.2	-16.1	-16.1	22.7	-15.0	-18.3	-18.3	23.9	-17.1	-20.8	-20.8	25.3
8:12	-13.3	-16.1	-16.1	21.1	-15.1	-18.3	-18.3	22.3	-17.2	-20.8	-20.8	23.7
9:12	-13.3	-16.2	-16.2	19.7	-15.1	-18.4	-18.4	20.9	-17.2	-20.9	-20.9	22.3
10:12	-13.4	-16.2	-16.2	18.5	-15.2	-18.4	-18.4	19.7	-17.3	-20.9	-20.9	21.1
11:12	-13.4	-16.3	-16.3	17.4	-15.2	-18.4	-18.4	18.6	-17.3	-20.9	-20.9	20.0
12:12	-13.4	-16.3	-16.3	16.5	-15.2	-18.5	-18.5	17.7	-17.3	-21.0	-21.0	19.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-16.3	-26.0	38.6	-8.7	-16.3	-26.0	38.6	-10.6	-20.0	-31.9	38.6
2:12	-8.7	-15.3	-24.1	35.5	-8.7	-15.3	-24.1	35.5	-9.4	-18.9	-29.5	35.5
3:12	-8.8	-15.3	-24.1	32.5	-8.8	-15.3	-24.1	32.5	-9.4	-18.9	-29.5	32.5
4:12	-8.8	-15.4	-24.1	29.9	-8.8	-15.4	-24.1	29.9	-9.4	-18.9	-29.6	29.9
5:12	-8.8	-15.4	-24.2	27.4	-8.8	-15.4	-24.2	27.4	-9.5	-18.9	-29.6	27.4
6:12	-8.9	-15.4	-24.2	25.0	-8.9	-15.4	-24.2	25.0	-9.5	-19.0	-29.6	25.0
7:12	-8.9	-10.6	-10.6	22.8	-8.9	-10.6	-10.6	22.8	-10.7	-13.1	-13.1	23.3
8:12	-8.9	-10.6	-10.6	20.9	-8.9	-10.6	-10.6	20.9	-10.8	-13.1	-13.1	21.3
9:12	-9.0	-10.7	-10.7	19.1	-9.0	-10.7	-10.7	19.1	-10.8	-13.2	-13.2	19.6
10:12	-9.0	-10.7	-10.7	17.7	-9.0	-10.7	-10.7	17.7	-10.9	-13.2	-13.2	18.1
11:12	-9.1	-10.8	-10.8	16.4	-9.1	-10.8	-10.8	16.4	-10.9	-13.3	-13.3	16.9
12:12	-9.1	-10.8	-10.8	15.3	-9.1	-10.8	-10.8	15.3	-10.9	-13.3	-13.3	15.8
1:12	-10.6	-20.0	-31.9	38.6	-12.4	-23.3	-36.9	38.6	-14.5	-27.0	-42.8	38.6
2:12	-9.4	-18.9	-29.5	35.5	-11.0	-21.9	-34.2	35.5	-12.9	-25.5	-39.6	35.5
3:12	-9.4	-18.9	-29.5	32.5	-11.0	-22.0	-34.2	32.5	-12.9	-25.5	-39.7	32.5
4:12	-9.4	-18.9	-29.6	29.9	-11.1	-22.0	-34.3	29.9	-12.9	-25.5	-39.7	29.9
5:12	-9.5	-18.9	-29.6	27.4	-11.1	-22.0	-34.3	27.4	-13.0	-25.6	-39.7	27.4
6:12	-9.5	-19.0	-29.6	25.0	-11.1	-22.1	-34.3	25.0	-13.0	-25.6	-39.8	25.0
7:12	-10.7	-13.1	-13.1	23.3	-12.5	-15.3	-15.3	24.5	-14.6	-17.8	-17.8	25.9
8:12	-10.8	-13.1	-13.1	21.3	-12.6	-15.3	-15.3	22.6	-14.7	-17.8	-17.8	24.0
9:12	-10.8	-13.2	-13.2	19.6	-12.6	-15.4	-15.4	20.9	-14.7	-17.9	-17.9	22.3
10:12	-10.9	-13.2	-13.2	18.1	-12.7	-15.4	-15.4	19.4	-14.8	-17.9	-17.9	20.8
11:12	-10.9	-13.3	-13.3	16.9	-12.7	-15.4	-15.4	18.1	-14.8	-17.9	-17.9	19.5
12:12	-10.9	-13.3	-13.3	15.8	-12.7	-15.5	-15.5	17.0	-14.8	-18.0	-18.0	18.4
1:12	-13.1	-24.5	-38.9	35.1	-14.9	-27.8	-44.0	35.1	-17.0	-31.6	-49.8	35.1
2:12	-11.6	-23.1	-36.0	32.7	-13.3	-26.2	-40.7	32.7	-15.2	-29.7	-46.2	32.7
3:12	-11.7	-23.1	-36.0	30.4	-13.3	-26.2	-40.8	30.4	-15.2	-29.8	-46.2	30.4
4:12	-11.7	-23.2	-36.1	28.0	-13.3	-26.2	-40.8	28.0	-15.2	-29.8	-46.2	28.0
5:12	-11.7	-23.2	-36.1	25.7	-13.4	-26.3	-40.8	25.7	-15.2	-29.8	-46.2	25.7
6:12	-11.8	-23.2	-36.1	23.6	-13.4	-26.3	-40.9	23.6	-15.3	-29.9	-46.3	23.6
7:12	-13.2	-16.1	-16.1	23.8	-15.0	-18.3	-18.3	25.0	-17.1	-20.8	-20.8	26.4
8:12	-13.3	-16.1	-16.1	22.0	-15.1	-18.3	-18.3	23.2	-17.2	-20.8	-20.8	24.7
9:12	-13.3	-16.2	-16.2	20.5	-15.1	-18.4	-18.4	21.7	-17.2	-20.9	-20.9	23.1
10:12	-13.4	-16.2	-16.2	19.1	-15.2	-18.4	-18.4	20.3	-17.3	-20.9	-20.9	21.7
11:12	-13.4	-16.3	-16.3	17.9	-15.2	-18.4	-18.4	19.2	-17.3	-20.9	-20.9	20.6
12:12	-13.4	-16.3	-16.3	16.9	-15.2	-18.5	-18.5	18.2	-17.3	-21.0	-21.0	19.6

Basic Wind Speed
80 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-16.3	-26.0	45.5	-8.7	-16.3	-26.0	45.5	-10.6	-20.0	-31.9	45.5
2:12	-8.7	-15.3	-24.1	41.9	-8.7	-15.3	-24.1	41.9	-9.4	-18.9	-29.5	41.9
3:12	-8.8	-15.3	-24.1	37.8	-8.8	-15.3	-24.1	37.8	-9.4	-18.9	-29.5	37.8
4:12	-8.8	-15.4	-24.1	33.6	-8.8	-15.4	-24.1	33.6	-9.4	-18.9	-29.6	33.6
5:12	-8.8	-15.4	-24.2	30.6	-8.8	-15.4	-24.2	30.6	-9.5	-18.9	-29.6	30.6
6:12	-8.9	-15.4	-24.2	27.8	-8.9	-15.4	-24.2	27.8	-9.5	-19.0	-29.6	27.8
7:12	-8.9	-10.6	-10.6	25.2	-8.9	-10.6	-10.6	25.2	-10.7	-13.1	-13.1	25.7
8:12	-8.9	-10.6	-10.6	22.9	-8.9	-10.6	-10.6	22.9	-10.8	-13.1	-13.1	23.4
9:12	-9.0	-10.7	-10.7	20.9	-9.0	-10.7	-10.7	20.9	-10.8	-13.2	-13.2	21.3
10:12	-9.0	-10.7	-10.7	19.1	-9.0	-10.7	-10.7	19.1	-10.9	-13.2	-13.2	19.6
11:12	-9.1	-10.8	-10.8	17.6	-9.1	-10.8	-10.8	17.6	-10.9	-13.3	-13.3	18.1
12:12	-9.1	-10.8	-10.8	16.3	-9.1	-10.8	-10.8	16.3	-10.9	-13.3	-13.3	16.8
1:12	-10.6	-20.0	-31.9	45.5	-12.4	-23.3	-36.9	45.5	-14.5	-27.0	-42.8	45.5
2:12	-9.4	-18.9	-29.5	41.9	-11.0	-21.9	-34.2	41.9	-12.9	-25.5	-39.6	41.9
3:12	-9.4	-18.9	-29.5	37.8	-11.0	-22.0	-34.2	37.8	-12.9	-25.5	-39.7	37.8
4:12	-9.4	-18.9	-29.6	33.6	-11.1	-22.0	-34.3	33.6	-12.9	-25.5	-39.7	33.6
5:12	-9.5	-18.9	-29.6	30.6	-11.1	-22.0	-34.3	30.6	-13.0	-25.6	-39.7	30.6
6:12	-9.5	-19.0	-29.6	27.8	-11.1	-22.1	-34.3	27.8	-13.0	-25.6	-39.8	27.8
7:12	-10.7	-13.1	-13.1	25.7	-12.5	-15.3	-15.3	26.9	-14.6	-17.8	-17.8	28.3
8:12	-10.8	-13.1	-13.1	23.4	-12.6	-15.3	-15.3	24.6	-14.7	-17.8	-17.8	26.0
9:12	-10.8	-13.2	-13.2	21.3	-12.6	-15.4	-15.4	22.6	-14.7	-17.9	-17.9	24.0
10:12	-10.9	-13.2	-13.2	19.6	-12.7	-15.4	-15.4	20.8	-14.8	-17.9	-17.9	22.2
11:12	-10.9	-13.3	-13.3	18.1	-12.7	-15.4	-15.4	19.3	-14.8	-17.9	-17.9	20.7
12:12	-10.9	-13.3	-13.3	16.8	-12.7	-15.5	-15.5	18.0	-14.8	-18.0	-18.0	19.4
1:12	-13.1	-24.5	-38.9	41.4	-14.9	-27.8	-44.0	41.4	-17.0	-31.6	-49.8	41.4
2:12	-11.6	-23.1	-36.0	38.0	-13.3	-26.2	-40.7	38.0	-15.2	-29.7	-46.2	38.0
3:12	-11.7	-23.1	-36.0	34.4	-13.3	-26.2	-40.8	34.4	-15.2	-29.8	-46.2	34.4
4:12	-11.7	-23.2	-36.1	31.4	-13.3	-26.2	-40.8	31.4	-15.2	-29.8	-46.2	31.4
5:12	-11.7	-23.2	-36.1	28.7	-13.4	-26.3	-40.8	28.7	-15.2	-29.8	-46.2	28.7
6:12	-11.8	-23.2	-36.1	26.1	-13.4	-26.3	-40.9	26.1	-15.3	-29.9	-46.3	26.1
7:12	-13.2	-16.1	-16.1	25.9	-15.0	-18.3	-18.3	27.2	-17.1	-20.8	-20.8	28.6
8:12	-13.3	-16.1	-16.1	23.8	-15.1	-18.3	-18.3	25.1	-17.2	-20.8	-20.8	26.5
9:12	-13.3	-16.2	-16.2	22.0	-15.1	-18.4	-18.4	23.2	-17.2	-20.9	-20.9	24.6
10:12	-13.4	-16.2	-16.2	20.4	-15.2	-18.4	-18.4	21.6	-17.3	-20.9	-20.9	23.0
11:12	-13.4	-16.3	-16.3	19.0	-15.2	-18.4	-18.4	20.3	-17.3	-20.9	-20.9	21.7
12:12	-13.4	-16.3	-16.3	17.9	-15.2	-18.5	-18.5	19.1	-17.3	-21.0	-21.0	20.5

Basic Wind Speed
80 mph

Ground Snow Load
60 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-16.3	-26.0	52.5	-8.7	-16.3	-26.0	52.5	-10.6	-20.0	-31.9	52.5
2:12	-8.7	-15.3	-24.1	48.2	-8.7	-15.3	-24.1	48.2	-9.4	-18.9	-29.5	48.2
3:12	-8.8	-15.3	-24.1	43.4	-8.8	-15.3	-24.1	43.4	-9.4	-18.9	-29.5	43.4
4:12	-8.8	-15.4	-24.1	38.6	-8.8	-15.4	-24.1	38.6	-9.4	-18.9	-29.6	38.6
5:12	-8.8	-15.4	-24.2	34.0	-8.8	-15.4	-24.2	34.0	-9.5	-18.9	-29.6	34.0
6:12	-8.9	-15.4	-24.2	30.6	-8.9	-15.4	-24.2	30.6	-9.5	-19.0	-29.6	30.6
7:12	-8.9	-10.6	-10.6	27.6	-8.9	-10.6	-10.6	27.6	-10.7	-13.1	-13.1	28.1
8:12	-8.9	-10.6	-10.6	24.9	-8.9	-10.6	-10.6	24.9	-10.8	-13.1	-13.1	25.4
9:12	-9.0	-10.7	-10.7	22.6	-9.0	-10.7	-10.7	22.6	-10.8	-13.2	-13.2	23.1
10:12	-9.0	-10.7	-10.7	20.5	-9.0	-10.7	-10.7	20.5	-10.9	-13.2	-13.2	21.0
11:12	-9.1	-10.8	-10.8	18.8	-9.1	-10.8	-10.8	18.8	-10.9	-13.3	-13.3	19.3
12:12	-9.1	-10.8	-10.8	17.3	-9.1	-10.8	-10.8	17.3	-10.9	-13.3	-13.3	17.8
Exposure Category C												
1:12	-10.6	-20.0	-31.9	52.5	-12.4	-23.3	-36.9	52.5	-14.5	-27.0	-42.8	52.5
2:12	-9.4	-18.9	-29.5	48.2	-11.0	-21.9	-34.2	48.2	-12.9	-25.5	-39.6	48.2
3:12	-9.4	-18.9	-29.5	43.4	-11.0	-22.0	-34.2	43.4	-12.9	-25.5	-39.7	43.4
4:12	-9.4	-18.9	-29.6	38.6	-11.1	-22.0	-34.3	38.6	-12.9	-25.5	-39.7	38.6
5:12	-9.5	-18.9	-29.6	34.0	-11.1	-22.0	-34.3	34.0	-13.0	-25.6	-39.7	34.0
6:12	-9.5	-19.0	-29.6	30.6	-11.1	-22.1	-34.3	30.6	-13.0	-25.6	-39.8	30.6
7:12	-10.7	-13.1	-13.1	28.1	-12.5	-15.3	-15.3	29.3	-14.6	-17.8	-17.8	30.7
8:12	-10.8	-13.1	-13.1	25.4	-12.6	-15.3	-15.3	26.6	-14.7	-17.8	-17.8	28.0
9:12	-10.8	-13.2	-13.2	23.1	-12.6	-15.4	-15.4	24.3	-14.7	-17.9	-17.9	25.7
10:12	-10.9	-13.2	-13.2	21.0	-12.7	-15.4	-15.4	22.2	-14.8	-17.9	-17.9	23.7
11:12	-10.9	-13.3	-13.3	19.3	-12.7	-15.4	-15.4	20.5	-14.8	-17.9	-17.9	21.9
12:12	-10.9	-13.3	-13.3	17.8	-12.7	-15.5	-15.5	19.0	-14.8	-18.0	-18.0	20.4
Exposure Category D												
1:12	-13.1	-24.5	-38.9	47.6	-14.9	-27.8	-44.0	47.6	-17.0	-31.6	-49.8	47.6
2:12	-11.6	-23.1	-36.0	43.8	-13.3	-26.2	-40.7	43.8	-15.2	-29.7	-46.2	43.8
3:12	-11.7	-23.1	-36.0	39.5	-13.3	-26.2	-40.8	39.5	-15.2	-29.8	-46.2	39.5
4:12	-11.7	-23.2	-36.1	35.1	-13.3	-26.2	-40.8	35.1	-15.2	-29.8	-46.2	35.1
5:12	-11.7	-23.2	-36.1	31.6	-13.4	-26.3	-40.8	31.6	-15.2	-29.8	-46.2	31.6
6:12	-11.8	-23.2	-36.1	28.6	-13.4	-26.3	-40.9	28.6	-15.3	-29.9	-46.3	28.6
7:12	-13.2	-16.1	-16.1	28.1	-15.0	-18.3	-18.3	29.3	-17.1	-20.8	-20.8	30.7
8:12	-13.3	-16.1	-16.1	25.7	-15.1	-18.3	-18.3	26.9	-17.2	-20.8	-20.8	28.3
9:12	-13.3	-16.2	-16.2	23.5	-15.1	-18.4	-18.4	24.8	-17.2	-20.9	-20.9	26.2
10:12	-13.4	-16.2	-16.2	21.7	-15.2	-18.4	-18.4	22.9	-17.3	-20.9	-20.9	24.3
11:12	-13.4	-16.3	-16.3	20.1	-15.2	-18.4	-18.4	21.3	-17.3	-20.9	-20.9	22.8
12:12	-13.4	-16.3	-16.3	18.8	-15.2	-18.5	-18.5	20.0	-17.3	-21.0	-21.0	21.4

Basic Wind Speed **80 mph**
Ground Snow Load **70 psf**

Side Load (psf)
Lateral

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-16.3	-26.0	59.4	-8.7	-16.3	-26.0	59.4	-10.6	-20.0	-31.9	59.4
2:12	-8.7	-15.3	-24.1	54.5	-8.7	-15.3	-24.1	54.5	-9.4	-18.9	-29.5	54.5
3:12	-8.8	-15.3	-24.1	49.1	-8.8	-15.3	-24.1	49.1	-9.4	-18.9	-29.5	49.1
4:12	-8.8	-15.4	-24.1	43.6	-8.8	-15.4	-24.1	43.6	-9.4	-18.9	-29.6	43.6
5:12	-8.8	-15.4	-24.2	38.3	-8.8	-15.4	-24.2	38.3	-9.5	-18.9	-29.6	38.3
6:12	-8.9	-15.4	-24.2	33.4	-8.9	-15.4	-24.2	33.4	-9.5	-19.0	-29.6	33.4
7:12	-8.9	-10.6	-10.6	30.0	-8.9	-10.6	-10.6	30.0	-10.7	-13.1	-13.1	30.5
8:12	-8.9	-10.6	-10.6	26.9	-8.9	-10.6	-10.6	26.9	-10.8	-13.1	-13.1	27.4
9:12	-9.0	-10.7	-10.7	24.3	-9.0	-10.7	-10.7	24.3	-10.8	-13.2	-13.2	24.8
10:12	-9.0	-10.7	-10.7	22.0	-9.0	-10.7	-10.7	22.0	-10.9	-13.2	-13.2	22.5
11:12	-9.1	-10.8	-10.8	20.0	-9.1	-10.8	-10.8	20.0	-10.9	-13.3	-13.3	20.5
12:12	-9.1	-10.8	-10.8	18.3	-9.1	-10.8	-10.8	18.3	-10.9	-13.3	-13.3	18.8
1:12	-10.6	-20.0	-31.9	59.4	-12.4	-23.3	-36.9	59.4	-14.5	-27.0	-42.8	59.4
2:12	-9.4	-18.9	-29.5	54.5	-11.0	-21.9	-34.2	54.5	-12.9	-25.5	-39.6	54.5
3:12	-9.4	-18.9	-29.5	49.1	-11.0	-22.0	-34.2	49.1	-12.9	-25.5	-39.7	49.1
4:12	-9.4	-18.9	-29.6	43.6	-11.1	-22.0	-34.3	43.6	-12.9	-25.5	-39.7	43.6
5:12	-9.5	-18.9	-29.6	38.3	-11.1	-22.0	-34.3	38.3	-13.0	-25.6	-39.7	38.3
6:12	-9.5	-19.0	-29.6	33.4	-11.1	-22.1	-34.3	33.4	-13.0	-25.6	-39.8	33.4
7:12	-10.7	-13.1	-13.1	30.5	-12.5	-15.3	-15.3	31.7	-14.6	-17.8	-17.8	33.1
8:12	-10.8	-13.1	-13.1	27.4	-12.6	-15.3	-15.3	28.7	-14.7	-17.8	-17.8	30.1
9:12	-10.8	-13.2	-13.2	24.8	-12.6	-15.4	-15.4	26.0	-14.7	-17.9	-17.9	27.4
10:12	-10.9	-13.2	-13.2	22.5	-12.7	-15.4	-15.4	23.7	-14.8	-17.9	-17.9	25.1
11:12	-10.9	-13.3	-13.3	20.5	-12.7	-15.4	-15.4	21.7	-14.8	-17.9	-17.9	23.1
12:12	-10.9	-13.3	-13.3	18.8	-12.7	-15.5	-15.5	20.0	-14.8	-18.0	-18.0	21.4
1:12	-13.1	-24.5	-38.9	53.9	-14.9	-27.8	-44.0	53.9	-17.0	-31.6	-49.8	53.9
2:12	-11.6	-23.1	-36.0	49.5	-13.3	-26.2	-40.7	49.5	-15.2	-29.7	-46.2	49.5
3:12	-11.7	-23.1	-36.0	44.6	-13.3	-26.2	-40.8	44.6	-15.2	-29.8	-46.2	44.6
4:12	-11.7	-23.2	-36.1	39.6	-13.3	-26.2	-40.8	39.6	-15.2	-29.8	-46.2	39.6
5:12	-11.7	-23.2	-36.1	34.9	-13.4	-26.3	-40.8	34.9	-15.2	-29.8	-46.2	34.9
6:12	-11.8	-23.2	-36.1	31.1	-13.4	-26.3	-40.9	31.1	-15.3	-29.9	-46.3	31.1
7:12	-13.2	-16.1	-16.1	30.3	-15.0	-18.3	-18.3	31.5	-17.1	-20.8	-20.8	32.9
8:12	-13.3	-16.1	-16.1	27.5	-15.1	-18.3	-18.3	28.7	-17.2	-20.8	-20.8	30.1
9:12	-13.3	-16.2	-16.2	25.1	-15.1	-18.4	-18.4	26.3	-17.2	-20.9	-20.9	27.7
10:12	-13.4	-16.2	-16.2	23.0	-15.2	-18.4	-18.4	24.2	-17.3	-20.9	-20.9	25.6
11:12	-13.4	-16.3	-16.3	21.2	-15.2	-18.4	-18.4	22.4	-17.3	-20.9	-20.9	23.8
12:12	-13.4	-16.3	-16.3	19.7	-15.2	-18.5	-18.5	20.9	-17.3	-21.0	-21.0	22.3

Basic Wind Speed
80 mph

Ground Snow Load
80 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Lateral

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.7	-16.3	-26.0	66.4	-8.7	-16.3	-26.0	66.4	-10.6	-20.0	-31.9	66.4
2:12	-8.7	-15.3	-24.1	60.9	-8.7	-15.3	-24.1	60.9	-9.4	-18.9	-29.5	60.9
3:12	-8.8	-15.3	-24.1	54.8	-8.8	-15.3	-24.1	54.8	-9.4	-18.9	-29.5	54.8
4:12	-8.8	-15.4	-24.1	48.6	-8.8	-15.4	-24.1	48.6	-9.4	-18.9	-29.6	48.6
5:12	-8.8	-15.4	-24.2	42.7	-8.8	-15.4	-24.2	42.7	-9.5	-18.9	-29.6	42.7
6:12	-8.9	-15.4	-24.2	37.1	-8.9	-15.4	-24.2	37.1	-9.5	-19.0	-29.6	37.1
7:12	-8.9	-10.6	-10.6	32.4	-8.9	-10.6	-10.6	32.4	-10.7	-13.1	-13.1	32.9
8:12	-8.9	-10.6	-10.6	29.0	-8.9	-10.6	-10.6	29.0	-10.8	-13.1	-13.1	29.5
9:12	-9.0	-10.7	-10.7	26.0	-9.0	-10.7	-10.7	26.0	-10.8	-13.2	-13.2	26.5
10:12	-9.0	-10.7	-10.7	23.4	-9.0	-10.7	-10.7	23.4	-10.9	-13.2	-13.2	23.9
11:12	-9.1	-10.8	-10.8	21.2	-9.1	-10.8	-10.8	21.2	-10.9	-13.3	-13.3	21.7
12:12	-9.1	-10.8	-10.8	19.3	-9.1	-10.8	-10.8	19.3	-10.9	-13.3	-13.3	19.8
1:12	-10.6	-20.0	-31.9	66.4	-12.4	-23.3	-36.9	66.4	-14.5	-27.0	-42.8	66.4
2:12	-9.4	-18.9	-29.5	60.9	-11.0	-21.9	-34.2	60.9	-12.9	-25.5	-39.6	60.9
3:12	-9.4	-18.9	-29.5	54.8	-11.0	-22.0	-34.2	54.8	-12.9	-25.5	-39.7	54.8
4:12	-9.4	-18.9	-29.6	48.6	-11.1	-22.0	-34.3	48.6	-12.9	-25.5	-39.7	48.6
5:12	-9.5	-18.9	-29.6	42.7	-11.1	-22.0	-34.3	42.7	-13.0	-25.6	-39.7	42.7
6:12	-9.5	-19.0	-29.6	37.1	-11.1	-22.1	-34.3	37.1	-13.0	-25.6	-39.8	37.1
7:12	-10.7	-13.1	-13.1	32.9	-12.5	-15.3	-15.3	34.1	-14.6	-17.8	-17.8	35.5
8:12	-10.8	-13.1	-13.1	29.5	-12.6	-15.3	-15.3	30.7	-14.7	-17.8	-17.8	32.1
9:12	-10.8	-13.2	-13.2	26.5	-12.6	-15.4	-15.4	27.7	-14.7	-17.9	-17.9	29.1
10:12	-10.9	-13.2	-13.2	23.9	-12.7	-15.4	-15.4	25.1	-14.8	-17.9	-17.9	26.5
11:12	-10.9	-13.3	-13.3	21.7	-12.7	-15.4	-15.4	22.9	-14.8	-17.9	-17.9	24.3
12:12	-10.9	-13.3	-13.3	19.8	-12.7	-15.5	-15.5	21.0	-14.8	-18.0	-18.0	22.4
1:12	-13.1	-24.5	-38.9	60.1	-14.9	-27.8	-44.0	60.1	-17.0	-31.6	-49.8	60.1
2:12	-11.6	-23.1	-36.0	55.2	-13.3	-26.2	-40.7	55.2	-15.2	-29.7	-46.2	55.2
3:12	-11.7	-23.1	-36.0	49.7	-13.3	-26.2	-40.8	49.7	-15.2	-29.8	-46.2	49.7
4:12	-11.7	-23.2	-36.1	44.1	-13.3	-26.2	-40.8	44.1	-15.2	-29.8	-46.2	44.1
5:12	-11.7	-23.2	-36.1	38.8	-13.4	-26.3	-40.8	38.8	-15.2	-29.8	-46.2	38.8
6:12	-11.8	-23.2	-36.1	33.8	-13.4	-26.3	-40.9	33.8	-15.3	-29.9	-46.3	33.8
7:12	-13.2	-16.1	-16.1	32.4	-15.0	-18.3	-18.3	33.6	-17.1	-20.8	-20.8	35.0
8:12	-13.3	-16.1	-16.1	29.3	-15.1	-18.3	-18.3	30.6	-17.2	-20.8	-20.8	32.0
9:12	-13.3	-16.2	-16.2	26.6	-15.1	-18.4	-18.4	27.9	-17.2	-20.9	-20.9	29.3
10:12	-13.4	-16.2	-16.2	24.3	-15.2	-18.4	-18.4	25.5	-17.3	-20.9	-20.9	26.9
11:12	-13.4	-16.3	-16.3	22.3	-15.2	-18.4	-18.4	23.5	-17.3	-20.9	-20.9	24.9
12:12	-13.4	-16.3	-16.3	20.6	-15.2	-18.5	-18.5	21.8	-17.3	-21.0	-21.0	23.2
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **80 mph**

Ground Snow Load **90 psf**

Up and Down (psf)

Basic Wind Speed
80 mph

Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.7	-16.3	-26.0	73.4	-8.7	-16.3	-26.0	73.4	-10.6	-20.0	-31.9	73.4
2:12	-8.7	-15.3	-24.1	67.2	-8.7	-15.3	-24.1	67.2	-9.4	-18.9	-29.5	67.2
3:12	-8.8	-15.3	-24.1	60.5	-8.8	-15.3	-24.1	60.5	-9.4	-18.9	-29.5	60.5
4:12	-8.8	-15.4	-24.1	53.6	-8.8	-15.4	-24.1	53.6	-9.4	-18.9	-29.6	53.6
5:12	-8.8	-15.4	-24.2	47.0	-8.8	-15.4	-24.2	47.0	-9.5	-18.9	-29.6	47.0
6:12	-8.9	-15.4	-24.2	40.9	-8.9	-15.4	-24.2	40.9	-9.5	-19.0	-29.6	40.9
7:12	-8.9	-10.6	-10.6	35.3	-8.9	-10.6	-10.6	35.3	-10.7	-13.1	-13.1	35.3
8:12	-8.9	-10.6	-10.6	31.0	-8.9	-10.6	-10.6	31.0	-10.8	-13.1	-13.1	31.5
9:12	-9.0	-10.7	-10.7	27.7	-9.0	-10.7	-10.7	27.7	-10.8	-13.2	-13.2	28.2
10:12	-9.0	-10.7	-10.7	24.8	-9.0	-10.7	-10.7	24.8	-10.9	-13.2	-13.2	25.3
11:12	-9.1	-10.8	-10.8	22.4	-9.1	-10.8	-10.8	22.4	-10.9	-13.3	-13.3	22.9
12:12	-9.1	-10.8	-10.8	20.3	-9.1	-10.8	-10.8	20.3	-10.9	-13.3	-13.3	20.8
Exposure Category C												
1:12	-10.6	-20.0	-31.9	73.4	-12.4	-23.3	-36.9	73.4	-14.5	-27.0	-42.8	73.4
2:12	-9.4	-18.9	-29.5	67.2	-11.0	-21.9	-34.2	67.2	-12.9	-25.5	-39.6	67.2
3:12	-9.4	-18.9	-29.5	60.5	-11.0	-22.0	-34.2	60.5	-12.9	-25.5	-39.7	60.5
4:12	-9.4	-18.9	-29.6	53.6	-11.1	-22.0	-34.3	53.6	-12.9	-25.5	-39.7	53.6
5:12	-9.5	-18.9	-29.6	47.0	-11.1	-22.0	-34.3	47.0	-13.0	-25.6	-39.7	47.0
6:12	-9.5	-19.0	-29.6	40.9	-11.1	-22.1	-34.3	40.9	-13.0	-25.6	-39.8	40.9
7:12	-10.7	-13.1	-13.1	35.3	-12.5	-15.3	-15.3	36.5	-14.6	-17.8	-17.8	37.9
8:12	-10.8	-13.1	-13.1	31.5	-12.6	-15.3	-15.3	32.7	-14.7	-17.8	-17.8	34.1
9:12	-10.8	-13.2	-13.2	28.2	-12.6	-15.4	-15.4	29.4	-14.7	-17.9	-17.9	30.8
10:12	-10.9	-13.2	-13.2	25.3	-12.7	-15.4	-15.4	26.6	-14.8	-17.9	-17.9	28.0
11:12	-10.9	-13.3	-13.3	22.9	-12.7	-15.4	-15.4	24.1	-14.8	-17.9	-17.9	25.5
12:12	-10.9	-13.3	-13.3	20.8	-12.7	-15.5	-15.5	22.0	-14.8	-18.0	-18.0	23.4
Exposure Category D												
1:12	-13.1	-24.5	-38.9	66.4	-14.9	-27.8	-44.0	66.4	-17.0	-31.6	-49.8	66.4
2:12	-11.6	-23.1	-36.0	60.9	-13.3	-26.2	-40.7	60.9	-15.2	-29.7	-46.2	60.9
3:12	-11.7	-23.1	-36.0	54.8	-13.3	-26.2	-40.8	54.8	-15.2	-29.8	-46.2	54.8
4:12	-11.7	-23.2	-36.1	48.6	-13.3	-26.2	-40.8	48.6	-15.2	-29.8	-46.2	48.6
5:12	-11.7	-23.2	-36.1	42.7	-13.4	-26.3	-40.8	42.7	-15.2	-29.8	-46.2	42.7
6:12	-11.8	-23.2	-36.1	37.1	-13.4	-26.3	-40.9	37.1	-15.3	-29.9	-46.3	37.1
7:12	-13.2	-16.1	-16.1	34.6	-15.0	-18.3	-18.3	35.8	-17.1	-20.8	-20.8	37.2
8:12	-13.3	-16.1	-16.1	31.2	-15.1	-18.3	-18.3	32.4	-17.2	-20.8	-20.8	33.8
9:12	-13.3	-16.2	-16.2	28.2	-15.1	-18.4	-18.4	29.4	-17.2	-20.9	-20.9	30.8
10:12	-13.4	-16.2	-16.2	25.6	-15.2	-18.4	-18.4	26.8	-17.3	-20.9	-20.9	28.2
11:12	-13.4	-16.3	-16.3	23.4	-15.2	-18.4	-18.4	24.6	-17.3	-20.9	-20.9	26.0
12:12	-13.4	-16.3	-16.3	21.5	-15.2	-18.5	-18.5	22.7	-17.3	-21.0	-21.0	24.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.7	-18.5	-29.5	13.8	-9.7	-18.5	-29.5	13.8	-12.1	-22.8	-36.1	13.8
2:12	-8.7	-17.4	-27.3	13.8	-8.7	-17.4	-27.3	13.8	-10.8	-21.5	-33.5	13.8
3:12	-8.8	-17.5	-27.4	13.7	-8.8	-17.5	-27.4	13.7	-10.8	-21.5	-33.5	13.7
4:12	-8.8	-17.5	-27.4	13.6	-8.8	-17.5	-27.4	13.6	-10.8	-21.5	-33.5	13.6
5:12	-8.8	-17.5	-27.4	13.6	-8.8	-17.5	-27.4	13.6	-10.8	-21.5	-33.6	13.6
6:12	-8.9	-17.6	-27.5	13.4	-8.9	-17.6	-27.5	13.4	-10.9	-21.6	-33.6	13.4
7:12	-9.9	-12.1	-12.1	13.3	-9.9	-12.1	-12.1	13.3	-12.3	-14.9	-14.9	15.4
8:12	-9.9	-12.1	-12.1	13.2	-9.9	-12.1	-12.1	13.2	-12.3	-15.0	-15.0	15.2
9:12	-10.0	-12.2	-12.2	13.1	-10.0	-12.2	-12.2	13.1	-12.3	-15.0	-15.0	15.1
10:12	-10.0	-12.2	-12.2	13.0	-10.0	-12.2	-12.2	13.0	-12.4	-15.0	-15.0	15.0
11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.4	-15.1	-15.1	14.9
12:12	-10.1	-12.3	-12.3	12.7	-10.1	-12.3	-12.3	12.7	-12.5	-15.1	-15.1	14.7
Exposure Category C												
1:12	-12.1	-22.8	-36.1	13.8	-14.1	-26.5	-41.9	13.8	-16.5	-30.7	-48.5	13.8
2:12	-10.8	-21.5	-33.5	13.8	-12.6	-24.9	-38.8	13.8	-14.7	-28.9	-44.9	13.8
3:12	-10.8	-21.5	-33.5	13.7	-12.6	-24.9	-38.8	13.7	-14.7	-29.0	-44.9	13.7
4:12	-10.8	-21.5	-33.5	13.6	-12.6	-25.0	-38.8	13.6	-14.8	-29.0	-45.0	13.6
5:12	-10.8	-21.5	-33.6	13.6	-12.7	-25.0	-38.9	13.6	-14.8	-29.0	-45.0	13.6
6:12	-10.9	-21.6	-33.6	13.4	-12.7	-25.0	-38.9	13.4	-14.8	-29.1	-45.0	13.4
7:12	-12.3	-14.9	-14.9	15.4	-14.3	-17.4	-17.4	17.2	-16.7	-20.2	-20.2	19.3
8:12	-12.3	-15.0	-15.0	15.2	-14.3	-17.4	-17.4	17.1	-16.7	-20.2	-20.2	19.2
9:12	-12.3	-15.0	-15.0	15.1	-14.4	-17.5	-17.5	16.9	-16.7	-20.3	-20.3	19.1
10:12	-12.4	-15.0	-15.0	15.0	-14.4	-17.5	-17.5	16.8	-16.8	-20.3	-20.3	18.9
11:12	-12.4	-15.1	-15.1	14.9	-14.5	-17.5	-17.5	16.7	-16.8	-20.4	-20.4	18.8
12:12	-12.5	-15.1	-15.1	14.7	-14.5	-17.6	-17.6	16.6	-16.9	-20.4	-20.4	18.7
Exposure Category D												
1:12	-14.9	-27.9	-44.1	13.8	-17.0	-31.5	-49.8	13.8	-19.3	-35.8	-56.4	13.8
2:12	-13.3	-26.3	-40.8	13.8	-15.1	-29.7	-46.1	13.8	-17.3	-33.7	-52.3	14.1
3:12	-13.3	-26.3	-40.9	13.7	-15.2	-29.8	-46.2	13.7	-17.3	-33.8	-52.3	14.0
4:12	-13.4	-26.3	-40.9	13.6	-15.2	-29.8	-46.2	13.6	-17.3	-33.8	-52.3	13.9
5:12	-13.4	-26.3	-40.9	13.6	-15.2	-29.8	-46.2	13.6	-17.4	-33.8	-52.4	13.8
6:12	-13.4	-26.4	-41.0	13.4	-15.3	-29.9	-46.3	13.4	-17.4	-33.9	-52.4	13.7
7:12	-15.1	-18.3	-18.3	17.9	-17.1	-20.8	-20.8	19.7	-19.5	-23.6	-23.6	21.9
8:12	-15.1	-18.4	-18.4	17.8	-17.2	-20.8	-20.8	19.6	-19.5	-23.6	-23.6	21.7
9:12	-15.2	-18.4	-18.4	17.7	-17.2	-20.9	-20.9	19.5	-19.6	-23.7	-23.7	21.6
10:12	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4	-19.6	-23.7	-23.7	21.5
11:12	-15.2	-18.5	-18.5	17.4	-17.3	-20.9	-20.9	19.2	-19.6	-23.8	-23.8	21.4
12:12	-15.3	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

85 mph

Ground Snow Load

0 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-9.7	-18.5	-29.5	15.1	-9.7	-18.5	-29.5	15.1	-12.1	-22.8	-36.1	15.1
	2:12	-8.7	-17.4	-27.3	14.7	-8.7	-17.4	-27.3	14.7	-10.8	-21.5	-33.5	14.7
	3:12	-8.8	-17.5	-27.4	14.3	-8.8	-17.5	-27.4	14.3	-10.8	-21.5	-33.5	14.3
	4:12	-8.8	-17.5	-27.4	13.6	-8.8	-17.5	-27.4	13.6	-10.8	-21.5	-33.5	13.6
	5:12	-8.8	-17.5	-27.4	13.6	-8.8	-17.5	-27.4	13.6	-10.8	-21.5	-33.6	13.6
	6:12	-8.9	-17.6	-27.5	13.4	-8.9	-17.6	-27.5	13.4	-10.9	-21.6	-33.6	13.4
	7:12	-9.9	-12.1	-12.1	13.3	-9.9	-12.1	-12.1	13.3	-12.3	-14.9	-14.9	15.4
	8:12	-9.9	-12.1	-12.1	13.2	-9.9	-12.1	-12.1	13.2	-12.3	-15.0	-15.0	15.2
	9:12	-10.0	-12.2	-12.2	13.1	-10.0	-12.2	-12.2	13.1	-12.3	-15.0	-15.0	15.1
	10:12	-10.0	-12.2	-12.2	13.0	-10.0	-12.2	-12.2	13.0	-12.4	-15.0	-15.0	15.0
	11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.4	-15.1	-15.1	14.9
	12:12	-10.1	-12.3	-12.3	12.7	-10.1	-12.3	-12.3	12.7	-12.5	-15.1	-15.1	14.7
Exposure Category C	1:12	-12.1	-22.8	-36.1	15.1	-14.1	-26.5	-41.9	15.1	-16.5	-30.7	-48.5	15.1
	2:12	-10.8	-21.5	-33.5	14.7	-12.6	-24.9	-38.8	14.7	-14.7	-28.9	-44.9	14.7
	3:12	-10.8	-21.5	-33.5	14.3	-12.6	-24.9	-38.8	14.3	-14.7	-29.0	-44.9	14.3
	4:12	-10.8	-21.5	-33.5	13.6	-12.6	-25.0	-38.8	13.6	-14.8	-29.0	-45.0	13.6
	5:12	-10.8	-21.5	-33.6	13.6	-12.7	-25.0	-38.9	13.6	-14.8	-29.0	-45.0	13.6
	6:12	-10.9	-21.6	-33.6	13.4	-12.7	-25.0	-38.9	13.4	-14.8	-29.1	-45.0	13.4
	7:12	-12.3	-14.9	-14.9	15.4	-14.3	-17.4	-17.4	17.2	-16.7	-20.2	-20.2	19.3
	8:12	-12.3	-15.0	-15.0	15.2	-14.3	-17.4	-17.4	17.1	-16.7	-20.2	-20.2	19.2
	9:12	-12.3	-15.0	-15.0	15.1	-14.4	-17.5	-17.5	16.9	-16.7	-20.3	-20.3	19.1
	10:12	-12.4	-15.0	-15.0	15.0	-14.4	-17.5	-17.5	16.8	-16.8	-20.3	-20.3	18.9
	11:12	-12.4	-15.1	-15.1	14.9	-14.5	-17.5	-17.5	16.7	-16.8	-20.4	-20.4	18.8
	12:12	-12.5	-15.1	-15.1	14.7	-14.5	-17.6	-17.6	16.6	-16.9	-20.4	-20.4	18.7
Exposure Category D	1:12	-14.9	-27.9	-44.1	15.1	-17.0	-31.5	-49.8	15.1	-19.3	-35.8	-56.4	15.1
	2:12	-13.3	-26.3	-40.8	14.7	-15.1	-29.7	-46.1	14.7	-17.3	-33.7	-52.3	14.9
	3:12	-13.3	-26.3	-40.9	14.3	-15.2	-29.8	-46.2	14.3	-17.3	-33.8	-52.3	14.5
	4:12	-13.4	-26.3	-40.9	13.6	-15.2	-29.8	-46.2	13.6	-17.3	-33.8	-52.3	13.9
	5:12	-13.4	-26.3	-40.9	13.6	-15.2	-29.8	-46.2	13.6	-17.4	-33.8	-52.4	13.8
	6:12	-13.4	-26.4	-41.0	13.4	-15.3	-29.9	-46.3	13.4	-17.4	-33.9	-52.4	13.7
	7:12	-15.1	-18.3	-18.3	17.9	-17.1	-20.8	-20.8	19.7	-19.5	-23.6	-23.6	21.9
	8:12	-15.1	-18.4	-18.4	17.8	-17.2	-20.8	-20.8	19.6	-19.5	-23.6	-23.6	21.7
	9:12	-15.2	-18.4	-18.4	17.7	-17.2	-20.9	-20.9	19.5	-19.6	-23.7	-23.7	21.6
	10:12	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4	-19.6	-23.7	-23.7	21.5
	11:12	-15.2	-18.5	-18.5	17.4	-17.3	-20.9	-20.9	19.2	-19.6	-23.8	-23.8	21.4
	12:12	-15.3	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
	2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
	3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
	4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
	5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
	6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
	7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
	8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
	9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
	10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
	11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **85 mph**

Ground Snow Load **5 psf**

Up and Down (psf)

Side Load (psf)

Table W85-S5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.7	-18.5	-29.5	18.8	-9.7	-18.5	-29.5	18.8	-12.1	-22.8	-36.1	18.8
2:12	-8.7	-17.4	-27.3	18.1	-8.7	-17.4	-27.3	18.1	-10.8	-21.5	-33.5	18.1
3:12	-8.8	-17.5	-27.4	17.3	-8.8	-17.5	-27.4	17.3	-10.8	-21.5	-33.5	17.3
4:12	-8.8	-17.5	-27.4	14.9	-8.8	-17.5	-27.4	14.9	-10.8	-21.5	-33.5	14.9
5:12	-8.8	-17.5	-27.4	14.3	-8.8	-17.5	-27.4	14.3	-10.8	-21.5	-33.6	14.3
6:12	-8.9	-17.6	-27.5	13.7	-8.9	-17.6	-27.5	13.7	-10.9	-21.6	-33.6	13.7
7:12	-9.9	-12.1	-12.1	13.3	-9.9	-12.1	-12.1	13.3	-12.3	-14.9	-14.9	15.4
8:12	-9.9	-12.1	-12.1	13.2	-9.9	-12.1	-12.1	13.2	-12.3	-15.0	-15.0	15.2
9:12	-10.0	-12.2	-12.2	13.1	-10.0	-12.2	-12.2	13.1	-12.3	-15.0	-15.0	15.1
10:12	-10.0	-12.2	-12.2	13.0	-10.0	-12.2	-12.2	13.0	-12.4	-15.0	-15.0	15.0
11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.4	-15.1	-15.1	14.9
12:12	-10.1	-12.3	-12.3	12.7	-10.1	-12.3	-12.3	12.7	-12.5	-15.1	-15.1	14.7
Exposure Category C												
1:12	-12.1	-22.8	-36.1	18.8	-14.1	-26.5	-41.9	18.8	-16.5	-30.7	-48.5	18.8
2:12	-10.8	-21.5	-33.5	18.1	-12.6	-24.9	-38.8	18.1	-14.7	-28.9	-44.9	18.1
3:12	-10.8	-21.5	-33.5	17.3	-12.6	-24.9	-38.8	17.3	-14.7	-29.0	-44.9	17.3
4:12	-10.8	-21.5	-33.5	14.9	-12.6	-25.0	-38.8	14.9	-14.8	-29.0	-45.0	14.9
5:12	-10.8	-21.5	-33.6	14.3	-12.7	-25.0	-38.9	14.3	-14.8	-29.0	-45.0	14.3
6:12	-10.9	-21.6	-33.6	13.7	-12.7	-25.0	-38.9	13.7	-14.8	-29.1	-45.0	13.7
7:12	-12.3	-14.9	-14.9	15.4	-14.3	-17.4	-17.4	17.2	-16.7	-20.2	-20.2	19.3
8:12	-12.3	-15.0	-15.0	15.2	-14.3	-17.4	-17.4	17.1	-16.7	-20.2	-20.2	19.2
9:12	-12.3	-15.0	-15.0	15.1	-14.4	-17.5	-17.5	16.9	-16.7	-20.3	-20.3	19.1
10:12	-12.4	-15.0	-15.0	15.0	-14.4	-17.5	-17.5	16.8	-16.8	-20.3	-20.3	18.9
11:12	-12.4	-15.1	-15.1	14.9	-14.5	-17.5	-17.5	16.7	-16.8	-20.4	-20.4	18.8
12:12	-12.5	-15.1	-15.1	14.7	-14.5	-17.6	-17.6	16.6	-16.9	-20.4	-20.4	18.7
Exposure Category D												
1:12	-14.9	-27.9	-44.1	18.8	-17.0	-31.5	-49.8	18.8	-19.3	-35.8	-56.4	18.8
2:12	-13.3	-26.3	-40.8	18.1	-15.1	-29.7	-46.1	18.1	-17.3	-33.7	-52.3	18.3
3:12	-13.3	-26.3	-40.9	17.3	-15.2	-29.8	-46.2	17.3	-17.3	-33.8	-52.3	17.5
4:12	-13.4	-26.3	-40.9	14.5	-15.2	-29.8	-46.2	14.5	-17.3	-33.8	-52.3	14.7
5:12	-13.4	-26.3	-40.9	14.0	-15.2	-29.8	-46.2	14.0	-17.4	-33.8	-52.4	14.2
6:12	-13.4	-26.4	-41.0	13.5	-15.3	-29.9	-46.3	13.5	-17.4	-33.9	-52.4	13.7
7:12	-15.1	-18.3	-18.3	17.9	-17.1	-20.8	-20.8	19.7	-19.5	-23.6	-23.6	21.9
8:12	-15.1	-18.4	-18.4	17.8	-17.2	-20.8	-20.8	19.6	-19.5	-23.6	-23.6	21.7
9:12	-15.2	-18.4	-18.4	17.7	-17.2	-20.9	-20.9	19.5	-19.6	-23.7	-23.7	21.6
10:12	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4	-19.6	-23.7	-23.7	21.5
11:12	-15.2	-18.5	-18.5	17.4	-17.3	-20.9	-20.9	19.2	-19.6	-23.8	-23.8	21.4
12:12	-15.3	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

85 mph

Ground Snow Load

10 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.7	-18.5	-29.5	22.5	-9.7	-18.5	-29.5	22.5	-12.1	-22.8	-36.1	22.5
2:12	-8.7	-17.4	-27.3	21.5	-8.7	-17.4	-27.3	21.5	-10.8	-21.5	-33.5	21.5
3:12	-8.8	-17.5	-27.4	20.3	-8.8	-17.5	-27.4	20.3	-10.8	-21.5	-33.5	20.3
4:12	-8.8	-17.5	-27.4	16.8	-8.8	-17.5	-27.4	16.8	-10.8	-21.5	-33.5	16.8
5:12	-8.8	-17.5	-27.4	15.9	-8.8	-17.5	-27.4	15.9	-10.8	-21.5	-33.6	15.9
6:12	-8.9	-17.6	-27.5	15.2	-8.9	-17.6	-27.5	15.2	-10.9	-21.6	-33.6	15.2
7:12	-9.9	-12.1	-12.1	14.4	-9.9	-12.1	-12.1	14.4	-12.3	-14.9	-14.9	15.9
8:12	-9.9	-12.1	-12.1	13.7	-9.9	-12.1	-12.1	13.7	-12.3	-15.0	-15.0	15.3
9:12	-10.0	-12.2	-12.2	13.1	-10.0	-12.2	-12.2	13.1	-12.3	-15.0	-15.0	15.1
10:12	-10.0	-12.2	-12.2	13.0	-10.0	-12.2	-12.2	13.0	-12.4	-15.0	-15.0	15.0
11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.4	-15.1	-15.1	14.9
12:12	-10.1	-12.3	-12.3	12.7	-10.1	-12.3	-12.3	12.7	-12.5	-15.1	-15.1	14.7
Exposure Category C												
1:12	-12.1	-22.8	-36.1	22.5	-14.1	-26.5	-41.9	22.5	-16.5	-30.7	-48.5	22.5
2:12	-10.8	-21.5	-33.5	21.5	-12.6	-24.9	-38.8	21.5	-14.7	-28.9	-44.9	21.5
3:12	-10.8	-21.5	-33.5	20.3	-12.6	-24.9	-38.8	20.3	-14.7	-29.0	-44.9	20.3
4:12	-10.8	-21.5	-33.5	16.8	-12.6	-25.0	-38.8	16.8	-14.8	-29.0	-45.0	16.8
5:12	-10.8	-21.5	-33.6	15.9	-12.7	-25.0	-38.9	15.9	-14.8	-29.0	-45.0	15.9
6:12	-10.9	-21.6	-33.6	15.2	-12.7	-25.0	-38.9	15.2	-14.8	-29.1	-45.0	15.2
7:12	-12.3	-14.9	-14.9	15.9	-14.3	-17.4	-17.4	17.3	-16.7	-20.2	-20.2	19.3
8:12	-12.3	-15.0	-15.0	15.3	-14.3	-17.4	-17.4	17.1	-16.7	-20.2	-20.2	19.2
9:12	-12.3	-15.0	-15.0	15.1	-14.4	-17.5	-17.5	16.9	-16.7	-20.3	-20.3	19.1
10:12	-12.4	-15.0	-15.0	15.0	-14.4	-17.5	-17.5	16.8	-16.8	-20.3	-20.3	18.9
11:12	-12.4	-15.1	-15.1	14.9	-14.5	-17.5	-17.5	16.7	-16.8	-20.4	-20.4	18.8
12:12	-12.5	-15.1	-15.1	14.7	-14.5	-17.6	-17.6	16.6	-16.9	-20.4	-20.4	18.7
Exposure Category D												
1:12	-14.9	-27.9	-44.1	22.5	-17.0	-31.5	-49.8	22.5	-19.3	-35.8	-56.4	22.5
2:12	-13.3	-26.3	-40.8	21.5	-15.1	-29.7	-46.1	21.5	-17.3	-33.7	-52.3	21.7
3:12	-13.3	-26.3	-40.9	20.3	-15.2	-29.8	-46.2	20.3	-17.3	-33.8	-52.3	20.6
4:12	-13.4	-26.3	-40.9	16.2	-15.2	-29.8	-46.2	16.2	-17.3	-33.8	-52.3	16.4
5:12	-13.4	-26.3	-40.9	15.5	-15.2	-29.8	-46.2	15.5	-17.4	-33.8	-52.4	15.7
6:12	-13.4	-26.4	-41.0	14.7	-15.3	-29.9	-46.3	14.7	-17.4	-33.9	-52.4	15.0
7:12	-15.1	-18.3	-18.3	17.9	-17.1	-20.8	-20.8	19.7	-19.5	-23.6	-23.6	21.9
8:12	-15.1	-18.4	-18.4	17.8	-17.2	-20.8	-20.8	19.6	-19.5	-23.6	-23.6	21.7
9:12	-15.2	-18.4	-18.4	17.7	-17.2	-20.9	-20.9	19.5	-19.6	-23.7	-23.7	21.6
10:12	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4	-19.6	-23.7	-23.7	21.5
11:12	-15.2	-18.5	-18.5	17.4	-17.3	-20.9	-20.9	19.2	-19.6	-23.8	-23.8	21.4
12:12	-15.3	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **85 mph**

Ground Snow Load **15 psf**

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-9.7	-18.5	-29.5	26.2	-9.7	-18.5	-29.5	26.2	-12.1	-22.8	-36.1	26.2
	2:12	-8.7	-17.4	-27.3	24.9	-8.7	-17.4	-27.3	24.9	-10.8	-21.5	-33.5	24.9
	3:12	-8.8	-17.5	-27.4	23.4	-8.8	-17.5	-27.4	23.4	-10.8	-21.5	-33.5	23.4
	4:12	-8.8	-17.5	-27.4	18.6	-8.8	-17.5	-27.4	18.6	-10.8	-21.5	-33.5	18.6
	5:12	-8.8	-17.5	-27.4	17.6	-8.8	-17.5	-27.4	17.6	-10.8	-21.5	-33.6	17.6
	6:12	-8.9	-17.6	-27.5	16.6	-8.9	-17.6	-27.5	16.6	-10.9	-21.6	-33.6	16.6
	7:12	-9.9	-12.1	-12.1	15.6	-9.9	-12.1	-12.1	15.6	-12.3	-14.9	-14.9	17.1
	8:12	-9.9	-12.1	-12.1	14.8	-9.9	-12.1	-12.1	14.8	-12.3	-15.0	-15.0	16.3
	9:12	-10.0	-12.2	-12.2	14.0	-10.0	-12.2	-12.2	14.0	-12.3	-15.0	-15.0	15.5
	10:12	-10.0	-12.2	-12.2	13.3	-10.0	-12.2	-12.2	13.3	-12.4	-15.0	-15.0	15.0
	11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.4	-15.1	-15.1	14.9
	12:12	-10.1	-12.3	-12.3	12.7	-10.1	-12.3	-12.3	12.7	-12.5	-15.1	-15.1	14.7
Exposure Category C	1:12	-12.1	-22.8	-36.1	26.2	-14.1	-26.5	-41.9	26.2	-16.5	-30.7	-48.5	26.2
	2:12	-10.8	-21.5	-33.5	24.9	-12.6	-24.9	-38.8	24.9	-14.7	-28.9	-44.9	24.9
	3:12	-10.8	-21.5	-33.5	23.4	-12.6	-24.9	-38.8	23.4	-14.7	-29.0	-44.9	23.4
	4:12	-10.8	-21.5	-33.5	18.6	-12.6	-25.0	-38.8	18.6	-14.8	-29.0	-45.0	18.6
	5:12	-10.8	-21.5	-33.6	17.6	-12.7	-25.0	-38.9	17.6	-14.8	-29.0	-45.0	17.6
	6:12	-10.9	-21.6	-33.6	16.6	-12.7	-25.0	-38.9	16.6	-14.8	-29.1	-45.0	16.6
	7:12	-12.3	-14.9	-14.9	17.1	-14.3	-17.4	-17.4	18.5	-16.7	-20.2	-20.2	20.1
	8:12	-12.3	-15.0	-15.0	16.3	-14.3	-17.4	-17.4	17.7	-16.7	-20.2	-20.2	19.3
	9:12	-12.3	-15.0	-15.0	15.5	-14.4	-17.5	-17.5	16.9	-16.7	-20.3	-20.3	19.1
	10:12	-12.4	-15.0	-15.0	15.0	-14.4	-17.5	-17.5	16.8	-16.8	-20.3	-20.3	18.9
	11:12	-12.4	-15.1	-15.1	14.9	-14.5	-17.5	-17.5	16.7	-16.8	-20.4	-20.4	18.8
	12:12	-12.5	-15.1	-15.1	14.7	-14.5	-17.6	-17.6	16.6	-16.9	-20.4	-20.4	18.7
Exposure Category D	1:12	-14.9	-27.9	-44.1	26.2	-17.0	-31.5	-49.8	26.2	-19.3	-35.8	-56.4	26.2
	2:12	-13.3	-26.3	-40.8	24.9	-15.1	-29.7	-46.1	24.9	-17.3	-33.7	-52.3	25.1
	3:12	-13.3	-26.3	-40.9	23.4	-15.2	-29.8	-46.2	23.4	-17.3	-33.8	-52.3	23.6
	4:12	-13.4	-26.3	-40.9	17.9	-15.2	-29.8	-46.2	17.9	-17.3	-33.8	-52.3	18.1
	5:12	-13.4	-26.3	-40.9	16.9	-15.2	-29.8	-46.2	16.9	-17.4	-33.8	-52.4	17.1
	6:12	-13.4	-26.4	-41.0	16.0	-15.3	-29.9	-46.3	16.0	-17.4	-33.9	-52.4	16.2
	7:12	-15.1	-18.3	-18.3	18.6	-17.1	-20.8	-20.8	19.9	-19.5	-23.6	-23.6	21.9
	8:12	-15.1	-18.4	-18.4	17.8	-17.2	-20.8	-20.8	19.6	-19.5	-23.6	-23.6	21.7
	9:12	-15.2	-18.4	-18.4	17.7	-17.2	-20.9	-20.9	19.5	-19.6	-23.7	-23.7	21.6
	10:12	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4	-19.6	-23.7	-23.7	21.5
	11:12	-15.2	-18.5	-18.5	17.4	-17.3	-20.9	-20.9	19.2	-19.6	-23.8	-23.8	21.4
	12:12	-15.3	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **85 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.7	-18.5	-29.5	26.2	-9.7	-18.5	-29.5	26.2	-12.1	-22.8	-36.1	26.2
2:12	-8.7	-17.4	-27.3	24.9	-8.7	-17.4	-27.3	24.9	-10.8	-21.5	-33.5	24.9
3:12	-8.8	-17.5	-27.4	23.4	-8.8	-17.5	-27.4	23.4	-10.8	-21.5	-33.5	23.4
4:12	-8.8	-17.5	-27.4	20.5	-8.8	-17.5	-27.4	20.5	-10.8	-21.5	-33.5	20.5
5:12	-8.8	-17.5	-27.4	19.2	-8.8	-17.5	-27.4	19.2	-10.8	-21.5	-33.6	19.2
6:12	-8.9	-17.6	-27.5	18.0	-8.9	-17.6	-27.5	18.0	-10.9	-21.6	-33.6	18.0
7:12	-9.9	-12.1	-12.1	16.8	-9.9	-12.1	-12.1	16.8	-12.3	-14.9	-14.9	18.3
8:12	-9.9	-12.1	-12.1	15.8	-9.9	-12.1	-12.1	15.8	-12.3	-15.0	-15.0	17.3
9:12	-10.0	-12.2	-12.2	14.9	-10.0	-12.2	-12.2	14.9	-12.3	-15.0	-15.0	16.4
10:12	-10.0	-12.2	-12.2	14.1	-10.0	-12.2	-12.2	14.1	-12.4	-15.0	-15.0	15.6
11:12	-10.1	-12.3	-12.3	13.4	-10.1	-12.3	-12.3	13.4	-12.4	-15.1	-15.1	14.9
12:12	-10.1	-12.3	-12.3	12.7	-10.1	-12.3	-12.3	12.7	-12.5	-15.1	-15.1	14.7
Exposure Category C												
1:12	-12.1	-22.8	-36.1	26.2	-14.1	-26.5	-41.9	26.2	-16.5	-30.7	-48.5	26.2
2:12	-10.8	-21.5	-33.5	24.9	-12.6	-24.9	-38.8	24.9	-14.7	-28.9	-44.9	24.9
3:12	-10.8	-21.5	-33.5	23.4	-12.6	-24.9	-38.8	23.4	-14.7	-29.0	-44.9	23.4
4:12	-10.8	-21.5	-33.5	20.5	-12.6	-25.0	-38.8	20.5	-14.8	-29.0	-45.0	20.5
5:12	-10.8	-21.5	-33.6	19.2	-12.7	-25.0	-38.9	19.2	-14.8	-29.0	-45.0	19.2
6:12	-10.9	-21.6	-33.6	18.0	-12.7	-25.0	-38.9	18.0	-14.8	-29.1	-45.0	18.0
7:12	-12.3	-14.9	-14.9	18.3	-14.3	-17.4	-17.4	19.7	-16.7	-20.2	-20.2	21.3
8:12	-12.3	-15.0	-15.0	17.3	-14.3	-17.4	-17.4	18.7	-16.7	-20.2	-20.2	20.3
9:12	-12.3	-15.0	-15.0	16.4	-14.4	-17.5	-17.5	17.8	-16.7	-20.3	-20.3	19.4
10:12	-12.4	-15.0	-15.0	15.6	-14.4	-17.5	-17.5	17.0	-16.8	-20.3	-20.3	18.9
11:12	-12.4	-15.1	-15.1	14.9	-14.5	-17.5	-17.5	16.7	-16.8	-20.4	-20.4	18.8
12:12	-12.5	-15.1	-15.1	14.7	-14.5	-17.6	-17.6	16.6	-16.9	-20.4	-20.4	18.7
Exposure Category D												
1:12	-14.9	-27.9	-44.1	26.2	-17.0	-31.5	-49.8	26.2	-19.3	-35.8	-56.4	26.2
2:12	-13.3	-26.3	-40.8	24.9	-15.1	-29.7	-46.1	24.9	-17.3	-33.7	-52.3	25.1
3:12	-13.3	-26.3	-40.9	23.4	-15.2	-29.8	-46.2	23.4	-17.3	-33.8	-52.3	23.6
4:12	-13.4	-26.3	-40.9	19.6	-15.2	-29.8	-46.2	19.6	-17.3	-33.8	-52.3	19.8
5:12	-13.4	-26.3	-40.9	18.4	-15.2	-29.8	-46.2	18.4	-17.4	-33.8	-52.4	18.6
6:12	-13.4	-26.4	-41.0	17.3	-15.3	-29.9	-46.3	17.3	-17.4	-33.9	-52.4	17.5
7:12	-15.1	-18.3	-18.3	19.6	-17.1	-20.8	-20.8	21.0	-19.5	-23.6	-23.6	22.6
8:12	-15.1	-18.4	-18.4	18.7	-17.2	-20.8	-20.8	20.1	-19.5	-23.6	-23.6	21.7
9:12	-15.2	-18.4	-18.4	17.9	-17.2	-20.9	-20.9	19.5	-19.6	-23.7	-23.7	21.6
10:12	-15.2	-18.4	-18.4	17.5	-17.3	-20.9	-20.9	19.4	-19.6	-23.7	-23.7	21.5
11:12	-15.2	-18.5	-18.5	17.4	-17.3	-20.9	-20.9	19.2	-19.6	-23.8	-23.8	21.4
12:12	-15.3	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
85 mph

Ground Snow Load
25 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.7	-18.5	-29.5	27.0	-9.7	-18.5	-29.5	27.0	-12.1	-22.8	-36.1	27.0
2:12	-8.7	-17.4	-27.3	25.6	-8.7	-17.4	-27.3	25.6	-10.8	-21.5	-33.5	25.6
3:12	-8.8	-17.5	-27.4	24.0	-8.8	-17.5	-27.4	24.0	-10.8	-21.5	-33.5	24.0
4:12	-8.8	-17.5	-27.4	22.4	-8.8	-17.5	-27.4	22.4	-10.8	-21.5	-33.5	22.4
5:12	-8.8	-17.5	-27.4	20.8	-8.8	-17.5	-27.4	20.8	-10.8	-21.5	-33.6	20.8
6:12	-8.9	-17.6	-27.5	19.4	-8.9	-17.6	-27.5	19.4	-10.9	-21.6	-33.6	19.4
7:12	-9.9	-12.1	-12.1	18.0	-9.9	-12.1	-12.1	18.0	-12.3	-14.9	-14.9	19.5
8:12	-9.9	-12.1	-12.1	16.8	-9.9	-12.1	-12.1	16.8	-12.3	-15.0	-15.0	18.3
9:12	-10.0	-12.2	-12.2	15.7	-10.0	-12.2	-12.2	15.7	-12.3	-15.0	-15.0	17.2
10:12	-10.0	-12.2	-12.2	14.8	-10.0	-12.2	-12.2	14.8	-12.4	-15.0	-15.0	16.3
11:12	-10.1	-12.3	-12.3	14.0	-10.1	-12.3	-12.3	14.0	-12.4	-15.1	-15.1	15.5
12:12	-10.1	-12.3	-12.3	13.2	-10.1	-12.3	-12.3	13.2	-12.5	-15.1	-15.1	14.8
Exposure Category C												
1:12	-12.1	-22.8	-36.1	27.0	-14.1	-26.5	-41.9	27.0	-16.5	-30.7	-48.5	27.0
2:12	-10.8	-21.5	-33.5	25.6	-12.6	-24.9	-38.8	25.6	-14.7	-28.9	-44.9	25.6
3:12	-10.8	-21.5	-33.5	24.0	-12.6	-24.9	-38.8	24.0	-14.7	-29.0	-44.9	24.0
4:12	-10.8	-21.5	-33.5	22.4	-12.6	-25.0	-38.8	22.4	-14.8	-29.0	-45.0	22.4
5:12	-10.8	-21.5	-33.6	20.8	-12.7	-25.0	-38.9	20.8	-14.8	-29.0	-45.0	20.8
6:12	-10.9	-21.6	-33.6	19.4	-12.7	-25.0	-38.9	19.4	-14.8	-29.1	-45.0	19.4
7:12	-12.3	-14.9	-14.9	19.5	-14.3	-17.4	-17.4	20.9	-16.7	-20.2	-20.2	22.5
8:12	-12.3	-15.0	-15.0	18.3	-14.3	-17.4	-17.4	19.7	-16.7	-20.2	-20.2	21.3
9:12	-12.3	-15.0	-15.0	17.2	-14.4	-17.5	-17.5	18.6	-16.7	-20.3	-20.3	20.2
10:12	-12.4	-15.0	-15.0	16.3	-14.4	-17.5	-17.5	17.7	-16.8	-20.3	-20.3	19.3
11:12	-12.4	-15.1	-15.1	15.5	-14.5	-17.5	-17.5	16.9	-16.8	-20.4	-20.4	18.8
12:12	-12.5	-15.1	-15.1	14.8	-14.5	-17.6	-17.6	16.6	-16.9	-20.4	-20.4	18.7
Exposure Category D												
1:12	-14.9	-27.9	-44.1	26.2	-17.0	-31.5	-49.8	26.2	-19.3	-35.8	-56.4	26.2
2:12	-13.3	-26.3	-40.8	24.9	-15.1	-29.7	-46.1	24.9	-17.3	-33.7	-52.3	25.1
3:12	-13.3	-26.3	-40.9	23.4	-15.2	-29.8	-46.2	23.4	-17.3	-33.8	-52.3	23.6
4:12	-13.4	-26.3	-40.9	21.3	-15.2	-29.8	-46.2	21.3	-17.3	-33.8	-52.3	21.5
5:12	-13.4	-26.3	-40.9	19.9	-15.2	-29.8	-46.2	19.9	-17.4	-33.8	-52.4	20.1
6:12	-13.4	-26.4	-41.0	18.5	-15.3	-29.9	-46.3	18.5	-17.4	-33.9	-52.4	18.7
7:12	-15.1	-18.3	-18.3	20.7	-17.1	-20.8	-20.8	22.1	-19.5	-23.6	-23.6	23.7
8:12	-15.1	-18.4	-18.4	19.6	-17.2	-20.8	-20.8	21.0	-19.5	-23.6	-23.6	22.6
9:12	-15.2	-18.4	-18.4	18.6	-17.2	-20.9	-20.9	20.0	-19.6	-23.7	-23.7	21.6
10:12	-15.2	-18.4	-18.4	17.8	-17.3	-20.9	-20.9	19.4	-19.6	-23.7	-23.7	21.5
11:12	-15.2	-18.5	-18.5	17.4	-17.3	-20.9	-20.9	19.2	-19.6	-23.8	-23.8	21.4
12:12	-15.3	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
85 mph

Ground Snow Load
30 psf

Up and Down (psf)

85 mph
Basic Wind Speed

35 psf
Ground Snow Load

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.7	-18.5	-29.5	29.6	-9.7	-18.5	-29.5	29.6	-12.1	-22.8	-36.1	29.6
2:12	-8.7	-17.4	-27.3	27.9	-8.7	-17.4	-27.3	27.9	-10.8	-21.5	-33.5	27.9
3:12	-8.8	-17.5	-27.4	26.1	-8.8	-17.5	-27.4	26.1	-10.8	-21.5	-33.5	26.1
4:12	-8.8	-17.5	-27.4	24.3	-8.8	-17.5	-27.4	24.3	-10.8	-21.5	-33.5	24.3
5:12	-8.8	-17.5	-27.4	22.5	-8.8	-17.5	-27.4	22.5	-10.8	-21.5	-33.6	22.5
6:12	-8.9	-17.6	-27.5	20.8	-8.9	-17.6	-27.5	20.8	-10.9	-21.6	-33.6	20.8
7:12	-9.9	-12.1	-12.1	19.2	-9.9	-12.1	-12.1	19.2	-12.3	-14.9	-14.9	20.7
8:12	-9.9	-12.1	-12.1	17.8	-9.9	-12.1	-12.1	17.8	-12.3	-15.0	-15.0	19.3
9:12	-10.0	-12.2	-12.2	16.6	-10.0	-12.2	-12.2	16.6	-12.3	-15.0	-15.0	18.1
10:12	-10.0	-12.2	-12.2	15.5	-10.0	-12.2	-12.2	15.5	-12.4	-15.0	-15.0	17.0
11:12	-10.1	-12.3	-12.3	14.6	-10.1	-12.3	-12.3	14.6	-12.4	-15.1	-15.1	16.1
12:12	-10.1	-12.3	-12.3	13.8	-10.1	-12.3	-12.3	13.8	-12.5	-15.1	-15.1	15.3
1:12	-12.1	-22.8	-36.1	29.6	-14.1	-26.5	-41.9	29.6	-16.5	-30.7	-48.5	29.6
2:12	-10.8	-21.5	-33.5	27.9	-12.6	-24.9	-38.8	27.9	-14.7	-28.9	-44.9	27.9
3:12	-10.8	-21.5	-33.5	26.1	-12.6	-24.9	-38.8	26.1	-14.7	-29.0	-44.9	26.1
4:12	-10.8	-21.5	-33.5	24.3	-12.6	-25.0	-38.8	24.3	-14.8	-29.0	-45.0	24.3
5:12	-10.8	-21.5	-33.6	22.5	-12.7	-25.0	-38.9	22.5	-14.8	-29.0	-45.0	22.5
6:12	-10.9	-21.6	-33.6	20.8	-12.7	-25.0	-38.9	20.8	-14.8	-29.1	-45.0	20.8
7:12	-12.3	-14.9	-14.9	20.7	-14.3	-17.4	-17.4	22.1	-16.7	-20.2	-20.2	23.7
8:12	-12.3	-15.0	-15.0	19.3	-14.3	-17.4	-17.4	20.7	-16.7	-20.2	-20.2	22.3
9:12	-12.3	-15.0	-15.0	18.1	-14.4	-17.5	-17.5	19.5	-16.7	-20.3	-20.3	21.1
10:12	-12.4	-15.0	-15.0	17.0	-14.4	-17.5	-17.5	18.4	-16.8	-20.3	-20.3	20.0
11:12	-12.4	-15.1	-15.1	16.1	-14.5	-17.5	-17.5	17.5	-16.8	-20.4	-20.4	19.1
12:12	-12.5	-15.1	-15.1	15.3	-14.5	-17.6	-17.6	16.7	-16.9	-20.4	-20.4	18.7
1:12	-14.9	-27.9	-44.1	27.8	-17.0	-31.5	-49.8	27.8	-19.3	-35.8	-56.4	27.8
2:12	-13.3	-26.3	-40.8	26.3	-15.1	-29.7	-46.1	26.3	-17.3	-33.7	-52.3	26.5
3:12	-13.3	-26.3	-40.9	24.6	-15.2	-29.8	-46.2	24.6	-17.3	-33.8	-52.3	24.9
4:12	-13.4	-26.3	-40.9	23.0	-15.2	-29.8	-46.2	23.0	-17.3	-33.8	-52.3	23.2
5:12	-13.4	-26.3	-40.9	21.3	-15.2	-29.8	-46.2	21.3	-17.4	-33.8	-52.4	21.5
6:12	-13.4	-26.4	-41.0	19.8	-15.3	-29.9	-46.3	19.8	-17.4	-33.9	-52.4	20.0
7:12	-15.1	-18.3	-18.3	21.8	-17.1	-20.8	-20.8	23.2	-19.5	-23.6	-23.6	24.8
8:12	-15.1	-18.4	-18.4	20.5	-17.2	-20.8	-20.8	21.9	-19.5	-23.6	-23.6	23.5
9:12	-15.2	-18.4	-18.4	19.4	-17.2	-20.9	-20.9	20.8	-19.6	-23.7	-23.7	22.4
10:12	-15.2	-18.4	-18.4	18.4	-17.3	-20.9	-20.9	19.8	-19.6	-23.7	-23.7	21.5
11:12	-15.2	-18.5	-18.5	17.6	-17.3	-20.9	-20.9	19.2	-19.6	-23.8	-23.8	21.4
12:12	-15.3	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.7	-18.5	-29.5	32.2	-9.7	-18.5	-29.5	32.2	-12.1	-22.8	-36.1	32.2
2:12	-8.7	-17.4	-27.3	30.3	-8.7	-17.4	-27.3	30.3	-10.8	-21.5	-33.5	30.3
3:12	-8.8	-17.5	-27.4	28.2	-8.8	-17.5	-27.4	28.2	-10.8	-21.5	-33.5	28.2
4:12	-8.8	-17.5	-27.4	26.1	-8.8	-17.5	-27.4	26.1	-10.8	-21.5	-33.5	26.1
5:12	-8.8	-17.5	-27.4	24.1	-8.8	-17.5	-27.4	24.1	-10.8	-21.5	-33.6	24.1
6:12	-8.9	-17.6	-27.5	22.2	-8.9	-17.6	-27.5	22.2	-10.9	-21.6	-33.6	22.2
7:12	-9.9	-12.1	-12.1	20.4	-9.9	-12.1	-12.1	20.4	-12.3	-14.9	-14.9	21.9
8:12	-9.9	-12.1	-12.1	18.8	-9.9	-12.1	-12.1	18.8	-12.3	-15.0	-15.0	20.3
9:12	-10.0	-12.2	-12.2	17.4	-10.0	-12.2	-12.2	17.4	-12.3	-15.0	-15.0	18.9
10:12	-10.0	-12.2	-12.2	16.2	-10.0	-12.2	-12.2	16.2	-12.4	-15.0	-15.0	17.7
11:12	-10.1	-12.3	-12.3	15.2	-10.1	-12.3	-12.3	15.2	-12.4	-15.1	-15.1	16.7
12:12	-10.1	-12.3	-12.3	14.3	-10.1	-12.3	-12.3	14.3	-12.5	-15.1	-15.1	15.8
1:12	-12.1	-22.8	-36.1	32.2	-14.1	-26.5	-41.9	32.2	-16.5	-30.7	-48.5	32.2
2:12	-10.8	-21.5	-33.5	30.3	-12.6	-24.9	-38.8	30.3	-14.7	-28.9	-44.9	30.3
3:12	-10.8	-21.5	-33.5	28.2	-12.6	-24.9	-38.8	28.2	-14.7	-29.0	-44.9	28.2
4:12	-10.8	-21.5	-33.5	26.1	-12.6	-25.0	-38.8	26.1	-14.8	-29.0	-45.0	26.1
5:12	-10.8	-21.5	-33.6	24.1	-12.7	-25.0	-38.9	24.1	-14.8	-29.0	-45.0	24.1
6:12	-10.9	-21.6	-33.6	22.2	-12.7	-25.0	-38.9	22.2	-14.8	-29.1	-45.0	22.2
7:12	-12.3	-14.9	-14.9	21.9	-14.3	-17.4	-17.4	23.3	-16.7	-20.2	-20.2	24.9
8:12	-12.3	-15.0	-15.0	20.3	-14.3	-17.4	-17.4	21.7	-16.7	-20.2	-20.2	23.3
9:12	-12.3	-15.0	-15.0	18.9	-14.4	-17.5	-17.5	20.3	-16.7	-20.3	-20.3	21.9
10:12	-12.4	-15.0	-15.0	17.7	-14.4	-17.5	-17.5	19.1	-16.8	-20.3	-20.3	20.7
11:12	-12.4	-15.1	-15.1	16.7	-14.5	-17.5	-17.5	18.1	-16.8	-20.4	-20.4	19.7
12:12	-12.5	-15.1	-15.1	15.8	-14.5	-17.6	-17.6	17.2	-16.9	-20.4	-20.4	18.8
1:12	-14.9	-27.9	-44.1	30.1	-17.0	-31.5	-49.8	30.1	-19.3	-35.8	-56.4	30.1
2:12	-13.3	-26.3	-40.8	28.4	-15.1	-29.7	-46.1	28.4	-17.3	-33.7	-52.3	28.6
3:12	-13.3	-26.3	-40.9	26.5	-15.2	-29.8	-46.2	26.5	-17.3	-33.8	-52.3	26.8
4:12	-13.4	-26.3	-40.9	24.6	-15.2	-29.8	-46.2	24.6	-17.3	-33.8	-52.3	24.9
5:12	-13.4	-26.3	-40.9	22.8	-15.2	-29.8	-46.2	22.8	-17.4	-33.8	-52.4	23.0
6:12	-13.4	-26.4	-41.0	21.0	-15.3	-29.9	-46.3	21.0	-17.4	-33.9	-52.4	21.3
7:12	-15.1	-18.3	-18.3	22.9	-17.1	-20.8	-20.8	24.3	-19.5	-23.6	-23.6	25.8
8:12	-15.1	-18.4	-18.4	21.4	-17.2	-20.8	-20.8	22.8	-19.5	-23.6	-23.6	24.4
9:12	-15.2	-18.4	-18.4	20.2	-17.2	-20.9	-20.9	21.6	-19.6	-23.7	-23.7	23.1
10:12	-15.2	-18.4	-18.4	19.1	-17.3	-20.9	-20.9	20.4	-19.6	-23.7	-23.7	22.0
11:12	-15.2	-18.5	-18.5	18.1	-17.3	-20.9	-20.9	19.5	-19.6	-23.8	-23.8	21.4
12:12	-15.3	-18.5	-18.5	17.3	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **85 mph**

Ground Snow Load **40 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.7	-18.5	-29.5	35.1	-9.7	-18.5	-29.5	35.1	-12.1	-22.8	-36.1	35.1
2:12	-8.7	-17.4	-27.3	32.7	-8.7	-17.4	-27.3	32.7	-10.8	-21.5	-33.5	32.7
3:12	-8.8	-17.5	-27.4	30.4	-8.8	-17.5	-27.4	30.4	-10.8	-21.5	-33.5	30.4
4:12	-8.8	-17.5	-27.4	28.0	-8.8	-17.5	-27.4	28.0	-10.8	-21.5	-33.5	28.0
5:12	-8.8	-17.5	-27.4	25.7	-8.8	-17.5	-27.4	25.7	-10.8	-21.5	-33.6	25.7
6:12	-8.9	-17.6	-27.5	23.6	-8.9	-17.6	-27.5	23.6	-10.9	-21.6	-33.6	23.6
7:12	-9.9	-12.1	-12.1	21.6	-9.9	-12.1	-12.1	21.6	-12.3	-14.9	-14.9	23.1
8:12	-9.9	-12.1	-12.1	19.8	-9.9	-12.1	-12.1	19.8	-12.3	-15.0	-15.0	21.4
9:12	-10.0	-12.2	-12.2	18.3	-10.0	-12.2	-12.2	18.3	-12.3	-15.0	-15.0	19.8
10:12	-10.0	-12.2	-12.2	16.9	-10.0	-12.2	-12.2	16.9	-12.4	-15.0	-15.0	18.5
11:12	-10.1	-12.3	-12.3	15.8	-10.1	-12.3	-12.3	15.8	-12.4	-15.1	-15.1	17.3
12:12	-10.1	-12.3	-12.3	14.8	-10.1	-12.3	-12.3	14.8	-12.5	-15.1	-15.1	16.3
1:12	-12.1	-22.8	-36.1	35.1	-14.1	-26.5	-41.9	35.1	-16.5	-30.7	-48.5	35.1
2:12	-10.8	-21.5	-33.5	32.7	-12.6	-24.9	-38.8	32.7	-14.7	-28.9	-44.9	32.7
3:12	-10.8	-21.5	-33.5	30.4	-12.6	-24.9	-38.8	30.4	-14.7	-29.0	-44.9	30.4
4:12	-10.8	-21.5	-33.5	28.0	-12.6	-25.0	-38.8	28.0	-14.8	-29.0	-45.0	28.0
5:12	-10.8	-21.5	-33.6	25.7	-12.7	-25.0	-38.9	25.7	-14.8	-29.0	-45.0	25.7
6:12	-10.9	-21.6	-33.6	23.6	-12.7	-25.0	-38.9	23.6	-14.8	-29.1	-45.0	23.6
7:12	-12.3	-14.9	-14.9	23.1	-14.3	-17.4	-17.4	24.5	-16.7	-20.2	-20.2	26.1
8:12	-12.3	-15.0	-15.0	21.4	-14.3	-17.4	-17.4	22.7	-16.7	-20.2	-20.2	24.3
9:12	-12.3	-15.0	-15.0	19.8	-14.4	-17.5	-17.5	21.2	-16.7	-20.3	-20.3	22.8
10:12	-12.4	-15.0	-15.0	18.5	-14.4	-17.5	-17.5	19.8	-16.8	-20.3	-20.3	21.4
11:12	-12.4	-15.1	-15.1	17.3	-14.5	-17.5	-17.5	18.7	-16.8	-20.4	-20.4	20.3
12:12	-12.5	-15.1	-15.1	16.3	-14.5	-17.6	-17.6	17.7	-16.9	-20.4	-20.4	19.3
1:12	-14.9	-27.9	-44.1	32.5	-17.0	-31.5	-49.8	32.5	-19.3	-35.8	-56.4	32.5
2:12	-13.3	-26.3	-40.8	30.6	-15.1	-29.7	-46.1	30.6	-17.3	-33.7	-52.3	30.8
3:12	-13.3	-26.3	-40.9	28.5	-15.2	-29.8	-46.2	28.5	-17.3	-33.8	-52.3	28.7
4:12	-13.4	-26.3	-40.9	26.3	-15.2	-29.8	-46.2	26.3	-17.3	-33.8	-52.3	26.6
5:12	-13.4	-26.3	-40.9	24.3	-15.2	-29.8	-46.2	24.3	-17.4	-33.8	-52.4	24.5
6:12	-13.4	-26.4	-41.0	22.3	-15.3	-29.9	-46.3	22.3	-17.4	-33.9	-52.4	22.5
7:12	-15.1	-18.3	-18.3	24.0	-17.1	-20.8	-20.8	25.3	-19.5	-23.6	-23.6	26.9
8:12	-15.1	-18.4	-18.4	22.4	-17.2	-20.8	-20.8	23.7	-19.5	-23.6	-23.6	25.3
9:12	-15.2	-18.4	-18.4	20.9	-17.2	-20.9	-20.9	22.3	-19.6	-23.7	-23.7	23.9
10:12	-15.2	-18.4	-18.4	19.7	-17.3	-20.9	-20.9	21.1	-19.6	-23.7	-23.7	22.7
11:12	-15.2	-18.5	-18.5	18.7	-17.3	-20.9	-20.9	20.0	-19.6	-23.8	-23.8	21.6
12:12	-15.3	-18.5	-18.5	17.7	-17.3	-21.0	-21.0	19.1	-19.7	-23.8	-23.8	21.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **85 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Basic Wind Speed
85 mph

Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.7	-18.5	-29.5	38.6	-9.7	-18.5	-29.5	38.6	-12.1	-22.8	-36.1	38.6
2:12	-8.7	-17.4	-27.3	35.5	-8.7	-17.4	-27.3	35.5	-10.8	-21.5	-33.5	35.5
3:12	-8.8	-17.5	-27.4	32.5	-8.8	-17.5	-27.4	32.5	-10.8	-21.5	-33.5	32.5
4:12	-8.8	-17.5	-27.4	29.9	-8.8	-17.5	-27.4	29.9	-10.8	-21.5	-33.5	29.9
5:12	-8.8	-17.5	-27.4	27.4	-8.8	-17.5	-27.4	27.4	-10.8	-21.5	-33.6	27.4
6:12	-8.9	-17.6	-27.5	25.0	-8.9	-17.6	-27.5	25.0	-10.9	-21.6	-33.6	25.0
7:12	-9.9	-12.1	-12.1	22.8	-9.9	-12.1	-12.1	22.8	-12.3	-14.9	-14.9	24.3
8:12	-9.9	-12.1	-12.1	20.9	-9.9	-12.1	-12.1	20.9	-12.3	-15.0	-15.0	22.4
9:12	-10.0	-12.2	-12.2	19.1	-10.0	-12.2	-12.2	19.1	-12.3	-15.0	-15.0	20.7
10:12	-10.0	-12.2	-12.2	17.7	-10.0	-12.2	-12.2	17.7	-12.4	-15.0	-15.0	19.2
11:12	-10.1	-12.3	-12.3	16.4	-10.1	-12.3	-12.3	16.4	-12.4	-15.1	-15.1	17.9
12:12	-10.1	-12.3	-12.3	15.3	-10.1	-12.3	-12.3	15.3	-12.5	-15.1	-15.1	16.8
1:12	-12.1	-22.8	-36.1	38.6	-14.1	-26.5	-41.9	38.6	-16.5	-30.7	-48.5	38.6
2:12	-10.8	-21.5	-33.5	35.5	-12.6	-24.9	-38.8	35.5	-14.7	-28.9	-44.9	35.5
3:12	-10.8	-21.5	-33.5	32.5	-12.6	-24.9	-38.8	32.5	-14.7	-29.0	-44.9	32.5
4:12	-10.8	-21.5	-33.5	29.9	-12.6	-25.0	-38.8	29.9	-14.8	-29.0	-45.0	29.9
5:12	-10.8	-21.5	-33.6	27.4	-12.7	-25.0	-38.9	27.4	-14.8	-29.0	-45.0	27.4
6:12	-10.9	-21.6	-33.6	25.0	-12.7	-25.0	-38.9	25.0	-14.8	-29.1	-45.0	25.0
7:12	-12.3	-14.9	-14.9	24.3	-14.3	-17.4	-17.4	25.7	-16.7	-20.2	-20.2	27.3
8:12	-12.3	-15.0	-15.0	22.4	-14.3	-17.4	-17.4	23.8	-16.7	-20.2	-20.2	25.3
9:12	-12.3	-15.0	-15.0	20.7	-14.4	-17.5	-17.5	22.0	-16.7	-20.3	-20.3	23.6
10:12	-12.4	-15.0	-15.0	19.2	-14.4	-17.5	-17.5	20.6	-16.8	-20.3	-20.3	22.1
11:12	-12.4	-15.1	-15.1	17.9	-14.5	-17.5	-17.5	19.3	-16.8	-20.4	-20.4	20.9
12:12	-12.5	-15.1	-15.1	16.8	-14.5	-17.6	-17.6	18.2	-16.9	-20.4	-20.4	19.8
1:12	-14.9	-27.9	-44.1	35.1	-17.0	-31.5	-49.8	35.1	-19.3	-35.8	-56.4	35.1
2:12	-13.3	-26.3	-40.8	32.7	-15.1	-29.7	-46.1	32.7	-17.3	-33.7	-52.3	32.9
3:12	-13.3	-26.3	-40.9	30.4	-15.2	-29.8	-46.2	30.4	-17.3	-33.8	-52.3	30.6
4:12	-13.4	-26.3	-40.9	28.0	-15.2	-29.8	-46.2	28.0	-17.3	-33.8	-52.3	28.2
5:12	-13.4	-26.3	-40.9	25.7	-15.2	-29.8	-46.2	25.7	-17.4	-33.8	-52.4	25.9
6:12	-13.4	-26.4	-41.0	23.6	-15.3	-29.9	-46.3	23.6	-17.4	-33.9	-52.4	23.8
7:12	-15.1	-18.3	-18.3	25.0	-17.1	-20.8	-20.8	26.4	-19.5	-23.6	-23.6	28.0
8:12	-15.1	-18.4	-18.4	23.3	-17.2	-20.8	-20.8	24.6	-19.5	-23.6	-23.6	26.2
9:12	-15.2	-18.4	-18.4	21.7	-17.2	-20.9	-20.9	23.1	-19.6	-23.7	-23.7	24.7
10:12	-15.2	-18.4	-18.4	20.4	-17.3	-20.9	-20.9	21.7	-19.6	-23.7	-23.7	23.3
11:12	-15.2	-18.5	-18.5	19.2	-17.3	-20.9	-20.9	20.6	-19.6	-23.8	-23.8	22.2
12:12	-15.3	-18.5	-18.5	18.2	-17.3	-21.0	-21.0	19.6	-19.7	-23.8	-23.8	21.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.7	-18.5	-29.5	45.5	-9.7	-18.5	-29.5	45.5	-12.1	-22.8	-36.1	45.5
2:12	-8.7	-17.4	-27.3	41.9	-8.7	-17.4	-27.3	41.9	-10.8	-21.5	-33.5	41.9
3:12	-8.8	-17.5	-27.4	37.8	-8.8	-17.5	-27.4	37.8	-10.8	-21.5	-33.5	37.8
4:12	-8.8	-17.5	-27.4	33.6	-8.8	-17.5	-27.4	33.6	-10.8	-21.5	-33.5	33.6
5:12	-8.8	-17.5	-27.4	30.6	-8.8	-17.5	-27.4	30.6	-10.8	-21.5	-33.6	30.6
6:12	-8.9	-17.6	-27.5	27.8	-8.9	-17.6	-27.5	27.8	-10.9	-21.6	-33.6	27.8
7:12	-9.9	-12.1	-12.1	25.2	-9.9	-12.1	-12.1	25.2	-12.3	-14.9	-14.9	26.7
8:12	-9.9	-12.1	-12.1	22.9	-9.9	-12.1	-12.1	22.9	-12.3	-15.0	-15.0	24.4
9:12	-10.0	-12.2	-12.2	20.9	-10.0	-12.2	-12.2	20.9	-12.3	-15.0	-15.0	22.4
10:12	-10.0	-12.2	-12.2	19.1	-10.0	-12.2	-12.2	19.1	-12.4	-15.0	-15.0	20.6
11:12	-10.1	-12.3	-12.3	17.6	-10.1	-12.3	-12.3	17.6	-12.4	-15.1	-15.1	19.1
12:12	-10.1	-12.3	-12.3	16.3	-10.1	-12.3	-12.3	16.3	-12.5	-15.1	-15.1	17.8
1:12	-12.1	-22.8	-36.1	45.5	-14.1	-26.5	-41.9	45.5	-16.5	-30.7	-48.5	45.5
2:12	-10.8	-21.5	-33.5	41.9	-12.6	-24.9	-38.8	41.9	-14.7	-28.9	-44.9	41.9
3:12	-10.8	-21.5	-33.5	37.8	-12.6	-24.9	-38.8	37.8	-14.7	-29.0	-44.9	37.8
4:12	-10.8	-21.5	-33.5	33.6	-12.6	-25.0	-38.8	33.6	-14.8	-29.0	-45.0	33.6
5:12	-10.8	-21.5	-33.6	30.6	-12.7	-25.0	-38.9	30.6	-14.8	-29.0	-45.0	30.6
6:12	-10.9	-21.6	-33.6	27.8	-12.7	-25.0	-38.9	27.8	-14.8	-29.1	-45.0	27.8
7:12	-12.3	-14.9	-14.9	26.7	-14.3	-17.4	-17.4	28.1	-16.7	-20.2	-20.2	29.7
8:12	-12.3	-15.0	-15.0	24.4	-14.3	-17.4	-17.4	25.8	-16.7	-20.2	-20.2	27.4
9:12	-12.3	-15.0	-15.0	22.4	-14.4	-17.5	-17.5	23.8	-16.7	-20.3	-20.3	25.3
10:12	-12.4	-15.0	-15.0	20.6	-14.4	-17.5	-17.5	22.0	-16.8	-20.3	-20.3	23.6
11:12	-12.4	-15.1	-15.1	19.1	-14.5	-17.5	-17.5	20.5	-16.8	-20.4	-20.4	22.1
12:12	-12.5	-15.1	-15.1	17.8	-14.5	-17.6	-17.6	19.2	-16.9	-20.4	-20.4	20.8
1:12	-14.9	-27.9	-44.1	41.4	-17.0	-31.5	-49.8	41.4	-19.3	-35.8	-56.4	41.4
2:12	-13.3	-26.3	-40.8	38.0	-15.1	-29.7	-46.1	38.0	-17.3	-33.7	-52.3	38.0
3:12	-13.3	-26.3	-40.9	34.4	-15.2	-29.8	-46.2	34.4	-17.3	-33.8	-52.3	34.4
4:12	-13.4	-26.3	-40.9	31.4	-15.2	-29.8	-46.2	31.4	-17.3	-33.8	-52.3	31.6
5:12	-13.4	-26.3	-40.9	28.7	-15.2	-29.8	-46.2	28.7	-17.4	-33.8	-52.4	28.9
6:12	-13.4	-26.4	-41.0	26.1	-15.3	-29.9	-46.3	26.1	-17.4	-33.9	-52.4	26.3
7:12	-15.1	-18.3	-18.3	27.2	-17.1	-20.8	-20.8	28.6	-19.5	-23.6	-23.6	30.2
8:12	-15.1	-18.4	-18.4	25.1	-17.2	-20.8	-20.8	26.5	-19.5	-23.6	-23.6	28.1
9:12	-15.2	-18.4	-18.4	23.3	-17.2	-20.9	-20.9	24.6	-19.6	-23.7	-23.7	26.2
10:12	-15.2	-18.4	-18.4	21.7	-17.3	-20.9	-20.9	23.0	-19.6	-23.7	-23.7	24.6
11:12	-15.2	-18.5	-18.5	20.3	-17.3	-20.9	-20.9	21.7	-19.6	-23.8	-23.8	23.3
12:12	-15.3	-18.5	-18.5	19.1	-17.3	-21.0	-21.0	20.5	-19.7	-23.8	-23.8	22.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
85 mph

Ground Snow Load
60 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.7	-18.5	-29.5	52.5	-9.7	-18.5	-29.5	52.5	-12.1	-22.8	-36.1	52.5
2:12	-8.7	-17.4	-27.3	48.2	-8.7	-17.4	-27.3	48.2	-10.8	-21.5	-33.5	48.2
3:12	-8.8	-17.5	-27.4	43.4	-8.8	-17.5	-27.4	43.4	-10.8	-21.5	-33.5	43.4
4:12	-8.8	-17.5	-27.4	38.6	-8.8	-17.5	-27.4	38.6	-10.8	-21.5	-33.5	38.6
5:12	-8.8	-17.5	-27.4	34.0	-8.8	-17.5	-27.4	34.0	-10.8	-21.5	-33.6	34.0
6:12	-8.9	-17.6	-27.5	30.6	-8.9	-17.6	-27.5	30.6	-10.9	-21.6	-33.6	30.6
7:12	-9.9	-12.1	-12.1	27.6	-9.9	-12.1	-12.1	27.6	-12.3	-14.9	-14.9	29.1
8:12	-9.9	-12.1	-12.1	24.9	-9.9	-12.1	-12.1	24.9	-12.3	-15.0	-15.0	26.4
9:12	-10.0	-12.2	-12.2	22.6	-10.0	-12.2	-12.2	22.6	-12.3	-15.0	-15.0	24.1
10:12	-10.0	-12.2	-12.2	20.5	-10.0	-12.2	-12.2	20.5	-12.4	-15.0	-15.0	22.1
11:12	-10.1	-12.3	-12.3	18.8	-10.1	-12.3	-12.3	18.8	-12.4	-15.1	-15.1	20.3
12:12	-10.1	-12.3	-12.3	17.3	-10.1	-12.3	-12.3	17.3	-12.5	-15.1	-15.1	18.8
Exposure Category C												
1:12	-12.1	-22.8	-36.1	52.5	-14.1	-26.5	-41.9	52.5	-16.5	-30.7	-48.5	52.5
2:12	-10.8	-21.5	-33.5	48.2	-12.6	-24.9	-38.8	48.2	-14.7	-28.9	-44.9	48.2
3:12	-10.8	-21.5	-33.5	43.4	-12.6	-24.9	-38.8	43.4	-14.7	-29.0	-44.9	43.4
4:12	-10.8	-21.5	-33.5	38.6	-12.6	-25.0	-38.8	38.6	-14.8	-29.0	-45.0	38.6
5:12	-10.8	-21.5	-33.6	34.0	-12.7	-25.0	-38.9	34.0	-14.8	-29.0	-45.0	34.0
6:12	-10.9	-21.6	-33.6	30.6	-12.7	-25.0	-38.9	30.6	-14.8	-29.1	-45.0	30.6
7:12	-12.3	-14.9	-14.9	29.1	-14.3	-17.4	-17.4	30.5	-16.7	-20.2	-20.2	32.1
8:12	-12.3	-15.0	-15.0	26.4	-14.3	-17.4	-17.4	27.8	-16.7	-20.2	-20.2	29.4
9:12	-12.3	-15.0	-15.0	24.1	-14.4	-17.5	-17.5	25.5	-16.7	-20.3	-20.3	27.1
10:12	-12.4	-15.0	-15.0	22.1	-14.4	-17.5	-17.5	23.4	-16.8	-20.3	-20.3	25.0
11:12	-12.4	-15.1	-15.1	20.3	-14.5	-17.5	-17.5	21.7	-16.8	-20.4	-20.4	23.3
12:12	-12.5	-15.1	-15.1	18.8	-14.5	-17.6	-17.6	20.2	-16.9	-20.4	-20.4	21.8
Exposure Category D												
1:12	-14.9	-27.9	-44.1	47.6	-17.0	-31.5	-49.8	47.6	-19.3	-35.8	-56.4	47.6
2:12	-13.3	-26.3	-40.8	43.8	-15.1	-29.7	-46.1	43.8	-17.3	-33.7	-52.3	43.8
3:12	-13.3	-26.3	-40.9	39.5	-15.2	-29.8	-46.2	39.5	-17.3	-33.8	-52.3	39.5
4:12	-13.4	-26.3	-40.9	35.1	-15.2	-29.8	-46.2	35.1	-17.3	-33.8	-52.3	35.1
5:12	-13.4	-26.3	-40.9	31.6	-15.2	-29.8	-46.2	31.6	-17.4	-33.8	-52.4	31.8
6:12	-13.4	-26.4	-41.0	28.6	-15.3	-29.9	-46.3	28.6	-17.4	-33.9	-52.4	28.8
7:12	-15.1	-18.3	-18.3	29.3	-17.1	-20.8	-20.8	30.7	-19.5	-23.6	-23.6	32.3
8:12	-15.1	-18.4	-18.4	26.9	-17.2	-20.8	-20.8	28.3	-19.5	-23.6	-23.6	29.9
9:12	-15.2	-18.4	-18.4	24.8	-17.2	-20.9	-20.9	26.2	-19.6	-23.7	-23.7	27.8
10:12	-15.2	-18.4	-18.4	23.0	-17.3	-20.9	-20.9	24.3	-19.6	-23.7	-23.7	25.9
11:12	-15.2	-18.5	-18.5	21.4	-17.3	-20.9	-20.9	22.7	-19.6	-23.8	-23.8	24.3
12:12	-15.3	-18.5	-18.5	20.0	-17.3	-21.0	-21.0	21.4	-19.7	-23.8	-23.8	23.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

85 mph

Ground Snow Load

70 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.7	-18.5	-29.5	59.4	-9.7	-18.5	-29.5	59.4	-12.1	-22.8	-36.1	59.4
2:12	-8.7	-17.4	-27.3	54.5	-8.7	-17.4	-27.3	54.5	-10.8	-21.5	-33.5	54.5
3:12	-8.8	-17.5	-27.4	49.1	-8.8	-17.5	-27.4	49.1	-10.8	-21.5	-33.5	49.1
4:12	-8.8	-17.5	-27.4	43.6	-8.8	-17.5	-27.4	43.6	-10.8	-21.5	-33.5	43.6
5:12	-8.8	-17.5	-27.4	38.3	-8.8	-17.5	-27.4	38.3	-10.8	-21.5	-33.6	38.3
6:12	-8.9	-17.6	-27.5	33.4	-8.9	-17.6	-27.5	33.4	-10.9	-21.6	-33.6	33.4
7:12	-9.9	-12.1	-12.1	30.0	-9.9	-12.1	-12.1	30.0	-12.3	-14.9	-14.9	31.5
8:12	-9.9	-12.1	-12.1	26.9	-9.9	-12.1	-12.1	26.9	-12.3	-15.0	-15.0	28.5
9:12	-10.0	-12.2	-12.2	24.3	-10.0	-12.2	-12.2	24.3	-12.3	-15.0	-15.0	25.8
10:12	-10.0	-12.2	-12.2	22.0	-10.0	-12.2	-12.2	22.0	-12.4	-15.0	-15.0	23.5
11:12	-10.1	-12.3	-12.3	20.0	-10.1	-12.3	-12.3	20.0	-12.4	-15.1	-15.1	21.5
12:12	-10.1	-12.3	-12.3	18.3	-10.1	-12.3	-12.3	18.3	-12.5	-15.1	-15.1	19.8
Exposure Category C												
1:12	-12.1	-22.8	-36.1	59.4	-14.1	-26.5	-41.9	59.4	-16.5	-30.7	-48.5	59.4
2:12	-10.8	-21.5	-33.5	54.5	-12.6	-24.9	-38.8	54.5	-14.7	-28.9	-44.9	54.5
3:12	-10.8	-21.5	-33.5	49.1	-12.6	-24.9	-38.8	49.1	-14.7	-29.0	-44.9	49.1
4:12	-10.8	-21.5	-33.5	43.6	-12.6	-25.0	-38.8	43.6	-14.8	-29.0	-45.0	43.6
5:12	-10.8	-21.5	-33.6	38.3	-12.7	-25.0	-38.9	38.3	-14.8	-29.0	-45.0	38.3
6:12	-10.9	-21.6	-33.6	33.4	-12.7	-25.0	-38.9	33.4	-14.8	-29.1	-45.0	33.4
7:12	-12.3	-14.9	-14.9	31.5	-14.3	-17.4	-17.4	32.9	-16.7	-20.2	-20.2	34.5
8:12	-12.3	-15.0	-15.0	28.5	-14.3	-17.4	-17.4	29.8	-16.7	-20.2	-20.2	31.4
9:12	-12.3	-15.0	-15.0	25.8	-14.4	-17.5	-17.5	27.2	-16.7	-20.3	-20.3	28.8
10:12	-12.4	-15.0	-15.0	23.5	-14.4	-17.5	-17.5	24.9	-16.8	-20.3	-20.3	26.5
11:12	-12.4	-15.1	-15.1	21.5	-14.5	-17.5	-17.5	22.9	-16.8	-20.4	-20.4	24.5
12:12	-12.5	-15.1	-15.1	19.8	-14.5	-17.6	-17.6	21.2	-16.9	-20.4	-20.4	22.8
Exposure Category D												
1:12	-14.9	-27.9	-44.1	53.9	-17.0	-31.5	-49.8	53.9	-19.3	-35.8	-56.4	53.9
2:12	-13.3	-26.3	-40.8	49.5	-15.1	-29.7	-46.1	49.5	-17.3	-33.7	-52.3	49.5
3:12	-13.3	-26.3	-40.9	44.6	-15.2	-29.8	-46.2	44.6	-17.3	-33.8	-52.3	44.6
4:12	-13.4	-26.3	-40.9	39.6	-15.2	-29.8	-46.2	39.6	-17.3	-33.8	-52.3	39.6
5:12	-13.4	-26.3	-40.9	34.9	-15.2	-29.8	-46.2	34.9	-17.4	-33.8	-52.4	34.9
6:12	-13.4	-26.4	-41.0	31.1	-15.3	-29.9	-46.3	31.1	-17.4	-33.9	-52.4	31.4
7:12	-15.1	-18.3	-18.3	31.5	-17.1	-20.8	-20.8	32.9	-19.5	-23.6	-23.6	34.5
8:12	-15.1	-18.4	-18.4	28.8	-17.2	-20.8	-20.8	30.1	-19.5	-23.6	-23.6	31.7
9:12	-15.2	-18.4	-18.4	26.3	-17.2	-20.9	-20.9	27.7	-19.6	-23.7	-23.7	29.3
10:12	-15.2	-18.4	-18.4	24.2	-17.3	-20.9	-20.9	25.6	-19.6	-23.7	-23.7	27.2
11:12	-15.2	-18.5	-18.5	22.5	-17.3	-20.9	-20.9	23.8	-19.6	-23.8	-23.8	25.4
12:12	-15.3	-18.5	-18.5	20.9	-17.3	-21.0	-21.0	22.3	-19.7	-23.8	-23.8	23.9

Basic Wind Speed **85 mph**
Ground Snow Load **80 psf**

Side Load (psf)
Lateral

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.7	-18.5	-29.5	66.4	-9.7	-18.5	-29.5	66.4	-12.1	-22.8	-36.1	66.4
2:12	-8.7	-17.4	-27.3	60.9	-8.7	-17.4	-27.3	60.9	-10.8	-21.5	-33.5	60.9
3:12	-8.8	-17.5	-27.4	54.8	-8.8	-17.5	-27.4	54.8	-10.8	-21.5	-33.5	54.8
4:12	-8.8	-17.5	-27.4	48.6	-8.8	-17.5	-27.4	48.6	-10.8	-21.5	-33.5	48.6
5:12	-8.8	-17.5	-27.4	42.7	-8.8	-17.5	-27.4	42.7	-10.8	-21.5	-33.6	42.7
6:12	-8.9	-17.6	-27.5	37.1	-8.9	-17.6	-27.5	37.1	-10.9	-21.6	-33.6	37.1
7:12	-9.9	-12.1	-12.1	32.4	-9.9	-12.1	-12.1	32.4	-12.3	-14.9	-14.9	33.9
8:12	-9.9	-12.1	-12.1	29.0	-9.9	-12.1	-12.1	29.0	-12.3	-15.0	-15.0	30.5
9:12	-10.0	-12.2	-12.2	26.0	-10.0	-12.2	-12.2	26.0	-12.3	-15.0	-15.0	27.5
10:12	-10.0	-12.2	-12.2	23.4	-10.0	-12.2	-12.2	23.4	-12.4	-15.0	-15.0	24.9
11:12	-10.1	-12.3	-12.3	21.2	-10.1	-12.3	-12.3	21.2	-12.4	-15.1	-15.1	22.7
12:12	-10.1	-12.3	-12.3	19.3	-10.1	-12.3	-12.3	19.3	-12.5	-15.1	-15.1	20.8
Exposure Category C												
1:12	-12.1	-22.8	-36.1	66.4	-14.1	-26.5	-41.9	66.4	-16.5	-30.7	-48.5	66.4
2:12	-10.8	-21.5	-33.5	60.9	-12.6	-24.9	-38.8	60.9	-14.7	-28.9	-44.9	60.9
3:12	-10.8	-21.5	-33.5	54.8	-12.6	-24.9	-38.8	54.8	-14.7	-29.0	-44.9	54.8
4:12	-10.8	-21.5	-33.5	48.6	-12.6	-25.0	-38.8	48.6	-14.8	-29.0	-45.0	48.6
5:12	-10.8	-21.5	-33.6	42.7	-12.7	-25.0	-38.9	42.7	-14.8	-29.0	-45.0	42.7
6:12	-10.9	-21.6	-33.6	37.1	-12.7	-25.0	-38.9	37.1	-14.8	-29.1	-45.0	37.1
7:12	-12.3	-14.9	-14.9	33.9	-14.3	-17.4	-17.4	35.3	-16.7	-20.2	-20.2	36.9
8:12	-12.3	-15.0	-15.0	30.5	-14.3	-17.4	-17.4	31.9	-16.7	-20.2	-20.2	33.5
9:12	-12.3	-15.0	-15.0	27.5	-14.4	-17.5	-17.5	28.9	-16.7	-20.3	-20.3	30.5
10:12	-12.4	-15.0	-15.0	24.9	-14.4	-17.5	-17.5	26.3	-16.8	-20.3	-20.3	27.9
11:12	-12.4	-15.1	-15.1	22.7	-14.5	-17.5	-17.5	24.1	-16.8	-20.4	-20.4	25.7
12:12	-12.5	-15.1	-15.1	20.8	-14.5	-17.6	-17.6	22.2	-16.9	-20.4	-20.4	23.8
Exposure Category D												
1:12	-14.9	-27.9	-44.1	60.1	-17.0	-31.5	-49.8	60.1	-19.3	-35.8	-56.4	60.1
2:12	-13.3	-26.3	-40.8	55.2	-15.1	-29.7	-46.1	55.2	-17.3	-33.7	-52.3	55.2
3:12	-13.3	-26.3	-40.9	49.7	-15.2	-29.8	-46.2	49.7	-17.3	-33.8	-52.3	49.7
4:12	-13.4	-26.3	-40.9	44.1	-15.2	-29.8	-46.2	44.1	-17.3	-33.8	-52.3	44.1
5:12	-13.4	-26.3	-40.9	38.8	-15.2	-29.8	-46.2	38.8	-17.4	-33.8	-52.4	38.8
6:12	-13.4	-26.4	-41.0	33.8	-15.3	-29.9	-46.3	33.8	-17.4	-33.9	-52.4	33.9
7:12	-15.1	-18.3	-18.3	33.7	-17.1	-20.8	-20.8	35.0	-19.5	-23.6	-23.6	36.6
8:12	-15.1	-18.4	-18.4	30.6	-17.2	-20.8	-20.8	32.0	-19.5	-23.6	-23.6	33.5
9:12	-15.2	-18.4	-18.4	27.9	-17.2	-20.9	-20.9	29.3	-19.6	-23.7	-23.7	30.9
10:12	-15.2	-18.4	-18.4	25.5	-17.3	-20.9	-20.9	26.9	-19.6	-23.7	-23.7	28.5
11:12	-15.2	-18.5	-18.5	23.5	-17.3	-20.9	-20.9	24.9	-19.6	-23.8	-23.8	26.5
12:12	-15.3	-18.5	-18.5	21.8	-17.3	-21.0	-21.0	23.2	-19.7	-23.8	-23.8	24.8

Basic Wind Speed **85 mph**
Ground Snow Load **90 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.7	-18.5	-29.5	73.4	-9.7	-18.5	-29.5	73.4	-12.1	-22.8	-36.1	73.4
2:12	-8.7	-17.4	-27.3	67.2	-8.7	-17.4	-27.3	67.2	-10.8	-21.5	-33.5	67.2
3:12	-8.8	-17.5	-27.4	60.5	-8.8	-17.5	-27.4	60.5	-10.8	-21.5	-33.5	60.5
4:12	-8.8	-17.5	-27.4	53.6	-8.8	-17.5	-27.4	53.6	-10.8	-21.5	-33.5	53.6
5:12	-8.8	-17.5	-27.4	47.0	-8.8	-17.5	-27.4	47.0	-10.8	-21.5	-33.6	47.0
6:12	-8.9	-17.6	-27.5	40.9	-8.9	-17.6	-27.5	40.9	-10.9	-21.6	-33.6	40.9
7:12	-9.9	-12.1	-12.1	35.3	-9.9	-12.1	-12.1	35.3	-12.3	-14.9	-14.9	36.3
8:12	-9.9	-12.1	-12.1	31.0	-9.9	-12.1	-12.1	31.0	-12.3	-15.0	-15.0	32.5
9:12	-10.0	-12.2	-12.2	27.7	-10.0	-12.2	-12.2	27.7	-12.3	-15.0	-15.0	29.2
10:12	-10.0	-12.2	-12.2	24.8	-10.0	-12.2	-12.2	24.8	-12.4	-15.0	-15.0	26.4
11:12	-10.1	-12.3	-12.3	22.4	-10.1	-12.3	-12.3	22.4	-12.4	-15.1	-15.1	23.9
12:12	-10.1	-12.3	-12.3	20.3	-10.1	-12.3	-12.3	20.3	-12.5	-15.1	-15.1	21.8
1:12	-12.1	-22.8	-36.1	73.4	-14.1	-26.5	-41.9	73.4	-16.5	-30.7	-48.5	73.4
2:12	-10.8	-21.5	-33.5	67.2	-12.6	-24.9	-38.8	67.2	-14.7	-28.9	-44.9	67.2
3:12	-10.8	-21.5	-33.5	60.5	-12.6	-24.9	-38.8	60.5	-14.7	-29.0	-44.9	60.5
4:12	-10.8	-21.5	-33.5	53.6	-12.6	-25.0	-38.8	53.6	-14.8	-29.0	-45.0	53.6
5:12	-10.8	-21.5	-33.6	47.0	-12.7	-25.0	-38.9	47.0	-14.8	-29.0	-45.0	47.0
6:12	-10.9	-21.6	-33.6	40.9	-12.7	-25.0	-38.9	40.9	-14.8	-29.1	-45.0	40.9
7:12	-12.3	-14.9	-14.9	36.3	-14.3	-17.4	-17.4	37.7	-16.7	-20.2	-20.2	39.3
8:12	-12.3	-15.0	-15.0	32.5	-14.3	-17.4	-17.4	33.9	-16.7	-20.2	-20.2	35.5
9:12	-12.3	-15.0	-15.0	29.2	-14.4	-17.5	-17.5	30.6	-16.7	-20.3	-20.3	32.2
10:12	-12.4	-15.0	-15.0	26.4	-14.4	-17.5	-17.5	27.7	-16.8	-20.3	-20.3	29.3
11:12	-12.4	-15.1	-15.1	23.9	-14.5	-17.5	-17.5	25.3	-16.8	-20.4	-20.4	26.9
12:12	-12.5	-15.1	-15.1	21.8	-14.5	-17.6	-17.6	23.2	-16.9	-20.4	-20.4	24.8
1:12	-14.9	-27.9	-44.1	66.4	-17.0	-31.5	-49.8	66.4	-19.3	-35.8	-56.4	66.4
2:12	-13.3	-26.3	-40.8	60.9	-15.1	-29.7	-46.1	60.9	-17.3	-33.7	-52.3	60.9
3:12	-13.3	-26.3	-40.9	54.8	-15.2	-29.8	-46.2	54.8	-17.3	-33.8	-52.3	54.8
4:12	-13.4	-26.3	-40.9	48.6	-15.2	-29.8	-46.2	48.6	-17.3	-33.8	-52.3	48.6
5:12	-13.4	-26.3	-40.9	42.7	-15.2	-29.8	-46.2	42.7	-17.4	-33.8	-52.4	42.7
6:12	-13.4	-26.4	-41.0	37.1	-15.3	-29.9	-46.3	37.1	-17.4	-33.9	-52.4	37.1
7:12	-15.1	-18.3	-18.3	35.8	-17.1	-20.8	-20.8	37.2	-19.5	-23.6	-23.6	38.8
8:12	-15.1	-18.4	-18.4	32.4	-17.2	-20.8	-20.8	33.8	-19.5	-23.6	-23.6	35.4
9:12	-15.2	-18.4	-18.4	29.4	-17.2	-20.9	-20.9	30.8	-19.6	-23.7	-23.7	32.4
10:12	-15.2	-18.4	-18.4	26.8	-17.3	-20.9	-20.9	28.2	-19.6	-23.7	-23.7	29.8
11:12	-15.2	-18.5	-18.5	24.6	-17.3	-20.9	-20.9	26.0	-19.6	-23.8	-23.8	27.6
12:12	-15.3	-18.5	-18.5	22.7	-17.3	-21.0	-21.0	24.1	-19.7	-23.8	-23.8	25.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
85 mph

Ground Snow Load
100 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	13.8	-11.1	-20.9	-33.3	13.8	-13.7	-25.7	-40.7	13.8
2:12	-9.8	-19.7	-30.8	13.8	-9.8	-19.7	-30.8	13.8	-12.2	-24.2	-37.7	13.8
3:12	-9.9	-19.7	-30.8	13.7	-9.9	-19.7	-30.8	13.7	-12.2	-24.2	-37.7	13.7
4:12	-9.9	-19.8	-30.9	13.6	-9.9	-19.8	-30.9	13.6	-12.3	-24.3	-37.7	13.6
5:12	-9.9	-19.8	-30.9	13.6	-9.9	-19.8	-30.9	13.6	-12.3	-24.3	-37.8	13.6
6:12	-10.0	-19.8	-30.9	13.4	-10.0	-19.8	-30.9	13.4	-12.3	-24.3	-37.8	13.4
7:12	-11.2	-13.7	-13.7	14.4	-11.2	-13.7	-13.7	14.4	-13.9	-16.9	-16.9	16.8
8:12	-11.3	-13.7	-13.7	14.3	-11.3	-13.7	-13.7	14.3	-13.9	-16.9	-16.9	16.7
9:12	-11.3	-13.8	-13.8	14.2	-11.3	-13.8	-13.8	14.2	-14.0	-17.0	-17.0	16.6
10:12	-11.4	-13.8	-13.8	14.1	-11.4	-13.8	-13.8	14.1	-14.0	-17.0	-17.0	16.4
11:12	-11.4	-13.9	-13.9	13.9	-11.4	-13.9	-13.9	13.9	-14.0	-17.0	-17.0	16.3
12:12	-11.4	-13.9	-13.9	13.8	-11.4	-13.9	-13.9	13.8	-14.1	-17.1	-17.1	16.2
1:12	-13.7	-25.7	-40.7	13.8	-16.0	-29.8	-47.1	13.8	-18.6	-34.6	-54.5	13.8
2:12	-12.2	-24.2	-37.7	13.8	-14.3	-28.1	-43.6	13.8	-16.7	-32.6	-50.5	13.8
3:12	-12.2	-24.2	-37.7	13.7	-14.3	-28.1	-43.7	13.7	-16.7	-32.6	-50.5	13.7
4:12	-12.3	-24.3	-37.7	13.6	-14.3	-28.1	-43.7	13.6	-16.7	-32.6	-50.6	13.6
5:12	-12.3	-24.3	-37.8	13.6	-14.4	-28.2	-43.7	13.6	-16.7	-32.7	-50.6	13.6
6:12	-12.3	-24.3	-37.8	13.4	-14.4	-28.2	-43.8	13.4	-16.8	-32.7	-50.6	13.4
7:12	-13.9	-16.9	-16.9	16.8	-16.2	-19.6	-19.6	18.9	-18.8	-22.8	-22.8	21.2
8:12	-13.9	-16.9	-16.9	16.7	-16.2	-19.7	-19.7	18.7	-18.8	-22.8	-22.8	21.1
9:12	-14.0	-17.0	-17.0	16.6	-16.2	-19.7	-19.7	18.6	-18.9	-22.9	-22.9	21.0
10:12	-14.0	-17.0	-17.0	16.4	-16.3	-19.7	-19.7	18.5	-18.9	-22.9	-22.9	20.9
11:12	-14.0	-17.0	-17.0	16.3	-16.3	-19.8	-19.8	18.4	-19.0	-23.0	-23.0	20.8
12:12	-14.1	-17.1	-17.1	16.2	-16.4	-19.8	-19.8	18.3	-19.0	-23.0	-23.0	20.6
1:12	-16.9	-31.4	-49.6	13.8	-19.2	-35.5	-56.0	13.8	-21.8	-40.3	-63.4	13.8
2:12	-15.1	-29.6	-45.9	13.8	-17.1	-33.5	-51.9	14.0	-19.5	-38.0	-58.8	15.3
3:12	-15.1	-29.6	-46.0	13.7	-17.2	-33.5	-51.9	14.0	-19.5	-38.0	-58.8	15.3
4:12	-15.1	-29.6	-46.0	13.6	-17.2	-33.5	-51.9	13.9	-19.6	-38.0	-58.8	15.2
5:12	-15.2	-29.7	-46.0	13.6	-17.2	-33.6	-52.0	13.8	-19.6	-38.1	-58.8	15.1
6:12	-15.2	-29.7	-46.1	13.4	-17.3	-33.6	-52.0	13.7	-19.6	-38.1	-58.9	15.0
7:12	-17.0	-20.7	-20.7	19.7	-19.3	-23.4	-23.4	21.7	-22.0	-26.6	-26.6	24.1
8:12	-17.1	-20.7	-20.7	19.5	-19.4	-23.5	-23.5	21.6	-22.0	-26.6	-26.6	24.0
9:12	-17.1	-20.8	-20.8	19.4	-19.4	-23.5	-23.5	21.5	-22.1	-26.7	-26.7	23.9
10:12	-17.2	-20.8	-20.8	19.3	-19.5	-23.5	-23.5	21.4	-22.1	-26.7	-26.7	23.7
11:12	-17.2	-20.8	-20.8	19.2	-19.5	-23.6	-23.6	21.2	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5

Basic Wind Speed
90 mph

Ground Snow Load
0 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	15.1	-11.1	-20.9	-33.3	15.1	-13.7	-25.7	-40.7	15.1
2:12	-9.8	-19.7	-30.8	14.7	-9.8	-19.7	-30.8	14.7	-12.2	-24.2	-37.7	14.7
3:12	-9.9	-19.7	-30.8	14.3	-9.9	-19.7	-30.8	14.3	-12.2	-24.2	-37.7	14.3
4:12	-9.9	-19.8	-30.9	13.6	-9.9	-19.8	-30.9	13.6	-12.3	-24.3	-37.7	13.6
5:12	-9.9	-19.8	-30.9	13.6	-9.9	-19.8	-30.9	13.6	-12.3	-24.3	-37.8	13.6
6:12	-10.0	-19.8	-30.9	13.4	-10.0	-19.8	-30.9	13.4	-12.3	-24.3	-37.8	13.4
7:12	-11.2	-13.7	-13.7	14.4	-11.2	-13.7	-13.7	14.4	-13.9	-16.9	-16.9	16.8
8:12	-11.3	-13.7	-13.7	14.3	-11.3	-13.7	-13.7	14.3	-13.9	-16.9	-16.9	16.7
9:12	-11.3	-13.8	-13.8	14.2	-11.3	-13.8	-13.8	14.2	-14.0	-17.0	-17.0	16.6
10:12	-11.4	-13.8	-13.8	14.1	-11.4	-13.8	-13.8	14.1	-14.0	-17.0	-17.0	16.4
11:12	-11.4	-13.9	-13.9	13.9	-11.4	-13.9	-13.9	13.9	-14.0	-17.0	-17.0	16.3
12:12	-11.4	-13.9	-13.9	13.8	-11.4	-13.9	-13.9	13.8	-14.1	-17.1	-17.1	16.2
1:12	-13.7	-25.7	-40.7	15.1	-16.0	-29.8	-47.1	15.1	-18.6	-34.6	-54.5	15.1
2:12	-12.2	-24.2	-37.7	14.7	-14.3	-28.1	-43.6	14.7	-16.7	-32.6	-50.5	14.7
3:12	-12.2	-24.2	-37.7	14.3	-14.3	-28.1	-43.7	14.3	-16.7	-32.6	-50.5	14.3
4:12	-12.3	-24.3	-37.7	13.6	-14.3	-28.1	-43.7	13.6	-16.7	-32.6	-50.6	13.6
5:12	-12.3	-24.3	-37.8	13.6	-14.4	-28.2	-43.7	13.6	-16.7	-32.7	-50.6	13.6
6:12	-12.3	-24.3	-37.8	13.4	-14.4	-28.2	-43.8	13.4	-16.8	-32.7	-50.6	13.4
7:12	-13.9	-16.9	-16.9	16.8	-16.2	-19.6	-19.6	18.9	-18.8	-22.8	-22.8	21.2
8:12	-13.9	-16.9	-16.9	16.7	-16.2	-19.7	-19.7	18.7	-18.8	-22.8	-22.8	21.1
9:12	-14.0	-17.0	-17.0	16.6	-16.2	-19.7	-19.7	18.6	-18.9	-22.9	-22.9	21.0
10:12	-14.0	-17.0	-17.0	16.4	-16.3	-19.7	-19.7	18.5	-18.9	-22.9	-22.9	20.9
11:12	-14.0	-17.0	-17.0	16.3	-16.3	-19.8	-19.8	18.4	-19.0	-23.0	-23.0	20.8
12:12	-14.1	-17.1	-17.1	16.2	-16.4	-19.8	-19.8	18.3	-19.0	-23.0	-23.0	20.6
1:12	-16.9	-31.4	-49.6	15.1	-19.2	-35.5	-56.0	15.1	-21.8	-40.3	-63.4	15.1
2:12	-15.1	-29.6	-45.9	14.7	-17.1	-33.5	-51.9	14.9	-19.5	-38.0	-58.8	15.9
3:12	-15.1	-29.6	-46.0	14.3	-17.2	-33.5	-51.9	14.4	-19.5	-38.0	-58.8	15.4
4:12	-15.1	-29.6	-46.0	13.6	-17.2	-33.5	-51.9	13.9	-19.6	-38.0	-58.8	15.2
5:12	-15.2	-29.7	-46.0	13.6	-17.2	-33.6	-52.0	13.8	-19.6	-38.1	-58.8	15.1
6:12	-15.2	-29.7	-46.1	13.4	-17.3	-33.6	-52.0	13.7	-19.6	-38.1	-58.9	15.0
7:12	-17.0	-20.7	-20.7	19.7	-19.3	-23.4	-23.4	21.7	-22.0	-26.6	-26.6	24.1
8:12	-17.1	-20.7	-20.7	19.5	-19.4	-23.5	-23.5	21.6	-22.0	-26.6	-26.6	24.0
9:12	-17.1	-20.8	-20.8	19.4	-19.4	-23.5	-23.5	21.5	-22.1	-26.7	-26.7	23.9
10:12	-17.2	-20.8	-20.8	19.3	-19.5	-23.5	-23.5	21.4	-22.1	-26.7	-26.7	23.7
11:12	-17.2	-20.8	-20.8	19.2	-19.5	-23.6	-23.6	21.2	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5

Basic Wind Speed **90 mph**
Ground Snow Load **5 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W90-S5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	18.8	-11.1	-20.9	-33.3	18.8	-13.7	-25.7	-40.7	18.8
2:12	-9.8	-19.7	-30.8	18.1	-9.8	-19.7	-30.8	18.1	-12.2	-24.2	-37.7	18.1
3:12	-9.9	-19.7	-30.8	17.3	-9.9	-19.7	-30.8	17.3	-12.2	-24.2	-37.7	17.3
4:12	-9.9	-19.8	-30.9	14.9	-9.9	-19.8	-30.9	14.9	-12.3	-24.3	-37.7	14.9
5:12	-9.9	-19.8	-30.9	14.3	-9.9	-19.8	-30.9	14.3	-12.3	-24.3	-37.8	14.3
6:12	-10.0	-19.8	-30.9	13.7	-10.0	-19.8	-30.9	13.7	-12.3	-24.3	-37.8	13.7
7:12	-11.2	-13.7	-13.7	14.4	-11.2	-13.7	-13.7	14.4	-13.9	-16.9	-16.9	16.8
8:12	-11.3	-13.7	-13.7	14.3	-11.3	-13.7	-13.7	14.3	-13.9	-16.9	-16.9	16.7
9:12	-11.3	-13.8	-13.8	14.2	-11.3	-13.8	-13.8	14.2	-14.0	-17.0	-17.0	16.6
10:12	-11.4	-13.8	-13.8	14.1	-11.4	-13.8	-13.8	14.1	-14.0	-17.0	-17.0	16.4
11:12	-11.4	-13.9	-13.9	13.9	-11.4	-13.9	-13.9	13.9	-14.0	-17.0	-17.0	16.3
12:12	-11.4	-13.9	-13.9	13.8	-11.4	-13.9	-13.9	13.8	-14.1	-17.1	-17.1	16.2
1:12	-13.7	-25.7	-40.7	18.8	-16.0	-29.8	-47.1	18.8	-18.6	-34.6	-54.5	18.8
2:12	-12.2	-24.2	-37.7	18.1	-14.3	-28.1	-43.6	18.1	-16.7	-32.6	-50.5	18.1
3:12	-12.2	-24.2	-37.7	17.3	-14.3	-28.1	-43.7	17.3	-16.7	-32.6	-50.5	17.3
4:12	-12.3	-24.3	-37.7	14.9	-14.3	-28.1	-43.7	14.9	-16.7	-32.6	-50.6	14.9
5:12	-12.3	-24.3	-37.8	14.3	-14.4	-28.2	-43.7	14.3	-16.7	-32.7	-50.6	14.3
6:12	-12.3	-24.3	-37.8	13.7	-14.4	-28.2	-43.8	13.7	-16.8	-32.7	-50.6	13.7
7:12	-13.9	-16.9	-16.9	16.8	-16.2	-19.6	-19.6	18.9	-18.8	-22.8	-22.8	21.2
8:12	-13.9	-16.9	-16.9	16.7	-16.2	-19.7	-19.7	18.7	-18.8	-22.8	-22.8	21.1
9:12	-14.0	-17.0	-17.0	16.6	-16.2	-19.7	-19.7	18.6	-18.9	-22.9	-22.9	21.0
10:12	-14.0	-17.0	-17.0	16.4	-16.3	-19.7	-19.7	18.5	-18.9	-22.9	-22.9	20.9
11:12	-14.0	-17.0	-17.0	16.3	-16.3	-19.8	-19.8	18.4	-19.0	-23.0	-23.0	20.8
12:12	-14.1	-17.1	-17.1	16.2	-16.4	-19.8	-19.8	18.3	-19.0	-23.0	-23.0	20.6
1:12	-16.9	-31.4	-49.6	18.8	-19.2	-35.5	-56.0	18.8	-21.8	-40.3	-63.4	18.8
2:12	-15.1	-29.6	-45.9	18.1	-17.1	-33.5	-51.9	18.3	-19.5	-38.0	-58.8	19.2
3:12	-15.1	-29.6	-46.0	17.3	-17.2	-33.5	-51.9	17.5	-19.5	-38.0	-58.8	18.5
4:12	-15.1	-29.6	-46.0	14.5	-17.2	-33.5	-51.9	14.7	-19.6	-38.0	-58.8	15.7
5:12	-15.2	-29.7	-46.0	14.0	-17.2	-33.6	-52.0	14.2	-19.6	-38.1	-58.8	15.1
6:12	-15.2	-29.7	-46.1	13.5	-17.3	-33.6	-52.0	13.7	-19.6	-38.1	-58.9	15.0
7:12	-17.0	-20.7	-20.7	19.7	-19.3	-23.4	-23.4	21.7	-22.0	-26.6	-26.6	24.1
8:12	-17.1	-20.7	-20.7	19.5	-19.4	-23.5	-23.5	21.6	-22.0	-26.6	-26.6	24.0
9:12	-17.1	-20.8	-20.8	19.4	-19.4	-23.5	-23.5	21.5	-22.1	-26.7	-26.7	23.9
10:12	-17.2	-20.8	-20.8	19.3	-19.5	-23.5	-23.5	21.4	-22.1	-26.7	-26.7	23.7
11:12	-17.2	-20.8	-20.8	19.2	-19.5	-23.6	-23.6	21.2	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **90 mph**
Ground Snow Load **10 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.1	-20.9	-33.3	22.5	-11.1	-20.9	-33.3	22.5	-13.7	-25.7	-40.7	22.5
2:12	-9.8	-19.7	-30.8	21.5	-9.8	-19.7	-30.8	21.5	-12.2	-24.2	-37.7	21.5
3:12	-9.9	-19.7	-30.8	20.3	-9.9	-19.7	-30.8	20.3	-12.2	-24.2	-37.7	20.3
4:12	-9.9	-19.8	-30.9	16.8	-9.9	-19.8	-30.9	16.8	-12.3	-24.3	-37.7	16.8
5:12	-9.9	-19.8	-30.9	15.9	-9.9	-19.8	-30.9	15.9	-12.3	-24.3	-37.8	15.9
6:12	-10.0	-19.8	-30.9	15.2	-10.0	-19.8	-30.9	15.2	-12.3	-24.3	-37.8	15.2
7:12	-11.2	-13.7	-13.7	15.2	-11.2	-13.7	-13.7	15.2	-13.9	-16.9	-16.9	17.0
8:12	-11.3	-13.7	-13.7	14.6	-11.3	-13.7	-13.7	14.6	-13.9	-16.9	-16.9	16.7
9:12	-11.3	-13.8	-13.8	14.2	-11.3	-13.8	-13.8	14.2	-14.0	-17.0	-17.0	16.6
10:12	-11.4	-13.8	-13.8	14.1	-11.4	-13.8	-13.8	14.1	-14.0	-17.0	-17.0	16.4
11:12	-11.4	-13.9	-13.9	13.9	-11.4	-13.9	-13.9	13.9	-14.0	-17.0	-17.0	16.3
12:12	-11.4	-13.9	-13.9	13.8	-11.4	-13.9	-13.9	13.8	-14.1	-17.1	-17.1	16.2
Exposure Category C												
1:12	-13.7	-25.7	-40.7	22.5	-16.0	-29.8	-47.1	22.5	-18.6	-34.6	-54.5	22.5
2:12	-12.2	-24.2	-37.7	21.5	-14.3	-28.1	-43.6	21.5	-16.7	-32.6	-50.5	21.5
3:12	-12.2	-24.2	-37.7	20.3	-14.3	-28.1	-43.7	20.3	-16.7	-32.6	-50.5	20.3
4:12	-12.3	-24.3	-37.7	16.8	-14.3	-28.1	-43.7	16.8	-16.7	-32.6	-50.6	16.8
5:12	-12.3	-24.3	-37.8	15.9	-14.4	-28.2	-43.7	15.9	-16.7	-32.7	-50.6	15.9
6:12	-12.3	-24.3	-37.8	15.2	-14.4	-28.2	-43.8	15.2	-16.8	-32.7	-50.6	15.2
7:12	-13.9	-16.9	-16.9	17.0	-16.2	-19.6	-19.6	18.9	-18.8	-22.8	-22.8	21.2
8:12	-13.9	-16.9	-16.9	16.7	-16.2	-19.7	-19.7	18.7	-18.8	-22.8	-22.8	21.1
9:12	-14.0	-17.0	-17.0	16.6	-16.2	-19.7	-19.7	18.6	-18.9	-22.9	-22.9	21.0
10:12	-14.0	-17.0	-17.0	16.4	-16.3	-19.7	-19.7	18.5	-18.9	-22.9	-22.9	20.9
11:12	-14.0	-17.0	-17.0	16.3	-16.3	-19.8	-19.8	18.4	-19.0	-23.0	-23.0	20.8
12:12	-14.1	-17.1	-17.1	16.2	-16.4	-19.8	-19.8	18.3	-19.0	-23.0	-23.0	20.6
Exposure Category D												
1:12	-16.9	-31.4	-49.6	22.5	-19.2	-35.5	-56.0	22.5	-21.8	-40.3	-63.4	22.5
2:12	-15.1	-29.6	-45.9	21.5	-17.1	-33.5	-51.9	21.7	-19.5	-38.0	-58.8	22.6
3:12	-15.1	-29.6	-46.0	20.3	-17.2	-33.5	-51.9	20.5	-19.5	-38.0	-58.8	21.5
4:12	-15.1	-29.6	-46.0	16.2	-17.2	-33.5	-51.9	16.4	-19.6	-38.0	-58.8	17.4
5:12	-15.2	-29.7	-46.0	15.5	-17.2	-33.6	-52.0	15.6	-19.6	-38.1	-58.8	16.6
6:12	-15.2	-29.7	-46.1	14.7	-17.3	-33.6	-52.0	14.9	-19.6	-38.1	-58.9	15.9
7:12	-17.0	-20.7	-20.7	19.7	-19.3	-23.4	-23.4	21.7	-22.0	-26.6	-26.6	24.1
8:12	-17.1	-20.7	-20.7	19.5	-19.4	-23.5	-23.5	21.6	-22.0	-26.6	-26.6	24.0
9:12	-17.1	-20.8	-20.8	19.4	-19.4	-23.5	-23.5	21.5	-22.1	-26.7	-26.7	23.9
10:12	-17.2	-20.8	-20.8	19.3	-19.5	-23.5	-23.5	21.4	-22.1	-26.7	-26.7	23.7
11:12	-17.2	-20.8	-20.8	19.2	-19.5	-23.6	-23.6	21.2	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5

Basic Wind Speed
90 mph

Ground Snow Load
15 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed **90 mph**
Ground Snow Load **20 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	26.2	-11.1	-20.9	-33.3	26.2	-13.7	-25.7	-40.7	26.2
2:12	-9.8	-19.7	-30.8	24.9	-9.8	-19.7	-30.8	24.9	-12.2	-24.2	-37.7	24.9
3:12	-9.9	-19.7	-30.8	23.4	-9.9	-19.7	-30.8	23.4	-12.2	-24.2	-37.7	23.4
4:12	-9.9	-19.8	-30.9	18.6	-9.9	-19.8	-30.9	18.6	-12.3	-24.3	-37.7	18.6
5:12	-9.9	-19.8	-30.9	17.6	-9.9	-19.8	-30.9	17.6	-12.3	-24.3	-37.8	17.6
6:12	-10.0	-19.8	-30.9	16.6	-10.0	-19.8	-30.9	16.6	-12.3	-24.3	-37.8	16.6
7:12	-11.2	-13.7	-13.7	16.4	-11.2	-13.7	-13.7	16.4	-13.9	-16.9	-16.9	18.2
8:12	-11.3	-13.7	-13.7	15.6	-11.3	-13.7	-13.7	15.6	-13.9	-16.9	-16.9	17.4
9:12	-11.3	-13.8	-13.8	14.8	-11.3	-13.8	-13.8	14.8	-14.0	-17.0	-17.0	16.6
10:12	-11.4	-13.8	-13.8	14.2	-11.4	-13.8	-13.8	14.2	-14.0	-17.0	-17.0	16.4
11:12	-11.4	-13.9	-13.9	13.9	-11.4	-13.9	-13.9	13.9	-14.0	-17.0	-17.0	16.3
12:12	-11.4	-13.9	-13.9	13.8	-11.4	-13.9	-13.9	13.8	-14.1	-17.1	-17.1	16.2
1:12	-13.7	-25.7	-40.7	26.2	-16.0	-29.8	-47.1	26.2	-18.6	-34.6	-54.5	26.2
2:12	-12.2	-24.2	-37.7	24.9	-14.3	-28.1	-43.6	24.9	-16.7	-32.6	-50.5	24.9
3:12	-12.2	-24.2	-37.7	23.4	-14.3	-28.1	-43.7	23.4	-16.7	-32.6	-50.5	23.4
4:12	-12.3	-24.3	-37.7	18.6	-14.3	-28.1	-43.7	18.6	-16.7	-32.6	-50.6	18.6
5:12	-12.3	-24.3	-37.8	17.6	-14.4	-28.2	-43.7	17.6	-16.7	-32.7	-50.6	17.6
6:12	-12.3	-24.3	-37.8	16.6	-14.4	-28.2	-43.8	16.6	-16.8	-32.7	-50.6	16.6
7:12	-13.9	-16.9	-16.9	18.2	-16.2	-19.6	-19.6	19.8	-18.8	-22.8	-22.8	21.6
8:12	-13.9	-16.9	-16.9	17.4	-16.2	-19.7	-19.7	18.9	-18.8	-22.8	-22.8	21.1
9:12	-14.0	-17.0	-17.0	16.6	-16.2	-19.7	-19.7	18.6	-18.9	-22.9	-22.9	21.0
10:12	-14.0	-17.0	-17.0	16.4	-16.3	-19.7	-19.7	18.5	-18.9	-22.9	-22.9	20.9
11:12	-14.0	-17.0	-17.0	16.3	-16.3	-19.8	-19.8	18.4	-19.0	-23.0	-23.0	20.8
12:12	-14.1	-17.1	-17.1	16.2	-16.4	-19.8	-19.8	18.3	-19.0	-23.0	-23.0	20.6
1:12	-16.9	-31.4	-49.6	26.2	-19.2	-35.5	-56.0	26.2	-21.8	-40.3	-63.4	26.2
2:12	-15.1	-29.6	-45.9	24.9	-17.1	-33.5	-51.9	25.1	-19.5	-38.0	-58.8	26.0
3:12	-15.1	-29.6	-46.0	23.4	-17.2	-33.5	-51.9	23.6	-19.5	-38.0	-58.8	24.5
4:12	-15.1	-29.6	-46.0	17.9	-17.2	-33.5	-51.9	18.1	-19.6	-38.0	-58.8	19.1
5:12	-15.2	-29.7	-46.0	16.9	-17.2	-33.6	-52.0	17.1	-19.6	-38.1	-58.8	18.1
6:12	-15.2	-29.7	-46.1	16.0	-17.3	-33.6	-52.0	16.2	-19.6	-38.1	-58.9	17.2
7:12	-17.0	-20.7	-20.7	19.9	-19.3	-23.4	-23.4	21.7	-22.0	-26.6	-26.6	24.1
8:12	-17.1	-20.7	-20.7	19.5	-19.4	-23.5	-23.5	21.6	-22.0	-26.6	-26.6	24.0
9:12	-17.1	-20.8	-20.8	19.4	-19.4	-23.5	-23.5	21.5	-22.1	-26.7	-26.7	23.9
10:12	-17.2	-20.8	-20.8	19.3	-19.5	-23.5	-23.5	21.4	-22.1	-26.7	-26.7	23.7
11:12	-17.2	-20.8	-20.8	19.2	-19.5	-23.6	-23.6	21.2	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.1	-20.9	-33.3	26.2	-11.1	-20.9	-33.3	26.2	-13.7	-25.7	-40.7	26.2
2:12	-9.8	-19.7	-30.8	24.9	-9.8	-19.7	-30.8	24.9	-12.2	-24.2	-37.7	24.9
3:12	-9.9	-19.7	-30.8	23.4	-9.9	-19.7	-30.8	23.4	-12.2	-24.2	-37.7	23.4
4:12	-9.9	-19.8	-30.9	20.5	-9.9	-19.8	-30.9	20.5	-12.3	-24.3	-37.7	20.5
5:12	-9.9	-19.8	-30.9	19.2	-9.9	-19.8	-30.9	19.2	-12.3	-24.3	-37.8	19.2
6:12	-10.0	-19.8	-30.9	18.0	-10.0	-19.8	-30.9	18.0	-12.3	-24.3	-37.8	18.0
7:12	-11.2	-13.7	-13.7	17.6	-11.2	-13.7	-13.7	17.6	-13.9	-16.9	-16.9	19.4
8:12	-11.3	-13.7	-13.7	16.6	-11.3	-13.7	-13.7	16.6	-13.9	-16.9	-16.9	18.4
9:12	-11.3	-13.8	-13.8	15.7	-11.3	-13.8	-13.8	15.7	-14.0	-17.0	-17.0	17.5
10:12	-11.4	-13.8	-13.8	14.9	-11.4	-13.8	-13.8	14.9	-14.0	-17.0	-17.0	16.7
11:12	-11.4	-13.9	-13.9	14.2	-11.4	-13.9	-13.9	14.2	-14.0	-17.0	-17.0	16.3
12:12	-11.4	-13.9	-13.9	13.8	-11.4	-13.9	-13.9	13.8	-14.1	-17.1	-17.1	16.2
Exposure Category C												
1:12	-13.7	-25.7	-40.7	26.2	-16.0	-29.8	-47.1	26.2	-18.6	-34.6	-54.5	26.2
2:12	-12.2	-24.2	-37.7	24.9	-14.3	-28.1	-43.6	24.9	-16.7	-32.6	-50.5	24.9
3:12	-12.2	-24.2	-37.7	23.4	-14.3	-28.1	-43.7	23.4	-16.7	-32.6	-50.5	23.4
4:12	-12.3	-24.3	-37.7	20.5	-14.3	-28.1	-43.7	20.5	-16.7	-32.6	-50.6	20.5
5:12	-12.3	-24.3	-37.8	19.2	-14.4	-28.2	-43.7	19.2	-16.7	-32.7	-50.6	19.2
6:12	-12.3	-24.3	-37.8	18.0	-14.4	-28.2	-43.8	18.0	-16.8	-32.7	-50.6	18.0
7:12	-13.9	-16.9	-16.9	19.4	-16.2	-19.6	-19.6	21.0	-18.8	-22.8	-22.8	22.8
8:12	-13.9	-16.9	-16.9	18.4	-16.2	-19.7	-19.7	19.9	-18.8	-22.8	-22.8	21.7
9:12	-14.0	-17.0	-17.0	17.5	-16.2	-19.7	-19.7	19.0	-18.9	-22.9	-22.9	21.0
10:12	-14.0	-17.0	-17.0	16.7	-16.3	-19.7	-19.7	18.5	-18.9	-22.9	-22.9	20.9
11:12	-14.0	-17.0	-17.0	16.3	-16.3	-19.8	-19.8	18.4	-19.0	-23.0	-23.0	20.8
12:12	-14.1	-17.1	-17.1	16.2	-16.4	-19.8	-19.8	18.3	-19.0	-23.0	-23.0	20.6
Exposure Category D												
1:12	-16.9	-31.4	-49.6	26.2	-19.2	-35.5	-56.0	26.2	-21.8	-40.3	-63.4	26.2
2:12	-15.1	-29.6	-45.9	24.9	-17.1	-33.5	-51.9	25.1	-19.5	-38.0	-58.8	26.0
3:12	-15.1	-29.6	-46.0	23.4	-17.2	-33.5	-51.9	23.6	-19.5	-38.0	-58.8	24.5
4:12	-15.1	-29.6	-46.0	19.6	-17.2	-33.5	-51.9	19.8	-19.6	-38.0	-58.8	20.7
5:12	-15.2	-29.7	-46.0	18.4	-17.2	-33.6	-52.0	18.6	-19.6	-38.1	-58.8	19.5
6:12	-15.2	-29.7	-46.1	17.3	-17.3	-33.6	-52.0	17.4	-19.6	-38.1	-58.9	18.4
7:12	-17.0	-20.7	-20.7	21.0	-19.3	-23.4	-23.4	22.5	-22.0	-26.6	-26.6	24.3
8:12	-17.1	-20.7	-20.7	20.0	-19.4	-23.5	-23.5	21.6	-22.0	-26.6	-26.6	24.0
9:12	-17.1	-20.8	-20.8	19.4	-19.4	-23.5	-23.5	21.5	-22.1	-26.7	-26.7	23.9
10:12	-17.2	-20.8	-20.8	19.3	-19.5	-23.5	-23.5	21.4	-22.1	-26.7	-26.7	23.7
11:12	-17.2	-20.8	-20.8	19.2	-19.5	-23.6	-23.6	21.2	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5

Basic Wind Speed
90 mph

Ground Snow Load
25 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	27.0	-11.1	-20.9	-33.3	27.0	-13.7	-25.7	-40.7	27.0
2:12	-9.8	-19.7	-30.8	25.6	-9.8	-19.7	-30.8	25.6	-12.2	-24.2	-37.7	25.6
3:12	-9.9	-19.7	-30.8	24.0	-9.9	-19.7	-30.8	24.0	-12.2	-24.2	-37.7	24.0
4:12	-9.9	-19.8	-30.9	22.4	-9.9	-19.8	-30.9	22.4	-12.3	-24.3	-37.7	22.4
5:12	-9.9	-19.8	-30.9	20.8	-9.9	-19.8	-30.9	20.8	-12.3	-24.3	-37.8	20.8
6:12	-10.0	-19.8	-30.9	19.4	-10.0	-19.8	-30.9	19.4	-12.3	-24.3	-37.8	19.4
7:12	-11.2	-13.7	-13.7	18.8	-11.2	-13.7	-13.7	18.8	-13.9	-16.9	-16.9	20.6
8:12	-11.3	-13.7	-13.7	17.6	-11.3	-13.7	-13.7	17.6	-13.9	-16.9	-16.9	19.4
9:12	-11.3	-13.8	-13.8	16.5	-11.3	-13.8	-13.8	16.5	-14.0	-17.0	-17.0	18.3
10:12	-11.4	-13.8	-13.8	15.6	-11.4	-13.8	-13.8	15.6	-14.0	-17.0	-17.0	17.4
11:12	-11.4	-13.9	-13.9	14.8	-11.4	-13.9	-13.9	14.8	-14.0	-17.0	-17.0	16.6
12:12	-11.4	-13.9	-13.9	14.1	-11.4	-13.9	-13.9	14.1	-14.1	-17.1	-17.1	16.2
1:12	-13.7	-25.7	-40.7	27.0	-16.0	-29.8	-47.1	27.0	-18.6	-34.6	-54.5	27.0
2:12	-12.2	-24.2	-37.7	25.6	-14.3	-28.1	-43.6	25.6	-16.7	-32.6	-50.5	25.6
3:12	-12.2	-24.2	-37.7	24.0	-14.3	-28.1	-43.7	24.0	-16.7	-32.6	-50.5	24.0
4:12	-12.3	-24.3	-37.7	22.4	-14.3	-28.1	-43.7	22.4	-16.7	-32.6	-50.6	22.4
5:12	-12.3	-24.3	-37.8	20.8	-14.4	-28.2	-43.7	20.8	-16.7	-32.7	-50.6	20.8
6:12	-12.3	-24.3	-37.8	19.4	-14.4	-28.2	-43.8	19.4	-16.8	-32.7	-50.6	19.4
7:12	-13.9	-16.9	-16.9	20.6	-16.2	-19.6	-19.6	22.2	-18.8	-22.8	-22.8	24.0
8:12	-13.9	-16.9	-16.9	19.4	-16.2	-19.7	-19.7	21.0	-18.8	-22.8	-22.8	22.7
9:12	-14.0	-17.0	-17.0	18.3	-16.2	-19.7	-19.7	19.9	-18.9	-22.9	-22.9	21.7
10:12	-14.0	-17.0	-17.0	17.4	-16.3	-19.7	-19.7	18.9	-18.9	-22.9	-22.9	20.9
11:12	-14.0	-17.0	-17.0	16.6	-16.3	-19.8	-19.8	18.4	-19.0	-23.0	-23.0	20.8
12:12	-14.1	-17.1	-17.1	16.2	-16.4	-19.8	-19.8	18.3	-19.0	-23.0	-23.0	20.6
1:12	-16.9	-31.4	-49.6	26.2	-19.2	-35.5	-56.0	26.2	-21.8	-40.3	-63.4	26.2
2:12	-15.1	-29.6	-45.9	24.9	-17.1	-33.5	-51.9	25.1	-19.5	-38.0	-58.8	26.0
3:12	-15.1	-29.6	-46.0	23.4	-17.2	-33.5	-51.9	23.6	-19.5	-38.0	-58.8	24.5
4:12	-15.1	-29.6	-46.0	21.3	-17.2	-33.5	-51.9	21.4	-19.6	-38.0	-58.8	22.4
5:12	-15.2	-29.7	-46.0	19.9	-17.2	-33.6	-52.0	20.0	-19.6	-38.1	-58.8	21.0
6:12	-15.2	-29.7	-46.1	18.5	-17.3	-33.6	-52.0	18.7	-19.6	-38.1	-58.9	19.7
7:12	-17.0	-20.7	-20.7	22.0	-19.3	-23.4	-23.4	23.6	-22.0	-26.6	-26.6	25.4
8:12	-17.1	-20.7	-20.7	20.9	-19.4	-23.5	-23.5	22.5	-22.0	-26.6	-26.6	24.3
9:12	-17.1	-20.8	-20.8	20.0	-19.4	-23.5	-23.5	21.5	-22.1	-26.7	-26.7	23.9
10:12	-17.2	-20.8	-20.8	19.3	-19.5	-23.5	-23.5	21.4	-22.1	-26.7	-26.7	23.7
11:12	-17.2	-20.8	-20.8	19.2	-19.5	-23.6	-23.6	21.2	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5

Basic Wind Speed
90 mph

Ground Snow Load
30 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	29.6	-11.1	-20.9	-33.3	29.6	-13.7	-25.7	-40.7	29.6
2:12	-9.8	-19.7	-30.8	27.9	-9.8	-19.7	-30.8	27.9	-12.2	-24.2	-37.7	27.9
3:12	-9.9	-19.7	-30.8	26.1	-9.9	-19.7	-30.8	26.1	-12.2	-24.2	-37.7	26.1
4:12	-9.9	-19.8	-30.9	24.3	-9.9	-19.8	-30.9	24.3	-12.3	-24.3	-37.7	24.3
5:12	-9.9	-19.8	-30.9	22.5	-9.9	-19.8	-30.9	22.5	-12.3	-24.3	-37.8	22.5
6:12	-10.0	-19.8	-30.9	20.8	-10.0	-19.8	-30.9	20.8	-12.3	-24.3	-37.8	20.8
7:12	-11.2	-13.7	-13.7	20.0	-11.2	-13.7	-13.7	20.0	-13.9	-16.9	-16.9	21.8
8:12	-11.3	-13.7	-13.7	18.6	-11.3	-13.7	-13.7	18.6	-13.9	-16.9	-16.9	20.4
9:12	-11.3	-13.8	-13.8	17.4	-11.3	-13.8	-13.8	17.4	-14.0	-17.0	-17.0	19.2
10:12	-11.4	-13.8	-13.8	16.3	-11.4	-13.8	-13.8	16.3	-14.0	-17.0	-17.0	18.1
11:12	-11.4	-13.9	-13.9	15.4	-11.4	-13.9	-13.9	15.4	-14.0	-17.0	-17.0	17.2
12:12	-11.4	-13.9	-13.9	14.6	-11.4	-13.9	-13.9	14.6	-14.1	-17.1	-17.1	16.4
1:12	-13.7	-25.7	-40.7	29.6	-16.0	-29.8	-47.1	29.6	-18.6	-34.6	-54.5	29.6
2:12	-12.2	-24.2	-37.7	27.9	-14.3	-28.1	-43.6	27.9	-16.7	-32.6	-50.5	27.9
3:12	-12.2	-24.2	-37.7	26.1	-14.3	-28.1	-43.7	26.1	-16.7	-32.6	-50.5	26.1
4:12	-12.3	-24.3	-37.7	24.3	-14.3	-28.1	-43.7	24.3	-16.7	-32.6	-50.6	24.3
5:12	-12.3	-24.3	-37.8	22.5	-14.4	-28.2	-43.7	22.5	-16.7	-32.7	-50.6	22.5
6:12	-12.3	-24.3	-37.8	20.8	-14.4	-28.2	-43.8	20.8	-16.8	-32.7	-50.6	20.8
7:12	-13.9	-16.9	-16.9	21.8	-16.2	-19.6	-19.6	23.4	-18.8	-22.8	-22.8	25.1
8:12	-13.9	-16.9	-16.9	20.4	-16.2	-19.7	-19.7	22.0	-18.8	-22.8	-22.8	23.8
9:12	-14.0	-17.0	-17.0	19.2	-16.2	-19.7	-19.7	20.7	-18.9	-22.9	-22.9	22.5
10:12	-14.0	-17.0	-17.0	18.1	-16.3	-19.7	-19.7	19.7	-18.9	-22.9	-22.9	21.4
11:12	-14.0	-17.0	-17.0	17.2	-16.3	-19.8	-19.8	18.7	-19.0	-23.0	-23.0	20.8
12:12	-14.1	-17.1	-17.1	16.4	-16.4	-19.8	-19.8	18.3	-19.0	-23.0	-23.0	20.6
1:12	-16.9	-31.4	-49.6	27.8	-19.2	-35.5	-56.0	27.8	-21.8	-40.3	-63.4	27.8
2:12	-15.1	-29.6	-45.9	26.3	-17.1	-33.5	-51.9	26.4	-19.5	-38.0	-58.8	27.4
3:12	-15.1	-29.6	-46.0	24.6	-17.2	-33.5	-51.9	24.8	-19.5	-38.0	-58.8	25.8
4:12	-15.1	-29.6	-46.0	23.0	-17.2	-33.5	-51.9	23.1	-19.6	-38.0	-58.8	24.1
5:12	-15.2	-29.7	-46.0	21.3	-17.2	-33.6	-52.0	21.5	-19.6	-38.1	-58.8	22.5
6:12	-15.2	-29.7	-46.1	19.8	-17.3	-33.6	-52.0	19.9	-19.6	-38.1	-58.9	20.9
7:12	-17.0	-20.7	-20.7	23.1	-19.3	-23.4	-23.4	24.7	-22.0	-26.6	-26.6	26.5
8:12	-17.1	-20.7	-20.7	21.9	-19.4	-23.5	-23.5	23.4	-22.0	-26.6	-26.6	25.2
9:12	-17.1	-20.8	-20.8	20.7	-19.4	-23.5	-23.5	22.3	-22.1	-26.7	-26.7	24.1
10:12	-17.2	-20.8	-20.8	19.7	-19.5	-23.5	-23.5	21.4	-22.1	-26.7	-26.7	23.7
11:12	-17.2	-20.8	-20.8	19.2	-19.5	-23.6	-23.6	21.2	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5

Basic Wind Speed
90 mph

Ground Snow Load
35 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.1	-20.9	-33.3	32.2	-11.1	-20.9	-33.3	32.2	-13.7	-25.7	-40.7	32.2
2:12	-9.8	-19.7	-30.8	30.3	-9.8	-19.7	-30.8	30.3	-12.2	-24.2	-37.7	30.3
3:12	-9.9	-19.7	-30.8	28.2	-9.9	-19.7	-30.8	28.2	-12.2	-24.2	-37.7	28.2
4:12	-9.9	-19.8	-30.9	26.1	-9.9	-19.8	-30.9	26.1	-12.3	-24.3	-37.7	26.1
5:12	-9.9	-19.8	-30.9	24.1	-9.9	-19.8	-30.9	24.1	-12.3	-24.3	-37.8	24.1
6:12	-10.0	-19.8	-30.9	22.2	-10.0	-19.8	-30.9	22.2	-12.3	-24.3	-37.8	22.2
7:12	-11.2	-13.7	-13.7	21.2	-11.2	-13.7	-13.7	21.2	-13.9	-16.9	-16.9	23.0
8:12	-11.3	-13.7	-13.7	19.7	-11.3	-13.7	-13.7	19.7	-13.9	-16.9	-16.9	21.4
9:12	-11.3	-13.8	-13.8	18.3	-11.3	-13.8	-13.8	18.3	-14.0	-17.0	-17.0	20.0
10:12	-11.4	-13.8	-13.8	17.0	-11.4	-13.8	-13.8	17.0	-14.0	-17.0	-17.0	18.8
11:12	-11.4	-13.9	-13.9	16.0	-11.4	-13.9	-13.9	16.0	-14.0	-17.0	-17.0	17.8
12:12	-11.4	-13.9	-13.9	15.1	-11.4	-13.9	-13.9	15.1	-14.1	-17.1	-17.1	16.9
Exposure Category C												
1:12	-13.7	-25.7	-40.7	32.2	-16.0	-29.8	-47.1	32.2	-18.6	-34.6	-54.5	32.2
2:12	-12.2	-24.2	-37.7	30.3	-14.3	-28.1	-43.6	30.3	-16.7	-32.6	-50.5	30.3
3:12	-12.2	-24.2	-37.7	28.2	-14.3	-28.1	-43.7	28.2	-16.7	-32.6	-50.5	28.2
4:12	-12.3	-24.3	-37.7	26.1	-14.3	-28.1	-43.7	26.1	-16.7	-32.6	-50.6	26.1
5:12	-12.3	-24.3	-37.8	24.1	-14.4	-28.2	-43.7	24.1	-16.7	-32.7	-50.6	24.1
6:12	-12.3	-24.3	-37.8	22.2	-14.4	-28.2	-43.8	22.2	-16.8	-32.7	-50.6	22.2
7:12	-13.9	-16.9	-16.9	23.0	-16.2	-19.6	-19.6	24.6	-18.8	-22.8	-22.8	26.3
8:12	-13.9	-16.9	-16.9	21.4	-16.2	-19.7	-19.7	23.0	-18.8	-22.8	-22.8	24.8
9:12	-14.0	-17.0	-17.0	20.0	-16.2	-19.7	-19.7	21.6	-18.9	-22.9	-22.9	23.4
10:12	-14.0	-17.0	-17.0	18.8	-16.3	-19.7	-19.7	20.4	-18.9	-22.9	-22.9	22.2
11:12	-14.0	-17.0	-17.0	17.8	-16.3	-19.8	-19.8	19.3	-19.0	-23.0	-23.0	21.1
12:12	-14.1	-17.1	-17.1	16.9	-16.4	-19.8	-19.8	18.4	-19.0	-23.0	-23.0	20.6
Exposure Category D												
1:12	-16.9	-31.4	-49.6	30.1	-19.2	-35.5	-56.0	30.1	-21.8	-40.3	-63.4	30.1
2:12	-15.1	-29.6	-45.9	28.4	-17.1	-33.5	-51.9	28.6	-19.5	-38.0	-58.8	29.6
3:12	-15.1	-29.6	-46.0	26.5	-17.2	-33.5	-51.9	26.7	-19.5	-38.0	-58.8	27.7
4:12	-15.1	-29.6	-46.0	24.6	-17.2	-33.5	-51.9	24.8	-19.6	-38.0	-58.8	25.8
5:12	-15.2	-29.7	-46.0	22.8	-17.2	-33.6	-52.0	23.0	-19.6	-38.1	-58.8	23.9
6:12	-15.2	-29.7	-46.1	21.0	-17.3	-33.6	-52.0	21.2	-19.6	-38.1	-58.9	22.2
7:12	-17.0	-20.7	-20.7	24.2	-19.3	-23.4	-23.4	25.7	-22.0	-26.6	-26.6	27.5
8:12	-17.1	-20.7	-20.7	22.8	-19.4	-23.5	-23.5	24.3	-22.0	-26.6	-26.6	26.1
9:12	-17.1	-20.8	-20.8	21.5	-19.4	-23.5	-23.5	23.0	-22.1	-26.7	-26.7	24.8
10:12	-17.2	-20.8	-20.8	20.4	-19.5	-23.5	-23.5	21.9	-22.1	-26.7	-26.7	23.7
11:12	-17.2	-20.8	-20.8	19.4	-19.5	-23.6	-23.6	21.2	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5

Basic Wind Speed
90 mph

Ground Snow Load
40 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	35.1	-11.1	-20.9	-33.3	35.1	-13.7	-25.7	-40.7	35.1
2:12	-9.8	-19.7	-30.8	32.7	-9.8	-19.7	-30.8	32.7	-12.2	-24.2	-37.7	32.7
3:12	-9.9	-19.7	-30.8	30.4	-9.9	-19.7	-30.8	30.4	-12.2	-24.2	-37.7	30.4
4:12	-9.9	-19.8	-30.9	28.0	-9.9	-19.8	-30.9	28.0	-12.3	-24.3	-37.7	28.0
5:12	-9.9	-19.8	-30.9	25.7	-9.9	-19.8	-30.9	25.7	-12.3	-24.3	-37.8	25.7
6:12	-10.0	-19.8	-30.9	23.6	-10.0	-19.8	-30.9	23.6	-12.3	-24.3	-37.8	23.6
7:12	-11.2	-13.7	-13.7	22.4	-11.2	-13.7	-13.7	22.4	-13.9	-16.9	-16.9	24.2
8:12	-11.3	-13.7	-13.7	20.7	-11.3	-13.7	-13.7	20.7	-13.9	-16.9	-16.9	22.5
9:12	-11.3	-13.8	-13.8	19.1	-11.3	-13.8	-13.8	19.1	-14.0	-17.0	-17.0	20.9
10:12	-11.4	-13.8	-13.8	17.8	-11.4	-13.8	-13.8	17.8	-14.0	-17.0	-17.0	19.5
11:12	-11.4	-13.9	-13.9	16.6	-11.4	-13.9	-13.9	16.6	-14.0	-17.0	-17.0	18.4
12:12	-11.4	-13.9	-13.9	15.6	-11.4	-13.9	-13.9	15.6	-14.1	-17.1	-17.1	17.4
1:12	-13.7	-25.7	-40.7	35.1	-16.0	-29.8	-47.1	35.1	-18.6	-34.6	-54.5	35.1
2:12	-12.2	-24.2	-37.7	32.7	-14.3	-28.1	-43.6	32.7	-16.7	-32.6	-50.5	32.7
3:12	-12.2	-24.2	-37.7	30.4	-14.3	-28.1	-43.7	30.4	-16.7	-32.6	-50.5	30.4
4:12	-12.3	-24.3	-37.7	28.0	-14.3	-28.1	-43.7	28.0	-16.7	-32.6	-50.6	28.0
5:12	-12.3	-24.3	-37.8	25.7	-14.4	-28.2	-43.7	25.7	-16.7	-32.7	-50.6	25.7
6:12	-12.3	-24.3	-37.8	23.6	-14.4	-28.2	-43.8	23.6	-16.8	-32.7	-50.6	23.6
7:12	-13.9	-16.9	-16.9	24.2	-16.2	-19.6	-19.6	25.8	-18.8	-22.8	-22.8	27.5
8:12	-13.9	-16.9	-16.9	22.5	-16.2	-19.7	-19.7	24.0	-18.8	-22.8	-22.8	25.8
9:12	-14.0	-17.0	-17.0	20.9	-16.2	-19.7	-19.7	22.4	-18.9	-22.9	-22.9	24.2
10:12	-14.0	-17.0	-17.0	19.5	-16.3	-19.7	-19.7	21.1	-18.9	-22.9	-22.9	22.9
11:12	-14.0	-17.0	-17.0	18.4	-16.3	-19.8	-19.8	19.9	-19.0	-23.0	-23.0	21.7
12:12	-14.1	-17.1	-17.1	17.4	-16.4	-19.8	-19.8	18.9	-19.0	-23.0	-23.0	20.7
1:12	-16.9	-31.4	-49.6	32.5	-19.2	-35.5	-56.0	32.5	-21.8	-40.3	-63.4	32.5
2:12	-15.1	-29.6	-45.9	30.6	-17.1	-33.5	-51.9	30.7	-19.5	-38.0	-58.8	31.7
3:12	-15.1	-29.6	-46.0	28.5	-17.2	-33.5	-51.9	28.6	-19.5	-38.0	-58.8	29.6
4:12	-15.1	-29.6	-46.0	26.3	-17.2	-33.5	-51.9	26.5	-19.6	-38.0	-58.8	27.5
5:12	-15.2	-29.7	-46.0	24.3	-17.2	-33.6	-52.0	24.4	-19.6	-38.1	-58.8	25.4
6:12	-15.2	-29.7	-46.1	22.3	-17.3	-33.6	-52.0	22.5	-19.6	-38.1	-58.9	23.5
7:12	-17.0	-20.7	-20.7	25.3	-19.3	-23.4	-23.4	26.8	-22.0	-26.6	-26.6	28.6
8:12	-17.1	-20.7	-20.7	23.7	-19.4	-23.5	-23.5	25.2	-22.0	-26.6	-26.6	27.0
9:12	-17.1	-20.8	-20.8	22.3	-19.4	-23.5	-23.5	23.8	-22.1	-26.7	-26.7	25.6
10:12	-17.2	-20.8	-20.8	21.0	-19.5	-23.5	-23.5	22.6	-22.1	-26.7	-26.7	24.4
11:12	-17.2	-20.8	-20.8	20.0	-19.5	-23.6	-23.6	21.5	-22.1	-26.8	-26.8	23.6
12:12	-17.2	-20.9	-20.9	19.1	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5

Basic Wind Speed
90 mph

Ground Snow Load
45 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	38.6	-11.1	-20.9	-33.3	38.6	-13.7	-25.7	-40.7	38.6
2:12	-9.8	-19.7	-30.8	35.5	-9.8	-19.7	-30.8	35.5	-12.2	-24.2	-37.7	35.5
3:12	-9.9	-19.7	-30.8	32.5	-9.9	-19.7	-30.8	32.5	-12.2	-24.2	-37.7	32.5
4:12	-9.9	-19.8	-30.9	29.9	-9.9	-19.8	-30.9	29.9	-12.3	-24.3	-37.7	29.9
5:12	-9.9	-19.8	-30.9	27.4	-9.9	-19.8	-30.9	27.4	-12.3	-24.3	-37.8	27.4
6:12	-10.0	-19.8	-30.9	25.0	-10.0	-19.8	-30.9	25.0	-12.3	-24.3	-37.8	25.0
7:12	-11.2	-13.7	-13.7	23.6	-11.2	-13.7	-13.7	23.6	-13.9	-16.9	-16.9	25.4
8:12	-11.3	-13.7	-13.7	21.7	-11.3	-13.7	-13.7	21.7	-13.9	-16.9	-16.9	23.5
9:12	-11.3	-13.8	-13.8	20.0	-11.3	-13.8	-13.8	20.0	-14.0	-17.0	-17.0	21.8
10:12	-11.4	-13.8	-13.8	18.5	-11.4	-13.8	-13.8	18.5	-14.0	-17.0	-17.0	20.3
11:12	-11.4	-13.9	-13.9	17.2	-11.4	-13.9	-13.9	17.2	-14.0	-17.0	-17.0	19.0
12:12	-11.4	-13.9	-13.9	16.1	-11.4	-13.9	-13.9	16.1	-14.1	-17.1	-17.1	17.9
1:12	-13.7	-25.7	-40.7	38.6	-16.0	-29.8	-47.1	38.6	-18.6	-34.6	-54.5	38.6
2:12	-12.2	-24.2	-37.7	35.5	-14.3	-28.1	-43.6	35.5	-16.7	-32.6	-50.5	35.5
3:12	-12.2	-24.2	-37.7	32.5	-14.3	-28.1	-43.7	32.5	-16.7	-32.6	-50.5	32.5
4:12	-12.3	-24.3	-37.7	29.9	-14.3	-28.1	-43.7	29.9	-16.7	-32.6	-50.6	29.9
5:12	-12.3	-24.3	-37.8	27.4	-14.4	-28.2	-43.7	27.4	-16.7	-32.7	-50.6	27.4
6:12	-12.3	-24.3	-37.8	25.0	-14.4	-28.2	-43.8	25.0	-16.8	-32.7	-50.6	25.0
7:12	-13.9	-16.9	-16.9	25.4	-16.2	-19.6	-19.6	27.0	-18.8	-22.8	-22.8	28.7
8:12	-13.9	-16.9	-16.9	23.5	-16.2	-19.7	-19.7	25.0	-18.8	-22.8	-22.8	26.8
9:12	-14.0	-17.0	-17.0	21.8	-16.2	-19.7	-19.7	23.3	-18.9	-22.9	-22.9	25.1
10:12	-14.0	-17.0	-17.0	20.3	-16.3	-19.7	-19.7	21.8	-18.9	-22.9	-22.9	23.6
11:12	-14.0	-17.0	-17.0	19.0	-16.3	-19.8	-19.8	20.5	-19.0	-23.0	-23.0	22.3
12:12	-14.1	-17.1	-17.1	17.9	-16.4	-19.8	-19.8	19.4	-19.0	-23.0	-23.0	21.2
1:12	-16.9	-31.4	-49.6	35.1	-19.2	-35.5	-56.0	35.1	-21.8	-40.3	-63.4	35.1
2:12	-15.1	-29.6	-45.9	32.7	-17.1	-33.5	-51.9	32.9	-19.5	-38.0	-58.8	33.9
3:12	-15.1	-29.6	-46.0	30.4	-17.2	-33.5	-51.9	30.5	-19.5	-38.0	-58.8	31.5
4:12	-15.1	-29.6	-46.0	28.0	-17.2	-33.5	-51.9	28.2	-19.6	-38.0	-58.8	29.2
5:12	-15.2	-29.7	-46.0	25.7	-17.2	-33.6	-52.0	25.9	-19.6	-38.1	-58.8	26.9
6:12	-15.2	-29.7	-46.1	23.6	-17.3	-33.6	-52.0	23.7	-19.6	-38.1	-58.9	24.7
7:12	-17.0	-20.7	-20.7	26.4	-19.3	-23.4	-23.4	27.9	-22.0	-26.6	-26.6	29.7
8:12	-17.1	-20.7	-20.7	24.6	-19.4	-23.5	-23.5	26.1	-22.0	-26.6	-26.6	27.9
9:12	-17.1	-20.8	-20.8	23.0	-19.4	-23.5	-23.5	24.6	-22.1	-26.7	-26.7	26.4
10:12	-17.2	-20.8	-20.8	21.7	-19.5	-23.5	-23.5	23.2	-22.1	-26.7	-26.7	25.0
11:12	-17.2	-20.8	-20.8	20.5	-19.5	-23.6	-23.6	22.1	-22.1	-26.8	-26.8	23.9
12:12	-17.2	-20.9	-20.9	19.5	-19.5	-23.6	-23.6	21.1	-22.2	-26.8	-26.8	23.5

Basic Wind Speed
90 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	45.5	-11.1	-20.9	-33.3	45.5	-13.7	-25.7	-40.7	45.5
2:12	-9.8	-19.7	-30.8	41.9	-9.8	-19.7	-30.8	41.9	-12.2	-24.2	-37.7	41.9
3:12	-9.9	-19.7	-30.8	37.8	-9.9	-19.7	-30.8	37.8	-12.2	-24.2	-37.7	37.8
4:12	-9.9	-19.8	-30.9	33.6	-9.9	-19.8	-30.9	33.6	-12.3	-24.3	-37.7	33.6
5:12	-9.9	-19.8	-30.9	30.6	-9.9	-19.8	-30.9	30.6	-12.3	-24.3	-37.8	30.6
6:12	-10.0	-19.8	-30.9	27.8	-10.0	-19.8	-30.9	27.8	-12.3	-24.3	-37.8	27.8
7:12	-11.2	-13.7	-13.7	26.0	-11.2	-13.7	-13.7	26.0	-13.9	-16.9	-16.9	27.8
8:12	-11.3	-13.7	-13.7	23.7	-11.3	-13.7	-13.7	23.7	-13.9	-16.9	-16.9	25.5
9:12	-11.3	-13.8	-13.8	21.7	-11.3	-13.8	-13.8	21.7	-14.0	-17.0	-17.0	23.5
10:12	-11.4	-13.8	-13.8	19.9	-11.4	-13.8	-13.8	19.9	-14.0	-17.0	-17.0	21.7
11:12	-11.4	-13.9	-13.9	18.4	-11.4	-13.9	-13.9	18.4	-14.0	-17.0	-17.0	20.2
12:12	-11.4	-13.9	-13.9	17.1	-11.4	-13.9	-13.9	17.1	-14.1	-17.1	-17.1	18.9
1:12	-13.7	-25.7	-40.7	45.5	-16.0	-29.8	-47.1	45.5	-18.6	-34.6	-54.5	45.5
2:12	-12.2	-24.2	-37.7	41.9	-14.3	-28.1	-43.6	41.9	-16.7	-32.6	-50.5	41.9
3:12	-12.2	-24.2	-37.7	37.8	-14.3	-28.1	-43.7	37.8	-16.7	-32.6	-50.5	37.8
4:12	-12.3	-24.3	-37.7	33.6	-14.3	-28.1	-43.7	33.6	-16.7	-32.6	-50.6	33.6
5:12	-12.3	-24.3	-37.8	30.6	-14.4	-28.2	-43.7	30.6	-16.7	-32.7	-50.6	30.6
6:12	-12.3	-24.3	-37.8	27.8	-14.4	-28.2	-43.8	27.8	-16.8	-32.7	-50.6	27.8
7:12	-13.9	-16.9	-16.9	27.8	-16.2	-19.6	-19.6	29.4	-18.8	-22.8	-22.8	31.1
8:12	-13.9	-16.9	-16.9	25.5	-16.2	-19.7	-19.7	27.0	-18.8	-22.8	-22.8	28.8
9:12	-14.0	-17.0	-17.0	23.5	-16.2	-19.7	-19.7	25.0	-18.9	-22.9	-22.9	26.8
10:12	-14.0	-17.0	-17.0	21.7	-16.3	-19.7	-19.7	23.3	-18.9	-22.9	-22.9	25.0
11:12	-14.0	-17.0	-17.0	20.2	-16.3	-19.8	-19.8	21.7	-19.0	-23.0	-23.0	23.5
12:12	-14.1	-17.1	-17.1	18.9	-16.4	-19.8	-19.8	20.4	-19.0	-23.0	-23.0	22.2
1:12	-16.9	-31.4	-49.6	41.4	-19.2	-35.5	-56.0	41.4	-21.8	-40.3	-63.4	41.4
2:12	-15.1	-29.6	-45.9	38.0	-17.1	-33.5	-51.9	38.0	-19.5	-38.0	-58.8	38.1
3:12	-15.1	-29.6	-46.0	34.4	-17.2	-33.5	-51.9	34.4	-19.5	-38.0	-58.8	35.4
4:12	-15.1	-29.6	-46.0	31.4	-17.2	-33.5	-51.9	31.6	-19.6	-38.0	-58.8	32.5
5:12	-15.2	-29.7	-46.0	28.7	-17.2	-33.6	-52.0	28.8	-19.6	-38.1	-58.8	29.8
6:12	-15.2	-29.7	-46.1	26.1	-17.3	-33.6	-52.0	26.3	-19.6	-38.1	-58.9	27.3
7:12	-17.0	-20.7	-20.7	28.5	-19.3	-23.4	-23.4	30.1	-22.0	-26.6	-26.6	31.8
8:12	-17.1	-20.7	-20.7	26.4	-19.4	-23.5	-23.5	28.0	-22.0	-26.6	-26.6	29.8
9:12	-17.1	-20.8	-20.8	24.6	-19.4	-23.5	-23.5	26.1	-22.1	-26.7	-26.7	27.9
10:12	-17.2	-20.8	-20.8	23.0	-19.5	-23.5	-23.5	24.5	-22.1	-26.7	-26.7	26.3
11:12	-17.2	-20.8	-20.8	21.6	-19.5	-23.6	-23.6	23.2	-22.1	-26.8	-26.8	24.9
12:12	-17.2	-20.9	-20.9	20.4	-19.5	-23.6	-23.6	22.0	-22.2	-26.8	-26.8	23.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **90 mph**
Ground Snow Load **60 psf**

Side Load (psf)
Lateral

Up and Down (psf)

Basic Wind Speed
90 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.1	-20.9	-33.3	52.5	-11.1	-20.9	-33.3	52.5	-13.7	-25.7	-40.7	52.5
2:12	-9.8	-19.7	-30.8	48.2	-9.8	-19.7	-30.8	48.2	-12.2	-24.2	-37.7	48.2
3:12	-9.9	-19.7	-30.8	43.4	-9.9	-19.7	-30.8	43.4	-12.2	-24.2	-37.7	43.4
4:12	-9.9	-19.8	-30.9	38.6	-9.9	-19.8	-30.9	38.6	-12.3	-24.3	-37.7	38.6
5:12	-9.9	-19.8	-30.9	34.0	-9.9	-19.8	-30.9	34.0	-12.3	-24.3	-37.8	34.0
6:12	-10.0	-19.8	-30.9	30.6	-10.0	-19.8	-30.9	30.6	-12.3	-24.3	-37.8	30.6
7:12	-11.2	-13.7	-13.7	28.4	-11.2	-13.7	-13.7	28.4	-13.9	-16.9	-16.9	30.2
8:12	-11.3	-13.7	-13.7	25.7	-11.3	-13.7	-13.7	25.7	-13.9	-16.9	-16.9	27.5
9:12	-11.3	-13.8	-13.8	23.4	-11.3	-13.8	-13.8	23.4	-14.0	-17.0	-17.0	25.2
10:12	-11.4	-13.8	-13.8	21.4	-11.4	-13.8	-13.8	21.4	-14.0	-17.0	-17.0	23.1
11:12	-11.4	-13.9	-13.9	19.6	-11.4	-13.9	-13.9	19.6	-14.0	-17.0	-17.0	21.4
12:12	-11.4	-13.9	-13.9	18.1	-11.4	-13.9	-13.9	18.1	-14.1	-17.1	-17.1	19.9
Exposure Category C												
1:12	-13.7	-25.7	-40.7	52.5	-16.0	-29.8	-47.1	52.5	-18.6	-34.6	-54.5	52.5
2:12	-12.2	-24.2	-37.7	48.2	-14.3	-28.1	-43.6	48.2	-16.7	-32.6	-50.5	48.2
3:12	-12.2	-24.2	-37.7	43.4	-14.3	-28.1	-43.7	43.4	-16.7	-32.6	-50.5	43.4
4:12	-12.3	-24.3	-37.7	38.6	-14.3	-28.1	-43.7	38.6	-16.7	-32.6	-50.6	38.6
5:12	-12.3	-24.3	-37.8	34.0	-14.4	-28.2	-43.7	34.0	-16.7	-32.7	-50.6	34.0
6:12	-12.3	-24.3	-37.8	30.6	-14.4	-28.2	-43.8	30.6	-16.8	-32.7	-50.6	30.6
7:12	-13.9	-16.9	-16.9	30.2	-16.2	-19.6	-19.6	31.7	-18.8	-22.8	-22.8	33.5
8:12	-13.9	-16.9	-16.9	27.5	-16.2	-19.7	-19.7	29.1	-18.8	-22.8	-22.8	30.9
9:12	-14.0	-17.0	-17.0	25.2	-16.2	-19.7	-19.7	26.7	-18.9	-22.9	-22.9	28.5
10:12	-14.0	-17.0	-17.0	23.1	-16.3	-19.7	-19.7	24.7	-18.9	-22.9	-22.9	26.5
11:12	-14.0	-17.0	-17.0	21.4	-16.3	-19.8	-19.8	22.9	-19.0	-23.0	-23.0	24.7
12:12	-14.1	-17.1	-17.1	19.9	-16.4	-19.8	-19.8	21.4	-19.0	-23.0	-23.0	23.2
Exposure Category D												
1:12	-16.9	-31.4	-49.6	47.6	-19.2	-35.5	-56.0	47.6	-21.8	-40.3	-63.4	47.6
2:12	-15.1	-29.6	-45.9	43.8	-17.1	-33.5	-51.9	43.8	-19.5	-38.0	-58.8	43.8
3:12	-15.1	-29.6	-46.0	39.5	-17.2	-33.5	-51.9	39.5	-19.5	-38.0	-58.8	39.5
4:12	-15.1	-29.6	-46.0	35.1	-17.2	-33.5	-51.9	35.1	-19.6	-38.0	-58.8	35.9
5:12	-15.2	-29.7	-46.0	31.6	-17.2	-33.6	-52.0	31.8	-19.6	-38.1	-58.8	32.8
6:12	-15.2	-29.7	-46.1	28.6	-17.3	-33.6	-52.0	28.8	-19.6	-38.1	-58.9	29.8
7:12	-17.0	-20.7	-20.7	30.7	-19.3	-23.4	-23.4	32.2	-22.0	-26.6	-26.6	34.0
8:12	-17.1	-20.7	-20.7	28.2	-19.4	-23.5	-23.5	29.8	-22.0	-26.6	-26.6	31.6
9:12	-17.1	-20.8	-20.8	26.1	-19.4	-23.5	-23.5	27.7	-22.1	-26.7	-26.7	29.5
10:12	-17.2	-20.8	-20.8	24.3	-19.5	-23.5	-23.5	25.8	-22.1	-26.7	-26.7	27.6
11:12	-17.2	-20.8	-20.8	22.7	-19.5	-23.6	-23.6	24.2	-22.1	-26.8	-26.8	26.0
12:12	-17.2	-20.9	-20.9	21.3	-19.5	-23.6	-23.6	22.9	-22.2	-26.8	-26.8	24.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.1	-20.9	-33.3	59.4	-11.1	-20.9	-33.3	59.4	-13.7	-25.7	-40.7	59.4
2:12	-9.8	-19.7	-30.8	54.5	-9.8	-19.7	-30.8	54.5	-12.2	-24.2	-37.7	54.5
3:12	-9.9	-19.7	-30.8	49.1	-9.9	-19.7	-30.8	49.1	-12.2	-24.2	-37.7	49.1
4:12	-9.9	-19.8	-30.9	43.6	-9.9	-19.8	-30.9	43.6	-12.3	-24.3	-37.7	43.6
5:12	-9.9	-19.8	-30.9	38.3	-9.9	-19.8	-30.9	38.3	-12.3	-24.3	-37.8	38.3
6:12	-10.0	-19.8	-30.9	33.4	-10.0	-19.8	-30.9	33.4	-12.3	-24.3	-37.8	33.4
7:12	-11.2	-13.7	-13.7	30.8	-11.2	-13.7	-13.7	30.8	-13.9	-16.9	-16.9	32.6
8:12	-11.3	-13.7	-13.7	27.8	-11.3	-13.7	-13.7	27.8	-13.9	-16.9	-16.9	29.6
9:12	-11.3	-13.8	-13.8	25.1	-11.3	-13.8	-13.8	25.1	-14.0	-17.0	-17.0	26.9
10:12	-11.4	-13.8	-13.8	22.8	-11.4	-13.8	-13.8	22.8	-14.0	-17.0	-17.0	24.6
11:12	-11.4	-13.9	-13.9	20.8	-11.4	-13.9	-13.9	20.8	-14.0	-17.0	-17.0	22.6
12:12	-11.4	-13.9	-13.9	19.1	-11.4	-13.9	-13.9	19.1	-14.1	-17.1	-17.1	20.9
Exposure Category C												
1:12	-13.7	-25.7	-40.7	59.4	-16.0	-29.8	-47.1	59.4	-18.6	-34.6	-54.5	59.4
2:12	-12.2	-24.2	-37.7	54.5	-14.3	-28.1	-43.6	54.5	-16.7	-32.6	-50.5	54.5
3:12	-12.2	-24.2	-37.7	49.1	-14.3	-28.1	-43.7	49.1	-16.7	-32.6	-50.5	49.1
4:12	-12.3	-24.3	-37.7	43.6	-14.3	-28.1	-43.7	43.6	-16.7	-32.6	-50.6	43.6
5:12	-12.3	-24.3	-37.8	38.3	-14.4	-28.2	-43.7	38.3	-16.7	-32.7	-50.6	38.3
6:12	-12.3	-24.3	-37.8	33.4	-14.4	-28.2	-43.8	33.4	-16.8	-32.7	-50.6	33.4
7:12	-13.9	-16.9	-16.9	32.6	-16.2	-19.6	-19.6	34.1	-18.8	-22.8	-22.8	35.9
8:12	-13.9	-16.9	-16.9	29.6	-16.2	-19.7	-19.7	31.1	-18.8	-22.8	-22.8	32.9
9:12	-14.0	-17.0	-17.0	26.9	-16.2	-19.7	-19.7	28.4	-18.9	-22.9	-22.9	30.2
10:12	-14.0	-17.0	-17.0	24.6	-16.3	-19.7	-19.7	26.1	-18.9	-22.9	-22.9	27.9
11:12	-14.0	-17.0	-17.0	22.6	-16.3	-19.8	-19.8	24.1	-19.0	-23.0	-23.0	25.9
12:12	-14.1	-17.1	-17.1	20.9	-16.4	-19.8	-19.8	22.5	-19.0	-23.0	-23.0	24.2
Exposure Category D												
1:12	-16.9	-31.4	-49.6	53.9	-19.2	-35.5	-56.0	53.9	-21.8	-40.3	-63.4	53.9
2:12	-15.1	-29.6	-45.9	49.5	-17.1	-33.5	-51.9	49.5	-19.5	-38.0	-58.8	49.5
3:12	-15.1	-29.6	-46.0	44.6	-17.2	-33.5	-51.9	44.6	-19.5	-38.0	-58.8	44.6
4:12	-15.1	-29.6	-46.0	39.6	-17.2	-33.5	-51.9	39.6	-19.6	-38.0	-58.8	39.6
5:12	-15.2	-29.7	-46.0	34.9	-17.2	-33.6	-52.0	34.9	-19.6	-38.1	-58.8	35.7
6:12	-15.2	-29.7	-46.1	31.1	-17.3	-33.6	-52.0	31.3	-19.6	-38.1	-58.9	32.3
7:12	-17.0	-20.7	-20.7	32.8	-19.3	-23.4	-23.4	34.4	-22.0	-26.6	-26.6	36.2
8:12	-17.1	-20.7	-20.7	30.1	-19.4	-23.5	-23.5	31.6	-22.0	-26.6	-26.6	33.4
9:12	-17.1	-20.8	-20.8	27.7	-19.4	-23.5	-23.5	29.2	-22.1	-26.7	-26.7	31.0
10:12	-17.2	-20.8	-20.8	25.6	-19.5	-23.5	-23.5	27.1	-22.1	-26.7	-26.7	28.9
11:12	-17.2	-20.8	-20.8	23.8	-19.5	-23.6	-23.6	25.3	-22.1	-26.8	-26.8	27.1
12:12	-17.2	-20.9	-20.9	22.2	-19.5	-23.6	-23.6	23.8	-22.2	-26.8	-26.8	25.6

Basic Wind Speed **90 mph**
Ground Snow Load **80 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	66.4	-11.1	-20.9	-33.3	66.4	-13.7	-25.7	-40.7	66.4
2:12	-9.8	-19.7	-30.8	60.9	-9.8	-19.7	-30.8	60.9	-12.2	-24.2	-37.7	60.9
3:12	-9.9	-19.7	-30.8	54.8	-9.9	-19.7	-30.8	54.8	-12.2	-24.2	-37.7	54.8
4:12	-9.9	-19.8	-30.9	48.6	-9.9	-19.8	-30.9	48.6	-12.3	-24.3	-37.7	48.6
5:12	-9.9	-19.8	-30.9	42.7	-9.9	-19.8	-30.9	42.7	-12.3	-24.3	-37.8	42.7
6:12	-10.0	-19.8	-30.9	37.1	-10.0	-19.8	-30.9	37.1	-12.3	-24.3	-37.8	37.1
7:12	-11.2	-13.7	-13.7	33.2	-11.2	-13.7	-13.7	33.2	-13.9	-16.9	-16.9	35.0
8:12	-11.3	-13.7	-13.7	29.8	-11.3	-13.7	-13.7	29.8	-13.9	-16.9	-16.9	31.6
9:12	-11.3	-13.8	-13.8	26.8	-11.3	-13.8	-13.8	26.8	-14.0	-17.0	-17.0	28.6
10:12	-11.4	-13.8	-13.8	24.2	-11.4	-13.8	-13.8	24.2	-14.0	-17.0	-17.0	26.0
11:12	-11.4	-13.9	-13.9	22.0	-11.4	-13.9	-13.9	22.0	-14.0	-17.0	-17.0	23.8
12:12	-11.4	-13.9	-13.9	20.1	-11.4	-13.9	-13.9	20.1	-14.1	-17.1	-17.1	21.9
1:12	-13.7	-25.7	-40.7	66.4	-16.0	-29.8	-47.1	66.4	-18.6	-34.6	-54.5	66.4
2:12	-12.2	-24.2	-37.7	60.9	-14.3	-28.1	-43.6	60.9	-16.7	-32.6	-50.5	60.9
3:12	-12.2	-24.2	-37.7	54.8	-14.3	-28.1	-43.7	54.8	-16.7	-32.6	-50.5	54.8
4:12	-12.3	-24.3	-37.7	48.6	-14.3	-28.1	-43.7	48.6	-16.7	-32.6	-50.6	48.6
5:12	-12.3	-24.3	-37.8	42.7	-14.4	-28.2	-43.7	42.7	-16.7	-32.7	-50.6	42.7
6:12	-12.3	-24.3	-37.8	37.1	-14.4	-28.2	-43.8	37.1	-16.8	-32.7	-50.6	37.1
7:12	-13.9	-16.9	-16.9	35.0	-16.2	-19.6	-19.6	36.5	-18.8	-22.8	-22.8	38.3
8:12	-13.9	-16.9	-16.9	31.6	-16.2	-19.7	-19.7	33.1	-18.8	-22.8	-22.8	34.9
9:12	-14.0	-17.0	-17.0	28.6	-16.2	-19.7	-19.7	30.2	-18.9	-22.9	-22.9	31.9
10:12	-14.0	-17.0	-17.0	26.0	-16.3	-19.7	-19.7	27.6	-18.9	-22.9	-22.9	29.4
11:12	-14.0	-17.0	-17.0	23.8	-16.3	-19.8	-19.8	25.4	-19.0	-23.0	-23.0	27.1
12:12	-14.1	-17.1	-17.1	21.9	-16.4	-19.8	-19.8	23.5	-19.0	-23.0	-23.0	25.3
1:12	-16.9	-31.4	-49.6	60.1	-19.2	-35.5	-56.0	60.1	-21.8	-40.3	-63.4	60.1
2:12	-15.1	-29.6	-45.9	55.2	-17.1	-33.5	-51.9	55.2	-19.5	-38.0	-58.8	55.2
3:12	-15.1	-29.6	-46.0	49.7	-17.2	-33.5	-51.9	49.7	-19.5	-38.0	-58.8	49.7
4:12	-15.1	-29.6	-46.0	44.1	-17.2	-33.5	-51.9	44.1	-19.6	-38.0	-58.8	44.1
5:12	-15.2	-29.7	-46.0	38.8	-17.2	-33.6	-52.0	38.8	-19.6	-38.1	-58.8	38.8
6:12	-15.2	-29.7	-46.1	33.8	-17.3	-33.6	-52.0	33.8	-19.6	-38.1	-58.9	34.8
7:12	-17.0	-20.7	-20.7	35.0	-19.3	-23.4	-23.4	36.5	-22.0	-26.6	-26.6	38.3
8:12	-17.1	-20.7	-20.7	31.9	-19.4	-23.5	-23.5	33.4	-22.0	-26.6	-26.6	35.2
9:12	-17.1	-20.8	-20.8	29.2	-19.4	-23.5	-23.5	30.8	-22.1	-26.7	-26.7	32.5
10:12	-17.2	-20.8	-20.8	26.9	-19.5	-23.5	-23.5	28.4	-22.1	-26.7	-26.7	30.2
11:12	-17.2	-20.8	-20.8	24.9	-19.5	-23.6	-23.6	26.4	-22.1	-26.8	-26.8	28.2
12:12	-17.2	-20.9	-20.9	23.2	-19.5	-23.6	-23.6	24.7	-22.2	-26.8	-26.8	26.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **90 mph**

Ground Snow Load **90 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.1	-20.9	-33.3	73.4	-11.1	-20.9	-33.3	73.4	-13.7	-25.7	-40.7	73.4
2:12	-9.8	-19.7	-30.8	67.2	-9.8	-19.7	-30.8	67.2	-12.2	-24.2	-37.7	67.2
3:12	-9.9	-19.7	-30.8	60.5	-9.9	-19.7	-30.8	60.5	-12.2	-24.2	-37.7	60.5
4:12	-9.9	-19.8	-30.9	53.6	-9.9	-19.8	-30.9	53.6	-12.3	-24.3	-37.7	53.6
5:12	-9.9	-19.8	-30.9	47.0	-9.9	-19.8	-30.9	47.0	-12.3	-24.3	-37.8	47.0
6:12	-10.0	-19.8	-30.9	40.9	-10.0	-19.8	-30.9	40.9	-12.3	-24.3	-37.8	40.9
7:12	-11.2	-13.7	-13.7	35.6	-11.2	-13.7	-13.7	35.6	-13.9	-16.9	-16.9	37.4
8:12	-11.3	-13.7	-13.7	31.8	-11.3	-13.7	-13.7	31.8	-13.9	-16.9	-16.9	33.6
9:12	-11.3	-13.8	-13.8	28.5	-11.3	-13.8	-13.8	28.5	-14.0	-17.0	-17.0	30.3
10:12	-11.4	-13.8	-13.8	25.7	-11.4	-13.8	-13.8	25.7	-14.0	-17.0	-17.0	27.5
11:12	-11.4	-13.9	-13.9	23.2	-11.4	-13.9	-13.9	23.2	-14.0	-17.0	-17.0	25.0
12:12	-11.4	-13.9	-13.9	21.1	-11.4	-13.9	-13.9	21.1	-14.1	-17.1	-17.1	22.9
1:12	-13.7	-25.7	-40.7	73.4	-16.0	-29.8	-47.1	73.4	-18.6	-34.6	-54.5	73.4
2:12	-12.2	-24.2	-37.7	67.2	-14.3	-28.1	-43.6	67.2	-16.7	-32.6	-50.5	67.2
3:12	-12.2	-24.2	-37.7	60.5	-14.3	-28.1	-43.7	60.5	-16.7	-32.6	-50.5	60.5
4:12	-12.3	-24.3	-37.7	53.6	-14.3	-28.1	-43.7	53.6	-16.7	-32.6	-50.6	53.6
5:12	-12.3	-24.3	-37.8	47.0	-14.4	-28.2	-43.7	47.0	-16.7	-32.7	-50.6	47.0
6:12	-12.3	-24.3	-37.8	40.9	-14.4	-28.2	-43.8	40.9	-16.8	-32.7	-50.6	40.9
7:12	-13.9	-16.9	-16.9	37.4	-16.2	-19.6	-19.6	38.9	-18.8	-22.8	-22.8	40.7
8:12	-13.9	-16.9	-16.9	33.6	-16.2	-19.7	-19.7	35.2	-18.8	-22.8	-22.8	36.9
9:12	-14.0	-17.0	-17.0	30.3	-16.2	-19.7	-19.7	31.9	-18.9	-22.9	-22.9	33.6
10:12	-14.0	-17.0	-17.0	27.5	-16.3	-19.7	-19.7	29.0	-18.9	-22.9	-22.9	30.8
11:12	-14.0	-17.0	-17.0	25.0	-16.3	-19.8	-19.8	26.6	-19.0	-23.0	-23.0	28.3
12:12	-14.1	-17.1	-17.1	22.9	-16.4	-19.8	-19.8	24.5	-19.0	-23.0	-23.0	26.3
1:12	-16.9	-31.4	-49.6	66.4	-19.2	-35.5	-56.0	66.4	-21.8	-40.3	-63.4	66.4
2:12	-15.1	-29.6	-45.9	60.9	-17.1	-33.5	-51.9	60.9	-19.5	-38.0	-58.8	60.9
3:12	-15.1	-29.6	-46.0	54.8	-17.2	-33.5	-51.9	54.8	-19.5	-38.0	-58.8	54.8
4:12	-15.1	-29.6	-46.0	48.6	-17.2	-33.5	-51.9	48.6	-19.6	-38.0	-58.8	48.6
5:12	-15.2	-29.7	-46.0	42.7	-17.2	-33.6	-52.0	42.7	-19.6	-38.1	-58.8	42.7
6:12	-15.2	-29.7	-46.1	37.1	-17.3	-33.6	-52.0	37.1	-19.6	-38.1	-58.9	37.4
7:12	-17.0	-20.7	-20.7	37.1	-19.3	-23.4	-23.4	38.7	-22.0	-26.6	-26.6	40.5
8:12	-17.1	-20.7	-20.7	33.7	-19.4	-23.5	-23.5	35.3	-22.0	-26.6	-26.6	37.1
9:12	-17.1	-20.8	-20.8	30.7	-19.4	-23.5	-23.5	32.3	-22.1	-26.7	-26.7	34.1
10:12	-17.2	-20.8	-20.8	28.2	-19.5	-23.5	-23.5	29.7	-22.1	-26.7	-26.7	31.5
11:12	-17.2	-20.8	-20.8	25.9	-19.5	-23.6	-23.6	27.5	-22.1	-26.8	-26.8	29.3
12:12	-17.2	-20.9	-20.9	24.1	-19.5	-23.6	-23.6	25.6	-22.2	-26.8	-26.8	27.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

90 mph

Ground Snow Load

100 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	13.8	-12.5	-23.5	-37.2	13.8	-15.4	-28.8	-45.5	13.8
2:12	-11.1	-22.1	-34.5	13.8	-11.1	-22.1	-34.5	13.8	-13.8	-27.1	-42.1	13.8
3:12	-11.1	-22.1	-34.5	13.7	-11.1	-22.1	-34.5	13.7	-13.8	-27.1	-42.2	13.7
4:12	-11.2	-22.2	-34.5	13.6	-11.2	-22.2	-34.5	13.6	-13.8	-27.2	-42.2	13.6
5:12	-11.2	-22.2	-34.6	13.6	-11.2	-22.2	-34.6	13.6	-13.8	-27.2	-42.2	13.6
6:12	-11.2	-22.2	-34.6	13.4	-11.2	-22.2	-34.6	13.4	-13.9	-27.2	-42.3	13.4
7:12	-12.6	-15.4	-15.4	15.7	-12.6	-15.4	-15.4	15.7	-15.6	-18.9	-18.9	18.3
8:12	-12.7	-15.4	-15.4	15.6	-12.7	-15.4	-15.4	15.6	-15.6	-19.0	-19.0	18.2
9:12	-12.7	-15.5	-15.5	15.5	-12.7	-15.5	-15.5	15.5	-15.7	-19.0	-19.0	18.1
10:12	-12.8	-15.5	-15.5	15.3	-12.8	-15.5	-15.5	15.3	-15.7	-19.0	-19.0	18.0
11:12	-12.8	-15.5	-15.5	15.2	-12.8	-15.5	-15.5	15.2	-15.7	-19.1	-19.1	17.9
12:12	-12.8	-15.6	-15.6	15.1	-12.8	-15.6	-15.6	15.1	-15.8	-19.1	-19.1	17.7
Exposure Category C												
1:12	-15.4	-28.8	-45.5	13.8	-18.0	-33.4	-52.6	13.8	-20.9	-38.7	-60.9	13.8
2:12	-13.8	-27.1	-42.1	13.8	-16.1	-31.5	-48.8	13.8	-18.7	-36.5	-56.4	14.9
3:12	-13.8	-27.1	-42.2	13.7	-16.1	-31.5	-48.8	13.7	-18.7	-36.5	-56.5	14.8
4:12	-13.8	-27.2	-42.2	13.6	-16.1	-31.5	-48.8	13.6	-18.8	-36.5	-56.5	14.7
5:12	-13.8	-27.2	-42.2	13.6	-16.1	-31.5	-48.9	13.6	-18.8	-36.5	-56.5	14.6
6:12	-13.9	-27.2	-42.3	13.4	-16.2	-31.6	-48.9	13.4	-18.8	-36.6	-56.5	14.5
7:12	-15.6	-18.9	-18.9	18.3	-18.1	-22.0	-22.0	20.6	-21.1	-25.5	-25.5	23.3
8:12	-15.6	-19.0	-19.0	18.2	-18.2	-22.0	-22.0	20.5	-21.1	-25.6	-25.6	23.2
9:12	-15.7	-19.0	-19.0	18.1	-18.2	-22.1	-22.1	20.4	-21.2	-25.6	-25.6	23.1
10:12	-15.7	-19.0	-19.0	18.0	-18.3	-22.1	-22.1	20.3	-21.2	-25.6	-25.6	22.9
11:12	-15.7	-19.1	-19.1	17.9	-18.3	-22.1	-22.1	20.2	-21.2	-25.7	-25.7	22.8
12:12	-15.8	-19.1	-19.1	17.7	-18.3	-22.2	-22.2	20.0	-21.3	-25.7	-25.7	22.7
Exposure Category D												
1:12	-18.9	-35.1	-55.4	13.8	-21.5	-39.7	-62.5	13.8	-24.4	-45.0	-70.8	13.8
2:12	-16.9	-33.1	-51.3	13.9	-19.2	-37.5	-58.0	15.2	-21.9	-42.5	-65.6	16.7
3:12	-17.0	-33.1	-51.3	13.8	-19.3	-37.5	-58.0	15.1	-21.9	-42.5	-65.6	16.6
4:12	-17.0	-33.2	-51.4	13.8	-19.3	-37.5	-58.0	15.0	-21.9	-42.5	-65.7	16.5
5:12	-17.0	-33.2	-51.4	13.7	-19.3	-37.5	-58.0	14.9	-22.0	-42.5	-65.7	16.4
6:12	-17.1	-33.2	-51.4	13.6	-19.4	-37.6	-58.1	14.8	-22.0	-42.6	-65.7	16.3
7:12	-19.1	-23.2	-23.2	21.5	-21.7	-26.2	-26.2	23.8	-24.6	-29.8	-29.8	26.5
8:12	-19.2	-23.2	-23.2	21.4	-21.7	-26.3	-26.3	23.7	-24.7	-29.8	-29.8	26.4
9:12	-19.2	-23.2	-23.2	21.3	-21.8	-26.3	-26.3	23.6	-24.7	-29.8	-29.8	26.2
10:12	-19.2	-23.3	-23.3	21.2	-21.8	-26.4	-26.4	23.5	-24.7	-29.9	-29.9	26.1
11:12	-19.3	-23.3	-23.3	21.0	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

Ground Snow Load

95 mph

0 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-12.5	-23.5	-37.2	15.1	-12.5	-23.5	-37.2	15.1	-15.4	-28.8	-45.5	15.1
2:12	-11.1	-22.1	-34.5	14.7	-11.1	-22.1	-34.5	14.7	-13.8	-27.1	-42.1	14.7
3:12	-11.1	-22.1	-34.5	14.3	-11.1	-22.1	-34.5	14.3	-13.8	-27.1	-42.2	14.3
4:12	-11.2	-22.2	-34.5	13.6	-11.2	-22.2	-34.5	13.6	-13.8	-27.2	-42.2	13.6
5:12	-11.2	-22.2	-34.6	13.6	-11.2	-22.2	-34.6	13.6	-13.8	-27.2	-42.2	13.6
6:12	-11.2	-22.2	-34.6	13.4	-11.2	-22.2	-34.6	13.4	-13.9	-27.2	-42.3	13.4
7:12	-12.6	-15.4	-15.4	15.7	-12.6	-15.4	-15.4	15.7	-15.6	-18.9	-18.9	18.3
8:12	-12.7	-15.4	-15.4	15.6	-12.7	-15.4	-15.4	15.6	-15.6	-19.0	-19.0	18.2
9:12	-12.7	-15.5	-15.5	15.5	-12.7	-15.5	-15.5	15.5	-15.7	-19.0	-19.0	18.1
10:12	-12.8	-15.5	-15.5	15.3	-12.8	-15.5	-15.5	15.3	-15.7	-19.0	-19.0	18.0
11:12	-12.8	-15.5	-15.5	15.2	-12.8	-15.5	-15.5	15.2	-15.7	-19.1	-19.1	17.9
12:12	-12.8	-15.6	-15.6	15.1	-12.8	-15.6	-15.6	15.1	-15.8	-19.1	-19.1	17.7
1:12	-15.4	-28.8	-45.5	15.1	-18.0	-33.4	-52.6	15.1	-20.9	-38.7	-60.9	15.1
2:12	-13.8	-27.1	-42.1	14.7	-16.1	-31.5	-48.8	14.7	-18.7	-36.5	-56.4	15.5
3:12	-13.8	-27.1	-42.2	14.3	-16.1	-31.5	-48.8	14.3	-18.7	-36.5	-56.5	15.1
4:12	-13.8	-27.2	-42.2	13.6	-16.1	-31.5	-48.8	13.6	-18.8	-36.5	-56.5	14.7
5:12	-13.8	-27.2	-42.2	13.6	-16.1	-31.5	-48.9	13.6	-18.8	-36.5	-56.5	14.6
6:12	-13.9	-27.2	-42.3	13.4	-16.2	-31.6	-48.9	13.4	-18.8	-36.6	-56.5	14.5
7:12	-15.6	-18.9	-18.9	18.3	-18.1	-22.0	-22.0	20.6	-21.1	-25.5	-25.5	23.3
8:12	-15.6	-19.0	-19.0	18.2	-18.2	-22.0	-22.0	20.5	-21.1	-25.6	-25.6	23.2
9:12	-15.7	-19.0	-19.0	18.1	-18.2	-22.1	-22.1	20.4	-21.2	-25.6	-25.6	23.1
10:12	-15.7	-19.0	-19.0	18.0	-18.3	-22.1	-22.1	20.3	-21.2	-25.6	-25.6	22.9
11:12	-15.7	-19.1	-19.1	17.9	-18.3	-22.1	-22.1	20.2	-21.2	-25.7	-25.7	22.8
12:12	-15.8	-19.1	-19.1	17.7	-18.3	-22.2	-22.2	20.0	-21.3	-25.7	-25.7	22.7
1:12	-18.9	-35.1	-55.4	15.1	-21.5	-39.7	-62.5	15.1	-24.4	-45.0	-70.8	15.1
2:12	-16.9	-33.1	-51.3	14.8	-19.2	-37.5	-58.0	15.7	-21.9	-42.5	-65.6	16.8
3:12	-17.0	-33.1	-51.3	14.4	-19.3	-37.5	-58.0	15.3	-21.9	-42.5	-65.6	16.6
4:12	-17.0	-33.2	-51.4	13.8	-19.3	-37.5	-58.0	15.0	-21.9	-42.5	-65.7	16.5
5:12	-17.0	-33.2	-51.4	13.7	-19.3	-37.5	-58.0	14.9	-22.0	-42.5	-65.7	16.4
6:12	-17.1	-33.2	-51.4	13.6	-19.4	-37.6	-58.1	14.8	-22.0	-42.6	-65.7	16.3
7:12	-19.1	-23.2	-23.2	21.5	-21.7	-26.2	-26.2	23.8	-24.6	-29.8	-29.8	26.5
8:12	-19.2	-23.2	-23.2	21.4	-21.7	-26.3	-26.3	23.7	-24.7	-29.8	-29.8	26.4
9:12	-19.2	-23.2	-23.2	21.3	-21.8	-26.3	-26.3	23.6	-24.7	-29.8	-29.8	26.2
10:12	-19.2	-23.3	-23.3	21.2	-21.8	-26.4	-26.4	23.5	-24.7	-29.9	-29.9	26.1
11:12	-19.3	-23.3	-23.3	21.0	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9

Basic Wind Speed
95 mph

Ground Snow Load
5 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	18.8	-12.5	-23.5	-37.2	18.8	-15.4	-28.8	-45.5	18.8
2:12	-11.1	-22.1	-34.5	18.1	-11.1	-22.1	-34.5	18.1	-13.8	-27.1	-42.1	18.1
3:12	-11.1	-22.1	-34.5	17.3	-11.1	-22.1	-34.5	17.3	-13.8	-27.1	-42.2	17.3
4:12	-11.2	-22.2	-34.5	14.9	-11.2	-22.2	-34.5	14.9	-13.8	-27.2	-42.2	14.9
5:12	-11.2	-22.2	-34.6	14.3	-11.2	-22.2	-34.6	14.3	-13.8	-27.2	-42.2	14.3
6:12	-11.2	-22.2	-34.6	13.7	-11.2	-22.2	-34.6	13.7	-13.9	-27.2	-42.3	13.7
7:12	-12.6	-15.4	-15.4	15.7	-12.6	-15.4	-15.4	15.7	-15.6	-18.9	-18.9	18.3
8:12	-12.7	-15.4	-15.4	15.6	-12.7	-15.4	-15.4	15.6	-15.6	-19.0	-19.0	18.2
9:12	-12.7	-15.5	-15.5	15.5	-12.7	-15.5	-15.5	15.5	-15.7	-19.0	-19.0	18.1
10:12	-12.8	-15.5	-15.5	15.3	-12.8	-15.5	-15.5	15.3	-15.7	-19.0	-19.0	18.0
11:12	-12.8	-15.5	-15.5	15.2	-12.8	-15.5	-15.5	15.2	-15.7	-19.1	-19.1	17.9
12:12	-12.8	-15.6	-15.6	15.1	-12.8	-15.6	-15.6	15.1	-15.8	-19.1	-19.1	17.7
Exposure Category C												
1:12	-15.4	-28.8	-45.5	18.8	-18.0	-33.4	-52.6	18.8	-20.9	-38.7	-60.9	18.8
2:12	-13.8	-27.1	-42.1	18.1	-16.1	-31.5	-48.8	18.1	-18.7	-36.5	-56.4	18.9
3:12	-13.8	-27.1	-42.2	17.3	-16.1	-31.5	-48.8	17.3	-18.7	-36.5	-56.5	18.1
4:12	-13.8	-27.2	-42.2	14.9	-16.1	-31.5	-48.8	14.9	-18.8	-36.5	-56.5	15.7
5:12	-13.8	-27.2	-42.2	14.3	-16.1	-31.5	-48.9	14.3	-18.8	-36.5	-56.5	15.1
6:12	-13.9	-27.2	-42.3	13.7	-16.2	-31.6	-48.9	13.7	-18.8	-36.6	-56.5	14.6
7:12	-15.6	-18.9	-18.9	18.3	-18.1	-22.0	-22.0	20.6	-21.1	-25.5	-25.5	23.3
8:12	-15.6	-19.0	-19.0	18.2	-18.2	-22.0	-22.0	20.5	-21.1	-25.6	-25.6	23.2
9:12	-15.7	-19.0	-19.0	18.1	-18.2	-22.1	-22.1	20.4	-21.2	-25.6	-25.6	23.1
10:12	-15.7	-19.0	-19.0	18.0	-18.3	-22.1	-22.1	20.3	-21.2	-25.6	-25.6	22.9
11:12	-15.7	-19.1	-19.1	17.9	-18.3	-22.1	-22.1	20.2	-21.2	-25.7	-25.7	22.8
12:12	-15.8	-19.1	-19.1	17.7	-18.3	-22.2	-22.2	20.0	-21.3	-25.7	-25.7	22.7
Exposure Category D												
1:12	-18.9	-35.1	-55.4	18.8	-21.5	-39.7	-62.5	18.8	-24.4	-45.0	-70.8	18.8
2:12	-16.9	-33.1	-51.3	18.2	-19.2	-37.5	-58.0	19.1	-21.9	-42.5	-65.6	20.2
3:12	-17.0	-33.1	-51.3	17.4	-19.3	-37.5	-58.0	18.4	-21.9	-42.5	-65.6	19.5
4:12	-17.0	-33.2	-51.4	14.6	-19.3	-37.5	-58.0	15.6	-21.9	-42.5	-65.7	16.7
5:12	-17.0	-33.2	-51.4	14.1	-19.3	-37.5	-58.0	15.0	-22.0	-42.5	-65.7	16.4
6:12	-17.1	-33.2	-51.4	13.6	-19.4	-37.6	-58.1	14.8	-22.0	-42.6	-65.7	16.3
7:12	-19.1	-23.2	-23.2	21.5	-21.7	-26.2	-26.2	23.8	-24.6	-29.8	-29.8	26.5
8:12	-19.2	-23.2	-23.2	21.4	-21.7	-26.3	-26.3	23.7	-24.7	-29.8	-29.8	26.4
9:12	-19.2	-23.2	-23.2	21.3	-21.8	-26.3	-26.3	23.6	-24.7	-29.8	-29.8	26.2
10:12	-19.2	-23.3	-23.3	21.2	-21.8	-26.4	-26.4	23.5	-24.7	-29.9	-29.9	26.1
11:12	-19.3	-23.3	-23.3	21.0	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **95 mph**

Ground Snow Load **10 psf**

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-12.5	-23.5	-37.2	22.5	-12.5	-23.5	-37.2	22.5	-15.4	-28.8	-45.5	22.5
	2:12	-11.1	-22.1	-34.5	21.5	-11.1	-22.1	-34.5	21.5	-13.8	-27.1	-42.1	21.5
	3:12	-11.1	-22.1	-34.5	20.3	-11.1	-22.1	-34.5	20.3	-13.8	-27.1	-42.2	20.3
	4:12	-11.2	-22.2	-34.5	16.8	-11.2	-22.2	-34.5	16.8	-13.8	-27.2	-42.2	16.8
	5:12	-11.2	-22.2	-34.6	15.9	-11.2	-22.2	-34.6	15.9	-13.8	-27.2	-42.2	15.9
	6:12	-11.2	-22.2	-34.6	15.2	-11.2	-22.2	-34.6	15.2	-13.9	-27.2	-42.3	15.2
	7:12	-12.6	-15.4	-15.4	16.2	-12.6	-15.4	-15.4	16.2	-15.6	-18.9	-18.9	18.3
	8:12	-12.7	-15.4	-15.4	15.6	-12.7	-15.4	-15.4	15.6	-15.6	-19.0	-19.0	18.2
	9:12	-12.7	-15.5	-15.5	15.5	-12.7	-15.5	-15.5	15.5	-15.7	-19.0	-19.0	18.1
	10:12	-12.8	-15.5	-15.5	15.3	-12.8	-15.5	-15.5	15.3	-15.7	-19.0	-19.0	18.0
	11:12	-12.8	-15.5	-15.5	15.2	-12.8	-15.5	-15.5	15.2	-15.7	-19.1	-19.1	17.9
	12:12	-12.8	-15.6	-15.6	15.1	-12.8	-15.6	-15.6	15.1	-15.8	-19.1	-19.1	17.7
Exposure Category C	1:12	-15.4	-28.8	-45.5	22.5	-18.0	-33.4	-52.6	22.5	-20.9	-38.7	-60.9	22.5
	2:12	-13.8	-27.1	-42.1	21.5	-16.1	-31.5	-48.8	21.5	-18.7	-36.5	-56.4	22.3
	3:12	-13.8	-27.1	-42.2	20.3	-16.1	-31.5	-48.8	20.3	-18.7	-36.5	-56.5	21.2
	4:12	-13.8	-27.2	-42.2	16.8	-16.1	-31.5	-48.8	16.8	-18.8	-36.5	-56.5	17.6
	5:12	-13.8	-27.2	-42.2	15.9	-16.1	-31.5	-48.9	15.9	-18.8	-36.5	-56.5	16.8
	6:12	-13.9	-27.2	-42.3	15.2	-16.2	-31.6	-48.9	15.2	-18.8	-36.6	-56.5	16.0
	7:12	-15.6	-18.9	-18.9	18.3	-18.1	-22.0	-22.0	20.6	-21.1	-25.5	-25.5	23.3
	8:12	-15.6	-19.0	-19.0	18.2	-18.2	-22.0	-22.0	20.5	-21.1	-25.6	-25.6	23.2
	9:12	-15.7	-19.0	-19.0	18.1	-18.2	-22.1	-22.1	20.4	-21.2	-25.6	-25.6	23.1
	10:12	-15.7	-19.0	-19.0	18.0	-18.3	-22.1	-22.1	20.3	-21.2	-25.6	-25.6	22.9
	11:12	-15.7	-19.1	-19.1	17.9	-18.3	-22.1	-22.1	20.2	-21.2	-25.7	-25.7	22.8
	12:12	-15.8	-19.1	-19.1	17.7	-18.3	-22.2	-22.2	20.0	-21.3	-25.7	-25.7	22.7
Exposure Category D	1:12	-18.9	-35.1	-55.4	22.5	-21.5	-39.7	-62.5	22.5	-24.4	-45.0	-70.8	22.5
	2:12	-16.9	-33.1	-51.3	21.6	-19.2	-37.5	-58.0	22.5	-21.9	-42.5	-65.6	23.6
	3:12	-17.0	-33.1	-51.3	20.4	-19.3	-37.5	-58.0	21.4	-21.9	-42.5	-65.6	22.5
	4:12	-17.0	-33.2	-51.4	16.3	-19.3	-37.5	-58.0	17.3	-21.9	-42.5	-65.7	18.4
	5:12	-17.0	-33.2	-51.4	15.5	-19.3	-37.5	-58.0	16.5	-22.0	-42.5	-65.7	17.6
	6:12	-17.1	-33.2	-51.4	14.8	-19.4	-37.6	-58.1	15.8	-22.0	-42.6	-65.7	16.9
	7:12	-19.1	-23.2	-23.2	21.5	-21.7	-26.2	-26.2	23.8	-24.6	-29.8	-29.8	26.5
	8:12	-19.2	-23.2	-23.2	21.4	-21.7	-26.3	-26.3	23.7	-24.7	-29.8	-29.8	26.4
	9:12	-19.2	-23.2	-23.2	21.3	-21.8	-26.3	-26.3	23.6	-24.7	-29.8	-29.8	26.2
	10:12	-19.2	-23.3	-23.3	21.2	-21.8	-26.4	-26.4	23.5	-24.7	-29.9	-29.9	26.1
	11:12	-19.3	-23.3	-23.3	21.0	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
	12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
	2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
	4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
	5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
	6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
	7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
	8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
	9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
95 mph

Ground Snow Load
15 psf

Up and Down (psf)

Side Load (psf)

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-12.5	-23.5	-37.2	26.2	-12.5	-23.5	-37.2	26.2	-15.4	-28.8	-45.5	26.2
	2:12	-11.1	-22.1	-34.5	24.9	-11.1	-22.1	-34.5	24.9	-13.8	-27.1	-42.1	24.9
	3:12	-11.1	-22.1	-34.5	23.4	-11.1	-22.1	-34.5	23.4	-13.8	-27.1	-42.2	23.4
	4:12	-11.2	-22.2	-34.5	18.6	-11.2	-22.2	-34.5	18.6	-13.8	-27.2	-42.2	18.6
	5:12	-11.2	-22.2	-34.6	17.6	-11.2	-22.2	-34.6	17.6	-13.8	-27.2	-42.2	17.6
	6:12	-11.2	-22.2	-34.6	16.6	-11.2	-22.2	-34.6	16.6	-13.9	-27.2	-42.3	16.6
	7:12	-12.6	-15.4	-15.4	17.4	-12.6	-15.4	-15.4	17.4	-15.6	-18.9	-18.9	19.4
	8:12	-12.7	-15.4	-15.4	16.5	-12.7	-15.4	-15.4	16.5	-15.6	-19.0	-19.0	18.5
	9:12	-12.7	-15.5	-15.5	15.8	-12.7	-15.5	-15.5	15.8	-15.7	-19.0	-19.0	18.1
	10:12	-12.8	-15.5	-15.5	15.3	-12.8	-15.5	-15.5	15.3	-15.7	-19.0	-19.0	18.0
	11:12	-12.8	-15.5	-15.5	15.2	-12.8	-15.5	-15.5	15.2	-15.7	-19.1	-19.1	17.9
	12:12	-12.8	-15.6	-15.6	15.1	-12.8	-15.6	-15.6	15.1	-15.8	-19.1	-19.1	17.7
Exposure Category C	1:12	-15.4	-28.8	-45.5	26.2	-18.0	-33.4	-52.6	26.2	-20.9	-38.7	-60.9	26.2
	2:12	-13.8	-27.1	-42.1	24.9	-16.1	-31.5	-48.8	24.9	-18.7	-36.5	-56.4	25.7
	3:12	-13.8	-27.1	-42.2	23.4	-16.1	-31.5	-48.8	23.4	-18.7	-36.5	-56.5	24.2
	4:12	-13.8	-27.2	-42.2	18.6	-16.1	-31.5	-48.8	18.6	-18.8	-36.5	-56.5	19.5
	5:12	-13.8	-27.2	-42.2	17.6	-16.1	-31.5	-48.9	17.6	-18.8	-36.5	-56.5	18.4
	6:12	-13.9	-27.2	-42.3	16.6	-16.2	-31.6	-48.9	16.6	-18.8	-36.6	-56.5	17.4
	7:12	-15.6	-18.9	-18.9	19.4	-18.1	-22.0	-22.0	21.1	-21.1	-25.5	-25.5	23.3
	8:12	-15.6	-19.0	-19.0	18.5	-18.2	-22.0	-22.0	20.5	-21.1	-25.6	-25.6	23.2
	9:12	-15.7	-19.0	-19.0	18.1	-18.2	-22.1	-22.1	20.4	-21.2	-25.6	-25.6	23.1
	10:12	-15.7	-19.0	-19.0	18.0	-18.3	-22.1	-22.1	20.3	-21.2	-25.6	-25.6	22.9
	11:12	-15.7	-19.1	-19.1	17.9	-18.3	-22.1	-22.1	20.2	-21.2	-25.7	-25.7	22.8
	12:12	-15.8	-19.1	-19.1	17.7	-18.3	-22.2	-22.2	20.0	-21.3	-25.7	-25.7	22.7
Exposure Category D	1:12	-18.9	-35.1	-55.4	26.2	-21.5	-39.7	-62.5	26.2	-24.4	-45.0	-70.8	26.2
	2:12	-16.9	-33.1	-51.3	25.0	-19.2	-37.5	-58.0	25.9	-21.9	-42.5	-65.6	27.0
	3:12	-17.0	-33.1	-51.3	23.5	-19.3	-37.5	-58.0	24.4	-21.9	-42.5	-65.6	25.5
	4:12	-17.0	-33.2	-51.4	18.0	-19.3	-37.5	-58.0	18.9	-21.9	-42.5	-65.7	20.0
	5:12	-17.0	-33.2	-51.4	17.0	-19.3	-37.5	-58.0	18.0	-22.0	-42.5	-65.7	19.1
	6:12	-17.1	-33.2	-51.4	16.1	-19.4	-37.6	-58.1	17.0	-22.0	-42.6	-65.7	18.1
	7:12	-19.1	-23.2	-23.2	21.5	-21.7	-26.2	-26.2	23.8	-24.6	-29.8	-29.8	26.5
	8:12	-19.2	-23.2	-23.2	21.4	-21.7	-26.3	-26.3	23.7	-24.7	-29.8	-29.8	26.4
	9:12	-19.2	-23.2	-23.2	21.3	-21.8	-26.3	-26.3	23.6	-24.7	-29.8	-29.8	26.2
	10:12	-19.2	-23.3	-23.3	21.2	-21.8	-26.4	-26.4	23.5	-24.7	-29.9	-29.9	26.1
	11:12	-19.3	-23.3	-23.3	21.0	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
	12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **95 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	26.2	-12.5	-23.5	-37.2	26.2	-15.4	-28.8	-45.5	26.2
2:12	-11.1	-22.1	-34.5	24.9	-11.1	-22.1	-34.5	24.9	-13.8	-27.1	-42.1	24.9
3:12	-11.1	-22.1	-34.5	23.4	-11.1	-22.1	-34.5	23.4	-13.8	-27.1	-42.2	23.4
4:12	-11.2	-22.2	-34.5	20.5	-11.2	-22.2	-34.5	20.5	-13.8	-27.2	-42.2	20.5
5:12	-11.2	-22.2	-34.6	19.2	-11.2	-22.2	-34.6	19.2	-13.8	-27.2	-42.2	19.2
6:12	-11.2	-22.2	-34.6	18.0	-11.2	-22.2	-34.6	18.0	-13.9	-27.2	-42.3	18.0
7:12	-12.6	-15.4	-15.4	18.6	-12.6	-15.4	-15.4	18.6	-15.6	-18.9	-18.9	20.6
8:12	-12.7	-15.4	-15.4	17.6	-12.7	-15.4	-15.4	17.6	-15.6	-19.0	-19.0	19.5
9:12	-12.7	-15.5	-15.5	16.6	-12.7	-15.5	-15.5	16.6	-15.7	-19.0	-19.0	18.6
10:12	-12.8	-15.5	-15.5	15.8	-12.8	-15.5	-15.5	15.8	-15.7	-19.0	-19.0	18.0
11:12	-12.8	-15.5	-15.5	15.2	-12.8	-15.5	-15.5	15.2	-15.7	-19.1	-19.1	17.9
12:12	-12.8	-15.6	-15.6	15.1	-12.8	-15.6	-15.6	15.1	-15.8	-19.1	-19.1	17.7
Exposure Category C												
1:12	-15.4	-28.8	-45.5	26.2	-18.0	-33.4	-52.6	26.2	-20.9	-38.7	-60.9	26.2
2:12	-13.8	-27.1	-42.1	24.9	-16.1	-31.5	-48.8	24.9	-18.7	-36.5	-56.4	25.7
3:12	-13.8	-27.1	-42.2	23.4	-16.1	-31.5	-48.8	23.4	-18.7	-36.5	-56.5	24.2
4:12	-13.8	-27.2	-42.2	20.5	-16.1	-31.5	-48.8	20.5	-18.8	-36.5	-56.5	21.3
5:12	-13.8	-27.2	-42.2	19.2	-16.1	-31.5	-48.9	19.2	-18.8	-36.5	-56.5	20.0
6:12	-13.9	-27.2	-42.3	18.0	-16.2	-31.6	-48.9	18.0	-18.8	-36.6	-56.5	18.8
7:12	-15.6	-18.9	-18.9	20.6	-18.1	-22.0	-22.0	22.3	-21.1	-25.5	-25.5	24.3
8:12	-15.6	-19.0	-19.0	19.5	-18.2	-22.0	-22.0	21.3	-21.1	-25.6	-25.6	23.3
9:12	-15.7	-19.0	-19.0	18.6	-18.2	-22.1	-22.1	20.4	-21.2	-25.6	-25.6	23.1
10:12	-15.7	-19.0	-19.0	18.0	-18.3	-22.1	-22.1	20.3	-21.2	-25.6	-25.6	22.9
11:12	-15.7	-19.1	-19.1	17.9	-18.3	-22.1	-22.1	20.2	-21.2	-25.7	-25.7	22.8
12:12	-15.8	-19.1	-19.1	17.7	-18.3	-22.2	-22.2	20.0	-21.3	-25.7	-25.7	22.7
Exposure Category D												
1:12	-18.9	-35.1	-55.4	26.2	-21.5	-39.7	-62.5	26.2	-24.4	-45.0	-70.8	26.2
2:12	-16.9	-33.1	-51.3	25.0	-19.2	-37.5	-58.0	25.9	-21.9	-42.5	-65.6	27.0
3:12	-17.0	-33.1	-51.3	23.5	-19.3	-37.5	-58.0	24.4	-21.9	-42.5	-65.6	25.5
4:12	-17.0	-33.2	-51.4	19.7	-19.3	-37.5	-58.0	20.6	-21.9	-42.5	-65.7	21.7
5:12	-17.0	-33.2	-51.4	18.5	-19.3	-37.5	-58.0	19.4	-22.0	-42.5	-65.7	20.5
6:12	-17.1	-33.2	-51.4	17.3	-19.4	-37.6	-58.1	18.3	-22.0	-42.6	-65.7	19.4
7:12	-19.1	-23.2	-23.2	22.4	-21.7	-26.2	-26.2	24.1	-24.6	-29.8	-29.8	26.5
8:12	-19.2	-23.2	-23.2	21.4	-21.7	-26.3	-26.3	23.7	-24.7	-29.8	-29.8	26.4
9:12	-19.2	-23.2	-23.2	21.3	-21.8	-26.3	-26.3	23.6	-24.7	-29.8	-29.8	26.2
10:12	-19.2	-23.3	-23.3	21.2	-21.8	-26.4	-26.4	23.5	-24.7	-29.9	-29.9	26.1
11:12	-19.3	-23.3	-23.3	21.0	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

Ground Snow Load

95 mph

25 psf

Up and Down (psf)

Basic Wind Speed
95 mph

Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-12.5	-23.5	-37.2	27.0	-12.5	-23.5	-37.2	27.0	-15.4	-28.8	-45.5	27.0
2:12	-11.1	-22.1	-34.5	25.6	-11.1	-22.1	-34.5	25.6	-13.8	-27.1	-42.1	25.6
3:12	-11.1	-22.1	-34.5	24.0	-11.1	-22.1	-34.5	24.0	-13.8	-27.1	-42.2	24.0
4:12	-11.2	-22.2	-34.5	22.4	-11.2	-22.2	-34.5	22.4	-13.8	-27.2	-42.2	22.4
5:12	-11.2	-22.2	-34.6	20.8	-11.2	-22.2	-34.6	20.8	-13.8	-27.2	-42.2	20.8
6:12	-11.2	-22.2	-34.6	19.4	-11.2	-22.2	-34.6	19.4	-13.9	-27.2	-42.3	19.4
7:12	-12.6	-15.4	-15.4	19.8	-12.6	-15.4	-15.4	19.8	-15.6	-18.9	-18.9	21.8
8:12	-12.7	-15.4	-15.4	18.6	-12.7	-15.4	-15.4	18.6	-15.6	-19.0	-19.0	20.6
9:12	-12.7	-15.5	-15.5	17.5	-12.7	-15.5	-15.5	17.5	-15.7	-19.0	-19.0	19.5
10:12	-12.8	-15.5	-15.5	16.6	-12.8	-15.5	-15.5	16.6	-15.7	-19.0	-19.0	18.5
11:12	-12.8	-15.5	-15.5	15.7	-12.8	-15.5	-15.5	15.7	-15.7	-19.1	-19.1	17.9
12:12	-12.8	-15.6	-15.6	15.1	-12.8	-15.6	-15.6	15.1	-15.8	-19.1	-19.1	17.7
1:12	-15.4	-28.8	-45.5	27.0	-18.0	-33.4	-52.6	27.0	-20.9	-38.7	-60.9	27.0
2:12	-13.8	-27.1	-42.1	25.6	-16.1	-31.5	-48.8	25.6	-18.7	-36.5	-56.4	26.4
3:12	-13.8	-27.1	-42.2	24.0	-16.1	-31.5	-48.8	24.0	-18.7	-36.5	-56.5	24.8
4:12	-13.8	-27.2	-42.2	22.4	-16.1	-31.5	-48.8	22.4	-18.8	-36.5	-56.5	23.2
5:12	-13.8	-27.2	-42.2	20.8	-16.1	-31.5	-48.9	20.8	-18.8	-36.5	-56.5	21.7
6:12	-13.9	-27.2	-42.3	19.4	-16.2	-31.6	-48.9	19.4	-18.8	-36.6	-56.5	20.2
7:12	-15.6	-18.9	-18.9	21.8	-18.1	-22.0	-22.0	23.5	-21.1	-25.5	-25.5	25.5
8:12	-15.6	-19.0	-19.0	20.6	-18.2	-22.0	-22.0	22.3	-21.1	-25.6	-25.6	24.3
9:12	-15.7	-19.0	-19.0	19.5	-18.2	-22.1	-22.1	21.2	-21.2	-25.6	-25.6	23.2
10:12	-15.7	-19.0	-19.0	18.5	-18.3	-22.1	-22.1	20.3	-21.2	-25.6	-25.6	22.9
11:12	-15.7	-19.1	-19.1	17.9	-18.3	-22.1	-22.1	20.2	-21.2	-25.7	-25.7	22.8
12:12	-15.8	-19.1	-19.1	17.7	-18.3	-22.2	-22.2	20.0	-21.3	-25.7	-25.7	22.7
1:12	-18.9	-35.1	-55.4	26.2	-21.5	-39.7	-62.5	26.2	-24.4	-45.0	-70.8	26.2
2:12	-16.9	-33.1	-51.3	25.0	-19.2	-37.5	-58.0	25.9	-21.9	-42.5	-65.6	27.0
3:12	-17.0	-33.1	-51.3	23.5	-19.3	-37.5	-58.0	24.4	-21.9	-42.5	-65.6	25.5
4:12	-17.0	-33.2	-51.4	21.4	-19.3	-37.5	-58.0	22.3	-21.9	-42.5	-65.7	23.4
5:12	-17.0	-33.2	-51.4	19.9	-19.3	-37.5	-58.0	20.9	-22.0	-42.5	-65.7	22.0
6:12	-17.1	-33.2	-51.4	18.6	-19.4	-37.6	-58.1	19.6	-22.0	-42.6	-65.7	20.7
7:12	-19.1	-23.2	-23.2	23.4	-21.7	-26.2	-26.2	25.2	-24.6	-29.8	-29.8	27.2
8:12	-19.2	-23.2	-23.2	22.3	-21.7	-26.3	-26.3	24.1	-24.7	-29.8	-29.8	26.4
9:12	-19.2	-23.2	-23.2	21.4	-21.8	-26.3	-26.3	23.6	-24.7	-29.8	-29.8	26.2
10:12	-19.2	-23.3	-23.3	21.2	-21.8	-26.4	-26.4	23.5	-24.7	-29.9	-29.9	26.1
11:12	-19.3	-23.3	-23.3	21.0	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
95 mph

Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	29.6	-12.5	-23.5	-37.2	29.6	-15.4	-28.8	-45.5	29.6
2:12	-11.1	-22.1	-34.5	27.9	-11.1	-22.1	-34.5	27.9	-13.8	-27.1	-42.1	27.9
3:12	-11.1	-22.1	-34.5	26.1	-11.1	-22.1	-34.5	26.1	-13.8	-27.1	-42.2	26.1
4:12	-11.2	-22.2	-34.5	24.3	-11.2	-22.2	-34.5	24.3	-13.8	-27.2	-42.2	24.3
5:12	-11.2	-22.2	-34.6	22.5	-11.2	-22.2	-34.6	22.5	-13.8	-27.2	-42.2	22.5
6:12	-11.2	-22.2	-34.6	20.8	-11.2	-22.2	-34.6	20.8	-13.9	-27.2	-42.3	20.8
7:12	-12.6	-15.4	-15.4	21.0	-12.6	-15.4	-15.4	21.0	-15.6	-18.9	-18.9	23.0
8:12	-12.7	-15.4	-15.4	19.6	-12.7	-15.4	-15.4	19.6	-15.6	-19.0	-19.0	21.6
9:12	-12.7	-15.5	-15.5	18.4	-12.7	-15.5	-15.5	18.4	-15.7	-19.0	-19.0	20.3
10:12	-12.8	-15.5	-15.5	17.3	-12.8	-15.5	-15.5	17.3	-15.7	-19.0	-19.0	19.3
11:12	-12.8	-15.5	-15.5	16.3	-12.8	-15.5	-15.5	16.3	-15.7	-19.1	-19.1	18.3
12:12	-12.8	-15.6	-15.6	15.5	-12.8	-15.6	-15.6	15.5	-15.8	-19.1	-19.1	17.7
Exposure Category C												
1:12	-15.4	-28.8	-45.5	29.6	-18.0	-33.4	-52.6	29.6	-20.9	-38.7	-60.9	29.6
2:12	-13.8	-27.1	-42.1	27.9	-16.1	-31.5	-48.8	27.9	-18.7	-36.5	-56.4	28.8
3:12	-13.8	-27.1	-42.2	26.1	-16.1	-31.5	-48.8	26.1	-18.7	-36.5	-56.5	26.9
4:12	-13.8	-27.2	-42.2	24.3	-16.1	-31.5	-48.8	24.3	-18.8	-36.5	-56.5	25.1
5:12	-13.8	-27.2	-42.2	22.5	-16.1	-31.5	-48.9	22.5	-18.8	-36.5	-56.5	23.3
6:12	-13.9	-27.2	-42.3	20.8	-16.2	-31.6	-48.9	20.8	-18.8	-36.6	-56.5	21.6
7:12	-15.6	-18.9	-18.9	23.0	-18.1	-22.0	-22.0	24.7	-21.1	-25.5	-25.5	26.7
8:12	-15.6	-19.0	-19.0	21.6	-18.2	-22.0	-22.0	23.3	-21.1	-25.6	-25.6	25.3
9:12	-15.7	-19.0	-19.0	20.3	-18.2	-22.1	-22.1	22.1	-21.2	-25.6	-25.6	24.1
10:12	-15.7	-19.0	-19.0	19.3	-18.3	-22.1	-22.1	21.0	-21.2	-25.6	-25.6	23.0
11:12	-15.7	-19.1	-19.1	18.3	-18.3	-22.1	-22.1	20.2	-21.2	-25.7	-25.7	22.8
12:12	-15.8	-19.1	-19.1	17.7	-18.3	-22.2	-22.2	20.0	-21.3	-25.7	-25.7	22.7
Exposure Category D												
1:12	-18.9	-35.1	-55.4	27.8	-21.5	-39.7	-62.5	27.8	-24.4	-45.0	-70.8	27.8
2:12	-16.9	-33.1	-51.3	26.4	-19.2	-37.5	-58.0	27.3	-21.9	-42.5	-65.6	28.4
3:12	-17.0	-33.1	-51.3	24.7	-19.3	-37.5	-58.0	25.7	-21.9	-42.5	-65.6	26.8
4:12	-17.0	-33.2	-51.4	23.0	-19.3	-37.5	-58.0	24.0	-21.9	-42.5	-65.7	25.1
5:12	-17.0	-33.2	-51.4	21.4	-19.3	-37.5	-58.0	22.4	-22.0	-42.5	-65.7	23.5
6:12	-17.1	-33.2	-51.4	19.9	-19.4	-37.6	-58.1	20.8	-22.0	-42.6	-65.7	21.9
7:12	-19.1	-23.2	-23.2	24.5	-21.7	-26.2	-26.2	26.2	-24.6	-29.8	-29.8	28.2
8:12	-19.2	-23.2	-23.2	23.3	-21.7	-26.3	-26.3	25.0	-24.7	-29.8	-29.8	27.0
9:12	-19.2	-23.2	-23.2	22.1	-21.8	-26.3	-26.3	23.8	-24.7	-29.8	-29.8	26.2
10:12	-19.2	-23.3	-23.3	21.2	-21.8	-26.4	-26.4	23.5	-24.7	-29.9	-29.9	26.1
11:12	-19.3	-23.3	-23.3	21.0	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	32.2	-12.5	-23.5	-37.2	32.2	-15.4	-28.8	-45.5	32.2
2:12	-11.1	-22.1	-34.5	30.3	-11.1	-22.1	-34.5	30.3	-13.8	-27.1	-42.1	30.3
3:12	-11.1	-22.1	-34.5	28.2	-11.1	-22.1	-34.5	28.2	-13.8	-27.1	-42.2	28.2
4:12	-11.2	-22.2	-34.5	26.1	-11.2	-22.2	-34.5	26.1	-13.8	-27.2	-42.2	26.1
5:12	-11.2	-22.2	-34.6	24.1	-11.2	-22.2	-34.6	24.1	-13.8	-27.2	-42.2	24.1
6:12	-11.2	-22.2	-34.6	22.2	-11.2	-22.2	-34.6	22.2	-13.9	-27.2	-42.3	22.2
7:12	-12.6	-15.4	-15.4	22.2	-12.6	-15.4	-15.4	22.2	-15.6	-18.9	-18.9	24.2
8:12	-12.7	-15.4	-15.4	20.6	-12.7	-15.4	-15.4	20.6	-15.6	-19.0	-19.0	22.6
9:12	-12.7	-15.5	-15.5	19.2	-12.7	-15.5	-15.5	19.2	-15.7	-19.0	-19.0	21.2
10:12	-12.8	-15.5	-15.5	18.0	-12.8	-15.5	-15.5	18.0	-15.7	-19.0	-19.0	20.0
11:12	-12.8	-15.5	-15.5	16.9	-12.8	-15.5	-15.5	16.9	-15.7	-19.1	-19.1	18.9
12:12	-12.8	-15.6	-15.6	16.0	-12.8	-15.6	-15.6	16.0	-15.8	-19.1	-19.1	18.0
Exposure Category C												
1:12	-15.4	-28.8	-45.5	32.2	-18.0	-33.4	-52.6	32.2	-20.9	-38.7	-60.9	32.2
2:12	-13.8	-27.1	-42.1	30.3	-16.1	-31.5	-48.8	30.3	-18.7	-36.5	-56.4	31.1
3:12	-13.8	-27.1	-42.2	28.2	-16.1	-31.5	-48.8	28.2	-18.7	-36.5	-56.5	29.1
4:12	-13.8	-27.2	-42.2	26.1	-16.1	-31.5	-48.8	26.1	-18.8	-36.5	-56.5	27.0
5:12	-13.8	-27.2	-42.2	24.1	-16.1	-31.5	-48.9	24.1	-18.8	-36.5	-56.5	24.9
6:12	-13.9	-27.2	-42.3	22.2	-16.2	-31.6	-48.9	22.2	-18.8	-36.6	-56.5	23.0
7:12	-15.6	-18.9	-18.9	24.2	-18.1	-22.0	-22.0	25.9	-21.1	-25.5	-25.5	27.9
8:12	-15.6	-19.0	-19.0	22.6	-18.2	-22.0	-22.0	24.3	-21.1	-25.6	-25.6	26.3
9:12	-15.7	-19.0	-19.0	21.2	-18.2	-22.1	-22.1	22.9	-21.2	-25.6	-25.6	24.9
10:12	-15.7	-19.0	-19.0	20.0	-18.3	-22.1	-22.1	21.7	-21.2	-25.6	-25.6	23.7
11:12	-15.7	-19.1	-19.1	18.9	-18.3	-22.1	-22.1	20.7	-21.2	-25.7	-25.7	22.8
12:12	-15.8	-19.1	-19.1	18.0	-18.3	-22.2	-22.2	20.0	-21.3	-25.7	-25.7	22.7
Exposure Category D												
1:12	-18.9	-35.1	-55.4	30.1	-21.5	-39.7	-62.5	30.1	-24.4	-45.0	-70.8	30.1
2:12	-16.9	-33.1	-51.3	28.5	-19.2	-37.5	-58.0	29.5	-21.9	-42.5	-65.6	30.6
3:12	-17.0	-33.1	-51.3	26.6	-19.3	-37.5	-58.0	27.6	-21.9	-42.5	-65.6	28.7
4:12	-17.0	-33.2	-51.4	24.7	-19.3	-37.5	-58.0	25.7	-21.9	-42.5	-65.7	26.8
5:12	-17.0	-33.2	-51.4	22.9	-19.3	-37.5	-58.0	23.8	-22.0	-42.5	-65.7	24.9
6:12	-17.1	-33.2	-51.4	21.1	-19.4	-37.6	-58.1	22.1	-22.0	-42.6	-65.7	23.2
7:12	-19.1	-23.2	-23.2	25.6	-21.7	-26.2	-26.2	27.3	-24.6	-29.8	-29.8	29.3
8:12	-19.2	-23.2	-23.2	24.2	-21.7	-26.3	-26.3	25.9	-24.7	-29.8	-29.8	27.9
9:12	-19.2	-23.2	-23.2	22.9	-21.8	-26.3	-26.3	24.6	-24.7	-29.8	-29.8	26.6
10:12	-19.2	-23.3	-23.3	21.8	-21.8	-26.4	-26.4	23.5	-24.7	-29.9	-29.9	26.1
11:12	-19.3	-23.3	-23.3	21.0	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
95 mph

Ground Snow Load
40 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	35.1	-12.5	-23.5	-37.2	35.1	-15.4	-28.8	-45.5	35.1
2:12	-11.1	-22.1	-34.5	32.7	-11.1	-22.1	-34.5	32.7	-13.8	-27.1	-42.1	32.7
3:12	-11.1	-22.1	-34.5	30.4	-11.1	-22.1	-34.5	30.4	-13.8	-27.1	-42.2	30.4
4:12	-11.2	-22.2	-34.5	28.0	-11.2	-22.2	-34.5	28.0	-13.8	-27.2	-42.2	28.0
5:12	-11.2	-22.2	-34.6	25.7	-11.2	-22.2	-34.6	25.7	-13.8	-27.2	-42.2	25.7
6:12	-11.2	-22.2	-34.6	23.6	-11.2	-22.2	-34.6	23.6	-13.9	-27.2	-42.3	23.6
7:12	-12.6	-15.4	-15.4	23.4	-12.6	-15.4	-15.4	23.4	-15.6	-18.9	-18.9	25.4
8:12	-12.7	-15.4	-15.4	21.6	-12.7	-15.4	-15.4	21.6	-15.6	-19.0	-19.0	23.6
9:12	-12.7	-15.5	-15.5	20.1	-12.7	-15.5	-15.5	20.1	-15.7	-19.0	-19.0	22.1
10:12	-12.8	-15.5	-15.5	18.7	-12.8	-15.5	-15.5	18.7	-15.7	-19.0	-19.0	20.7
11:12	-12.8	-15.5	-15.5	17.5	-12.8	-15.5	-15.5	17.5	-15.7	-19.1	-19.1	19.5
12:12	-12.8	-15.6	-15.6	16.5	-12.8	-15.6	-15.6	16.5	-15.8	-19.1	-19.1	18.5
Exposure Category C												
1:12	-15.4	-28.8	-45.5	35.1	-18.0	-33.4	-52.6	35.1	-20.9	-38.7	-60.9	35.1
2:12	-13.8	-27.1	-42.1	32.7	-16.1	-31.5	-48.8	32.7	-18.7	-36.5	-56.4	33.5
3:12	-13.8	-27.1	-42.2	30.4	-16.1	-31.5	-48.8	30.4	-18.7	-36.5	-56.5	31.2
4:12	-13.8	-27.2	-42.2	28.0	-16.1	-31.5	-48.8	28.0	-18.8	-36.5	-56.5	28.8
5:12	-13.8	-27.2	-42.2	25.7	-16.1	-31.5	-48.9	25.7	-18.8	-36.5	-56.5	26.5
6:12	-13.9	-27.2	-42.3	23.6	-16.2	-31.6	-48.9	23.6	-18.8	-36.6	-56.5	24.4
7:12	-15.6	-18.9	-18.9	25.4	-18.1	-22.0	-22.0	27.1	-21.1	-25.5	-25.5	29.1
8:12	-15.6	-19.0	-19.0	23.6	-18.2	-22.0	-22.0	25.3	-21.1	-25.6	-25.6	27.3
9:12	-15.7	-19.0	-19.0	22.1	-18.2	-22.1	-22.1	23.8	-21.2	-25.6	-25.6	25.8
10:12	-15.7	-19.0	-19.0	20.7	-18.3	-22.1	-22.1	22.4	-21.2	-25.6	-25.6	24.4
11:12	-15.7	-19.1	-19.1	19.5	-18.3	-22.1	-22.1	21.3	-21.2	-25.7	-25.7	23.2
12:12	-15.8	-19.1	-19.1	18.5	-18.3	-22.2	-22.2	20.3	-21.3	-25.7	-25.7	22.7
Exposure Category D												
1:12	-18.9	-35.1	-55.4	32.5	-21.5	-39.7	-62.5	32.5	-24.4	-45.0	-70.8	32.5
2:12	-16.9	-33.1	-51.3	30.6	-19.2	-37.5	-58.0	31.6	-21.9	-42.5	-65.6	32.7
3:12	-17.0	-33.1	-51.3	28.5	-19.3	-37.5	-58.0	29.5	-21.9	-42.5	-65.6	30.6
4:12	-17.0	-33.2	-51.4	26.4	-19.3	-37.5	-58.0	27.4	-21.9	-42.5	-65.7	28.5
5:12	-17.0	-33.2	-51.4	24.3	-19.3	-37.5	-58.0	25.3	-22.0	-42.5	-65.7	26.4
6:12	-17.1	-33.2	-51.4	22.4	-19.4	-37.6	-58.1	23.4	-22.0	-42.6	-65.7	24.5
7:12	-19.1	-23.2	-23.2	26.7	-21.7	-26.2	-26.2	28.4	-24.6	-29.8	-29.8	30.4
8:12	-19.2	-23.2	-23.2	25.1	-21.7	-26.3	-26.3	26.8	-24.7	-29.8	-29.8	28.8
9:12	-19.2	-23.2	-23.2	23.7	-21.8	-26.3	-26.3	25.4	-24.7	-29.8	-29.8	27.4
10:12	-19.2	-23.3	-23.3	22.4	-21.8	-26.4	-26.4	24.2	-24.7	-29.9	-29.9	26.2
11:12	-19.3	-23.3	-23.3	21.4	-21.8	-26.4	-26.4	23.3	-24.8	-29.9	-29.9	26.0
12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **95 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	38.6	-12.5	-23.5	-37.2	38.6	-15.4	-28.8	-45.5	38.6
2:12	-11.1	-22.1	-34.5	35.5	-11.1	-22.1	-34.5	35.5	-13.8	-27.1	-42.1	35.5
3:12	-11.1	-22.1	-34.5	32.5	-11.1	-22.1	-34.5	32.5	-13.8	-27.1	-42.2	32.5
4:12	-11.2	-22.2	-34.5	29.9	-11.2	-22.2	-34.5	29.9	-13.8	-27.2	-42.2	29.9
5:12	-11.2	-22.2	-34.6	27.4	-11.2	-22.2	-34.6	27.4	-13.8	-27.2	-42.2	27.4
6:12	-11.2	-22.2	-34.6	25.0	-11.2	-22.2	-34.6	25.0	-13.9	-27.2	-42.3	25.0
7:12	-12.6	-15.4	-15.4	24.6	-12.6	-15.4	-15.4	24.6	-15.6	-18.9	-18.9	26.6
8:12	-12.7	-15.4	-15.4	22.6	-12.7	-15.4	-15.4	22.6	-15.6	-19.0	-19.0	24.6
9:12	-12.7	-15.5	-15.5	20.9	-12.7	-15.5	-15.5	20.9	-15.7	-19.0	-19.0	22.9
10:12	-12.8	-15.5	-15.5	19.4	-12.8	-15.5	-15.5	19.4	-15.7	-19.0	-19.0	21.4
11:12	-12.8	-15.5	-15.5	18.1	-12.8	-15.5	-15.5	18.1	-15.7	-19.1	-19.1	20.1
12:12	-12.8	-15.6	-15.6	17.0	-12.8	-15.6	-15.6	17.0	-15.8	-19.1	-19.1	19.0
Exposure Category C												
1:12	-15.4	-28.8	-45.5	38.6	-18.0	-33.4	-52.6	38.6	-20.9	-38.7	-60.9	38.6
2:12	-13.8	-27.1	-42.1	35.5	-16.1	-31.5	-48.8	35.5	-18.7	-36.5	-56.4	35.9
3:12	-13.8	-27.1	-42.2	32.5	-16.1	-31.5	-48.8	32.5	-18.7	-36.5	-56.5	33.3
4:12	-13.8	-27.2	-42.2	29.9	-16.1	-31.5	-48.8	29.9	-18.8	-36.5	-56.5	30.7
5:12	-13.8	-27.2	-42.2	27.4	-16.1	-31.5	-48.9	27.4	-18.8	-36.5	-56.5	28.2
6:12	-13.9	-27.2	-42.3	25.0	-16.2	-31.6	-48.9	25.0	-18.8	-36.6	-56.5	25.8
7:12	-15.6	-18.9	-18.9	26.6	-18.1	-22.0	-22.0	28.3	-21.1	-25.5	-25.5	30.3
8:12	-15.6	-19.0	-19.0	24.6	-18.2	-22.0	-22.0	26.3	-21.1	-25.6	-25.6	28.3
9:12	-15.7	-19.0	-19.0	22.9	-18.2	-22.1	-22.1	24.6	-21.2	-25.6	-25.6	26.6
10:12	-15.7	-19.0	-19.0	21.4	-18.3	-22.1	-22.1	23.1	-21.2	-25.6	-25.6	25.1
11:12	-15.7	-19.1	-19.1	20.1	-18.3	-22.1	-22.1	21.9	-21.2	-25.7	-25.7	23.8
12:12	-15.8	-19.1	-19.1	19.0	-18.3	-22.2	-22.2	20.8	-21.3	-25.7	-25.7	22.7
Exposure Category D												
1:12	-18.9	-35.1	-55.4	35.1	-21.5	-39.7	-62.5	35.1	-24.4	-45.0	-70.8	35.1
2:12	-16.9	-33.1	-51.3	32.8	-19.2	-37.5	-58.0	33.7	-21.9	-42.5	-65.6	34.9
3:12	-17.0	-33.1	-51.3	30.5	-19.3	-37.5	-58.0	31.4	-21.9	-42.5	-65.6	32.5
4:12	-17.0	-33.2	-51.4	28.1	-19.3	-37.5	-58.0	29.1	-21.9	-42.5	-65.7	30.2
5:12	-17.0	-33.2	-51.4	25.8	-19.3	-37.5	-58.0	26.8	-22.0	-42.5	-65.7	27.9
6:12	-17.1	-33.2	-51.4	23.7	-19.4	-37.6	-58.1	24.6	-22.0	-42.6	-65.7	25.7
7:12	-19.1	-23.2	-23.2	27.8	-21.7	-26.2	-26.2	29.5	-24.6	-29.8	-29.8	31.5
8:12	-19.2	-23.2	-23.2	26.0	-21.7	-26.3	-26.3	27.7	-24.7	-29.8	-29.8	29.7
9:12	-19.2	-23.2	-23.2	24.4	-21.8	-26.3	-26.3	26.2	-24.7	-29.8	-29.8	28.1
10:12	-19.2	-23.3	-23.3	23.1	-21.8	-26.4	-26.4	24.8	-24.7	-29.9	-29.9	26.8
11:12	-19.3	-23.3	-23.3	21.9	-21.8	-26.4	-26.4	23.6	-24.8	-29.9	-29.9	26.0
12:12	-19.3	-23.4	-23.4	20.9	-21.9	-26.4	-26.4	23.2	-24.8	-30.0	-30.0	25.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

95 mph

Ground Snow Load

50 psf

Up and Down (psf)

Basic Wind Speed
95 mph

Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	45.5	-12.5	-23.5	-37.2	45.5	-15.4	-28.8	-45.5	45.5
2:12	-11.1	-22.1	-34.5	41.9	-11.1	-22.1	-34.5	41.9	-13.8	-27.1	-42.1	41.9
3:12	-11.1	-22.1	-34.5	37.8	-11.1	-22.1	-34.5	37.8	-13.8	-27.1	-42.2	37.8
4:12	-11.2	-22.2	-34.5	33.6	-11.2	-22.2	-34.5	33.6	-13.8	-27.2	-42.2	33.6
5:12	-11.2	-22.2	-34.6	30.6	-11.2	-22.2	-34.6	30.6	-13.8	-27.2	-42.2	30.6
6:12	-11.2	-22.2	-34.6	27.8	-11.2	-22.2	-34.6	27.8	-13.9	-27.2	-42.3	27.8
7:12	-12.6	-15.4	-15.4	27.0	-12.6	-15.4	-15.4	27.0	-15.6	-18.9	-18.9	29.0
8:12	-12.7	-15.4	-15.4	24.7	-12.7	-15.4	-15.4	24.7	-15.6	-19.0	-19.0	26.7
9:12	-12.7	-15.5	-15.5	22.6	-12.7	-15.5	-15.5	22.6	-15.7	-19.0	-19.0	24.6
10:12	-12.8	-15.5	-15.5	20.9	-12.8	-15.5	-15.5	20.9	-15.7	-19.0	-19.0	22.9
11:12	-12.8	-15.5	-15.5	19.4	-12.8	-15.5	-15.5	19.4	-15.7	-19.1	-19.1	21.3
12:12	-12.8	-15.6	-15.6	18.1	-12.8	-15.6	-15.6	18.1	-15.8	-19.1	-19.1	20.0
Exposure Category C												
1:12	-15.4	-28.8	-45.5	45.5	-18.0	-33.4	-52.6	45.5	-20.9	-38.7	-60.9	45.5
2:12	-13.8	-27.1	-42.1	41.9	-16.1	-31.5	-48.8	41.9	-18.7	-36.5	-56.4	41.9
3:12	-13.8	-27.1	-42.2	37.8	-16.1	-31.5	-48.8	37.8	-18.7	-36.5	-56.5	37.8
4:12	-13.8	-27.2	-42.2	33.6	-16.1	-31.5	-48.8	33.6	-18.8	-36.5	-56.5	34.5
5:12	-13.8	-27.2	-42.2	30.6	-16.1	-31.5	-48.9	30.6	-18.8	-36.5	-56.5	31.4
6:12	-13.9	-27.2	-42.3	27.8	-16.2	-31.6	-48.9	27.8	-18.8	-36.6	-56.5	28.6
7:12	-15.6	-18.9	-18.9	29.0	-18.1	-22.0	-22.0	30.7	-21.1	-25.5	-25.5	32.7
8:12	-15.6	-19.0	-19.0	26.7	-18.2	-22.0	-22.0	28.4	-21.1	-25.6	-25.6	30.4
9:12	-15.7	-19.0	-19.0	24.6	-18.2	-22.1	-22.1	26.3	-21.2	-25.6	-25.6	28.3
10:12	-15.7	-19.0	-19.0	22.9	-18.3	-22.1	-22.1	24.6	-21.2	-25.6	-25.6	26.6
11:12	-15.7	-19.1	-19.1	21.3	-18.3	-22.1	-22.1	23.1	-21.2	-25.7	-25.7	25.1
12:12	-15.8	-19.1	-19.1	20.0	-18.3	-22.2	-22.2	21.8	-21.3	-25.7	-25.7	23.8
Exposure Category D												
1:12	-18.9	-35.1	-55.4	41.4	-21.5	-39.7	-62.5	41.4	-24.4	-45.0	-70.8	41.4
2:12	-16.9	-33.1	-51.3	38.0	-19.2	-37.5	-58.0	38.0	-21.9	-42.5	-65.6	39.1
3:12	-17.0	-33.1	-51.3	34.4	-19.3	-37.5	-58.0	35.2	-21.9	-42.5	-65.6	36.4
4:12	-17.0	-33.2	-51.4	31.5	-19.3	-37.5	-58.0	32.4	-21.9	-42.5	-65.7	33.5
5:12	-17.0	-33.2	-51.4	28.7	-19.3	-37.5	-58.0	29.7	-22.0	-42.5	-65.7	30.8
6:12	-17.1	-33.2	-51.4	26.2	-19.4	-37.6	-58.1	27.1	-22.0	-42.6	-65.7	28.2
7:12	-19.1	-23.2	-23.2	29.9	-21.7	-26.2	-26.2	31.6	-24.6	-29.8	-29.8	33.6
8:12	-19.2	-23.2	-23.2	27.8	-21.7	-26.3	-26.3	29.5	-24.7	-29.8	-29.8	31.5
9:12	-19.2	-23.2	-23.2	26.0	-21.8	-26.3	-26.3	27.7	-24.7	-29.8	-29.8	29.7
10:12	-19.2	-23.3	-23.3	24.4	-21.8	-26.4	-26.4	26.1	-24.7	-29.9	-29.9	28.1
11:12	-19.3	-23.3	-23.3	23.0	-21.8	-26.4	-26.4	24.7	-24.8	-29.9	-29.9	26.7
12:12	-19.3	-23.4	-23.4	21.8	-21.9	-26.4	-26.4	23.5	-24.8	-30.0	-30.0	25.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.9	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
95 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-12.5	-23.5	-37.2	52.5	-12.5	-23.5	-37.2	52.5	-15.4	-28.8	-45.5	52.5
2:12	-11.1	-22.1	-34.5	48.2	-11.1	-22.1	-34.5	48.2	-13.8	-27.1	-42.1	48.2
3:12	-11.1	-22.1	-34.5	43.4	-11.1	-22.1	-34.5	43.4	-13.8	-27.1	-42.2	43.4
4:12	-11.2	-22.2	-34.5	38.6	-11.2	-22.2	-34.5	38.6	-13.8	-27.2	-42.2	38.6
5:12	-11.2	-22.2	-34.6	34.0	-11.2	-22.2	-34.6	34.0	-13.8	-27.2	-42.2	34.0
6:12	-11.2	-22.2	-34.6	30.6	-11.2	-22.2	-34.6	30.6	-13.9	-27.2	-42.3	30.6
7:12	-12.6	-15.4	-15.4	29.4	-12.6	-15.4	-15.4	29.4	-15.6	-18.9	-18.9	31.4
8:12	-12.7	-15.4	-15.4	26.7	-12.7	-15.4	-15.4	26.7	-15.6	-19.0	-19.0	28.7
9:12	-12.7	-15.5	-15.5	24.3	-12.7	-15.5	-15.5	24.3	-15.7	-19.0	-19.0	26.3
10:12	-12.8	-15.5	-15.5	22.3	-12.8	-15.5	-15.5	22.3	-15.7	-19.0	-19.0	24.3
11:12	-12.8	-15.5	-15.5	20.6	-12.8	-15.5	-15.5	20.6	-15.7	-19.1	-19.1	22.5
12:12	-12.8	-15.6	-15.6	19.1	-12.8	-15.6	-15.6	19.1	-15.8	-19.1	-19.1	21.1
1:12	-15.4	-28.8	-45.5	52.5	-18.0	-33.4	-52.6	52.5	-20.9	-38.7	-60.9	52.5
2:12	-13.8	-27.1	-42.1	48.2	-16.1	-31.5	-48.8	48.2	-18.7	-36.5	-56.4	48.2
3:12	-13.8	-27.1	-42.2	43.4	-16.1	-31.5	-48.8	43.4	-18.7	-36.5	-56.5	43.4
4:12	-13.8	-27.2	-42.2	38.6	-16.1	-31.5	-48.8	38.6	-18.8	-36.5	-56.5	38.6
5:12	-13.8	-27.2	-42.2	34.0	-16.1	-31.5	-48.9	34.0	-18.8	-36.5	-56.5	34.7
6:12	-13.9	-27.2	-42.3	30.6	-16.2	-31.6	-48.9	30.6	-18.8	-36.6	-56.5	31.4
7:12	-15.6	-18.9	-18.9	31.4	-18.1	-22.0	-22.0	33.1	-21.1	-25.5	-25.5	35.1
8:12	-15.6	-19.0	-19.0	28.7	-18.2	-22.0	-22.0	30.4	-21.1	-25.6	-25.6	32.4
9:12	-15.7	-19.0	-19.0	26.3	-18.2	-22.1	-22.1	28.1	-21.2	-25.6	-25.6	30.0
10:12	-15.7	-19.0	-19.0	24.3	-18.3	-22.1	-22.1	26.0	-21.2	-25.6	-25.6	28.0
11:12	-15.7	-19.1	-19.1	22.5	-18.3	-22.1	-22.1	24.3	-21.2	-25.7	-25.7	26.3
12:12	-15.8	-19.1	-19.1	21.1	-18.3	-22.2	-22.2	22.8	-21.3	-25.7	-25.7	24.8
1:12	-18.9	-35.1	-55.4	47.6	-21.5	-39.7	-62.5	47.6	-24.4	-45.0	-70.8	47.6
2:12	-16.9	-33.1	-51.3	43.8	-19.2	-37.5	-58.0	43.8	-21.9	-42.5	-65.6	43.8
3:12	-17.0	-33.1	-51.3	39.5	-19.3	-37.5	-58.0	39.5	-21.9	-42.5	-65.6	40.2
4:12	-17.0	-33.2	-51.4	35.1	-19.3	-37.5	-58.0	35.8	-21.9	-42.5	-65.7	36.9
5:12	-17.0	-33.2	-51.4	31.7	-19.3	-37.5	-58.0	32.6	-22.0	-42.5	-65.7	33.7
6:12	-17.1	-33.2	-51.4	28.7	-19.4	-37.6	-58.1	29.7	-22.0	-42.6	-65.7	30.8
7:12	-19.1	-23.2	-23.2	32.1	-21.7	-26.2	-26.2	33.8	-24.6	-29.8	-29.8	35.8
8:12	-19.2	-23.2	-23.2	29.6	-21.7	-26.3	-26.3	31.4	-24.7	-29.8	-29.8	33.4
9:12	-19.2	-23.2	-23.2	27.5	-21.8	-26.3	-26.3	29.2	-24.7	-29.8	-29.8	31.2
10:12	-19.2	-23.3	-23.3	25.7	-21.8	-26.4	-26.4	27.4	-24.7	-29.9	-29.9	29.4
11:12	-19.3	-23.3	-23.3	24.1	-21.8	-26.4	-26.4	25.8	-24.8	-29.9	-29.9	27.8
12:12	-19.3	-23.4	-23.4	22.7	-21.9	-26.4	-26.4	24.5	-24.8	-30.0	-30.0	26.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
95 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-12.5	-23.5	-37.2	59.4	-12.5	-23.5	-37.2	59.4	-15.4	-28.8	-45.5	59.4
2:12	-11.1	-22.1	-34.5	54.5	-11.1	-22.1	-34.5	54.5	-13.8	-27.1	-42.1	54.5
3:12	-11.1	-22.1	-34.5	49.1	-11.1	-22.1	-34.5	49.1	-13.8	-27.1	-42.2	49.1
4:12	-11.2	-22.2	-34.5	43.6	-11.2	-22.2	-34.5	43.6	-13.8	-27.2	-42.2	43.6
5:12	-11.2	-22.2	-34.6	38.3	-11.2	-22.2	-34.6	38.3	-13.8	-27.2	-42.2	38.3
6:12	-11.2	-22.2	-34.6	33.4	-11.2	-22.2	-34.6	33.4	-13.9	-27.2	-42.3	33.4
7:12	-12.6	-15.4	-15.4	31.8	-12.6	-15.4	-15.4	31.8	-15.6	-18.9	-18.9	33.8
8:12	-12.7	-15.4	-15.4	28.7	-12.7	-15.4	-15.4	28.7	-15.6	-19.0	-19.0	30.7
9:12	-12.7	-15.5	-15.5	26.1	-12.7	-15.5	-15.5	26.1	-15.7	-19.0	-19.0	28.0
10:12	-12.8	-15.5	-15.5	23.7	-12.8	-15.5	-15.5	23.7	-15.7	-19.0	-19.0	25.7
11:12	-12.8	-15.5	-15.5	21.8	-12.8	-15.5	-15.5	21.8	-15.7	-19.1	-19.1	23.8
12:12	-12.8	-15.6	-15.6	20.1	-12.8	-15.6	-15.6	20.1	-15.8	-19.1	-19.1	22.1
1:12	-15.4	-28.8	-45.5	59.4	-18.0	-33.4	-52.6	59.4	-20.9	-38.7	-60.9	59.4
2:12	-13.8	-27.1	-42.1	54.5	-16.1	-31.5	-48.8	54.5	-18.7	-36.5	-56.4	54.5
3:12	-13.8	-27.1	-42.2	49.1	-16.1	-31.5	-48.8	49.1	-18.7	-36.5	-56.5	49.1
4:12	-13.8	-27.2	-42.2	43.6	-16.1	-31.5	-48.8	43.6	-18.8	-36.5	-56.5	43.6
5:12	-13.8	-27.2	-42.2	38.3	-16.1	-31.5	-48.9	38.3	-18.8	-36.5	-56.5	38.3
6:12	-13.9	-27.2	-42.3	33.4	-16.2	-31.6	-48.9	33.4	-18.8	-36.6	-56.5	34.2
7:12	-15.6	-18.9	-18.9	33.8	-18.1	-22.0	-22.0	35.5	-21.1	-25.5	-25.5	37.5
8:12	-15.6	-19.0	-19.0	30.7	-18.2	-22.0	-22.0	32.4	-21.1	-25.6	-25.6	34.4
9:12	-15.7	-19.0	-19.0	28.0	-18.2	-22.1	-22.1	29.8	-21.2	-25.6	-25.6	31.8
10:12	-15.7	-19.0	-19.0	25.7	-18.3	-22.1	-22.1	27.5	-21.2	-25.6	-25.6	29.4
11:12	-15.7	-19.1	-19.1	23.8	-18.3	-22.1	-22.1	25.5	-21.2	-25.7	-25.7	27.5
12:12	-15.8	-19.1	-19.1	22.1	-18.3	-22.2	-22.2	23.8	-21.3	-25.7	-25.7	25.8
1:12	-18.9	-35.1	-55.4	53.9	-21.5	-39.7	-62.5	53.9	-24.4	-45.0	-70.8	53.9
2:12	-16.9	-33.1	-51.3	49.5	-19.2	-37.5	-58.0	49.5	-21.9	-42.5	-65.6	49.5
3:12	-17.0	-33.1	-51.3	44.6	-19.3	-37.5	-58.0	44.6	-21.9	-42.5	-65.6	44.6
4:12	-17.0	-33.2	-51.4	39.6	-19.3	-37.5	-58.0	39.6	-21.9	-42.5	-65.7	40.3
5:12	-17.0	-33.2	-51.4	34.9	-19.3	-37.5	-58.0	35.6	-22.0	-42.5	-65.7	36.7
6:12	-17.1	-33.2	-51.4	31.2	-19.4	-37.6	-58.1	32.2	-22.0	-42.6	-65.7	33.3
7:12	-19.1	-23.2	-23.2	34.2	-21.7	-26.2	-26.2	35.9	-24.6	-29.8	-29.8	37.9
8:12	-19.2	-23.2	-23.2	31.5	-21.7	-26.3	-26.3	33.2	-24.7	-29.8	-29.8	35.2
9:12	-19.2	-23.2	-23.2	29.1	-21.8	-26.3	-26.3	30.8	-24.7	-29.8	-29.8	32.8
10:12	-19.2	-23.3	-23.3	27.0	-21.8	-26.4	-26.4	28.7	-24.7	-29.9	-29.9	30.7
11:12	-19.3	-23.3	-23.3	25.2	-21.8	-26.4	-26.4	26.9	-24.8	-29.9	-29.9	28.9
12:12	-19.3	-23.4	-23.4	23.6	-21.9	-26.4	-26.4	25.4	-24.8	-30.0	-30.0	27.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	66.4	-12.5	-23.5	-37.2	66.4	-15.4	-28.8	-45.5	66.4
2:12	-11.1	-22.1	-34.5	60.9	-11.1	-22.1	-34.5	60.9	-13.8	-27.1	-42.1	60.9
3:12	-11.1	-22.1	-34.5	54.8	-11.1	-22.1	-34.5	54.8	-13.8	-27.1	-42.2	54.8
4:12	-11.2	-22.2	-34.5	48.6	-11.2	-22.2	-34.5	48.6	-13.8	-27.2	-42.2	48.6
5:12	-11.2	-22.2	-34.6	42.7	-11.2	-22.2	-34.6	42.7	-13.8	-27.2	-42.2	42.7
6:12	-11.2	-22.2	-34.6	37.1	-11.2	-22.2	-34.6	37.1	-13.9	-27.2	-42.3	37.1
7:12	-12.6	-15.4	-15.4	34.2	-12.6	-15.4	-15.4	34.2	-15.6	-18.9	-18.9	36.1
8:12	-12.7	-15.4	-15.4	30.8	-12.7	-15.4	-15.4	30.8	-15.6	-19.0	-19.0	32.7
9:12	-12.7	-15.5	-15.5	27.8	-12.7	-15.5	-15.5	27.8	-15.7	-19.0	-19.0	29.8
10:12	-12.8	-15.5	-15.5	25.2	-12.8	-15.5	-15.5	25.2	-15.7	-19.0	-19.0	27.2
11:12	-12.8	-15.5	-15.5	23.0	-12.8	-15.5	-15.5	23.0	-15.7	-19.1	-19.1	25.0
12:12	-12.8	-15.6	-15.6	21.1	-12.8	-15.6	-15.6	21.1	-15.8	-19.1	-19.1	23.1
Exposure Category C												
1:12	-15.4	-28.8	-45.5	66.4	-18.0	-33.4	-52.6	66.4	-20.9	-38.7	-60.9	66.4
2:12	-13.8	-27.1	-42.1	60.9	-16.1	-31.5	-48.8	60.9	-18.7	-36.5	-56.4	60.9
3:12	-13.8	-27.1	-42.2	54.8	-16.1	-31.5	-48.8	54.8	-18.7	-36.5	-56.5	54.8
4:12	-13.8	-27.2	-42.2	48.6	-16.1	-31.5	-48.8	48.6	-18.8	-36.5	-56.5	48.6
5:12	-13.8	-27.2	-42.2	42.7	-16.1	-31.5	-48.9	42.7	-18.8	-36.5	-56.5	42.7
6:12	-13.9	-27.2	-42.3	37.1	-16.2	-31.6	-48.9	37.1	-18.8	-36.6	-56.5	37.1
7:12	-15.6	-18.9	-18.9	36.1	-18.1	-22.0	-22.0	37.9	-21.1	-25.5	-25.5	39.9
8:12	-15.6	-19.0	-19.0	32.7	-18.2	-22.0	-22.0	34.5	-21.1	-25.6	-25.6	36.5
9:12	-15.7	-19.0	-19.0	29.8	-18.2	-22.1	-22.1	31.5	-21.2	-25.6	-25.6	33.5
10:12	-15.7	-19.0	-19.0	27.2	-18.3	-22.1	-22.1	28.9	-21.2	-25.6	-25.6	30.9
11:12	-15.7	-19.1	-19.1	25.0	-18.3	-22.1	-22.1	26.7	-21.2	-25.7	-25.7	28.7
12:12	-15.8	-19.1	-19.1	23.1	-18.3	-22.2	-22.2	24.8	-21.3	-25.7	-25.7	26.8
Exposure Category D												
1:12	-18.9	-35.1	-55.4	60.1	-21.5	-39.7	-62.5	60.1	-24.4	-45.0	-70.8	60.1
2:12	-16.9	-33.1	-51.3	55.2	-19.2	-37.5	-58.0	55.2	-21.9	-42.5	-65.6	55.2
3:12	-17.0	-33.1	-51.3	49.7	-19.3	-37.5	-58.0	49.7	-21.9	-42.5	-65.6	49.7
4:12	-17.0	-33.2	-51.4	44.1	-19.3	-37.5	-58.0	44.1	-21.9	-42.5	-65.7	44.1
5:12	-17.0	-33.2	-51.4	38.8	-19.3	-37.5	-58.0	38.8	-22.0	-42.5	-65.7	39.6
6:12	-17.1	-33.2	-51.4	33.8	-19.4	-37.6	-58.1	34.7	-22.0	-42.6	-65.7	35.8
7:12	-19.1	-23.2	-23.2	36.4	-21.7	-26.2	-26.2	38.1	-24.6	-29.8	-29.8	40.1
8:12	-19.2	-23.2	-23.2	33.3	-21.7	-26.3	-26.3	35.0	-24.7	-29.8	-29.8	37.0
9:12	-19.2	-23.2	-23.2	30.6	-21.8	-26.3	-26.3	32.3	-24.7	-29.8	-29.8	34.3
10:12	-19.2	-23.3	-23.3	28.3	-21.8	-26.4	-26.4	30.0	-24.7	-29.9	-29.9	32.0
11:12	-19.3	-23.3	-23.3	26.3	-21.8	-26.4	-26.4	28.0	-24.8	-29.9	-29.9	30.0
12:12	-19.3	-23.4	-23.4	24.6	-21.9	-26.4	-26.4	26.3	-24.8	-30.0	-30.0	28.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **95 mph**

Ground Snow Load **90 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-12.5	-23.5	-37.2	73.4	-12.5	-23.5	-37.2	73.4	-15.4	-28.8	-45.5	73.4
2:12	-11.1	-22.1	-34.5	67.2	-11.1	-22.1	-34.5	67.2	-13.8	-27.1	-42.1	67.2
3:12	-11.1	-22.1	-34.5	60.5	-11.1	-22.1	-34.5	60.5	-13.8	-27.1	-42.2	60.5
4:12	-11.2	-22.2	-34.5	53.6	-11.2	-22.2	-34.5	53.6	-13.8	-27.2	-42.2	53.6
5:12	-11.2	-22.2	-34.6	47.0	-11.2	-22.2	-34.6	47.0	-13.8	-27.2	-42.2	47.0
6:12	-11.2	-22.2	-34.6	40.9	-11.2	-22.2	-34.6	40.9	-13.9	-27.2	-42.3	40.9
7:12	-12.6	-15.4	-15.4	36.6	-12.6	-15.4	-15.4	36.6	-15.6	-18.9	-18.9	38.5
8:12	-12.7	-15.4	-15.4	32.8	-12.7	-15.4	-15.4	32.8	-15.6	-19.0	-19.0	34.8
9:12	-12.7	-15.5	-15.5	29.5	-12.7	-15.5	-15.5	29.5	-15.7	-19.0	-19.0	31.5
10:12	-12.8	-15.5	-15.5	26.6	-12.8	-15.5	-15.5	26.6	-15.7	-19.0	-19.0	28.6
11:12	-12.8	-15.5	-15.5	24.2	-12.8	-15.5	-15.5	24.2	-15.7	-19.1	-19.1	26.2
12:12	-12.8	-15.6	-15.6	22.1	-12.8	-15.6	-15.6	22.1	-15.8	-19.1	-19.1	24.1
Exposure Category C												
1:12	-15.4	-28.8	-45.5	73.4	-18.0	-33.4	-52.6	73.4	-20.9	-38.7	-60.9	73.4
2:12	-13.8	-27.1	-42.1	67.2	-16.1	-31.5	-48.8	67.2	-18.7	-36.5	-56.4	67.2
3:12	-13.8	-27.1	-42.2	60.5	-16.1	-31.5	-48.8	60.5	-18.7	-36.5	-56.5	60.5
4:12	-13.8	-27.2	-42.2	53.6	-16.1	-31.5	-48.8	53.6	-18.8	-36.5	-56.5	53.6
5:12	-13.8	-27.2	-42.2	47.0	-16.1	-31.5	-48.9	47.0	-18.8	-36.5	-56.5	47.0
6:12	-13.9	-27.2	-42.3	40.9	-16.2	-31.6	-48.9	40.9	-18.8	-36.6	-56.5	40.9
7:12	-15.6	-18.9	-18.9	38.5	-18.1	-22.0	-22.0	40.3	-21.1	-25.5	-25.5	42.3
8:12	-15.6	-19.0	-19.0	34.8	-18.2	-22.0	-22.0	36.5	-21.1	-25.6	-25.6	38.5
9:12	-15.7	-19.0	-19.0	31.5	-18.2	-22.1	-22.1	33.2	-21.2	-25.6	-25.6	35.2
10:12	-15.7	-19.0	-19.0	28.6	-18.3	-22.1	-22.1	30.3	-21.2	-25.6	-25.6	32.3
11:12	-15.7	-19.1	-19.1	26.2	-18.3	-22.1	-22.1	27.9	-21.2	-25.7	-25.7	29.9
12:12	-15.8	-19.1	-19.1	24.1	-18.3	-22.2	-22.2	25.8	-21.3	-25.7	-25.7	27.8
Exposure Category D												
1:12	-18.9	-35.1	-55.4	66.4	-21.5	-39.7	-62.5	66.4	-24.4	-45.0	-70.8	66.4
2:12	-16.9	-33.1	-51.3	60.9	-19.2	-37.5	-58.0	60.9	-21.9	-42.5	-65.6	60.9
3:12	-17.0	-33.1	-51.3	54.8	-19.3	-37.5	-58.0	54.8	-21.9	-42.5	-65.6	54.8
4:12	-17.0	-33.2	-51.4	48.6	-19.3	-37.5	-58.0	48.6	-21.9	-42.5	-65.7	48.6
5:12	-17.0	-33.2	-51.4	42.7	-19.3	-37.5	-58.0	42.7	-22.0	-42.5	-65.7	42.7
6:12	-17.1	-33.2	-51.4	37.1	-19.4	-37.6	-58.1	37.2	-22.0	-42.6	-65.7	38.3
7:12	-19.1	-23.2	-23.2	38.5	-21.7	-26.2	-26.2	40.3	-24.6	-29.8	-29.8	42.2
8:12	-19.2	-23.2	-23.2	35.1	-21.7	-26.3	-26.3	36.9	-24.7	-29.8	-29.8	38.8
9:12	-19.2	-23.2	-23.2	32.1	-21.8	-26.3	-26.3	33.9	-24.7	-29.8	-29.8	35.9
10:12	-19.2	-23.3	-23.3	29.6	-21.8	-26.4	-26.4	31.3	-24.7	-29.9	-29.9	33.3
11:12	-19.3	-23.3	-23.3	27.3	-21.8	-26.4	-26.4	29.1	-24.8	-29.9	-29.9	31.1
12:12	-19.3	-23.4	-23.4	25.5	-21.9	-26.4	-26.4	27.2	-24.8	-30.0	-30.0	29.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

Ground Snow Load

95 mph

100 psf

Up and Down (psf)

Basic Wind Speed
100 mph

Ground Snow Load
0 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.0	-26.1	-41.4	13.8	-14.0	-26.1	-41.4	13.8	-17.2	-32.0	-50.5	13.8
2:12	-12.4	-24.6	-38.3	13.8	-12.4	-24.6	-38.3	13.8	-15.4	-30.2	-46.8	13.8
3:12	-12.5	-24.6	-38.4	13.7	-12.5	-24.6	-38.4	13.7	-15.4	-30.2	-46.8	13.7
4:12	-12.5	-24.7	-38.4	13.6	-12.5	-24.7	-38.4	13.6	-15.4	-30.2	-46.9	13.6
5:12	-12.5	-24.7	-38.4	13.6	-12.5	-24.7	-38.4	13.6	-15.5	-30.3	-46.9	13.6
6:12	-12.6	-24.7	-38.5	13.4	-12.6	-24.7	-38.5	13.4	-15.5	-30.3	-46.9	13.4
7:12	-14.1	-17.2	-17.2	17.0	-14.1	-17.2	-17.2	17.0	-17.4	-21.1	-21.1	20.0
8:12	-14.2	-17.2	-17.2	16.9	-14.2	-17.2	-17.2	16.9	-17.4	-21.1	-21.1	19.8
9:12	-14.2	-17.3	-17.3	16.8	-14.2	-17.3	-17.3	16.8	-17.5	-21.2	-21.2	19.7
10:12	-14.2	-17.3	-17.3	16.7	-14.2	-17.3	-17.3	16.7	-17.5	-21.2	-21.2	19.6
11:12	-14.3	-17.3	-17.3	16.5	-14.3	-17.3	-17.3	16.5	-17.5	-21.2	-21.2	19.5
12:12	-14.3	-17.4	-17.4	16.4	-14.3	-17.4	-17.4	16.4	-17.6	-21.3	-21.3	19.4
1:12	-17.2	-32.0	-50.5	13.8	-20.0	-37.1	-58.4	13.8	-23.3	-43.0	-67.6	13.8
2:12	-15.4	-30.2	-46.8	13.8	-17.9	-35.0	-54.2	14.5	-20.9	-40.5	-62.7	16.1
3:12	-15.4	-30.2	-46.8	13.7	-17.9	-35.0	-54.2	14.4	-20.9	-40.6	-62.7	16.0
4:12	-15.4	-30.2	-46.9	13.6	-18.0	-35.0	-54.2	14.3	-20.9	-40.6	-62.7	15.9
5:12	-15.5	-30.3	-46.9	13.6	-18.0	-35.1	-54.3	14.2	-20.9	-40.6	-62.7	15.8
6:12	-15.5	-30.3	-46.9	13.4	-18.0	-35.1	-54.3	14.1	-21.0	-40.7	-62.8	15.7
7:12	-17.4	-21.1	-21.1	20.0	-20.2	-24.5	-24.5	22.5	-23.5	-28.4	-28.4	25.5
8:12	-17.4	-21.1	-21.1	19.8	-20.3	-24.5	-24.5	22.4	-23.5	-28.4	-28.4	25.3
9:12	-17.5	-21.2	-21.2	19.7	-20.3	-24.6	-24.6	22.3	-23.6	-28.5	-28.5	25.2
10:12	-17.5	-21.2	-21.2	19.6	-20.3	-24.6	-24.6	22.1	-23.6	-28.5	-28.5	25.1
11:12	-17.5	-21.2	-21.2	19.5	-20.4	-24.6	-24.6	22.0	-23.6	-28.6	-28.6	25.0
12:12	-17.6	-21.3	-21.3	19.4	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
1:12	-21.1	-39.1	-61.5	13.8	-24.0	-44.2	-69.4	13.8	-27.2	-50.0	-78.5	13.8
2:12	-18.9	-36.8	-57.0	15.0	-21.5	-41.6	-64.4	16.4	-24.4	-47.2	-72.8	18.0
3:12	-18.9	-36.9	-57.0	14.9	-21.5	-41.7	-64.4	16.4	-24.4	-47.2	-72.9	18.0
4:12	-19.0	-36.9	-57.1	14.9	-21.5	-41.7	-64.4	16.3	-24.4	-47.2	-72.9	17.9
5:12	-19.0	-36.9	-57.1	14.8	-21.5	-41.7	-64.4	16.2	-24.5	-47.3	-72.9	17.8
6:12	-19.0	-37.0	-57.1	14.6	-21.6	-41.8	-64.5	16.1	-24.5	-47.3	-73.0	17.7
7:12	-21.3	-25.8	-25.8	23.5	-24.1	-29.2	-29.2	26.0	-27.4	-33.1	-33.1	29.0
8:12	-21.3	-25.8	-25.8	23.4	-24.2	-29.2	-29.2	25.9	-27.4	-33.1	-33.1	28.9
9:12	-21.4	-25.9	-25.9	23.2	-24.2	-29.3	-29.3	25.8	-27.5	-33.2	-33.2	28.7
10:12	-21.4	-25.9	-25.9	23.1	-24.3	-29.3	-29.3	25.7	-27.5	-33.2	-33.2	28.6
11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.0	-26.1	-41.4	15.1	-14.0	-26.1	-41.4	15.1	-17.2	-32.0	-50.5	15.1
2:12	-12.4	-24.6	-38.3	14.7	-12.4	-24.6	-38.3	14.7	-15.4	-30.2	-46.8	14.7
3:12	-12.5	-24.6	-38.4	14.3	-12.5	-24.6	-38.4	14.3	-15.4	-30.2	-46.8	14.3
4:12	-12.5	-24.7	-38.4	13.6	-12.5	-24.7	-38.4	13.6	-15.4	-30.2	-46.9	13.6
5:12	-12.5	-24.7	-38.4	13.6	-12.5	-24.7	-38.4	13.6	-15.5	-30.3	-46.9	13.6
6:12	-12.6	-24.7	-38.5	13.4	-12.6	-24.7	-38.5	13.4	-15.5	-30.3	-46.9	13.4
7:12	-14.1	-17.2	-17.2	17.0	-14.1	-17.2	-17.2	17.0	-17.4	-21.1	-21.1	20.0
8:12	-14.2	-17.2	-17.2	16.9	-14.2	-17.2	-17.2	16.9	-17.4	-21.1	-21.1	19.8
9:12	-14.2	-17.3	-17.3	16.8	-14.2	-17.3	-17.3	16.8	-17.5	-21.2	-21.2	19.7
10:12	-14.2	-17.3	-17.3	16.7	-14.2	-17.3	-17.3	16.7	-17.5	-21.2	-21.2	19.6
11:12	-14.3	-17.3	-17.3	16.5	-14.3	-17.3	-17.3	16.5	-17.5	-21.2	-21.2	19.5
12:12	-14.3	-17.4	-17.4	16.4	-14.3	-17.4	-17.4	16.4	-17.6	-21.3	-21.3	19.4
Exposure Category C												
1:12	-17.2	-32.0	-50.5	15.1	-20.0	-37.1	-58.4	15.1	-23.3	-43.0	-67.6	15.1
2:12	-15.4	-30.2	-46.8	14.7	-17.9	-35.0	-54.2	15.2	-20.9	-40.5	-62.7	16.4
3:12	-15.4	-30.2	-46.8	14.3	-17.9	-35.0	-54.2	14.8	-20.9	-40.6	-62.7	16.0
4:12	-15.4	-30.2	-46.9	13.6	-18.0	-35.0	-54.2	14.3	-20.9	-40.6	-62.7	15.9
5:12	-15.5	-30.3	-46.9	13.6	-18.0	-35.1	-54.3	14.2	-20.9	-40.6	-62.7	15.8
6:12	-15.5	-30.3	-46.9	13.4	-18.0	-35.1	-54.3	14.1	-21.0	-40.7	-62.8	15.7
7:12	-17.4	-21.1	-21.1	20.0	-20.2	-24.5	-24.5	22.5	-23.5	-28.4	-28.4	25.5
8:12	-17.4	-21.1	-21.1	19.8	-20.3	-24.5	-24.5	22.4	-23.5	-28.4	-28.4	25.3
9:12	-17.5	-21.2	-21.2	19.7	-20.3	-24.6	-24.6	22.3	-23.6	-28.5	-28.5	25.2
10:12	-17.5	-21.2	-21.2	19.6	-20.3	-24.6	-24.6	22.1	-23.6	-28.5	-28.5	25.1
11:12	-17.5	-21.2	-21.2	19.5	-20.4	-24.6	-24.6	22.0	-23.6	-28.6	-28.6	25.0
12:12	-17.6	-21.3	-21.3	19.4	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
Exposure Category D												
1:12	-21.1	-39.1	-61.5	15.1	-24.0	-44.2	-69.4	15.1	-27.2	-50.0	-78.5	15.1
2:12	-18.9	-36.8	-57.0	15.6	-21.5	-41.6	-64.4	16.7	-24.4	-47.2	-72.8	18.0
3:12	-18.9	-36.9	-57.0	15.2	-21.5	-41.7	-64.4	16.4	-24.4	-47.2	-72.9	18.0
4:12	-19.0	-36.9	-57.1	14.9	-21.5	-41.7	-64.4	16.3	-24.4	-47.2	-72.9	17.9
5:12	-19.0	-36.9	-57.1	14.8	-21.5	-41.7	-64.4	16.2	-24.5	-47.3	-72.9	17.8
6:12	-19.0	-37.0	-57.1	14.6	-21.6	-41.8	-64.5	16.1	-24.5	-47.3	-73.0	17.7
7:12	-21.3	-25.8	-25.8	23.5	-24.1	-29.2	-29.2	26.0	-27.4	-33.1	-33.1	29.0
8:12	-21.3	-25.8	-25.8	23.4	-24.2	-29.2	-29.2	25.9	-27.4	-33.1	-33.1	28.9
9:12	-21.4	-25.9	-25.9	23.2	-24.2	-29.3	-29.3	25.8	-27.5	-33.2	-33.2	28.7
10:12	-21.4	-25.9	-25.9	23.1	-24.3	-29.3	-29.3	25.7	-27.5	-33.2	-33.2	28.6
11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
100 mph

Ground Snow Load
5 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-14.0	-26.1	-41.4	18.8	-14.0	-26.1	-41.4	18.8	-17.2	-32.0	-50.5	18.8
	2:12	-12.4	-24.6	-38.3	18.1	-12.4	-24.6	-38.3	18.1	-15.4	-30.2	-46.8	18.1
	3:12	-12.5	-24.6	-38.4	17.3	-12.5	-24.6	-38.4	17.3	-15.4	-30.2	-46.8	17.3
	4:12	-12.5	-24.7	-38.4	14.9	-12.5	-24.7	-38.4	14.9	-15.4	-30.2	-46.9	14.9
	5:12	-12.5	-24.7	-38.4	14.3	-12.5	-24.7	-38.4	14.3	-15.5	-30.3	-46.9	14.3
	6:12	-12.6	-24.7	-38.5	13.7	-12.6	-24.7	-38.5	13.7	-15.5	-30.3	-46.9	13.7
	7:12	-14.1	-17.2	-17.2	17.0	-14.1	-17.2	-17.2	17.0	-17.4	-21.1	-21.1	20.0
	8:12	-14.2	-17.2	-17.2	16.9	-14.2	-17.2	-17.2	16.9	-17.4	-21.1	-21.1	19.8
	9:12	-14.2	-17.3	-17.3	16.8	-14.2	-17.3	-17.3	16.8	-17.5	-21.2	-21.2	19.7
	10:12	-14.2	-17.3	-17.3	16.7	-14.2	-17.3	-17.3	16.7	-17.5	-21.2	-21.2	19.6
	11:12	-14.3	-17.3	-17.3	16.5	-14.3	-17.3	-17.3	16.5	-17.5	-21.2	-21.2	19.5
	12:12	-14.3	-17.4	-17.4	16.4	-14.3	-17.4	-17.4	16.4	-17.6	-21.3	-21.3	19.4
Exposure Category C	1:12	-17.2	-32.0	-50.5	18.8	-20.0	-37.1	-58.4	18.8	-23.3	-43.0	-67.6	18.8
	2:12	-15.4	-30.2	-46.8	18.1	-17.9	-35.0	-54.2	18.6	-20.9	-40.5	-62.7	19.8
	3:12	-15.4	-30.2	-46.8	17.3	-17.9	-35.0	-54.2	17.8	-20.9	-40.6	-62.7	19.0
	4:12	-15.4	-30.2	-46.9	14.9	-18.0	-35.0	-54.2	15.4	-20.9	-40.6	-62.7	16.6
	5:12	-15.5	-30.3	-46.9	14.3	-18.0	-35.1	-54.3	14.8	-20.9	-40.6	-62.7	16.0
	6:12	-15.5	-30.3	-46.9	13.7	-18.0	-35.1	-54.3	14.2	-21.0	-40.7	-62.8	15.7
	7:12	-17.4	-21.1	-21.1	20.0	-20.2	-24.5	-24.5	22.5	-23.5	-28.4	-28.4	25.5
	8:12	-17.4	-21.1	-21.1	19.8	-20.3	-24.5	-24.5	22.4	-23.5	-28.4	-28.4	25.3
	9:12	-17.5	-21.2	-21.2	19.7	-20.3	-24.6	-24.6	22.3	-23.6	-28.5	-28.5	25.2
	10:12	-17.5	-21.2	-21.2	19.6	-20.3	-24.6	-24.6	22.1	-23.6	-28.5	-28.5	25.1
	11:12	-17.5	-21.2	-21.2	19.5	-20.4	-24.6	-24.6	22.0	-23.6	-28.6	-28.6	25.0
	12:12	-17.6	-21.3	-21.3	19.4	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
Exposure Category D	1:12	-21.1	-39.1	-61.5	18.8	-24.0	-44.2	-69.4	18.8	-27.2	-50.0	-78.5	18.8
	2:12	-18.9	-36.8	-57.0	19.0	-21.5	-41.6	-64.4	20.1	-24.4	-47.2	-72.8	21.3
	3:12	-18.9	-36.9	-57.0	18.2	-21.5	-41.7	-64.4	19.3	-24.4	-47.2	-72.9	20.5
	4:12	-19.0	-36.9	-57.1	15.4	-21.5	-41.7	-64.4	16.5	-24.4	-47.2	-72.9	17.9
	5:12	-19.0	-36.9	-57.1	14.9	-21.5	-41.7	-64.4	16.2	-24.5	-47.3	-72.9	17.8
	6:12	-19.0	-37.0	-57.1	14.6	-21.6	-41.8	-64.5	16.1	-24.5	-47.3	-73.0	17.7
	7:12	-21.3	-25.8	-25.8	23.5	-24.1	-29.2	-29.2	26.0	-27.4	-33.1	-33.1	29.0
	8:12	-21.3	-25.8	-25.8	23.4	-24.2	-29.2	-29.2	25.9	-27.4	-33.1	-33.1	28.9
	9:12	-21.4	-25.9	-25.9	23.2	-24.2	-29.3	-29.3	25.8	-27.5	-33.2	-33.2	28.7
	10:12	-21.4	-25.9	-25.9	23.1	-24.3	-29.3	-29.3	25.7	-27.5	-33.2	-33.2	28.6
	11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
	12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
	2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
	3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
	4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
	5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
	6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
	7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
	8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
	9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
	10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
	11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **100 mph**

Ground Snow Load **10 psf**

Up and Down (psf)

Side Load (psf)

Table W100-S10

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.0	-26.1	-41.4	22.5	-14.0	-26.1	-41.4	22.5	-17.2	-32.0	-50.5	22.5
2:12	-12.4	-24.6	-38.3	21.5	-12.4	-24.6	-38.3	21.5	-15.4	-30.2	-46.8	21.5
3:12	-12.5	-24.6	-38.4	20.3	-12.5	-24.6	-38.4	20.3	-15.4	-30.2	-46.8	20.3
4:12	-12.5	-24.7	-38.4	16.8	-12.5	-24.7	-38.4	16.8	-15.4	-30.2	-46.9	16.8
5:12	-12.5	-24.7	-38.4	15.9	-12.5	-24.7	-38.4	15.9	-15.5	-30.3	-46.9	15.9
6:12	-12.6	-24.7	-38.5	15.2	-12.6	-24.7	-38.5	15.2	-15.5	-30.3	-46.9	15.2
7:12	-14.1	-17.2	-17.2	17.2	-14.1	-17.2	-17.2	17.2	-17.4	-21.1	-21.1	20.0
8:12	-14.2	-17.2	-17.2	16.9	-14.2	-17.2	-17.2	16.9	-17.4	-21.1	-21.1	19.8
9:12	-14.2	-17.3	-17.3	16.8	-14.2	-17.3	-17.3	16.8	-17.5	-21.2	-21.2	19.7
10:12	-14.2	-17.3	-17.3	16.7	-14.2	-17.3	-17.3	16.7	-17.5	-21.2	-21.2	19.6
11:12	-14.3	-17.3	-17.3	16.5	-14.3	-17.3	-17.3	16.5	-17.5	-21.2	-21.2	19.5
12:12	-14.3	-17.4	-17.4	16.4	-14.3	-17.4	-17.4	16.4	-17.6	-21.3	-21.3	19.4
1:12	-17.2	-32.0	-50.5	22.5	-20.0	-37.1	-58.4	22.5	-23.3	-43.0	-67.6	22.5
2:12	-15.4	-30.2	-46.8	21.5	-17.9	-35.0	-54.2	22.0	-20.9	-40.5	-62.7	23.2
3:12	-15.4	-30.2	-46.8	20.3	-17.9	-35.0	-54.2	20.8	-20.9	-40.6	-62.7	22.1
4:12	-15.4	-30.2	-46.9	16.8	-18.0	-35.0	-54.2	17.3	-20.9	-40.6	-62.7	18.5
5:12	-15.5	-30.3	-46.9	15.9	-18.0	-35.1	-54.3	16.4	-20.9	-40.6	-62.7	17.7
6:12	-15.5	-30.3	-46.9	15.2	-18.0	-35.1	-54.3	15.6	-21.0	-40.7	-62.8	16.9
7:12	-17.4	-21.1	-21.1	20.0	-20.2	-24.5	-24.5	22.5	-23.5	-28.4	-28.4	25.5
8:12	-17.4	-21.1	-21.1	19.8	-20.3	-24.5	-24.5	22.4	-23.5	-28.4	-28.4	25.3
9:12	-17.5	-21.2	-21.2	19.7	-20.3	-24.6	-24.6	22.3	-23.6	-28.5	-28.5	25.2
10:12	-17.5	-21.2	-21.2	19.6	-20.3	-24.6	-24.6	22.1	-23.6	-28.5	-28.5	25.1
11:12	-17.5	-21.2	-21.2	19.5	-20.4	-24.6	-24.6	22.0	-23.6	-28.6	-28.6	25.0
12:12	-17.6	-21.3	-21.3	19.4	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
1:12	-21.1	-39.1	-61.5	22.5	-24.0	-44.2	-69.4	22.5	-27.2	-50.0	-78.5	22.5
2:12	-18.9	-36.8	-57.0	22.4	-21.5	-41.6	-64.4	23.5	-24.4	-47.2	-72.8	24.7
3:12	-18.9	-36.9	-57.0	21.3	-21.5	-41.7	-64.4	22.3	-24.4	-47.2	-72.9	23.5
4:12	-19.0	-36.9	-57.1	17.1	-21.5	-41.7	-64.4	18.2	-24.4	-47.2	-72.9	19.4
5:12	-19.0	-36.9	-57.1	16.4	-21.5	-41.7	-64.4	17.4	-24.5	-47.3	-72.9	18.6
6:12	-19.0	-37.0	-57.1	15.6	-21.6	-41.8	-64.5	16.7	-24.5	-47.3	-73.0	17.9
7:12	-21.3	-25.8	-25.8	23.5	-24.1	-29.2	-29.2	26.0	-27.4	-33.1	-33.1	29.0
8:12	-21.3	-25.8	-25.8	23.4	-24.2	-29.2	-29.2	25.9	-27.4	-33.1	-33.1	28.9
9:12	-21.4	-25.9	-25.9	23.2	-24.2	-29.3	-29.3	25.8	-27.5	-33.2	-33.2	28.7
10:12	-21.4	-25.9	-25.9	23.1	-24.3	-29.3	-29.3	25.7	-27.5	-33.2	-33.2	28.6
11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.0	-26.1	-41.4	26.2	-14.0	-26.1	-41.4	26.2	-17.2	-32.0	-50.5	26.2
2:12	-12.4	-24.6	-38.3	24.9	-12.4	-24.6	-38.3	24.9	-15.4	-30.2	-46.8	24.9
3:12	-12.5	-24.6	-38.4	23.4	-12.5	-24.6	-38.4	23.4	-15.4	-30.2	-46.8	23.4
4:12	-12.5	-24.7	-38.4	18.6	-12.5	-24.7	-38.4	18.6	-15.4	-30.2	-46.9	18.6
5:12	-12.5	-24.7	-38.4	17.6	-12.5	-24.7	-38.4	17.6	-15.5	-30.3	-46.9	17.6
6:12	-12.6	-24.7	-38.5	16.6	-12.6	-24.7	-38.5	16.6	-15.5	-30.3	-46.9	16.6
7:12	-14.1	-17.2	-17.2	18.4	-14.1	-17.2	-17.2	18.4	-17.4	-21.1	-21.1	20.6
8:12	-14.2	-17.2	-17.2	17.5	-14.2	-17.2	-17.2	17.5	-17.4	-21.1	-21.1	19.8
9:12	-14.2	-17.3	-17.3	16.8	-14.2	-17.3	-17.3	16.8	-17.5	-21.2	-21.2	19.7
10:12	-14.2	-17.3	-17.3	16.7	-14.2	-17.3	-17.3	16.7	-17.5	-21.2	-21.2	19.6
11:12	-14.3	-17.3	-17.3	16.5	-14.3	-17.3	-17.3	16.5	-17.5	-21.2	-21.2	19.5
12:12	-14.3	-17.4	-17.4	16.4	-14.3	-17.4	-17.4	16.4	-17.6	-21.3	-21.3	19.4
Exposure Category C												
1:12	-17.2	-32.0	-50.5	26.2	-20.0	-37.1	-58.4	26.2	-23.3	-43.0	-67.6	26.2
2:12	-15.4	-30.2	-46.8	24.9	-17.9	-35.0	-54.2	25.4	-20.9	-40.5	-62.7	26.6
3:12	-15.4	-30.2	-46.8	23.4	-17.9	-35.0	-54.2	23.9	-20.9	-40.6	-62.7	25.1
4:12	-15.4	-30.2	-46.9	18.6	-18.0	-35.0	-54.2	19.1	-20.9	-40.6	-62.7	20.4
5:12	-15.5	-30.3	-46.9	17.6	-18.0	-35.1	-54.3	18.1	-20.9	-40.6	-62.7	19.3
6:12	-15.5	-30.3	-46.9	16.6	-18.0	-35.1	-54.3	17.1	-21.0	-40.7	-62.8	18.3
7:12	-17.4	-21.1	-21.1	20.6	-20.2	-24.5	-24.5	22.5	-23.5	-28.4	-28.4	25.5
8:12	-17.4	-21.1	-21.1	19.8	-20.3	-24.5	-24.5	22.4	-23.5	-28.4	-28.4	25.3
9:12	-17.5	-21.2	-21.2	19.7	-20.3	-24.6	-24.6	22.3	-23.6	-28.5	-28.5	25.2
10:12	-17.5	-21.2	-21.2	19.6	-20.3	-24.6	-24.6	22.1	-23.6	-28.5	-28.5	25.1
11:12	-17.5	-21.2	-21.2	19.5	-20.4	-24.6	-24.6	22.0	-23.6	-28.6	-28.6	25.0
12:12	-17.6	-21.3	-21.3	19.4	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
Exposure Category D												
1:12	-21.1	-39.1	-61.5	26.2	-24.0	-44.2	-69.4	26.2	-27.2	-50.0	-78.5	26.2
2:12	-18.9	-36.8	-57.0	25.8	-21.5	-41.6	-64.4	26.9	-24.4	-47.2	-72.8	28.1
3:12	-18.9	-36.9	-57.0	24.3	-21.5	-41.7	-64.4	25.4	-24.4	-47.2	-72.9	26.6
4:12	-19.0	-36.9	-57.1	18.8	-21.5	-41.7	-64.4	19.9	-24.4	-47.2	-72.9	21.1
5:12	-19.0	-36.9	-57.1	17.8	-21.5	-41.7	-64.4	18.9	-24.5	-47.3	-72.9	20.1
6:12	-19.0	-37.0	-57.1	16.9	-21.6	-41.8	-64.5	18.0	-24.5	-47.3	-73.0	19.2
7:12	-21.3	-25.8	-25.8	23.5	-24.1	-29.2	-29.2	26.0	-27.4	-33.1	-33.1	29.0
8:12	-21.3	-25.8	-25.8	23.4	-24.2	-29.2	-29.2	25.9	-27.4	-33.1	-33.1	28.9
9:12	-21.4	-25.9	-25.9	23.2	-24.2	-29.3	-29.3	25.8	-27.5	-33.2	-33.2	28.7
10:12	-21.4	-25.9	-25.9	23.1	-24.3	-29.3	-29.3	25.7	-27.5	-33.2	-33.2	28.6
11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **100 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.0	-26.1	-41.4	26.2	-14.0	-26.1	-41.4	26.2	-17.2	-32.0	-50.5	26.2
2:12	-12.4	-24.6	-38.3	24.9	-12.4	-24.6	-38.3	24.9	-15.4	-30.2	-46.8	24.9
3:12	-12.5	-24.6	-38.4	23.4	-12.5	-24.6	-38.4	23.4	-15.4	-30.2	-46.8	23.4
4:12	-12.5	-24.7	-38.4	20.5	-12.5	-24.7	-38.4	20.5	-15.4	-30.2	-46.9	20.5
5:12	-12.5	-24.7	-38.4	19.2	-12.5	-24.7	-38.4	19.2	-15.5	-30.3	-46.9	19.2
6:12	-12.6	-24.7	-38.5	18.0	-12.6	-24.7	-38.5	18.0	-15.5	-30.3	-46.9	18.0
7:12	-14.1	-17.2	-17.2	19.6	-14.1	-17.2	-17.2	19.6	-17.4	-21.1	-21.1	21.8
8:12	-14.2	-17.2	-17.2	18.6	-14.2	-17.2	-17.2	18.6	-17.4	-21.1	-21.1	20.8
9:12	-14.2	-17.3	-17.3	17.6	-14.2	-17.3	-17.3	17.6	-17.5	-21.2	-21.2	19.8
10:12	-14.2	-17.3	-17.3	16.8	-14.2	-17.3	-17.3	16.8	-17.5	-21.2	-21.2	19.6
11:12	-14.3	-17.3	-17.3	16.5	-14.3	-17.3	-17.3	16.5	-17.5	-21.2	-21.2	19.5
12:12	-14.3	-17.4	-17.4	16.4	-14.3	-17.4	-17.4	16.4	-17.6	-21.3	-21.3	19.4
Exposure Category C												
1:12	-17.2	-32.0	-50.5	26.2	-20.0	-37.1	-58.4	26.2	-23.3	-43.0	-67.6	26.2
2:12	-15.4	-30.2	-46.8	24.9	-17.9	-35.0	-54.2	25.4	-20.9	-40.5	-62.7	26.6
3:12	-15.4	-30.2	-46.8	23.4	-17.9	-35.0	-54.2	23.9	-20.9	-40.6	-62.7	25.1
4:12	-15.4	-30.2	-46.9	20.5	-18.0	-35.0	-54.2	21.0	-20.9	-40.6	-62.7	22.2
5:12	-15.5	-30.3	-46.9	19.2	-18.0	-35.1	-54.3	19.7	-20.9	-40.6	-62.7	20.9
6:12	-15.5	-30.3	-46.9	18.0	-18.0	-35.1	-54.3	18.5	-21.0	-40.7	-62.8	19.7
7:12	-17.4	-21.1	-21.1	21.8	-20.2	-24.5	-24.5	23.7	-23.5	-28.4	-28.4	25.9
8:12	-17.4	-21.1	-21.1	20.8	-20.3	-24.5	-24.5	22.7	-23.5	-28.4	-28.4	25.3
9:12	-17.5	-21.2	-21.2	19.8	-20.3	-24.6	-24.6	22.3	-23.6	-28.5	-28.5	25.2
10:12	-17.5	-21.2	-21.2	19.6	-20.3	-24.6	-24.6	22.1	-23.6	-28.5	-28.5	25.1
11:12	-17.5	-21.2	-21.2	19.5	-20.4	-24.6	-24.6	22.0	-23.6	-28.6	-28.6	25.0
12:12	-17.6	-21.3	-21.3	19.4	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
Exposure Category D												
1:12	-21.1	-39.1	-61.5	26.2	-24.0	-44.2	-69.4	26.2	-27.2	-50.0	-78.5	26.2
2:12	-18.9	-36.8	-57.0	25.8	-21.5	-41.6	-64.4	26.9	-24.4	-47.2	-72.8	28.1
3:12	-18.9	-36.9	-57.0	24.3	-21.5	-41.7	-64.4	25.4	-24.4	-47.2	-72.9	26.6
4:12	-19.0	-36.9	-57.1	20.5	-21.5	-41.7	-64.4	21.5	-24.4	-47.2	-72.9	22.8
5:12	-19.0	-36.9	-57.1	19.3	-21.5	-41.7	-64.4	20.4	-24.5	-47.3	-72.9	21.6
6:12	-19.0	-37.0	-57.1	18.2	-21.6	-41.8	-64.5	19.2	-24.5	-47.3	-73.0	20.4
7:12	-21.3	-25.8	-25.8	23.8	-24.1	-29.2	-29.2	26.0	-27.4	-33.1	-33.1	29.0
8:12	-21.3	-25.8	-25.8	23.4	-24.2	-29.2	-29.2	25.9	-27.4	-33.1	-33.1	28.9
9:12	-21.4	-25.9	-25.9	23.2	-24.2	-29.3	-29.3	25.8	-27.5	-33.2	-33.2	28.7
10:12	-21.4	-25.9	-25.9	23.1	-24.3	-29.3	-29.3	25.7	-27.5	-33.2	-33.2	28.6
11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **100 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.0	-26.1	-41.4	27.0	-14.0	-26.1	-41.4	27.0	-17.2	-32.0	-50.5	27.0
2:12	-12.4	-24.6	-38.3	25.6	-12.4	-24.6	-38.3	25.6	-15.4	-30.2	-46.8	25.6
3:12	-12.5	-24.6	-38.4	24.0	-12.5	-24.6	-38.4	24.0	-15.4	-30.2	-46.8	24.0
4:12	-12.5	-24.7	-38.4	22.4	-12.5	-24.7	-38.4	22.4	-15.4	-30.2	-46.9	22.4
5:12	-12.5	-24.7	-38.4	20.8	-12.5	-24.7	-38.4	20.8	-15.5	-30.3	-46.9	20.8
6:12	-12.6	-24.7	-38.5	19.4	-12.6	-24.7	-38.5	19.4	-15.5	-30.3	-46.9	19.4
7:12	-14.1	-17.2	-17.2	20.8	-14.1	-17.2	-17.2	20.8	-17.4	-21.1	-21.1	23.0
8:12	-14.2	-17.2	-17.2	19.6	-14.2	-17.2	-17.2	19.6	-17.4	-21.1	-21.1	21.8
9:12	-14.2	-17.3	-17.3	18.5	-14.2	-17.3	-17.3	18.5	-17.5	-21.2	-21.2	20.7
10:12	-14.2	-17.3	-17.3	17.6	-14.2	-17.3	-17.3	17.6	-17.5	-21.2	-21.2	19.8
11:12	-14.3	-17.3	-17.3	16.7	-14.3	-17.3	-17.3	16.7	-17.5	-21.2	-21.2	19.5
12:12	-14.3	-17.4	-17.4	16.4	-14.3	-17.4	-17.4	16.4	-17.6	-21.3	-21.3	19.4
1:12	-17.2	-32.0	-50.5	27.0	-20.0	-37.1	-58.4	27.0	-23.3	-43.0	-67.6	27.0
2:12	-15.4	-30.2	-46.8	25.6	-17.9	-35.0	-54.2	26.1	-20.9	-40.5	-62.7	27.3
3:12	-15.4	-30.2	-46.8	24.0	-17.9	-35.0	-54.2	24.5	-20.9	-40.6	-62.7	25.7
4:12	-15.4	-30.2	-46.9	22.4	-18.0	-35.0	-54.2	22.9	-20.9	-40.6	-62.7	24.1
5:12	-15.5	-30.3	-46.9	20.8	-18.0	-35.1	-54.3	21.3	-20.9	-40.6	-62.7	22.6
6:12	-15.5	-30.3	-46.9	19.4	-18.0	-35.1	-54.3	19.9	-21.0	-40.7	-62.8	21.1
7:12	-17.4	-21.1	-21.1	23.0	-20.2	-24.5	-24.5	24.9	-23.5	-28.4	-28.4	27.1
8:12	-17.4	-21.1	-21.1	21.8	-20.3	-24.5	-24.5	23.7	-23.5	-28.4	-28.4	25.9
9:12	-17.5	-21.2	-21.2	20.7	-20.3	-24.6	-24.6	22.6	-23.6	-28.5	-28.5	25.2
10:12	-17.5	-21.2	-21.2	19.8	-20.3	-24.6	-24.6	22.1	-23.6	-28.5	-28.5	25.1
11:12	-17.5	-21.2	-21.2	19.5	-20.4	-24.6	-24.6	22.0	-23.6	-28.6	-28.6	25.0
12:12	-17.6	-21.3	-21.3	19.4	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
1:12	-21.1	-39.1	-61.5	26.2	-24.0	-44.2	-69.4	26.2	-27.2	-50.0	-78.5	26.2
2:12	-18.9	-36.8	-57.0	25.8	-21.5	-41.6	-64.4	26.9	-24.4	-47.2	-72.8	28.1
3:12	-18.9	-36.9	-57.0	24.3	-21.5	-41.7	-64.4	25.4	-24.4	-47.2	-72.9	26.6
4:12	-19.0	-36.9	-57.1	22.2	-21.5	-41.7	-64.4	23.2	-24.4	-47.2	-72.9	24.5
5:12	-19.0	-36.9	-57.1	20.8	-21.5	-41.7	-64.4	21.8	-24.5	-47.3	-72.9	23.0
6:12	-19.0	-37.0	-57.1	19.4	-21.6	-41.8	-64.5	20.5	-24.5	-47.3	-73.0	21.7
7:12	-21.3	-25.8	-25.8	24.9	-24.1	-29.2	-29.2	26.8	-27.4	-33.1	-33.1	29.0
8:12	-21.3	-25.8	-25.8	23.8	-24.2	-29.2	-29.2	25.9	-27.4	-33.1	-33.1	28.9
9:12	-21.4	-25.9	-25.9	23.2	-24.2	-29.3	-29.3	25.8	-27.5	-33.2	-33.2	28.7
10:12	-21.4	-25.9	-25.9	23.1	-24.3	-29.3	-29.3	25.7	-27.5	-33.2	-33.2	28.6
11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.0	-26.1	-41.4	29.6	-14.0	-26.1	-41.4	29.6	-17.2	-32.0	-50.5	29.6
2:12	-12.4	-24.6	-38.3	27.9	-12.4	-24.6	-38.3	27.9	-15.4	-30.2	-46.8	27.9
3:12	-12.5	-24.6	-38.4	26.1	-12.5	-24.6	-38.4	26.1	-15.4	-30.2	-46.8	26.1
4:12	-12.5	-24.7	-38.4	24.3	-12.5	-24.7	-38.4	24.3	-15.4	-30.2	-46.9	24.3
5:12	-12.5	-24.7	-38.4	22.5	-12.5	-24.7	-38.4	22.5	-15.5	-30.3	-46.9	22.5
6:12	-12.6	-24.7	-38.5	20.8	-12.6	-24.7	-38.5	20.8	-15.5	-30.3	-46.9	20.8
7:12	-14.1	-17.2	-17.2	22.0	-14.1	-17.2	-17.2	22.0	-17.4	-21.1	-21.1	24.2
8:12	-14.2	-17.2	-17.2	20.6	-14.2	-17.2	-17.2	20.6	-17.4	-21.1	-21.1	22.8
9:12	-14.2	-17.3	-17.3	19.4	-14.2	-17.3	-17.3	19.4	-17.5	-21.2	-21.2	21.6
10:12	-14.2	-17.3	-17.3	18.3	-14.2	-17.3	-17.3	18.3	-17.5	-21.2	-21.2	20.5
11:12	-14.3	-17.3	-17.3	17.3	-14.3	-17.3	-17.3	17.3	-17.5	-21.2	-21.2	19.5
12:12	-14.3	-17.4	-17.4	16.5	-14.3	-17.4	-17.4	16.5	-17.6	-21.3	-21.3	19.4
Exposure Category C												
1:12	-17.2	-32.0	-50.5	29.6	-20.0	-37.1	-58.4	29.6	-23.3	-43.0	-67.6	29.6
2:12	-15.4	-30.2	-46.8	27.9	-17.9	-35.0	-54.2	28.4	-20.9	-40.5	-62.7	29.7
3:12	-15.4	-30.2	-46.8	26.1	-17.9	-35.0	-54.2	26.6	-20.9	-40.6	-62.7	27.8
4:12	-15.4	-30.2	-46.9	24.3	-18.0	-35.0	-54.2	24.8	-20.9	-40.6	-62.7	26.0
5:12	-15.5	-30.3	-46.9	22.5	-18.0	-35.1	-54.3	23.0	-20.9	-40.6	-62.7	24.2
6:12	-15.5	-30.3	-46.9	20.8	-18.0	-35.1	-54.3	21.3	-21.0	-40.7	-62.8	22.5
7:12	-17.4	-21.1	-21.1	24.2	-20.2	-24.5	-24.5	26.1	-23.5	-28.4	-28.4	28.3
8:12	-17.4	-21.1	-21.1	22.8	-20.3	-24.5	-24.5	24.7	-23.5	-28.4	-28.4	26.9
9:12	-17.5	-21.2	-21.2	21.6	-20.3	-24.6	-24.6	23.5	-23.6	-28.5	-28.5	25.7
10:12	-17.5	-21.2	-21.2	20.5	-20.3	-24.6	-24.6	22.4	-23.6	-28.5	-28.5	25.1
11:12	-17.5	-21.2	-21.2	19.5	-20.4	-24.6	-24.6	22.0	-23.6	-28.6	-28.6	25.0
12:12	-17.6	-21.3	-21.3	19.4	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
Exposure Category D												
1:12	-21.1	-39.1	-61.5	27.8	-24.0	-44.2	-69.4	27.8	-27.2	-50.0	-78.5	27.8
2:12	-18.9	-36.8	-57.0	27.2	-21.5	-41.6	-64.4	28.2	-24.4	-47.2	-72.8	29.5
3:12	-18.9	-36.9	-57.0	25.5	-21.5	-41.7	-64.4	26.6	-24.4	-47.2	-72.9	27.8
4:12	-19.0	-36.9	-57.1	23.9	-21.5	-41.7	-64.4	24.9	-24.4	-47.2	-72.9	26.1
5:12	-19.0	-36.9	-57.1	22.2	-21.5	-41.7	-64.4	23.3	-24.5	-47.3	-72.9	24.5
6:12	-19.0	-37.0	-57.1	20.7	-21.6	-41.8	-64.5	21.7	-24.5	-47.3	-73.0	23.0
7:12	-21.3	-25.8	-25.8	26.0	-24.1	-29.2	-29.2	27.9	-27.4	-33.1	-33.1	30.1
8:12	-21.3	-25.8	-25.8	24.7	-24.2	-29.2	-29.2	26.6	-27.4	-33.1	-33.1	28.9
9:12	-21.4	-25.9	-25.9	23.6	-24.2	-29.3	-29.3	25.8	-27.5	-33.2	-33.2	28.7
10:12	-21.4	-25.9	-25.9	23.1	-24.3	-29.3	-29.3	25.7	-27.5	-33.2	-33.2	28.6
11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **100 mph**

Ground Snow Load **35 psf**

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.0	-26.1	-41.4	32.2	-14.0	-26.1	-41.4	32.2	-17.2	-32.0	-50.5	32.2
2:12	-12.4	-24.6	-38.3	30.3	-12.4	-24.6	-38.3	30.3	-15.4	-30.2	-46.8	30.3
3:12	-12.5	-24.6	-38.4	28.2	-12.5	-24.6	-38.4	28.2	-15.4	-30.2	-46.8	28.2
4:12	-12.5	-24.7	-38.4	26.1	-12.5	-24.7	-38.4	26.1	-15.4	-30.2	-46.9	26.1
5:12	-12.5	-24.7	-38.4	24.1	-12.5	-24.7	-38.4	24.1	-15.5	-30.3	-46.9	24.1
6:12	-12.6	-24.7	-38.5	22.2	-12.6	-24.7	-38.5	22.2	-15.5	-30.3	-46.9	22.2
7:12	-14.1	-17.2	-17.2	23.2	-14.1	-17.2	-17.2	23.2	-17.4	-21.1	-21.1	25.4
8:12	-14.2	-17.2	-17.2	21.6	-14.2	-17.2	-17.2	21.6	-17.4	-21.1	-21.1	23.8
9:12	-14.2	-17.3	-17.3	20.2	-14.2	-17.3	-17.3	20.2	-17.5	-21.2	-21.2	22.4
10:12	-14.2	-17.3	-17.3	19.0	-14.2	-17.3	-17.3	19.0	-17.5	-21.2	-21.2	21.2
11:12	-14.3	-17.3	-17.3	17.9	-14.3	-17.3	-17.3	17.9	-17.5	-21.2	-21.2	20.1
12:12	-14.3	-17.4	-17.4	17.0	-14.3	-17.4	-17.4	17.0	-17.6	-21.3	-21.3	19.4
1:12	-17.2	-32.0	-50.5	32.2	-20.0	-37.1	-58.4	32.2	-23.3	-43.0	-67.6	32.2
2:12	-15.4	-30.2	-46.8	30.3	-17.9	-35.0	-54.2	30.8	-20.9	-40.5	-62.7	32.0
3:12	-15.4	-30.2	-46.8	28.2	-17.9	-35.0	-54.2	28.7	-20.9	-40.6	-62.7	30.0
4:12	-15.4	-30.2	-46.9	26.1	-18.0	-35.0	-54.2	26.6	-20.9	-40.6	-62.7	27.9
5:12	-15.5	-30.3	-46.9	24.1	-18.0	-35.1	-54.3	24.6	-20.9	-40.6	-62.7	25.8
6:12	-15.5	-30.3	-46.9	22.2	-18.0	-35.1	-54.3	22.7	-21.0	-40.7	-62.8	23.9
7:12	-17.4	-21.1	-21.1	25.4	-20.2	-24.5	-24.5	27.3	-23.5	-28.4	-28.4	29.5
8:12	-17.4	-21.1	-21.1	23.8	-20.3	-24.5	-24.5	25.7	-23.5	-28.4	-28.4	27.9
9:12	-17.5	-21.2	-21.2	22.4	-20.3	-24.6	-24.6	24.3	-23.6	-28.5	-28.5	26.5
10:12	-17.5	-21.2	-21.2	21.2	-20.3	-24.6	-24.6	23.1	-23.6	-28.5	-28.5	25.3
11:12	-17.5	-21.2	-21.2	20.1	-20.4	-24.6	-24.6	22.1	-23.6	-28.6	-28.6	25.0
12:12	-17.6	-21.3	-21.3	19.4	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
1:12	-21.1	-39.1	-61.5	30.1	-24.0	-44.2	-69.4	30.1	-27.2	-50.0	-78.5	30.1
2:12	-18.9	-36.8	-57.0	29.3	-21.5	-41.6	-64.4	30.4	-24.4	-47.2	-72.8	31.6
3:12	-18.9	-36.9	-57.0	27.5	-21.5	-41.7	-64.4	28.5	-24.4	-47.2	-72.9	29.7
4:12	-19.0	-36.9	-57.1	25.5	-21.5	-41.7	-64.4	26.6	-24.4	-47.2	-72.9	27.8
5:12	-19.0	-36.9	-57.1	23.7	-21.5	-41.7	-64.4	24.8	-24.5	-47.3	-72.9	26.0
6:12	-19.0	-37.0	-57.1	21.9	-21.6	-41.8	-64.5	23.0	-24.5	-47.3	-73.0	24.2
7:12	-21.3	-25.8	-25.8	27.1	-24.1	-29.2	-29.2	29.0	-27.4	-33.1	-33.1	31.2
8:12	-21.3	-25.8	-25.8	25.6	-24.2	-29.2	-29.2	27.5	-27.4	-33.1	-33.1	29.8
9:12	-21.4	-25.9	-25.9	24.4	-24.2	-29.3	-29.3	26.3	-27.5	-33.2	-33.2	28.7
10:12	-21.4	-25.9	-25.9	23.3	-24.3	-29.3	-29.3	25.7	-27.5	-33.2	-33.2	28.6
11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.0	-26.1	-41.4	35.1	-14.0	-26.1	-41.4	35.1	-17.2	-32.0	-50.5	35.1
2:12	-12.4	-24.6	-38.3	32.7	-12.4	-24.6	-38.3	32.7	-15.4	-30.2	-46.8	32.7
3:12	-12.5	-24.6	-38.4	30.4	-12.5	-24.6	-38.4	30.4	-15.4	-30.2	-46.8	30.4
4:12	-12.5	-24.7	-38.4	28.0	-12.5	-24.7	-38.4	28.0	-15.4	-30.2	-46.9	28.0
5:12	-12.5	-24.7	-38.4	25.7	-12.5	-24.7	-38.4	25.7	-15.5	-30.3	-46.9	25.7
6:12	-12.6	-24.7	-38.5	23.6	-12.6	-24.7	-38.5	23.6	-15.5	-30.3	-46.9	23.6
7:12	-14.1	-17.2	-17.2	24.4	-14.1	-17.2	-17.2	24.4	-17.4	-21.1	-21.1	26.6
8:12	-14.2	-17.2	-17.2	22.6	-14.2	-17.2	-17.2	22.6	-17.4	-21.1	-21.1	24.8
9:12	-14.2	-17.3	-17.3	21.1	-14.2	-17.3	-17.3	21.1	-17.5	-21.2	-21.2	23.3
10:12	-14.2	-17.3	-17.3	19.7	-14.2	-17.3	-17.3	19.7	-17.5	-21.2	-21.2	21.9
11:12	-14.3	-17.3	-17.3	18.5	-14.3	-17.3	-17.3	18.5	-17.5	-21.2	-21.2	20.8
12:12	-14.3	-17.4	-17.4	17.5	-14.3	-17.4	-17.4	17.5	-17.6	-21.3	-21.3	19.7
1:12	-17.2	-32.0	-50.5	35.1	-20.0	-37.1	-58.4	35.1	-23.3	-43.0	-67.6	35.1
2:12	-15.4	-30.2	-46.8	32.7	-17.9	-35.0	-54.2	33.2	-20.9	-40.5	-62.7	34.4
3:12	-15.4	-30.2	-46.8	30.4	-17.9	-35.0	-54.2	30.9	-20.9	-40.6	-62.7	32.1
4:12	-15.4	-30.2	-46.9	28.0	-18.0	-35.0	-54.2	28.5	-20.9	-40.6	-62.7	29.7
5:12	-15.5	-30.3	-46.9	25.7	-18.0	-35.1	-54.3	26.2	-20.9	-40.6	-62.7	27.4
6:12	-15.5	-30.3	-46.9	23.6	-18.0	-35.1	-54.3	24.1	-21.0	-40.7	-62.8	25.3
7:12	-17.4	-21.1	-21.1	26.6	-20.2	-24.5	-24.5	28.5	-23.5	-28.4	-28.4	30.7
8:12	-17.4	-21.1	-21.1	24.8	-20.3	-24.5	-24.5	26.7	-23.5	-28.4	-28.4	28.9
9:12	-17.5	-21.2	-21.2	23.3	-20.3	-24.6	-24.6	25.2	-23.6	-28.5	-28.5	27.4
10:12	-17.5	-21.2	-21.2	21.9	-20.3	-24.6	-24.6	23.8	-23.6	-28.5	-28.5	26.0
11:12	-17.5	-21.2	-21.2	20.8	-20.4	-24.6	-24.6	22.7	-23.6	-28.6	-28.6	25.0
12:12	-17.6	-21.3	-21.3	19.7	-20.4	-24.7	-24.7	21.9	-23.7	-28.6	-28.6	24.9
1:12	-21.1	-39.1	-61.5	32.5	-24.0	-44.2	-69.4	32.5	-27.2	-50.0	-78.5	32.5
2:12	-18.9	-36.8	-57.0	31.5	-21.5	-41.6	-64.4	32.5	-24.4	-47.2	-72.8	33.8
3:12	-18.9	-36.9	-57.0	29.4	-21.5	-41.7	-64.4	30.4	-24.4	-47.2	-72.9	31.7
4:12	-19.0	-36.9	-57.1	27.2	-21.5	-41.7	-64.4	28.3	-24.4	-47.2	-72.9	29.5
5:12	-19.0	-36.9	-57.1	25.2	-21.5	-41.7	-64.4	26.2	-24.5	-47.3	-72.9	27.4
6:12	-19.0	-37.0	-57.1	23.2	-21.6	-41.8	-64.5	24.3	-24.5	-47.3	-73.0	25.5
7:12	-21.3	-25.8	-25.8	28.2	-24.1	-29.2	-29.2	30.1	-27.4	-33.1	-33.1	32.3
8:12	-21.3	-25.8	-25.8	26.6	-24.2	-29.2	-29.2	28.5	-27.4	-33.1	-33.1	30.7
9:12	-21.4	-25.9	-25.9	25.1	-24.2	-29.3	-29.3	27.1	-27.5	-33.2	-33.2	29.3
10:12	-21.4	-25.9	-25.9	23.9	-24.3	-29.3	-29.3	25.8	-27.5	-33.2	-33.2	28.6
11:12	-21.5	-25.9	-25.9	23.0	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.0	-26.1	-41.4	38.6	-14.0	-26.1	-41.4	38.6	-17.2	-32.0	-50.5	38.6
2:12	-12.4	-24.6	-38.3	35.5	-12.4	-24.6	-38.3	35.5	-15.4	-30.2	-46.8	35.5
3:12	-12.5	-24.6	-38.4	32.5	-12.5	-24.6	-38.4	32.5	-15.4	-30.2	-46.8	32.5
4:12	-12.5	-24.7	-38.4	29.9	-12.5	-24.7	-38.4	29.9	-15.4	-30.2	-46.9	29.9
5:12	-12.5	-24.7	-38.4	27.4	-12.5	-24.7	-38.4	27.4	-15.5	-30.3	-46.9	27.4
6:12	-12.6	-24.7	-38.5	25.0	-12.6	-24.7	-38.5	25.0	-15.5	-30.3	-46.9	25.0
7:12	-14.1	-17.2	-17.2	25.6	-14.1	-17.2	-17.2	25.6	-17.4	-21.1	-21.1	27.8
8:12	-14.2	-17.2	-17.2	23.6	-14.2	-17.2	-17.2	23.6	-17.4	-21.1	-21.1	25.8
9:12	-14.2	-17.3	-17.3	21.9	-14.2	-17.3	-17.3	21.9	-17.5	-21.2	-21.2	24.1
10:12	-14.2	-17.3	-17.3	20.4	-14.2	-17.3	-17.3	20.4	-17.5	-21.2	-21.2	22.6
11:12	-14.3	-17.3	-17.3	19.2	-14.3	-17.3	-17.3	19.2	-17.5	-21.2	-21.2	21.4
12:12	-14.3	-17.4	-17.4	18.1	-14.3	-17.4	-17.4	18.1	-17.6	-21.3	-21.3	20.3
Exposure Category C												
1:12	-17.2	-32.0	-50.5	38.6	-20.0	-37.1	-58.4	38.6	-23.3	-43.0	-67.6	38.6
2:12	-15.4	-30.2	-46.8	35.5	-17.9	-35.0	-54.2	35.6	-20.9	-40.5	-62.7	36.8
3:12	-15.4	-30.2	-46.8	32.5	-17.9	-35.0	-54.2	33.0	-20.9	-40.6	-62.7	34.2
4:12	-15.4	-30.2	-46.9	29.9	-18.0	-35.0	-54.2	30.4	-20.9	-40.6	-62.7	31.6
5:12	-15.5	-30.3	-46.9	27.4	-18.0	-35.1	-54.3	27.9	-20.9	-40.6	-62.7	29.1
6:12	-15.5	-30.3	-46.9	25.0	-18.0	-35.1	-54.3	25.5	-21.0	-40.7	-62.8	26.7
7:12	-17.4	-21.1	-21.1	27.8	-20.2	-24.5	-24.5	29.7	-23.5	-28.4	-28.4	31.9
8:12	-17.4	-21.1	-21.1	25.8	-20.3	-24.5	-24.5	27.7	-23.5	-28.4	-28.4	30.0
9:12	-17.5	-21.2	-21.2	24.1	-20.3	-24.6	-24.6	26.0	-23.6	-28.5	-28.5	28.2
10:12	-17.5	-21.2	-21.2	22.6	-20.3	-24.6	-24.6	24.5	-23.6	-28.5	-28.5	26.7
11:12	-17.5	-21.2	-21.2	21.4	-20.4	-24.6	-24.6	23.3	-23.6	-28.6	-28.6	25.5
12:12	-17.6	-21.3	-21.3	20.3	-20.4	-24.7	-24.7	22.2	-23.7	-28.6	-28.6	24.9
Exposure Category D												
1:12	-21.1	-39.1	-61.5	35.1	-24.0	-44.2	-69.4	35.1	-27.2	-50.0	-78.5	35.1
2:12	-18.9	-36.8	-57.0	33.6	-21.5	-41.6	-64.4	34.7	-24.4	-47.2	-72.8	35.9
3:12	-18.9	-36.9	-57.0	31.3	-21.5	-41.7	-64.4	32.3	-24.4	-47.2	-72.9	33.6
4:12	-19.0	-36.9	-57.1	28.9	-21.5	-41.7	-64.4	30.0	-24.4	-47.2	-72.9	31.2
5:12	-19.0	-36.9	-57.1	26.6	-21.5	-41.7	-64.4	27.7	-24.5	-47.3	-72.9	28.9
6:12	-19.0	-37.0	-57.1	24.5	-21.6	-41.8	-64.5	25.5	-24.5	-47.3	-73.0	26.8
7:12	-21.3	-25.8	-25.8	29.2	-24.1	-29.2	-29.2	31.1	-27.4	-33.1	-33.1	33.3
8:12	-21.3	-25.8	-25.8	27.5	-24.2	-29.2	-29.2	29.4	-27.4	-33.1	-33.1	31.6
9:12	-21.4	-25.9	-25.9	25.9	-24.2	-29.3	-29.3	27.8	-27.5	-33.2	-33.2	30.0
10:12	-21.4	-25.9	-25.9	24.6	-24.3	-29.3	-29.3	26.5	-27.5	-33.2	-33.2	28.7
11:12	-21.5	-25.9	-25.9	23.4	-24.3	-29.3	-29.3	25.6	-27.6	-33.3	-33.3	28.5
12:12	-21.5	-26.0	-26.0	22.9	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4

Basic Wind Speed
100 mph
Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.0	-26.1	-41.4	45.5	-14.0	-26.1	-41.4	45.5	-17.2	-32.0	-50.5	45.5
2:12	-12.4	-24.6	-38.3	41.9	-12.4	-24.6	-38.3	41.9	-15.4	-30.2	-46.8	41.9
3:12	-12.5	-24.6	-38.4	37.8	-12.5	-24.6	-38.4	37.8	-15.4	-30.2	-46.8	37.8
4:12	-12.5	-24.7	-38.4	33.6	-12.5	-24.7	-38.4	33.6	-15.4	-30.2	-46.9	33.6
5:12	-12.5	-24.7	-38.4	30.6	-12.5	-24.7	-38.4	30.6	-15.5	-30.3	-46.9	30.6
6:12	-12.6	-24.7	-38.5	27.8	-12.6	-24.7	-38.5	27.8	-15.5	-30.3	-46.9	27.8
7:12	-14.1	-17.2	-17.2	28.0	-14.1	-17.2	-17.2	28.0	-17.4	-21.1	-21.1	30.2
8:12	-14.2	-17.2	-17.2	25.7	-14.2	-17.2	-17.2	25.7	-17.4	-21.1	-21.1	27.9
9:12	-14.2	-17.3	-17.3	23.6	-14.2	-17.3	-17.3	23.6	-17.5	-21.2	-21.2	25.8
10:12	-14.2	-17.3	-17.3	21.9	-14.2	-17.3	-17.3	21.9	-17.5	-21.2	-21.2	24.1
11:12	-14.3	-17.3	-17.3	20.4	-14.3	-17.3	-17.3	20.4	-17.5	-21.2	-21.2	22.6
12:12	-14.3	-17.4	-17.4	19.1	-14.3	-17.4	-17.4	19.1	-17.6	-21.3	-21.3	21.3
1:12	-17.2	-32.0	-50.5	45.5	-20.0	-37.1	-58.4	45.5	-23.3	-43.0	-67.6	45.5
2:12	-15.4	-30.2	-46.8	41.9	-17.9	-35.0	-54.2	41.9	-20.9	-40.5	-62.7	41.9
3:12	-15.4	-30.2	-46.8	37.8	-17.9	-35.0	-54.2	37.8	-20.9	-40.6	-62.7	38.5
4:12	-15.4	-30.2	-46.9	33.6	-18.0	-35.0	-54.2	34.1	-20.9	-40.6	-62.7	35.4
5:12	-15.5	-30.3	-46.9	30.6	-18.0	-35.1	-54.3	31.1	-20.9	-40.6	-62.7	32.3
6:12	-15.5	-30.3	-46.9	27.8	-18.0	-35.1	-54.3	28.3	-21.0	-40.7	-62.8	29.5
7:12	-17.4	-21.1	-21.1	30.2	-20.2	-24.5	-24.5	32.1	-23.5	-28.4	-28.4	34.3
8:12	-17.4	-21.1	-21.1	27.9	-20.3	-24.5	-24.5	29.8	-23.5	-28.4	-28.4	32.0
9:12	-17.5	-21.2	-21.2	25.8	-20.3	-24.6	-24.6	27.7	-23.6	-28.5	-28.5	30.0
10:12	-17.5	-21.2	-21.2	24.1	-20.3	-24.6	-24.6	26.0	-23.6	-28.5	-28.5	28.2
11:12	-17.5	-21.2	-21.2	22.6	-20.4	-24.6	-24.6	24.5	-23.6	-28.6	-28.6	26.7
12:12	-17.6	-21.3	-21.3	21.3	-20.4	-24.7	-24.7	23.2	-23.7	-28.6	-28.6	25.4
1:12	-21.1	-39.1	-61.5	41.4	-24.0	-44.2	-69.4	41.4	-27.2	-50.0	-78.5	41.4
2:12	-18.9	-36.8	-57.0	38.0	-21.5	-41.6	-64.4	39.0	-24.4	-47.2	-72.8	40.2
3:12	-18.9	-36.9	-57.0	35.1	-21.5	-41.7	-64.4	36.2	-24.4	-47.2	-72.9	37.4
4:12	-19.0	-36.9	-57.1	32.3	-21.5	-41.7	-64.4	33.4	-24.4	-47.2	-72.9	34.6
5:12	-19.0	-36.9	-57.1	29.6	-21.5	-41.7	-64.4	30.6	-24.5	-47.3	-72.9	31.8
6:12	-19.0	-37.0	-57.1	27.0	-21.6	-41.8	-64.5	28.1	-24.5	-47.3	-73.0	29.3
7:12	-21.3	-25.8	-25.8	31.4	-24.1	-29.2	-29.2	33.3	-27.4	-33.1	-33.1	35.5
8:12	-21.3	-25.8	-25.8	29.3	-24.2	-29.2	-29.2	31.2	-27.4	-33.1	-33.1	33.4
9:12	-21.4	-25.9	-25.9	27.5	-24.2	-29.3	-29.3	29.4	-27.5	-33.2	-33.2	31.6
10:12	-21.4	-25.9	-25.9	25.9	-24.3	-29.3	-29.3	27.8	-27.5	-33.2	-33.2	30.0
11:12	-21.5	-25.9	-25.9	24.5	-24.3	-29.3	-29.3	26.4	-27.6	-33.3	-33.3	28.6
12:12	-21.5	-26.0	-26.0	23.3	-24.3	-29.4	-29.4	25.4	-27.6	-33.3	-33.3	28.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.0	-26.1	-41.4	52.5	-14.0	-26.1	-41.4	52.5	-17.2	-32.0	-50.5	52.5
2:12	-12.4	-24.6	-38.3	48.2	-12.4	-24.6	-38.3	48.2	-15.4	-30.2	-46.8	48.2
3:12	-12.5	-24.6	-38.4	43.4	-12.5	-24.6	-38.4	43.4	-15.4	-30.2	-46.8	43.4
4:12	-12.5	-24.7	-38.4	38.6	-12.5	-24.7	-38.4	38.6	-15.4	-30.2	-46.9	38.6
5:12	-12.5	-24.7	-38.4	34.0	-12.5	-24.7	-38.4	34.0	-15.5	-30.3	-46.9	34.0
6:12	-12.6	-24.7	-38.5	30.6	-12.6	-24.7	-38.5	30.6	-15.5	-30.3	-46.9	30.6
7:12	-14.1	-17.2	-17.2	30.4	-14.1	-17.2	-17.2	30.4	-17.4	-21.1	-21.1	32.6
8:12	-14.2	-17.2	-17.2	27.7	-14.2	-17.2	-17.2	27.7	-17.4	-21.1	-21.1	29.9
9:12	-14.2	-17.3	-17.3	25.3	-14.2	-17.3	-17.3	25.3	-17.5	-21.2	-21.2	27.6
10:12	-14.2	-17.3	-17.3	23.3	-14.2	-17.3	-17.3	23.3	-17.5	-21.2	-21.2	25.5
11:12	-14.3	-17.3	-17.3	21.6	-14.3	-17.3	-17.3	21.6	-17.5	-21.2	-21.2	23.8
12:12	-14.3	-17.4	-17.4	20.1	-14.3	-17.4	-17.4	20.1	-17.6	-21.3	-21.3	22.3
1:12	-17.2	-32.0	-50.5	52.5	-20.0	-37.1	-58.4	52.5	-23.3	-43.0	-67.6	52.5
2:12	-15.4	-30.2	-46.8	48.2	-17.9	-35.0	-54.2	48.2	-20.9	-40.5	-62.7	48.2
3:12	-15.4	-30.2	-46.8	43.4	-17.9	-35.0	-54.2	43.4	-20.9	-40.6	-62.7	43.4
4:12	-15.4	-30.2	-46.9	38.6	-18.0	-35.0	-54.2	38.6	-20.9	-40.6	-62.7	39.1
5:12	-15.5	-30.3	-46.9	34.0	-18.0	-35.1	-54.3	34.4	-20.9	-40.6	-62.7	35.6
6:12	-15.5	-30.3	-46.9	30.6	-18.0	-35.1	-54.3	31.1	-21.0	-40.7	-62.8	32.3
7:12	-17.4	-21.1	-21.1	32.6	-20.2	-24.5	-24.5	34.5	-23.5	-28.4	-28.4	36.7
8:12	-17.4	-21.1	-21.1	29.9	-20.3	-24.5	-24.5	31.8	-23.5	-28.4	-28.4	34.0
9:12	-17.5	-21.2	-21.2	27.6	-20.3	-24.6	-24.6	29.5	-23.6	-28.5	-28.5	31.7
10:12	-17.5	-21.2	-21.2	25.5	-20.3	-24.6	-24.6	27.4	-23.6	-28.5	-28.5	29.6
11:12	-17.5	-21.2	-21.2	23.8	-20.4	-24.6	-24.6	25.7	-23.6	-28.6	-28.6	27.9
12:12	-17.6	-21.3	-21.3	22.3	-20.4	-24.7	-24.7	24.2	-23.7	-28.6	-28.6	26.4
1:12	-21.1	-39.1	-61.5	47.6	-24.0	-44.2	-69.4	47.6	-27.2	-50.0	-78.5	47.6
2:12	-18.9	-36.8	-57.0	43.8	-21.5	-41.6	-64.4	43.8	-24.4	-47.2	-72.8	44.5
3:12	-18.9	-36.9	-57.0	39.5	-21.5	-41.7	-64.4	40.0	-24.4	-47.2	-72.9	41.2
4:12	-19.0	-36.9	-57.1	35.7	-21.5	-41.7	-64.4	36.7	-24.4	-47.2	-72.9	38.0
5:12	-19.0	-36.9	-57.1	32.5	-21.5	-41.7	-64.4	33.6	-24.5	-47.3	-72.9	34.8
6:12	-19.0	-37.0	-57.1	29.5	-21.6	-41.8	-64.5	30.6	-24.5	-47.3	-73.0	31.8
7:12	-21.3	-25.8	-25.8	33.5	-24.1	-29.2	-29.2	35.5	-27.4	-33.1	-33.1	37.7
8:12	-21.3	-25.8	-25.8	31.1	-24.2	-29.2	-29.2	33.0	-27.4	-33.1	-33.1	35.2
9:12	-21.4	-25.9	-25.9	29.0	-24.2	-29.3	-29.3	30.9	-27.5	-33.2	-33.2	33.1
10:12	-21.4	-25.9	-25.9	27.2	-24.3	-29.3	-29.3	29.1	-27.5	-33.2	-33.2	31.3
11:12	-21.5	-25.9	-25.9	25.6	-24.3	-29.3	-29.3	27.5	-27.6	-33.3	-33.3	29.7
12:12	-21.5	-26.0	-26.0	24.2	-24.3	-29.4	-29.4	26.1	-27.6	-33.3	-33.3	28.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.0	-26.1	-41.4	59.4	-14.0	-26.1	-41.4	59.4	-17.2	-32.0	-50.5	59.4
2:12	-12.4	-24.6	-38.3	54.5	-12.4	-24.6	-38.3	54.5	-15.4	-30.2	-46.8	54.5
3:12	-12.5	-24.6	-38.4	49.1	-12.5	-24.6	-38.4	49.1	-15.4	-30.2	-46.8	49.1
4:12	-12.5	-24.7	-38.4	43.6	-12.5	-24.7	-38.4	43.6	-15.4	-30.2	-46.9	43.6
5:12	-12.5	-24.7	-38.4	38.3	-12.5	-24.7	-38.4	38.3	-15.5	-30.3	-46.9	38.3
6:12	-12.6	-24.7	-38.5	33.4	-12.6	-24.7	-38.5	33.4	-15.5	-30.3	-46.9	33.4
7:12	-14.1	-17.2	-17.2	32.8	-14.1	-17.2	-17.2	32.8	-17.4	-21.1	-21.1	35.0
8:12	-14.2	-17.2	-17.2	29.7	-14.2	-17.2	-17.2	29.7	-17.4	-21.1	-21.1	31.9
9:12	-14.2	-17.3	-17.3	27.1	-14.2	-17.3	-17.3	27.1	-17.5	-21.2	-21.2	29.3
10:12	-14.2	-17.3	-17.3	24.8	-14.2	-17.3	-17.3	24.8	-17.5	-21.2	-21.2	27.0
11:12	-14.3	-17.3	-17.3	22.8	-14.3	-17.3	-17.3	22.8	-17.5	-21.2	-21.2	25.0
12:12	-14.3	-17.4	-17.4	21.1	-14.3	-17.4	-17.4	21.1	-17.6	-21.3	-21.3	23.3
1:12	-17.2	-32.0	-50.5	59.4	-20.0	-37.1	-58.4	59.4	-23.3	-43.0	-67.6	59.4
2:12	-15.4	-30.2	-46.8	54.5	-17.9	-35.0	-54.2	54.5	-20.9	-40.5	-62.7	54.5
3:12	-15.4	-30.2	-46.8	49.1	-17.9	-35.0	-54.2	49.1	-20.9	-40.6	-62.7	49.1
4:12	-15.4	-30.2	-46.9	43.6	-18.0	-35.0	-54.2	43.6	-20.9	-40.6	-62.7	43.6
5:12	-15.5	-30.3	-46.9	38.3	-18.0	-35.1	-54.3	38.3	-20.9	-40.6	-62.7	38.9
6:12	-15.5	-30.3	-46.9	33.4	-18.0	-35.1	-54.3	33.9	-21.0	-40.7	-62.8	35.1
7:12	-17.4	-21.1	-21.1	35.0	-20.2	-24.5	-24.5	36.9	-23.5	-28.4	-28.4	39.1
8:12	-17.4	-21.1	-21.1	31.9	-20.3	-24.5	-24.5	33.8	-23.5	-28.4	-28.4	36.0
9:12	-17.5	-21.2	-21.2	29.3	-20.3	-24.6	-24.6	31.2	-23.6	-28.5	-28.5	33.4
10:12	-17.5	-21.2	-21.2	27.0	-20.3	-24.6	-24.6	28.9	-23.6	-28.5	-28.5	31.1
11:12	-17.5	-21.2	-21.2	25.0	-20.4	-24.6	-24.6	26.9	-23.6	-28.6	-28.6	29.1
12:12	-17.6	-21.3	-21.3	23.3	-20.4	-24.7	-24.7	25.2	-23.7	-28.6	-28.6	27.4
1:12	-21.1	-39.1	-61.5	53.9	-24.0	-44.2	-69.4	53.9	-27.2	-50.0	-78.5	53.9
2:12	-18.9	-36.8	-57.0	49.5	-21.5	-41.6	-64.4	49.5	-24.4	-47.2	-72.8	49.5
3:12	-18.9	-36.9	-57.0	44.6	-21.5	-41.7	-64.4	44.6	-24.4	-47.2	-72.9	45.1
4:12	-19.0	-36.9	-57.1	39.6	-21.5	-41.7	-64.4	40.1	-24.4	-47.2	-72.9	41.3
5:12	-19.0	-36.9	-57.1	35.4	-21.5	-41.7	-64.4	36.5	-24.5	-47.3	-72.9	37.7
6:12	-19.0	-37.0	-57.1	32.1	-21.6	-41.8	-64.5	33.1	-24.5	-47.3	-73.0	34.3
7:12	-21.3	-25.8	-25.8	35.7	-24.1	-29.2	-29.2	37.6	-27.4	-33.1	-33.1	39.8
8:12	-21.3	-25.8	-25.8	32.9	-24.2	-29.2	-29.2	34.9	-27.4	-33.1	-33.1	37.1
9:12	-21.4	-25.9	-25.9	30.5	-24.2	-29.3	-29.3	32.4	-27.5	-33.2	-33.2	34.6
10:12	-21.4	-25.9	-25.9	28.4	-24.3	-29.3	-29.3	30.4	-27.5	-33.2	-33.2	32.6
11:12	-21.5	-25.9	-25.9	26.7	-24.3	-29.3	-29.3	28.6	-27.6	-33.3	-33.3	30.8
12:12	-21.5	-26.0	-26.0	25.1	-24.3	-29.4	-29.4	27.0	-27.6	-33.3	-33.3	29.2
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.0	-26.1	-41.4	66.4	-14.0	-26.1	-41.4	66.4	-17.2	-32.0	-50.5	66.4
2:12	-12.4	-24.6	-38.3	60.9	-12.4	-24.6	-38.3	60.9	-15.4	-30.2	-46.8	60.9
3:12	-12.5	-24.6	-38.4	54.8	-12.5	-24.6	-38.4	54.8	-15.4	-30.2	-46.8	54.8
4:12	-12.5	-24.7	-38.4	48.6	-12.5	-24.7	-38.4	48.6	-15.4	-30.2	-46.9	48.6
5:12	-12.5	-24.7	-38.4	42.7	-12.5	-24.7	-38.4	42.7	-15.5	-30.3	-46.9	42.7
6:12	-12.6	-24.7	-38.5	37.1	-12.6	-24.7	-38.5	37.1	-15.5	-30.3	-46.9	37.1
7:12	-14.1	-17.2	-17.2	35.2	-14.1	-17.2	-17.2	35.2	-17.4	-21.1	-21.1	37.4
8:12	-14.2	-17.2	-17.2	31.8	-14.2	-17.2	-17.2	31.8	-17.4	-21.1	-21.1	34.0
9:12	-14.2	-17.3	-17.3	28.8	-14.2	-17.3	-17.3	28.8	-17.5	-21.2	-21.2	31.0
10:12	-14.2	-17.3	-17.3	26.2	-14.2	-17.3	-17.3	26.2	-17.5	-21.2	-21.2	28.4
11:12	-14.3	-17.3	-17.3	24.0	-14.3	-17.3	-17.3	24.0	-17.5	-21.2	-21.2	26.2
12:12	-14.3	-17.4	-17.4	22.1	-14.3	-17.4	-17.4	22.1	-17.6	-21.3	-21.3	24.3
Exposure Category C												
1:12	-17.2	-32.0	-50.5	66.4	-20.0	-37.1	-58.4	66.4	-23.3	-43.0	-67.6	66.4
2:12	-15.4	-30.2	-46.8	60.9	-17.9	-35.0	-54.2	60.9	-20.9	-40.5	-62.7	60.9
3:12	-15.4	-30.2	-46.8	54.8	-17.9	-35.0	-54.2	54.8	-20.9	-40.6	-62.7	54.8
4:12	-15.4	-30.2	-46.9	48.6	-18.0	-35.0	-54.2	48.6	-20.9	-40.6	-62.7	48.6
5:12	-15.5	-30.3	-46.9	42.7	-18.0	-35.1	-54.3	42.7	-20.9	-40.6	-62.7	42.7
6:12	-15.5	-30.3	-46.9	37.1	-18.0	-35.1	-54.3	37.1	-21.0	-40.7	-62.8	37.9
7:12	-17.4	-21.1	-21.1	37.4	-20.2	-24.5	-24.5	39.3	-23.5	-28.4	-28.4	41.5
8:12	-17.4	-21.1	-21.1	34.0	-20.3	-24.5	-24.5	35.9	-23.5	-28.4	-28.4	38.1
9:12	-17.5	-21.2	-21.2	31.0	-20.3	-24.6	-24.6	32.9	-23.6	-28.5	-28.5	35.1
10:12	-17.5	-21.2	-21.2	28.4	-20.3	-24.6	-24.6	30.3	-23.6	-28.5	-28.5	32.5
11:12	-17.5	-21.2	-21.2	26.2	-20.4	-24.6	-24.6	28.1	-23.6	-28.6	-28.6	30.3
12:12	-17.6	-21.3	-21.3	24.3	-20.4	-24.7	-24.7	26.2	-23.7	-28.6	-28.6	28.4
Exposure Category D												
1:12	-21.1	-39.1	-61.5	60.1	-24.0	-44.2	-69.4	60.1	-27.2	-50.0	-78.5	60.1
2:12	-18.9	-36.8	-57.0	55.2	-21.5	-41.6	-64.4	55.2	-24.4	-47.2	-72.8	55.2
3:12	-18.9	-36.9	-57.0	49.7	-21.5	-41.7	-64.4	49.7	-24.4	-47.2	-72.9	49.7
4:12	-19.0	-36.9	-57.1	44.1	-21.5	-41.7	-64.4	44.1	-24.4	-47.2	-72.9	44.7
5:12	-19.0	-36.9	-57.1	38.8	-21.5	-41.7	-64.4	39.4	-24.5	-47.3	-72.9	40.7
6:12	-19.0	-37.0	-57.1	34.6	-21.6	-41.8	-64.5	35.6	-24.5	-47.3	-73.0	36.9
7:12	-21.3	-25.8	-25.8	37.9	-24.1	-29.2	-29.2	39.8	-27.4	-33.1	-33.1	42.0
8:12	-21.3	-25.8	-25.8	34.8	-24.2	-29.2	-29.2	36.7	-27.4	-33.1	-33.1	38.9
9:12	-21.4	-25.9	-25.9	32.1	-24.2	-29.3	-29.3	34.0	-27.5	-33.2	-33.2	36.2
10:12	-21.4	-25.9	-25.9	29.7	-24.3	-29.3	-29.3	31.7	-27.5	-33.2	-33.2	33.9
11:12	-21.5	-25.9	-25.9	27.7	-24.3	-29.3	-29.3	29.6	-27.6	-33.3	-33.3	31.9
12:12	-21.5	-26.0	-26.0	26.0	-24.3	-29.4	-29.4	27.9	-27.6	-33.3	-33.3	30.1

Basic Wind Speed **100 mph**
Ground Snow Load **90 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.0	-26.1	-41.4	73.4	-14.0	-26.1	-41.4	73.4	-17.2	-32.0	-50.5	73.4
2:12	-12.4	-24.6	-38.3	67.2	-12.4	-24.6	-38.3	67.2	-15.4	-30.2	-46.8	67.2
3:12	-12.5	-24.6	-38.4	60.5	-12.5	-24.6	-38.4	60.5	-15.4	-30.2	-46.8	60.5
4:12	-12.5	-24.7	-38.4	53.6	-12.5	-24.7	-38.4	53.6	-15.4	-30.2	-46.9	53.6
5:12	-12.5	-24.7	-38.4	47.0	-12.5	-24.7	-38.4	47.0	-15.5	-30.3	-46.9	47.0
6:12	-12.6	-24.7	-38.5	40.9	-12.6	-24.7	-38.5	40.9	-15.5	-30.3	-46.9	40.9
7:12	-14.1	-17.2	-17.2	37.6	-14.1	-17.2	-17.2	37.6	-17.4	-21.1	-21.1	39.8
8:12	-14.2	-17.2	-17.2	33.8	-14.2	-17.2	-17.2	33.8	-17.4	-21.1	-21.1	36.0
9:12	-14.2	-17.3	-17.3	30.5	-14.2	-17.3	-17.3	30.5	-17.5	-21.2	-21.2	32.7
10:12	-14.2	-17.3	-17.3	27.6	-14.2	-17.3	-17.3	27.6	-17.5	-21.2	-21.2	29.8
11:12	-14.3	-17.3	-17.3	25.2	-14.3	-17.3	-17.3	25.2	-17.5	-21.2	-21.2	27.4
12:12	-14.3	-17.4	-17.4	23.1	-14.3	-17.4	-17.4	23.1	-17.6	-21.3	-21.3	25.3
1:12	-17.2	-32.0	-50.5	73.4	-20.0	-37.1	-58.4	73.4	-23.3	-43.0	-67.6	73.4
2:12	-15.4	-30.2	-46.8	67.2	-17.9	-35.0	-54.2	67.2	-20.9	-40.5	-62.7	67.2
3:12	-15.4	-30.2	-46.8	60.5	-17.9	-35.0	-54.2	60.5	-20.9	-40.6	-62.7	60.5
4:12	-15.4	-30.2	-46.9	53.6	-18.0	-35.0	-54.2	53.6	-20.9	-40.6	-62.7	53.6
5:12	-15.5	-30.3	-46.9	47.0	-18.0	-35.1	-54.3	47.0	-20.9	-40.6	-62.7	47.0
6:12	-15.5	-30.3	-46.9	40.9	-18.0	-35.1	-54.3	40.9	-21.0	-40.7	-62.8	40.9
7:12	-17.4	-21.1	-21.1	39.8	-20.2	-24.5	-24.5	41.7	-23.5	-28.4	-28.4	43.9
8:12	-17.4	-21.1	-21.1	36.0	-20.3	-24.5	-24.5	37.9	-23.5	-28.4	-28.4	40.1
9:12	-17.5	-21.2	-21.2	32.7	-20.3	-24.6	-24.6	34.6	-23.6	-28.5	-28.5	36.8
10:12	-17.5	-21.2	-21.2	29.8	-20.3	-24.6	-24.6	31.7	-23.6	-28.5	-28.5	33.9
11:12	-17.5	-21.2	-21.2	27.4	-20.4	-24.6	-24.6	29.3	-23.6	-28.6	-28.6	31.5
12:12	-17.6	-21.3	-21.3	25.3	-20.4	-24.7	-24.7	27.2	-23.7	-28.6	-28.6	29.4
1:12	-21.1	-39.1	-61.5	66.4	-24.0	-44.2	-69.4	66.4	-27.2	-50.0	-78.5	66.4
2:12	-18.9	-36.8	-57.0	60.9	-21.5	-41.6	-64.4	60.9	-24.4	-47.2	-72.8	60.9
3:12	-18.9	-36.9	-57.0	54.8	-21.5	-41.7	-64.4	54.8	-24.4	-47.2	-72.9	54.8
4:12	-19.0	-36.9	-57.1	48.6	-21.5	-41.7	-64.4	48.6	-24.4	-47.2	-72.9	48.6
5:12	-19.0	-36.9	-57.1	42.7	-21.5	-41.7	-64.4	42.7	-24.5	-47.3	-72.9	43.6
6:12	-19.0	-37.0	-57.1	37.1	-21.6	-41.8	-64.5	38.2	-24.5	-47.3	-73.0	39.4
7:12	-21.3	-25.8	-25.8	40.0	-24.1	-29.2	-29.2	41.9	-27.4	-33.1	-33.1	44.1
8:12	-21.3	-25.8	-25.8	36.6	-24.2	-29.2	-29.2	38.5	-27.4	-33.1	-33.1	40.7
9:12	-21.4	-25.9	-25.9	33.6	-24.2	-29.3	-29.3	35.5	-27.5	-33.2	-33.2	37.7
10:12	-21.4	-25.9	-25.9	31.0	-24.3	-29.3	-29.3	32.9	-27.5	-33.2	-33.2	35.2
11:12	-21.5	-25.9	-25.9	28.8	-24.3	-29.3	-29.3	30.7	-27.6	-33.3	-33.3	32.9
12:12	-21.5	-26.0	-26.0	26.9	-24.3	-29.4	-29.4	28.8	-27.6	-33.3	-33.3	31.0
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	13.8	-15.5	-28.9	-45.7	13.8	-19.1	-35.4	-55.8	13.8
2:12	-13.8	-27.3	-42.4	13.8	-13.8	-27.3	-42.4	13.8	-17.1	-33.4	-51.8	14.0
3:12	-13.9	-27.3	-42.4	13.7	-13.9	-27.3	-42.4	13.7	-17.1	-33.4	-51.8	13.9
4:12	-13.9	-27.3	-42.4	13.6	-13.9	-27.3	-42.4	13.6	-17.1	-33.4	-51.8	13.8
5:12	-13.9	-27.4	-42.5	13.6	-13.9	-27.4	-42.5	13.6	-17.2	-33.5	-51.8	13.7
6:12	-14.0	-27.4	-42.5	13.4	-14.0	-27.4	-42.5	13.4	-17.2	-33.5	-51.9	13.6
7:12	-15.7	-19.0	-19.0	18.4	-15.7	-19.0	-19.0	18.4	-19.3	-23.4	-23.4	21.7
8:12	-15.7	-19.1	-19.1	18.3	-15.7	-19.1	-19.1	18.3	-19.3	-23.4	-23.4	21.6
9:12	-15.8	-19.1	-19.1	18.2	-15.8	-19.1	-19.1	18.2	-19.4	-23.4	-23.4	21.4
10:12	-15.8	-19.2	-19.2	18.1	-15.8	-19.2	-19.2	18.1	-19.4	-23.5	-23.5	21.3
11:12	-15.8	-19.2	-19.2	18.0	-15.8	-19.2	-19.2	18.0	-19.4	-23.5	-23.5	21.2
12:12	-15.9	-19.2	-19.2	17.8	-15.9	-19.2	-19.2	17.8	-19.5	-23.6	-23.6	21.1
Exposure Category C												
1:12	-19.1	-35.4	-55.8	13.8	-22.2	-41.0	-64.5	13.8	-25.8	-47.5	-74.6	13.8
2:12	-17.1	-33.4	-51.8	14.0	-19.9	-38.7	-59.9	15.6	-23.1	-44.8	-69.2	17.3
3:12	-17.1	-33.4	-51.8	13.9	-19.9	-38.7	-59.9	15.5	-23.2	-44.8	-69.2	17.3
4:12	-17.1	-33.4	-51.8	13.8	-19.9	-38.7	-59.9	15.4	-23.2	-44.9	-69.3	17.2
5:12	-17.2	-33.5	-51.8	13.7	-20.0	-38.8	-59.9	15.3	-23.2	-44.9	-69.3	17.1
6:12	-17.2	-33.5	-51.9	13.6	-20.0	-38.8	-60.0	15.2	-23.2	-44.9	-69.3	17.0
7:12	-19.3	-23.4	-23.4	21.7	-22.4	-27.1	-27.1	24.5	-26.0	-31.4	-31.4	27.7
8:12	-19.3	-23.4	-23.4	21.6	-22.4	-27.1	-27.1	24.4	-26.0	-31.5	-31.5	27.6
9:12	-19.4	-23.4	-23.4	21.4	-22.5	-27.2	-27.2	24.2	-26.1	-31.5	-31.5	27.5
10:12	-19.4	-23.5	-23.5	21.3	-22.5	-27.2	-27.2	24.1	-26.1	-31.5	-31.5	27.4
11:12	-19.4	-23.5	-23.5	21.2	-22.6	-27.3	-27.3	24.0	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	13.8	-26.5	-48.8	-76.6	13.8	-30.1	-55.3	-86.7	13.8
2:12	-21.0	-40.7	-63.0	16.2	-23.8	-46.0	-71.1	17.7	-27.0	-52.2	-80.4	19.5
3:12	-21.0	-40.8	-63.0	16.1	-23.8	-46.1	-71.1	17.6	-27.0	-52.2	-80.5	19.4
4:12	-21.0	-40.8	-63.0	16.0	-23.8	-46.1	-71.1	17.6	-27.1	-52.2	-80.5	19.4
5:12	-21.1	-40.8	-63.1	15.9	-23.9	-46.1	-71.2	17.5	-27.1	-52.2	-80.5	19.3
6:12	-21.1	-40.9	-63.1	15.8	-23.9	-46.2	-71.2	17.4	-27.1	-52.3	-80.6	19.2
7:12	-23.6	-28.5	-28.5	25.6	-26.7	-32.3	-32.3	28.4	-30.3	-36.6	-36.6	31.6
8:12	-23.6	-28.6	-28.6	25.4	-26.8	-32.3	-32.3	28.2	-30.4	-36.6	-36.6	31.5
9:12	-23.7	-28.6	-28.6	25.3	-26.8	-32.4	-32.4	28.1	-30.4	-36.7	-36.7	31.4
10:12	-23.7	-28.7	-28.7	25.2	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **105 mph**

Ground Snow Load **0 psf**

Up and Down (psf)

Basic Wind Speed
105 mph

Ground Snow Load
5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-15.5	-28.9	-45.7	15.1	-15.5	-28.9	-45.7	15.1	-19.1	-35.4	-55.8	15.1
2:12	-13.8	-27.3	-42.4	14.7	-13.8	-27.3	-42.4	14.7	-17.1	-33.4	-51.8	14.8
3:12	-13.9	-27.3	-42.4	14.3	-13.9	-27.3	-42.4	14.3	-17.1	-33.4	-51.8	14.4
4:12	-13.9	-27.3	-42.4	13.6	-13.9	-27.3	-42.4	13.6	-17.1	-33.4	-51.8	13.8
5:12	-13.9	-27.4	-42.5	13.6	-13.9	-27.4	-42.5	13.6	-17.2	-33.5	-51.8	13.7
6:12	-14.0	-27.4	-42.5	13.4	-14.0	-27.4	-42.5	13.4	-17.2	-33.5	-51.9	13.6
7:12	-15.7	-19.0	-19.0	18.4	-15.7	-19.0	-19.0	18.4	-19.3	-23.4	-23.4	21.7
8:12	-15.7	-19.1	-19.1	18.3	-15.7	-19.1	-19.1	18.3	-19.3	-23.4	-23.4	21.6
9:12	-15.8	-19.1	-19.1	18.2	-15.8	-19.1	-19.1	18.2	-19.4	-23.4	-23.4	21.4
10:12	-15.8	-19.2	-19.2	18.1	-15.8	-19.2	-19.2	18.1	-19.4	-23.5	-23.5	21.3
11:12	-15.8	-19.2	-19.2	18.0	-15.8	-19.2	-19.2	18.0	-19.4	-23.5	-23.5	21.2
12:12	-15.9	-19.2	-19.2	17.8	-15.9	-19.2	-19.2	17.8	-19.5	-23.6	-23.6	21.1
1:12	-19.1	-35.4	-55.8	15.1	-22.2	-41.0	-64.5	15.1	-25.8	-47.5	-74.6	15.1
2:12	-17.1	-33.4	-51.8	14.8	-19.9	-38.7	-59.9	16.0	-23.1	-44.8	-69.2	17.4
3:12	-17.1	-33.4	-51.8	14.4	-19.9	-38.7	-59.9	15.6	-23.2	-44.8	-69.2	17.3
4:12	-17.1	-33.4	-51.8	13.8	-19.9	-38.7	-59.9	15.4	-23.2	-44.9	-69.3	17.2
5:12	-17.2	-33.5	-51.8	13.7	-20.0	-38.8	-59.9	15.3	-23.2	-44.9	-69.3	17.1
6:12	-17.2	-33.5	-51.9	13.6	-20.0	-38.8	-60.0	15.2	-23.2	-44.9	-69.3	17.0
7:12	-19.3	-23.4	-23.4	21.7	-22.4	-27.1	-27.1	24.5	-26.0	-31.4	-31.4	27.7
8:12	-19.3	-23.4	-23.4	21.6	-22.4	-27.1	-27.1	24.4	-26.0	-31.5	-31.5	27.6
9:12	-19.4	-23.4	-23.4	21.4	-22.5	-27.2	-27.2	24.2	-26.1	-31.5	-31.5	27.5
10:12	-19.4	-23.5	-23.5	21.3	-22.5	-27.2	-27.2	24.1	-26.1	-31.5	-31.5	27.4
11:12	-19.4	-23.5	-23.5	21.2	-22.6	-27.3	-27.3	24.0	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
1:12	-23.4	-43.2	-67.9	15.1	-26.5	-48.8	-76.6	15.1	-30.1	-55.3	-86.7	15.1
2:12	-21.0	-40.7	-63.0	16.5	-23.8	-46.0	-71.1	17.7	-27.0	-52.2	-80.4	19.5
3:12	-21.0	-40.8	-63.0	16.1	-23.8	-46.1	-71.1	17.6	-27.0	-52.2	-80.5	19.4
4:12	-21.0	-40.8	-63.0	16.0	-23.8	-46.1	-71.1	17.6	-27.1	-52.2	-80.5	19.4
5:12	-21.1	-40.8	-63.1	15.9	-23.9	-46.1	-71.2	17.5	-27.1	-52.2	-80.5	19.3
6:12	-21.1	-40.9	-63.1	15.8	-23.9	-46.2	-71.2	17.4	-27.1	-52.3	-80.6	19.2
7:12	-23.6	-28.5	-28.5	25.6	-26.7	-32.3	-32.3	28.4	-30.3	-36.6	-36.6	31.6
8:12	-23.6	-28.6	-28.6	25.4	-26.8	-32.3	-32.3	28.2	-30.4	-36.6	-36.6	31.5
9:12	-23.7	-28.6	-28.6	25.3	-26.8	-32.4	-32.4	28.1	-30.4	-36.7	-36.7	31.4
10:12	-23.7	-28.7	-28.7	25.2	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
105 mph

Ground Snow Load
10 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-15.5	-28.9	-45.7	18.8	-15.5	-28.9	-45.7	18.8	-19.1	-35.4	-55.8	18.8
2:12	-13.8	-27.3	-42.4	18.1	-13.8	-27.3	-42.4	18.1	-17.1	-33.4	-51.8	18.2
3:12	-13.9	-27.3	-42.4	17.3	-13.9	-27.3	-42.4	17.3	-17.1	-33.4	-51.8	17.5
4:12	-13.9	-27.3	-42.4	14.9	-13.9	-27.3	-42.4	14.9	-17.1	-33.4	-51.8	15.0
5:12	-13.9	-27.4	-42.5	14.3	-13.9	-27.4	-42.5	14.3	-17.2	-33.5	-51.8	14.5
6:12	-14.0	-27.4	-42.5	13.7	-14.0	-27.4	-42.5	13.7	-17.2	-33.5	-51.9	13.9
7:12	-15.7	-19.0	-19.0	18.4	-15.7	-19.0	-19.0	18.4	-19.3	-23.4	-23.4	21.7
8:12	-15.7	-19.1	-19.1	18.3	-15.7	-19.1	-19.1	18.3	-19.3	-23.4	-23.4	21.6
9:12	-15.8	-19.1	-19.1	18.2	-15.8	-19.1	-19.1	18.2	-19.4	-23.4	-23.4	21.4
10:12	-15.8	-19.2	-19.2	18.1	-15.8	-19.2	-19.2	18.1	-19.4	-23.5	-23.5	21.3
11:12	-15.8	-19.2	-19.2	18.0	-15.8	-19.2	-19.2	18.0	-19.4	-23.5	-23.5	21.2
12:12	-15.9	-19.2	-19.2	17.8	-15.9	-19.2	-19.2	17.8	-19.5	-23.6	-23.6	21.1
1:12	-19.1	-35.4	-55.8	18.8	-22.2	-41.0	-64.5	18.8	-25.8	-47.5	-74.6	18.8
2:12	-17.1	-33.4	-51.8	18.2	-19.9	-38.7	-59.9	19.4	-23.1	-44.8	-69.2	20.8
3:12	-17.1	-33.4	-51.8	17.5	-19.9	-38.7	-59.9	18.6	-23.2	-44.8	-69.2	20.0
4:12	-17.1	-33.4	-51.8	15.0	-19.9	-38.7	-59.9	16.2	-23.2	-44.9	-69.3	17.6
5:12	-17.2	-33.5	-51.8	14.5	-20.0	-38.8	-59.9	15.6	-23.2	-44.9	-69.3	17.1
6:12	-17.2	-33.5	-51.9	13.9	-20.0	-38.8	-60.0	15.2	-23.2	-44.9	-69.3	17.0
7:12	-19.3	-23.4	-23.4	21.7	-22.4	-27.1	-27.1	24.5	-26.0	-31.4	-31.4	27.7
8:12	-19.3	-23.4	-23.4	21.6	-22.4	-27.1	-27.1	24.4	-26.0	-31.5	-31.5	27.6
9:12	-19.4	-23.4	-23.4	21.4	-22.5	-27.2	-27.2	24.2	-26.1	-31.5	-31.5	27.5
10:12	-19.4	-23.5	-23.5	21.3	-22.5	-27.2	-27.2	24.1	-26.1	-31.5	-31.5	27.4
11:12	-19.4	-23.5	-23.5	21.2	-22.6	-27.3	-27.3	24.0	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
1:12	-23.4	-43.2	-67.9	18.8	-26.5	-48.8	-76.6	18.8	-30.1	-55.3	-86.7	18.8
2:12	-21.0	-40.7	-63.0	19.9	-23.8	-46.0	-71.1	21.0	-27.0	-52.2	-80.4	22.4
3:12	-21.0	-40.8	-63.0	19.1	-23.8	-46.1	-71.1	20.2	-27.0	-52.2	-80.5	21.6
4:12	-21.0	-40.8	-63.0	16.3	-23.8	-46.1	-71.1	17.6	-27.1	-52.2	-80.5	19.4
5:12	-21.1	-40.8	-63.1	15.9	-23.9	-46.1	-71.2	17.5	-27.1	-52.2	-80.5	19.3
6:12	-21.1	-40.9	-63.1	15.8	-23.9	-46.2	-71.2	17.4	-27.1	-52.3	-80.6	19.2
7:12	-23.6	-28.5	-28.5	25.6	-26.7	-32.3	-32.3	28.4	-30.3	-36.6	-36.6	31.6
8:12	-23.6	-28.6	-28.6	25.4	-26.8	-32.3	-32.3	28.2	-30.4	-36.6	-36.6	31.5
9:12	-23.7	-28.6	-28.6	25.3	-26.8	-32.4	-32.4	28.1	-30.4	-36.7	-36.7	31.4
10:12	-23.7	-28.7	-28.7	25.2	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	22.5	-15.5	-28.9	-45.7	22.5	-19.1	-35.4	-55.8	22.5
2:12	-13.8	-27.3	-42.4	21.5	-13.8	-27.3	-42.4	21.5	-17.1	-33.4	-51.8	21.6
3:12	-13.9	-27.3	-42.4	20.3	-13.9	-27.3	-42.4	20.3	-17.1	-33.4	-51.8	20.5
4:12	-13.9	-27.3	-42.4	16.8	-13.9	-27.3	-42.4	16.8	-17.1	-33.4	-51.8	16.9
5:12	-13.9	-27.4	-42.5	15.9	-13.9	-27.4	-42.5	15.9	-17.2	-33.5	-51.8	16.1
6:12	-14.0	-27.4	-42.5	15.2	-14.0	-27.4	-42.5	15.2	-17.2	-33.5	-51.9	15.3
7:12	-15.7	-19.0	-19.0	18.4	-15.7	-19.0	-19.0	18.4	-19.3	-23.4	-23.4	21.7
8:12	-15.7	-19.1	-19.1	18.3	-15.7	-19.1	-19.1	18.3	-19.3	-23.4	-23.4	21.6
9:12	-15.8	-19.1	-19.1	18.2	-15.8	-19.1	-19.1	18.2	-19.4	-23.4	-23.4	21.4
10:12	-15.8	-19.2	-19.2	18.1	-15.8	-19.2	-19.2	18.1	-19.4	-23.5	-23.5	21.3
11:12	-15.8	-19.2	-19.2	18.0	-15.8	-19.2	-19.2	18.0	-19.4	-23.5	-23.5	21.2
12:12	-15.9	-19.2	-19.2	17.8	-15.9	-19.2	-19.2	17.8	-19.5	-23.6	-23.6	21.1
Exposure Category C												
1:12	-19.1	-35.4	-55.8	22.5	-22.2	-41.0	-64.5	22.5	-25.8	-47.5	-74.6	22.5
2:12	-17.1	-33.4	-51.8	21.6	-19.9	-38.7	-59.9	22.8	-23.1	-44.8	-69.2	24.2
3:12	-17.1	-33.4	-51.8	20.5	-19.9	-38.7	-59.9	21.7	-23.2	-44.8	-69.2	23.0
4:12	-17.1	-33.4	-51.8	16.9	-19.9	-38.7	-59.9	18.1	-23.2	-44.9	-69.3	19.4
5:12	-17.2	-33.5	-51.8	16.1	-20.0	-38.8	-59.9	17.3	-23.2	-44.9	-69.3	18.6
6:12	-17.2	-33.5	-51.9	15.3	-20.0	-38.8	-60.0	16.5	-23.2	-44.9	-69.3	17.8
7:12	-19.3	-23.4	-23.4	21.7	-22.4	-27.1	-27.1	24.5	-26.0	-31.4	-31.4	27.7
8:12	-19.3	-23.4	-23.4	21.6	-22.4	-27.1	-27.1	24.4	-26.0	-31.5	-31.5	27.6
9:12	-19.4	-23.4	-23.4	21.4	-22.5	-27.2	-27.2	24.2	-26.1	-31.5	-31.5	27.5
10:12	-19.4	-23.5	-23.5	21.3	-22.5	-27.2	-27.2	24.1	-26.1	-31.5	-31.5	27.4
11:12	-19.4	-23.5	-23.5	21.2	-22.6	-27.3	-27.3	24.0	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	22.5	-26.5	-48.8	-76.6	22.5	-30.1	-55.3	-86.7	22.5
2:12	-21.0	-40.7	-63.0	23.3	-23.8	-46.0	-71.1	24.4	-27.0	-52.2	-80.4	25.8
3:12	-21.0	-40.8	-63.0	22.1	-23.8	-46.1	-71.1	23.3	-27.0	-52.2	-80.5	24.6
4:12	-21.0	-40.8	-63.0	18.0	-23.8	-46.1	-71.1	19.1	-27.1	-52.2	-80.5	20.5
5:12	-21.1	-40.8	-63.1	17.2	-23.9	-46.1	-71.2	18.4	-27.1	-52.2	-80.5	19.7
6:12	-21.1	-40.9	-63.1	16.5	-23.9	-46.2	-71.2	17.7	-27.1	-52.3	-80.6	19.2
7:12	-23.6	-28.5	-28.5	25.6	-26.7	-32.3	-32.3	28.4	-30.3	-36.6	-36.6	31.6
8:12	-23.6	-28.6	-28.6	25.4	-26.8	-32.3	-32.3	28.2	-30.4	-36.6	-36.6	31.5
9:12	-23.7	-28.6	-28.6	25.3	-26.8	-32.4	-32.4	28.1	-30.4	-36.7	-36.7	31.4
10:12	-23.7	-28.7	-28.7	25.2	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **105 mph**

Ground Snow Load **15 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	26.2	-15.5	-28.9	-45.7	26.2	-19.1	-35.4	-55.8	26.2
2:12	-13.8	-27.3	-42.4	24.9	-13.8	-27.3	-42.4	24.9	-17.1	-33.4	-51.8	25.0
3:12	-13.9	-27.3	-42.4	23.4	-13.9	-27.3	-42.4	23.4	-17.1	-33.4	-51.8	23.5
4:12	-13.9	-27.3	-42.4	18.6	-13.9	-27.3	-42.4	18.6	-17.1	-33.4	-51.8	18.8
5:12	-13.9	-27.4	-42.5	17.6	-13.9	-27.4	-42.5	17.6	-17.2	-33.5	-51.8	17.7
6:12	-14.0	-27.4	-42.5	16.6	-14.0	-27.4	-42.5	16.6	-17.2	-33.5	-51.9	16.7
7:12	-15.7	-19.0	-19.0	19.4	-15.7	-19.0	-19.0	19.4	-19.3	-23.4	-23.4	21.9
8:12	-15.7	-19.1	-19.1	18.6	-15.7	-19.1	-19.1	18.6	-19.3	-23.4	-23.4	21.6
9:12	-15.8	-19.1	-19.1	18.2	-15.8	-19.1	-19.1	18.2	-19.4	-23.4	-23.4	21.4
10:12	-15.8	-19.2	-19.2	18.1	-15.8	-19.2	-19.2	18.1	-19.4	-23.5	-23.5	21.3
11:12	-15.8	-19.2	-19.2	18.0	-15.8	-19.2	-19.2	18.0	-19.4	-23.5	-23.5	21.2
12:12	-15.9	-19.2	-19.2	17.8	-15.9	-19.2	-19.2	17.8	-19.5	-23.6	-23.6	21.1
Exposure Category C												
1:12	-19.1	-35.4	-55.8	26.2	-22.2	-41.0	-64.5	26.2	-25.8	-47.5	-74.6	26.2
2:12	-17.1	-33.4	-51.8	25.0	-19.9	-38.7	-59.9	26.2	-23.1	-44.8	-69.2	27.6
3:12	-17.1	-33.4	-51.8	23.5	-19.9	-38.7	-59.9	24.7	-23.2	-44.8	-69.2	26.1
4:12	-17.1	-33.4	-51.8	18.8	-19.9	-38.7	-59.9	20.0	-23.2	-44.9	-69.3	21.3
5:12	-17.2	-33.5	-51.8	17.7	-20.0	-38.8	-59.9	18.9	-23.2	-44.9	-69.3	20.2
6:12	-17.2	-33.5	-51.9	16.7	-20.0	-38.8	-60.0	17.9	-23.2	-44.9	-69.3	19.2
7:12	-19.3	-23.4	-23.4	21.9	-22.4	-27.1	-27.1	24.5	-26.0	-31.4	-31.4	27.7
8:12	-19.3	-23.4	-23.4	21.6	-22.4	-27.1	-27.1	24.4	-26.0	-31.5	-31.5	27.6
9:12	-19.4	-23.4	-23.4	21.4	-22.5	-27.2	-27.2	24.2	-26.1	-31.5	-31.5	27.5
10:12	-19.4	-23.5	-23.5	21.3	-22.5	-27.2	-27.2	24.1	-26.1	-31.5	-31.5	27.4
11:12	-19.4	-23.5	-23.5	21.2	-22.6	-27.3	-27.3	24.0	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	26.2	-26.5	-48.8	-76.6	26.2	-30.1	-55.3	-86.7	26.2
2:12	-21.0	-40.7	-63.0	26.7	-23.8	-46.0	-71.1	27.8	-27.0	-52.2	-80.4	29.2
3:12	-21.0	-40.8	-63.0	25.2	-23.8	-46.1	-71.1	26.3	-27.0	-52.2	-80.5	27.7
4:12	-21.0	-40.8	-63.0	19.7	-23.8	-46.1	-71.1	20.8	-27.1	-52.2	-80.5	22.2
5:12	-21.1	-40.8	-63.1	18.7	-23.9	-46.1	-71.2	19.9	-27.1	-52.2	-80.5	21.2
6:12	-21.1	-40.9	-63.1	17.8	-23.9	-46.2	-71.2	18.9	-27.1	-52.3	-80.6	20.3
7:12	-23.6	-28.5	-28.5	25.6	-26.7	-32.3	-32.3	28.4	-30.3	-36.6	-36.6	31.6
8:12	-23.6	-28.6	-28.6	25.4	-26.8	-32.3	-32.3	28.2	-30.4	-36.6	-36.6	31.5
9:12	-23.7	-28.6	-28.6	25.3	-26.8	-32.4	-32.4	28.1	-30.4	-36.7	-36.7	31.4
10:12	-23.7	-28.7	-28.7	25.2	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **105 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

105 mph

Ground Snow Load

25 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	26.2	-15.5	-28.9	-45.7	26.2	-19.1	-35.4	-55.8	26.2
2:12	-13.8	-27.3	-42.4	24.9	-13.8	-27.3	-42.4	24.9	-17.1	-33.4	-51.8	25.0
3:12	-13.9	-27.3	-42.4	23.4	-13.9	-27.3	-42.4	23.4	-17.1	-33.4	-51.8	23.5
4:12	-13.9	-27.3	-42.4	20.5	-13.9	-27.3	-42.4	20.5	-17.1	-33.4	-51.8	20.7
5:12	-13.9	-27.4	-42.5	19.2	-13.9	-27.4	-42.5	19.2	-17.2	-33.5	-51.8	19.4
6:12	-14.0	-27.4	-42.5	18.0	-14.0	-27.4	-42.5	18.0	-17.2	-33.5	-51.9	18.1
7:12	-15.7	-19.0	-19.0	20.6	-15.7	-19.0	-19.0	20.6	-19.3	-23.4	-23.4	23.1
8:12	-15.7	-19.1	-19.1	19.6	-15.7	-19.1	-19.1	19.6	-19.3	-23.4	-23.4	22.0
9:12	-15.8	-19.1	-19.1	18.7	-15.8	-19.1	-19.1	18.7	-19.4	-23.4	-23.4	21.4
10:12	-15.8	-19.2	-19.2	18.1	-15.8	-19.2	-19.2	18.1	-19.4	-23.5	-23.5	21.3
11:12	-15.8	-19.2	-19.2	18.0	-15.8	-19.2	-19.2	18.0	-19.4	-23.5	-23.5	21.2
12:12	-15.9	-19.2	-19.2	17.8	-15.9	-19.2	-19.2	17.8	-19.5	-23.6	-23.6	21.1
Exposure Category C												
1:12	-19.1	-35.4	-55.8	26.2	-22.2	-41.0	-64.5	26.2	-25.8	-47.5	-74.6	26.2
2:12	-17.1	-33.4	-51.8	25.0	-19.9	-38.7	-59.9	26.2	-23.1	-44.8	-69.2	27.6
3:12	-17.1	-33.4	-51.8	23.5	-19.9	-38.7	-59.9	24.7	-23.2	-44.8	-69.2	26.1
4:12	-17.1	-33.4	-51.8	20.7	-19.9	-38.7	-59.9	21.8	-23.2	-44.9	-69.3	23.2
5:12	-17.2	-33.5	-51.8	19.4	-20.0	-38.8	-59.9	20.5	-23.2	-44.9	-69.3	21.9
6:12	-17.2	-33.5	-51.9	18.1	-20.0	-38.8	-60.0	19.3	-23.2	-44.9	-69.3	20.6
7:12	-19.3	-23.4	-23.4	23.1	-22.4	-27.1	-27.1	25.2	-26.0	-31.4	-31.4	27.7
8:12	-19.3	-23.4	-23.4	22.0	-22.4	-27.1	-27.1	24.4	-26.0	-31.5	-31.5	27.6
9:12	-19.4	-23.4	-23.4	21.4	-22.5	-27.2	-27.2	24.2	-26.1	-31.5	-31.5	27.5
10:12	-19.4	-23.5	-23.5	21.3	-22.5	-27.2	-27.2	24.1	-26.1	-31.5	-31.5	27.4
11:12	-19.4	-23.5	-23.5	21.2	-22.6	-27.3	-27.3	24.0	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	26.2	-26.5	-48.8	-76.6	26.2	-30.1	-55.3	-86.7	26.2
2:12	-21.0	-40.7	-63.0	26.7	-23.8	-46.0	-71.1	27.8	-27.0	-52.2	-80.4	29.2
3:12	-21.0	-40.8	-63.0	25.2	-23.8	-46.1	-71.1	26.3	-27.0	-52.2	-80.5	27.7
4:12	-21.0	-40.8	-63.0	21.4	-23.8	-46.1	-71.1	22.5	-27.1	-52.2	-80.5	23.9
5:12	-21.1	-40.8	-63.1	20.2	-23.9	-46.1	-71.2	21.3	-27.1	-52.2	-80.5	22.7
6:12	-21.1	-40.9	-63.1	19.0	-23.9	-46.2	-71.2	20.2	-27.1	-52.3	-80.6	21.5
7:12	-23.6	-28.5	-28.5	25.6	-26.7	-32.3	-32.3	28.4	-30.3	-36.6	-36.6	31.6
8:12	-23.6	-28.6	-28.6	25.4	-26.8	-32.3	-32.3	28.2	-30.4	-36.6	-36.6	31.5
9:12	-23.7	-28.6	-28.6	25.3	-26.8	-32.4	-32.4	28.1	-30.4	-36.7	-36.7	31.4
10:12	-23.7	-28.7	-28.7	25.2	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	27.0	-15.5	-28.9	-45.7	27.0	-19.1	-35.4	-55.8	27.0
2:12	-13.8	-27.3	-42.4	25.6	-13.8	-27.3	-42.4	25.6	-17.1	-33.4	-51.8	25.7
3:12	-13.9	-27.3	-42.4	24.0	-13.9	-27.3	-42.4	24.0	-17.1	-33.4	-51.8	24.1
4:12	-13.9	-27.3	-42.4	22.4	-13.9	-27.3	-42.4	22.4	-17.1	-33.4	-51.8	22.5
5:12	-13.9	-27.4	-42.5	20.8	-13.9	-27.4	-42.5	20.8	-17.2	-33.5	-51.8	21.0
6:12	-14.0	-27.4	-42.5	19.4	-14.0	-27.4	-42.5	19.4	-17.2	-33.5	-51.9	19.5
7:12	-15.7	-19.0	-19.0	21.8	-15.7	-19.0	-19.0	21.8	-19.3	-23.4	-23.4	24.3
8:12	-15.7	-19.1	-19.1	20.6	-15.7	-19.1	-19.1	20.6	-19.3	-23.4	-23.4	23.1
9:12	-15.8	-19.1	-19.1	19.6	-15.8	-19.1	-19.1	19.6	-19.4	-23.4	-23.4	22.0
10:12	-15.8	-19.2	-19.2	18.6	-15.8	-19.2	-19.2	18.6	-19.4	-23.5	-23.5	21.3
11:12	-15.8	-19.2	-19.2	18.0	-15.8	-19.2	-19.2	18.0	-19.4	-23.5	-23.5	21.2
12:12	-15.9	-19.2	-19.2	17.8	-15.9	-19.2	-19.2	17.8	-19.5	-23.6	-23.6	21.1
Exposure Category C												
1:12	-19.1	-35.4	-55.8	27.0	-22.2	-41.0	-64.5	27.0	-25.8	-47.5	-74.6	27.0
2:12	-17.1	-33.4	-51.8	25.7	-19.9	-38.7	-59.9	26.9	-23.1	-44.8	-69.2	28.2
3:12	-17.1	-33.4	-51.8	24.1	-19.9	-38.7	-59.9	25.3	-23.2	-44.8	-69.2	26.7
4:12	-17.1	-33.4	-51.8	22.5	-19.9	-38.7	-59.9	23.7	-23.2	-44.9	-69.3	25.1
5:12	-17.2	-33.5	-51.8	21.0	-20.0	-38.8	-59.9	22.2	-23.2	-44.9	-69.3	23.5
6:12	-17.2	-33.5	-51.9	19.5	-20.0	-38.8	-60.0	20.7	-23.2	-44.9	-69.3	22.0
7:12	-19.3	-23.4	-23.4	24.3	-22.4	-27.1	-27.1	26.4	-26.0	-31.4	-31.4	28.8
8:12	-19.3	-23.4	-23.4	23.1	-22.4	-27.1	-27.1	25.2	-26.0	-31.5	-31.5	27.6
9:12	-19.4	-23.4	-23.4	22.0	-22.5	-27.2	-27.2	24.2	-26.1	-31.5	-31.5	27.5
10:12	-19.4	-23.5	-23.5	21.3	-22.5	-27.2	-27.2	24.1	-26.1	-31.5	-31.5	27.4
11:12	-19.4	-23.5	-23.5	21.2	-22.6	-27.3	-27.3	24.0	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	26.2	-26.5	-48.8	-76.6	26.2	-30.1	-55.3	-86.7	26.2
2:12	-21.0	-40.7	-63.0	26.7	-23.8	-46.0	-71.1	27.8	-27.0	-52.2	-80.4	29.2
3:12	-21.0	-40.8	-63.0	25.2	-23.8	-46.1	-71.1	26.3	-27.0	-52.2	-80.5	27.7
4:12	-21.0	-40.8	-63.0	23.0	-23.8	-46.1	-71.1	24.2	-27.1	-52.2	-80.5	25.6
5:12	-21.1	-40.8	-63.1	21.6	-23.9	-46.1	-71.2	22.8	-27.1	-52.2	-80.5	24.1
6:12	-21.1	-40.9	-63.1	20.3	-23.9	-46.2	-71.2	21.5	-27.1	-52.3	-80.6	22.8
7:12	-23.6	-28.5	-28.5	26.5	-26.7	-32.3	-32.3	28.6	-30.3	-36.6	-36.6	31.6
8:12	-23.6	-28.6	-28.6	25.4	-26.8	-32.3	-32.3	28.2	-30.4	-36.6	-36.6	31.5
9:12	-23.7	-28.6	-28.6	25.3	-26.8	-32.4	-32.4	28.1	-30.4	-36.7	-36.7	31.4
10:12	-23.7	-28.7	-28.7	25.2	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **105 mph**

Ground Snow Load **30 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

105 mph

Ground Snow Load

35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-15.5	-28.9	-45.7	29.6	-15.5	-28.9	-45.7	29.6	-19.1	-35.4	-55.8	29.6
	2:12	-13.8	-27.3	-42.4	27.9	-13.8	-27.3	-42.4	27.9	-17.1	-33.4	-51.8	28.1
	3:12	-13.9	-27.3	-42.4	26.1	-13.9	-27.3	-42.4	26.1	-17.1	-33.4	-51.8	26.3
	4:12	-13.9	-27.3	-42.4	24.3	-13.9	-27.3	-42.4	24.3	-17.1	-33.4	-51.8	24.4
	5:12	-13.9	-27.4	-42.5	22.5	-13.9	-27.4	-42.5	22.5	-17.2	-33.5	-51.8	22.6
	6:12	-14.0	-27.4	-42.5	20.8	-14.0	-27.4	-42.5	20.8	-17.2	-33.5	-51.9	20.9
	7:12	-15.7	-19.0	-19.0	23.0	-15.7	-19.0	-19.0	23.0	-19.3	-23.4	-23.4	25.5
	8:12	-15.7	-19.1	-19.1	21.6	-15.7	-19.1	-19.1	21.6	-19.3	-23.4	-23.4	24.1
	9:12	-15.8	-19.1	-19.1	20.4	-15.8	-19.1	-19.1	20.4	-19.4	-23.4	-23.4	22.8
	10:12	-15.8	-19.2	-19.2	19.3	-15.8	-19.2	-19.2	19.3	-19.4	-23.5	-23.5	21.8
	11:12	-15.8	-19.2	-19.2	18.4	-15.8	-19.2	-19.2	18.4	-19.4	-23.5	-23.5	21.2
	12:12	-15.9	-19.2	-19.2	17.8	-15.9	-19.2	-19.2	17.8	-19.5	-23.6	-23.6	21.1
Exposure Category C	1:12	-19.1	-35.4	-55.8	29.6	-22.2	-41.0	-64.5	29.6	-25.8	-47.5	-74.6	29.6
	2:12	-17.1	-33.4	-51.8	28.1	-19.9	-38.7	-59.9	29.3	-23.1	-44.8	-69.2	30.6
	3:12	-17.1	-33.4	-51.8	26.3	-19.9	-38.7	-59.9	27.4	-23.2	-44.8	-69.2	28.8
	4:12	-17.1	-33.4	-51.8	24.4	-19.9	-38.7	-59.9	25.6	-23.2	-44.9	-69.3	26.9
	5:12	-17.2	-33.5	-51.8	22.6	-20.0	-38.8	-59.9	23.8	-23.2	-44.9	-69.3	25.1
	6:12	-17.2	-33.5	-51.9	20.9	-20.0	-38.8	-60.0	22.1	-23.2	-44.9	-69.3	23.4
	7:12	-19.3	-23.4	-23.4	25.5	-22.4	-27.1	-27.1	27.6	-26.0	-31.4	-31.4	30.0
	8:12	-19.3	-23.4	-23.4	24.1	-22.4	-27.1	-27.1	26.2	-26.0	-31.5	-31.5	28.6
	9:12	-19.4	-23.4	-23.4	22.8	-22.5	-27.2	-27.2	24.9	-26.1	-31.5	-31.5	27.5
	10:12	-19.4	-23.5	-23.5	21.8	-22.5	-27.2	-27.2	24.1	-26.1	-31.5	-31.5	27.4
	11:12	-19.4	-23.5	-23.5	21.2	-22.6	-27.3	-27.3	24.0	-26.2	-31.6	-31.6	27.2
	12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
Exposure Category D	1:12	-23.4	-43.2	-67.9	27.8	-26.5	-48.8	-76.6	27.8	-30.1	-55.3	-86.7	27.8
	2:12	-21.0	-40.7	-63.0	28.0	-23.8	-46.0	-71.1	29.2	-27.0	-52.2	-80.4	30.6
	3:12	-21.0	-40.8	-63.0	26.4	-23.8	-46.1	-71.1	27.6	-27.0	-52.2	-80.5	28.9
	4:12	-21.0	-40.8	-63.0	24.7	-23.8	-46.1	-71.1	25.9	-27.1	-52.2	-80.5	27.2
	5:12	-21.1	-40.8	-63.1	23.1	-23.9	-46.1	-71.2	24.3	-27.1	-52.2	-80.5	25.6
	6:12	-21.1	-40.9	-63.1	21.5	-23.9	-46.2	-71.2	22.7	-27.1	-52.3	-80.6	24.1
	7:12	-23.6	-28.5	-28.5	27.5	-26.7	-32.3	-32.3	29.7	-30.3	-36.6	-36.6	32.1
	8:12	-23.6	-28.6	-28.6	26.3	-26.8	-32.3	-32.3	28.4	-30.4	-36.6	-36.6	31.5
	9:12	-23.7	-28.6	-28.6	25.3	-26.8	-32.4	-32.4	28.1	-30.4	-36.7	-36.7	31.4
	10:12	-23.7	-28.7	-28.7	25.2	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
	11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
	12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
	2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
	3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
	4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
	5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
	6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
	7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
	8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
	9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
	10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
	11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2	
		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
105 mph

Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	32.2	-15.5	-28.9	-45.7	32.2	-19.1	-35.4	-55.8	32.2
2:12	-13.8	-27.3	-42.4	30.3	-13.8	-27.3	-42.4	30.3	-17.1	-33.4	-51.8	30.5
3:12	-13.9	-27.3	-42.4	28.2	-13.9	-27.3	-42.4	28.2	-17.1	-33.4	-51.8	28.4
4:12	-13.9	-27.3	-42.4	26.1	-13.9	-27.3	-42.4	26.1	-17.1	-33.4	-51.8	26.3
5:12	-13.9	-27.4	-42.5	24.1	-13.9	-27.4	-42.5	24.1	-17.2	-33.5	-51.8	24.2
6:12	-14.0	-27.4	-42.5	22.2	-14.0	-27.4	-42.5	22.2	-17.2	-33.5	-51.9	22.3
7:12	-15.7	-19.0	-19.0	24.2	-15.7	-19.0	-19.0	24.2	-19.3	-23.4	-23.4	26.7
8:12	-15.7	-19.1	-19.1	22.7	-15.7	-19.1	-19.1	22.7	-19.3	-23.4	-23.4	25.1
9:12	-15.8	-19.1	-19.1	21.3	-15.8	-19.1	-19.1	21.3	-19.4	-23.4	-23.4	23.7
10:12	-15.8	-19.2	-19.2	20.0	-15.8	-19.2	-19.2	20.0	-19.4	-23.5	-23.5	22.5
11:12	-15.8	-19.2	-19.2	19.0	-15.8	-19.2	-19.2	19.0	-19.4	-23.5	-23.5	21.4
12:12	-15.9	-19.2	-19.2	18.1	-15.9	-19.2	-19.2	18.1	-19.5	-23.6	-23.6	21.1
Exposure Category C												
1:12	-19.1	-35.4	-55.8	32.2	-22.2	-41.0	-64.5	32.2	-25.8	-47.5	-74.6	32.2
2:12	-17.1	-33.4	-51.8	30.5	-19.9	-38.7	-59.9	31.6	-23.1	-44.8	-69.2	33.0
3:12	-17.1	-33.4	-51.8	28.4	-19.9	-38.7	-59.9	29.6	-23.2	-44.8	-69.2	30.9
4:12	-17.1	-33.4	-51.8	26.3	-19.9	-38.7	-59.9	27.5	-23.2	-44.9	-69.3	28.8
5:12	-17.2	-33.5	-51.8	24.2	-20.0	-38.8	-59.9	25.4	-23.2	-44.9	-69.3	26.8
6:12	-17.2	-33.5	-51.9	22.3	-20.0	-38.8	-60.0	23.5	-23.2	-44.9	-69.3	24.8
7:12	-19.3	-23.4	-23.4	26.7	-22.4	-27.1	-27.1	28.8	-26.0	-31.4	-31.4	31.2
8:12	-19.3	-23.4	-23.4	25.1	-22.4	-27.1	-27.1	27.2	-26.0	-31.5	-31.5	29.6
9:12	-19.4	-23.4	-23.4	23.7	-22.5	-27.2	-27.2	25.8	-26.1	-31.5	-31.5	28.2
10:12	-19.4	-23.5	-23.5	22.5	-22.5	-27.2	-27.2	24.6	-26.1	-31.5	-31.5	27.4
11:12	-19.4	-23.5	-23.5	21.4	-22.6	-27.3	-27.3	24.0	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	30.1	-26.5	-48.8	-76.6	30.1	-30.1	-55.3	-86.7	30.1
2:12	-21.0	-40.7	-63.0	30.2	-23.8	-46.0	-71.1	31.4	-27.0	-52.2	-80.4	32.7
3:12	-21.0	-40.8	-63.0	28.3	-23.8	-46.1	-71.1	29.5	-27.0	-52.2	-80.5	30.8
4:12	-21.0	-40.8	-63.0	26.4	-23.8	-46.1	-71.1	27.6	-27.1	-52.2	-80.5	28.9
5:12	-21.1	-40.8	-63.1	24.6	-23.9	-46.1	-71.2	25.7	-27.1	-52.2	-80.5	27.1
6:12	-21.1	-40.9	-63.1	22.8	-23.9	-46.2	-71.2	24.0	-27.1	-52.3	-80.6	25.3
7:12	-23.6	-28.5	-28.5	28.6	-26.7	-32.3	-32.3	30.7	-30.3	-36.6	-36.6	33.2
8:12	-23.6	-28.6	-28.6	27.2	-26.8	-32.3	-32.3	29.3	-30.4	-36.6	-36.6	31.7
9:12	-23.7	-28.6	-28.6	25.9	-26.8	-32.4	-32.4	28.1	-30.4	-36.7	-36.7	31.4
10:12	-23.7	-28.7	-28.7	25.2	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	35.1	-15.5	-28.9	-45.7	35.1	-19.1	-35.4	-55.8	35.1
2:12	-13.8	-27.3	-42.4	32.7	-13.8	-27.3	-42.4	32.7	-17.1	-33.4	-51.8	32.9
3:12	-13.9	-27.3	-42.4	30.4	-13.9	-27.3	-42.4	30.4	-17.1	-33.4	-51.8	30.5
4:12	-13.9	-27.3	-42.4	28.0	-13.9	-27.3	-42.4	28.0	-17.1	-33.4	-51.8	28.2
5:12	-13.9	-27.4	-42.5	25.7	-13.9	-27.4	-42.5	25.7	-17.2	-33.5	-51.8	25.9
6:12	-14.0	-27.4	-42.5	23.6	-14.0	-27.4	-42.5	23.6	-17.2	-33.5	-51.9	23.7
7:12	-15.7	-19.0	-19.0	25.4	-15.7	-19.0	-19.0	25.4	-19.3	-23.4	-23.4	27.9
8:12	-15.7	-19.1	-19.1	23.7	-15.7	-19.1	-19.1	23.7	-19.3	-23.4	-23.4	26.1
9:12	-15.8	-19.1	-19.1	22.1	-15.8	-19.1	-19.1	22.1	-19.4	-23.4	-23.4	24.5
10:12	-15.8	-19.2	-19.2	20.8	-15.8	-19.2	-19.2	20.8	-19.4	-23.5	-23.5	23.2
11:12	-15.8	-19.2	-19.2	19.6	-15.8	-19.2	-19.2	19.6	-19.4	-23.5	-23.5	22.0
12:12	-15.9	-19.2	-19.2	18.6	-15.9	-19.2	-19.2	18.6	-19.5	-23.6	-23.6	21.1
Exposure Category C												
1:12	-19.1	-35.4	-55.8	35.1	-22.2	-41.0	-64.5	35.1	-25.8	-47.5	-74.6	35.1
2:12	-17.1	-33.4	-51.8	32.9	-19.9	-38.7	-59.9	34.0	-23.1	-44.8	-69.2	35.4
3:12	-17.1	-33.4	-51.8	30.5	-19.9	-38.7	-59.9	31.7	-23.2	-44.8	-69.2	33.0
4:12	-17.1	-33.4	-51.8	28.2	-19.9	-38.7	-59.9	29.3	-23.2	-44.9	-69.3	30.7
5:12	-17.2	-33.5	-51.8	25.9	-20.0	-38.8	-59.9	27.0	-23.2	-44.9	-69.3	28.4
6:12	-17.2	-33.5	-51.9	23.7	-20.0	-38.8	-60.0	24.9	-23.2	-44.9	-69.3	26.2
7:12	-19.3	-23.4	-23.4	27.9	-22.4	-27.1	-27.1	30.0	-26.0	-31.4	-31.4	32.4
8:12	-19.3	-23.4	-23.4	26.1	-22.4	-27.1	-27.1	28.2	-26.0	-31.5	-31.5	30.6
9:12	-19.4	-23.4	-23.4	24.5	-22.5	-27.2	-27.2	26.7	-26.1	-31.5	-31.5	29.1
10:12	-19.4	-23.5	-23.5	23.2	-22.5	-27.2	-27.2	25.3	-26.1	-31.5	-31.5	27.7
11:12	-19.4	-23.5	-23.5	22.0	-22.6	-27.3	-27.3	24.1	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.1	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	32.5	-26.5	-48.8	-76.6	32.5	-30.1	-55.3	-86.7	32.5
2:12	-21.0	-40.7	-63.0	32.3	-23.8	-46.0	-71.1	33.5	-27.0	-52.2	-80.4	34.8
3:12	-21.0	-40.8	-63.0	30.2	-23.8	-46.1	-71.1	31.4	-27.0	-52.2	-80.5	32.7
4:12	-21.0	-40.8	-63.0	28.1	-23.8	-46.1	-71.1	29.3	-27.1	-52.2	-80.5	30.6
5:12	-21.1	-40.8	-63.1	26.0	-23.9	-46.1	-71.2	27.2	-27.1	-52.2	-80.5	28.5
6:12	-21.1	-40.9	-63.1	24.1	-23.9	-46.2	-71.2	25.2	-27.1	-52.3	-80.6	26.6
7:12	-23.6	-28.5	-28.5	29.7	-26.7	-32.3	-32.3	31.8	-30.3	-36.6	-36.6	34.2
8:12	-23.6	-28.6	-28.6	28.1	-26.8	-32.3	-32.3	30.2	-30.4	-36.6	-36.6	32.6
9:12	-23.7	-28.6	-28.6	26.7	-26.8	-32.4	-32.4	28.8	-30.4	-36.7	-36.7	31.4
10:12	-23.7	-28.7	-28.7	25.5	-26.8	-32.4	-32.4	28.0	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **105 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	38.6	-15.5	-28.9	-45.7	38.6	-19.1	-35.4	-55.8	38.6
2:12	-13.8	-27.3	-42.4	35.5	-13.8	-27.3	-42.4	35.5	-17.1	-33.4	-51.8	35.5
3:12	-13.9	-27.3	-42.4	32.5	-13.9	-27.3	-42.4	32.5	-17.1	-33.4	-51.8	32.7
4:12	-13.9	-27.3	-42.4	29.9	-13.9	-27.3	-42.4	29.9	-17.1	-33.4	-51.8	30.0
5:12	-13.9	-27.4	-42.5	27.4	-13.9	-27.4	-42.5	27.4	-17.2	-33.5	-51.8	27.5
6:12	-14.0	-27.4	-42.5	25.0	-14.0	-27.4	-42.5	25.0	-17.2	-33.5	-51.9	25.1
7:12	-15.7	-19.0	-19.0	26.6	-15.7	-19.0	-19.0	26.6	-19.3	-23.4	-23.4	29.1
8:12	-15.7	-19.1	-19.1	24.7	-15.7	-19.1	-19.1	24.7	-19.3	-23.4	-23.4	27.1
9:12	-15.8	-19.1	-19.1	23.0	-15.8	-19.1	-19.1	23.0	-19.4	-23.4	-23.4	25.4
10:12	-15.8	-19.2	-19.2	21.5	-15.8	-19.2	-19.2	21.5	-19.4	-23.5	-23.5	23.9
11:12	-15.8	-19.2	-19.2	20.2	-15.8	-19.2	-19.2	20.2	-19.4	-23.5	-23.5	22.6
12:12	-15.9	-19.2	-19.2	19.1	-15.9	-19.2	-19.2	19.1	-19.5	-23.6	-23.6	21.5
Exposure Category C												
1:12	-19.1	-35.4	-55.8	38.6	-22.2	-41.0	-64.5	38.6	-25.8	-47.5	-74.6	38.6
2:12	-17.1	-33.4	-51.8	35.5	-19.9	-38.7	-59.9	36.4	-23.1	-44.8	-69.2	37.7
3:12	-17.1	-33.4	-51.8	32.7	-19.9	-38.7	-59.9	33.8	-23.2	-44.8	-69.2	35.2
4:12	-17.1	-33.4	-51.8	30.0	-19.9	-38.7	-59.9	31.2	-23.2	-44.9	-69.3	32.6
5:12	-17.2	-33.5	-51.8	27.5	-20.0	-38.8	-59.9	28.7	-23.2	-44.9	-69.3	30.0
6:12	-17.2	-33.5	-51.9	25.1	-20.0	-38.8	-60.0	26.3	-23.2	-44.9	-69.3	27.6
7:12	-19.3	-23.4	-23.4	29.1	-22.4	-27.1	-27.1	31.2	-26.0	-31.4	-31.4	33.6
8:12	-19.3	-23.4	-23.4	27.1	-22.4	-27.1	-27.1	29.2	-26.0	-31.5	-31.5	31.7
9:12	-19.4	-23.4	-23.4	25.4	-22.5	-27.2	-27.2	27.5	-26.1	-31.5	-31.5	29.9
10:12	-19.4	-23.5	-23.5	23.9	-22.5	-27.2	-27.2	26.0	-26.1	-31.5	-31.5	28.5
11:12	-19.4	-23.5	-23.5	22.6	-22.6	-27.3	-27.3	24.7	-26.2	-31.6	-31.6	27.2
12:12	-19.5	-23.6	-23.6	21.5	-22.6	-27.3	-27.3	23.9	-26.2	-31.6	-31.6	27.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	35.1	-26.5	-48.8	-76.6	35.1	-30.1	-55.3	-86.7	35.1
2:12	-21.0	-40.7	-63.0	34.5	-23.8	-46.0	-71.1	35.6	-27.0	-52.2	-80.4	37.0
3:12	-21.0	-40.8	-63.0	32.1	-23.8	-46.1	-71.1	33.3	-27.0	-52.2	-80.5	34.7
4:12	-21.0	-40.8	-63.0	29.8	-23.8	-46.1	-71.1	31.0	-27.1	-52.2	-80.5	32.3
5:12	-21.1	-40.8	-63.1	27.5	-23.9	-46.1	-71.2	28.7	-27.1	-52.2	-80.5	30.0
6:12	-21.1	-40.9	-63.1	25.3	-23.9	-46.2	-71.2	26.5	-27.1	-52.3	-80.6	27.9
7:12	-23.6	-28.5	-28.5	30.8	-26.7	-32.3	-32.3	32.9	-30.3	-36.6	-36.6	35.3
8:12	-23.6	-28.6	-28.6	29.0	-26.8	-32.3	-32.3	31.1	-30.4	-36.6	-36.6	33.6
9:12	-23.7	-28.6	-28.6	27.5	-26.8	-32.4	-32.4	29.6	-30.4	-36.7	-36.7	32.0
10:12	-23.7	-28.7	-28.7	26.1	-26.8	-32.4	-32.4	28.2	-30.4	-36.7	-36.7	31.2
11:12	-23.8	-28.7	-28.7	25.1	-26.9	-32.4	-32.4	27.9	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **105 mph**

Ground Snow Load **50 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-15.5	-28.9	-45.7	45.5	-15.5	-28.9	-45.7	45.5	-19.1	-35.4	-55.8	45.5
2:12	-13.8	-27.3	-42.4	41.9	-13.8	-27.3	-42.4	41.9	-17.1	-33.4	-51.8	41.9
3:12	-13.9	-27.3	-42.4	37.8	-13.9	-27.3	-42.4	37.8	-17.1	-33.4	-51.8	37.8
4:12	-13.9	-27.3	-42.4	33.6	-13.9	-27.3	-42.4	33.6	-17.1	-33.4	-51.8	33.8
5:12	-13.9	-27.4	-42.5	30.6	-13.9	-27.4	-42.5	30.6	-17.2	-33.5	-51.8	30.8
6:12	-14.0	-27.4	-42.5	27.8	-14.0	-27.4	-42.5	27.8	-17.2	-33.5	-51.9	27.9
7:12	-15.7	-19.0	-19.0	29.0	-15.7	-19.0	-19.0	29.0	-19.3	-23.4	-23.4	31.5
8:12	-15.7	-19.1	-19.1	26.7	-15.7	-19.1	-19.1	26.7	-19.3	-23.4	-23.4	29.1
9:12	-15.8	-19.1	-19.1	24.7	-15.8	-19.1	-19.1	24.7	-19.4	-23.4	-23.4	27.1
10:12	-15.8	-19.2	-19.2	22.9	-15.8	-19.2	-19.2	22.9	-19.4	-23.5	-23.5	25.4
11:12	-15.8	-19.2	-19.2	21.4	-15.8	-19.2	-19.2	21.4	-19.4	-23.5	-23.5	23.8
12:12	-15.9	-19.2	-19.2	20.1	-15.9	-19.2	-19.2	20.1	-19.5	-23.6	-23.6	22.5
1:12	-19.1	-35.4	-55.8	45.5	-22.2	-41.0	-64.5	45.5	-25.8	-47.5	-74.6	45.5
2:12	-17.1	-33.4	-51.8	41.9	-19.9	-38.7	-59.9	41.9	-23.1	-44.8	-69.2	42.5
3:12	-17.1	-33.4	-51.8	37.8	-19.9	-38.7	-59.9	38.1	-23.2	-44.8	-69.2	39.4
4:12	-17.1	-33.4	-51.8	33.8	-19.9	-38.7	-59.9	35.0	-23.2	-44.9	-69.3	36.3
5:12	-17.2	-33.5	-51.8	30.8	-20.0	-38.8	-59.9	31.9	-23.2	-44.9	-69.3	33.3
6:12	-17.2	-33.5	-51.9	27.9	-20.0	-38.8	-60.0	29.1	-23.2	-44.9	-69.3	30.4
7:12	-19.3	-23.4	-23.4	31.5	-22.4	-27.1	-27.1	33.6	-26.0	-31.4	-31.4	36.0
8:12	-19.3	-23.4	-23.4	29.1	-22.4	-27.1	-27.1	31.3	-26.0	-31.5	-31.5	33.7
9:12	-19.4	-23.4	-23.4	27.1	-22.5	-27.2	-27.2	29.2	-26.1	-31.5	-31.5	31.7
10:12	-19.4	-23.5	-23.5	25.4	-22.5	-27.2	-27.2	27.5	-26.1	-31.5	-31.5	29.9
11:12	-19.4	-23.5	-23.5	23.8	-22.6	-27.3	-27.3	25.9	-26.2	-31.6	-31.6	28.4
12:12	-19.5	-23.6	-23.6	22.5	-22.6	-27.3	-27.3	24.6	-26.2	-31.6	-31.6	27.1
1:12	-23.4	-43.2	-67.9	41.4	-26.5	-48.8	-76.6	41.4	-30.1	-55.3	-86.7	41.4
2:12	-21.0	-40.7	-63.0	38.8	-23.8	-46.0	-71.1	39.9	-27.0	-52.2	-80.4	41.3
3:12	-21.0	-40.8	-63.0	36.0	-23.8	-46.1	-71.1	37.1	-27.0	-52.2	-80.5	38.5
4:12	-21.0	-40.8	-63.0	33.2	-23.8	-46.1	-71.1	34.3	-27.1	-52.2	-80.5	35.7
5:12	-21.1	-40.8	-63.1	30.4	-23.9	-46.1	-71.2	31.6	-27.1	-52.2	-80.5	32.9
6:12	-21.1	-40.9	-63.1	27.9	-23.9	-46.2	-71.2	29.0	-27.1	-52.3	-80.6	30.4
7:12	-23.6	-28.5	-28.5	32.9	-26.7	-32.3	-32.3	35.0	-30.3	-36.6	-36.6	37.5
8:12	-23.6	-28.6	-28.6	30.8	-26.8	-32.3	-32.3	32.9	-30.4	-36.6	-36.6	35.4
9:12	-23.7	-28.6	-28.6	29.0	-26.8	-32.4	-32.4	31.1	-30.4	-36.7	-36.7	33.5
10:12	-23.7	-28.7	-28.7	27.4	-26.8	-32.4	-32.4	29.5	-30.4	-36.7	-36.7	31.9
11:12	-23.8	-28.7	-28.7	26.0	-26.9	-32.4	-32.4	28.1	-30.5	-36.8	-36.8	31.1
12:12	-23.8	-28.7	-28.7	25.0	-26.9	-32.5	-32.5	27.8	-30.5	-36.8	-36.8	31.0
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **105 mph**

Ground Snow Load **60 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	52.5	-15.5	-28.9	-45.7	52.5	-19.1	-35.4	-55.8	52.5
2:12	-13.8	-27.3	-42.4	48.2	-13.8	-27.3	-42.4	48.2	-17.1	-33.4	-51.8	48.2
3:12	-13.9	-27.3	-42.4	43.4	-13.9	-27.3	-42.4	43.4	-17.1	-33.4	-51.8	43.4
4:12	-13.9	-27.3	-42.4	38.6	-13.9	-27.3	-42.4	38.6	-17.1	-33.4	-51.8	38.6
5:12	-13.9	-27.4	-42.5	34.0	-13.9	-27.4	-42.5	34.0	-17.2	-33.5	-51.8	34.0
6:12	-14.0	-27.4	-42.5	30.6	-14.0	-27.4	-42.5	30.6	-17.2	-33.5	-51.9	30.7
7:12	-15.7	-19.0	-19.0	31.4	-15.7	-19.0	-19.0	31.4	-19.3	-23.4	-23.4	33.9
8:12	-15.7	-19.1	-19.1	28.7	-15.7	-19.1	-19.1	28.7	-19.3	-23.4	-23.4	31.2
9:12	-15.8	-19.1	-19.1	26.4	-15.8	-19.1	-19.1	26.4	-19.4	-23.4	-23.4	28.8
10:12	-15.8	-19.2	-19.2	24.4	-15.8	-19.2	-19.2	24.4	-19.4	-23.5	-23.5	26.8
11:12	-15.8	-19.2	-19.2	22.6	-15.8	-19.2	-19.2	22.6	-19.4	-23.5	-23.5	25.0
12:12	-15.9	-19.2	-19.2	21.1	-15.9	-19.2	-19.2	21.1	-19.5	-23.6	-23.6	23.6
Exposure Category C												
1:12	-19.1	-35.4	-55.8	52.5	-22.2	-41.0	-64.5	52.5	-25.8	-47.5	-74.6	52.5
2:12	-17.1	-33.4	-51.8	48.2	-19.9	-38.7	-59.9	48.2	-23.1	-44.8	-69.2	48.2
3:12	-17.1	-33.4	-51.8	43.4	-19.9	-38.7	-59.9	43.4	-23.2	-44.8	-69.2	43.7
4:12	-17.1	-33.4	-51.8	38.6	-19.9	-38.7	-59.9	38.7	-23.2	-44.9	-69.3	40.1
5:12	-17.2	-33.5	-51.8	34.0	-20.0	-38.8	-59.9	35.2	-23.2	-44.9	-69.3	36.5
6:12	-17.2	-33.5	-51.9	30.7	-20.0	-38.8	-60.0	31.9	-23.2	-44.9	-69.3	33.3
7:12	-19.3	-23.4	-23.4	33.9	-22.4	-27.1	-27.1	36.0	-26.0	-31.4	-31.4	38.4
8:12	-19.3	-23.4	-23.4	31.2	-22.4	-27.1	-27.1	33.3	-26.0	-31.5	-31.5	35.7
9:12	-19.4	-23.4	-23.4	28.8	-22.5	-27.2	-27.2	30.9	-26.1	-31.5	-31.5	33.4
10:12	-19.4	-23.5	-23.5	26.8	-22.5	-27.2	-27.2	28.9	-26.1	-31.5	-31.5	31.3
11:12	-19.4	-23.5	-23.5	25.0	-22.6	-27.3	-27.3	27.2	-26.2	-31.6	-31.6	29.6
12:12	-19.5	-23.6	-23.6	23.6	-22.6	-27.3	-27.3	25.7	-26.2	-31.6	-31.6	28.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	47.6	-26.5	-48.8	-76.6	47.6	-30.1	-55.3	-86.7	47.6
2:12	-21.0	-40.7	-63.0	43.8	-23.8	-46.0	-71.1	44.2	-27.0	-52.2	-80.4	45.6
3:12	-21.0	-40.8	-63.0	39.8	-23.8	-46.1	-71.1	41.0	-27.0	-52.2	-80.5	42.3
4:12	-21.0	-40.8	-63.0	36.5	-23.8	-46.1	-71.1	37.7	-27.1	-52.2	-80.5	39.1
5:12	-21.1	-40.8	-63.1	33.4	-23.9	-46.1	-71.2	34.5	-27.1	-52.2	-80.5	35.9
6:12	-21.1	-40.9	-63.1	30.4	-23.9	-46.2	-71.2	31.6	-27.1	-52.3	-80.6	32.9
7:12	-23.6	-28.5	-28.5	35.1	-26.7	-32.3	-32.3	37.2	-30.3	-36.6	-36.6	39.6
8:12	-23.6	-28.6	-28.6	32.7	-26.8	-32.3	-32.3	34.8	-30.4	-36.6	-36.6	37.2
9:12	-23.7	-28.6	-28.6	30.5	-26.8	-32.4	-32.4	32.7	-30.4	-36.7	-36.7	35.1
10:12	-23.7	-28.7	-28.7	28.7	-26.8	-32.4	-32.4	30.8	-30.4	-36.7	-36.7	33.2
11:12	-23.8	-28.7	-28.7	27.1	-26.9	-32.4	-32.4	29.2	-30.5	-36.8	-36.8	31.7
12:12	-23.8	-28.7	-28.7	25.8	-26.9	-32.5	-32.5	27.9	-30.5	-36.8	-36.8	31.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
105 mph

Ground Snow Load
70 psf

Up and Down (psf)

Basic Wind Speed
105 mph
Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-15.5	-28.9	-45.7	59.4	-15.5	-28.9	-45.7	59.4	-19.1	-35.4	-55.8	59.4
	2:12	-13.8	-27.3	-42.4	54.5	-13.8	-27.3	-42.4	54.5	-17.1	-33.4	-51.8	54.5
	3:12	-13.9	-27.3	-42.4	49.1	-13.9	-27.3	-42.4	49.1	-17.1	-33.4	-51.8	49.1
	4:12	-13.9	-27.3	-42.4	43.6	-13.9	-27.3	-42.4	43.6	-17.1	-33.4	-51.8	43.6
	5:12	-13.9	-27.4	-42.5	38.3	-13.9	-27.4	-42.5	38.3	-17.2	-33.5	-51.8	38.3
	6:12	-14.0	-27.4	-42.5	33.4	-14.0	-27.4	-42.5	33.4	-17.2	-33.5	-51.9	33.5
	7:12	-15.7	-19.0	-19.0	33.8	-15.7	-19.0	-19.0	33.8	-19.3	-23.4	-23.4	36.2
	8:12	-15.7	-19.1	-19.1	30.8	-15.7	-19.1	-19.1	30.8	-19.3	-23.4	-23.4	33.2
	9:12	-15.8	-19.1	-19.1	28.1	-15.8	-19.1	-19.1	28.1	-19.4	-23.4	-23.4	30.5
	10:12	-15.8	-19.2	-19.2	25.8	-15.8	-19.2	-19.2	25.8	-19.4	-23.5	-23.5	28.2
	11:12	-15.8	-19.2	-19.2	23.8	-15.8	-19.2	-19.2	23.8	-19.4	-23.5	-23.5	26.3
	12:12	-15.9	-19.2	-19.2	22.1	-15.9	-19.2	-19.2	22.1	-19.5	-23.6	-23.6	24.6
Exposure Category C	1:12	-19.1	-35.4	-55.8	59.4	-22.2	-41.0	-64.5	59.4	-25.8	-47.5	-74.6	59.4
	2:12	-17.1	-33.4	-51.8	54.5	-19.9	-38.7	-59.9	54.5	-23.1	-44.8	-69.2	54.5
	3:12	-17.1	-33.4	-51.8	49.1	-19.9	-38.7	-59.9	49.1	-23.2	-44.8	-69.2	49.1
	4:12	-17.1	-33.4	-51.8	43.6	-19.9	-38.7	-59.9	43.6	-23.2	-44.9	-69.3	43.8
	5:12	-17.2	-33.5	-51.8	38.3	-20.0	-38.8	-59.9	38.5	-23.2	-44.9	-69.3	39.8
	6:12	-17.2	-33.5	-51.9	33.5	-20.0	-38.8	-60.0	34.7	-23.2	-44.9	-69.3	36.1
	7:12	-19.3	-23.4	-23.4	36.2	-22.4	-27.1	-27.1	38.4	-26.0	-31.4	-31.4	40.8
	8:12	-19.3	-23.4	-23.4	33.2	-22.4	-27.1	-27.1	35.3	-26.0	-31.5	-31.5	37.7
	9:12	-19.4	-23.4	-23.4	30.5	-22.5	-27.2	-27.2	32.6	-26.1	-31.5	-31.5	35.1
	10:12	-19.4	-23.5	-23.5	28.2	-22.5	-27.2	-27.2	30.3	-26.1	-31.5	-31.5	32.8
	11:12	-19.4	-23.5	-23.5	26.3	-22.6	-27.3	-27.3	28.4	-26.2	-31.6	-31.6	30.8
	12:12	-19.5	-23.6	-23.6	24.6	-22.6	-27.3	-27.3	26.7	-26.2	-31.6	-31.6	29.1
Exposure Category D	1:12	-23.4	-43.2	-67.9	53.9	-26.5	-48.8	-76.6	53.9	-30.1	-55.3	-86.7	53.9
	2:12	-21.0	-40.7	-63.0	49.5	-23.8	-46.0	-71.1	49.5	-27.0	-52.2	-80.4	49.8
	3:12	-21.0	-40.8	-63.0	44.6	-23.8	-46.1	-71.1	44.8	-27.0	-52.2	-80.5	46.1
	4:12	-21.0	-40.8	-63.0	39.9	-23.8	-46.1	-71.1	41.1	-27.1	-52.2	-80.5	42.4
	5:12	-21.1	-40.8	-63.1	36.3	-23.9	-46.1	-71.2	37.5	-27.1	-52.2	-80.5	38.8
	6:12	-21.1	-40.9	-63.1	32.9	-23.9	-46.2	-71.2	34.1	-27.1	-52.3	-80.6	35.4
	7:12	-23.6	-28.5	-28.5	37.2	-26.7	-32.3	-32.3	39.4	-30.3	-36.6	-36.6	41.8
	8:12	-23.6	-28.6	-28.6	34.5	-26.8	-32.3	-32.3	36.6	-30.4	-36.6	-36.6	39.0
	9:12	-23.7	-28.6	-28.6	32.1	-26.8	-32.4	-32.4	34.2	-30.4	-36.7	-36.7	36.6
	10:12	-23.7	-28.7	-28.7	30.0	-26.8	-32.4	-32.4	32.1	-30.4	-36.7	-36.7	34.5
	11:12	-23.8	-28.7	-28.7	28.2	-26.9	-32.4	-32.4	30.3	-30.5	-36.8	-36.8	32.7
	12:12	-23.8	-28.7	-28.7	26.7	-26.9	-32.5	-32.5	28.8	-30.5	-36.8	-36.8	31.2
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
	2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
	3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
	4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
	5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
	6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
	7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
	8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
	9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
	10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
	11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	66.4	-15.5	-28.9	-45.7	66.4	-19.1	-35.4	-55.8	66.4
2:12	-13.8	-27.3	-42.4	60.9	-13.8	-27.3	-42.4	60.9	-17.1	-33.4	-51.8	60.9
3:12	-13.9	-27.3	-42.4	54.8	-13.9	-27.3	-42.4	54.8	-17.1	-33.4	-51.8	54.8
4:12	-13.9	-27.3	-42.4	48.6	-13.9	-27.3	-42.4	48.6	-17.1	-33.4	-51.8	48.6
5:12	-13.9	-27.4	-42.5	42.7	-13.9	-27.4	-42.5	42.7	-17.2	-33.5	-51.8	42.7
6:12	-14.0	-27.4	-42.5	37.1	-14.0	-27.4	-42.5	37.1	-17.2	-33.5	-51.9	37.1
7:12	-15.7	-19.0	-19.0	36.2	-15.7	-19.0	-19.0	36.2	-19.3	-23.4	-23.4	38.6
8:12	-15.7	-19.1	-19.1	32.8	-15.7	-19.1	-19.1	32.8	-19.3	-23.4	-23.4	35.2
9:12	-15.8	-19.1	-19.1	29.8	-15.8	-19.1	-19.1	29.8	-19.4	-23.4	-23.4	32.3
10:12	-15.8	-19.2	-19.2	27.2	-15.8	-19.2	-19.2	27.2	-19.4	-23.5	-23.5	29.7
11:12	-15.8	-19.2	-19.2	25.0	-15.8	-19.2	-19.2	25.0	-19.4	-23.5	-23.5	27.5
12:12	-15.9	-19.2	-19.2	23.1	-15.9	-19.2	-19.2	23.1	-19.5	-23.6	-23.6	25.6
Exposure Category C												
1:12	-19.1	-35.4	-55.8	66.4	-22.2	-41.0	-64.5	66.4	-25.8	-47.5	-74.6	66.4
2:12	-17.1	-33.4	-51.8	60.9	-19.9	-38.7	-59.9	60.9	-23.1	-44.8	-69.2	60.9
3:12	-17.1	-33.4	-51.8	54.8	-19.9	-38.7	-59.9	54.8	-23.2	-44.8	-69.2	54.8
4:12	-17.1	-33.4	-51.8	48.6	-19.9	-38.7	-59.9	48.6	-23.2	-44.9	-69.3	48.6
5:12	-17.2	-33.5	-51.8	42.7	-20.0	-38.8	-59.9	42.7	-23.2	-44.9	-69.3	43.1
6:12	-17.2	-33.5	-51.9	37.1	-20.0	-38.8	-60.0	37.5	-23.2	-44.9	-69.3	38.9
7:12	-19.3	-23.4	-23.4	38.6	-22.4	-27.1	-27.1	40.7	-26.0	-31.4	-31.4	43.2
8:12	-19.3	-23.4	-23.4	35.2	-22.4	-27.1	-27.1	37.3	-26.0	-31.5	-31.5	39.8
9:12	-19.4	-23.4	-23.4	32.3	-22.5	-27.2	-27.2	34.4	-26.1	-31.5	-31.5	36.8
10:12	-19.4	-23.5	-23.5	29.7	-22.5	-27.2	-27.2	31.8	-26.1	-31.5	-31.5	34.2
11:12	-19.4	-23.5	-23.5	27.5	-22.6	-27.3	-27.3	29.6	-26.2	-31.6	-31.6	32.0
12:12	-19.5	-23.6	-23.6	25.6	-22.6	-27.3	-27.3	27.7	-26.2	-31.6	-31.6	30.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	60.1	-26.5	-48.8	-76.6	60.1	-30.1	-55.3	-86.7	60.1
2:12	-21.0	-40.7	-63.0	55.2	-23.8	-46.0	-71.1	55.2	-27.0	-52.2	-80.4	55.2
3:12	-21.0	-40.8	-63.0	49.7	-23.8	-46.1	-71.1	49.7	-27.0	-52.2	-80.5	50.0
4:12	-21.0	-40.8	-63.0	44.1	-23.8	-46.1	-71.1	44.4	-27.1	-52.2	-80.5	45.8
5:12	-21.1	-40.8	-63.1	39.2	-23.9	-46.1	-71.2	40.4	-27.1	-52.2	-80.5	41.7
6:12	-21.1	-40.9	-63.1	35.4	-23.9	-46.2	-71.2	36.6	-27.1	-52.3	-80.6	38.0
7:12	-23.6	-28.5	-28.5	39.4	-26.7	-32.3	-32.3	41.5	-30.3	-36.6	-36.6	43.9
8:12	-23.6	-28.6	-28.6	36.3	-26.8	-32.3	-32.3	38.4	-30.4	-36.6	-36.6	40.9
9:12	-23.7	-28.6	-28.6	33.6	-26.8	-32.4	-32.4	35.7	-30.4	-36.7	-36.7	38.2
10:12	-23.7	-28.7	-28.7	31.3	-26.8	-32.4	-32.4	33.4	-30.4	-36.7	-36.7	35.8
11:12	-23.8	-28.7	-28.7	29.3	-26.9	-32.4	-32.4	31.4	-30.5	-36.8	-36.8	33.8
12:12	-23.8	-28.7	-28.7	27.6	-26.9	-32.5	-32.5	29.7	-30.5	-36.8	-36.8	32.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
105 mph

Ground Snow Load
90 psf

Up and Down (psf)

Basic Wind Speed
105 mph

Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.5	-28.9	-45.7	73.4	-15.5	-28.9	-45.7	73.4	-19.1	-35.4	-55.8	73.4
2:12	-13.8	-27.3	-42.4	67.2	-13.8	-27.3	-42.4	67.2	-17.1	-33.4	-51.8	67.2
3:12	-13.9	-27.3	-42.4	60.5	-13.9	-27.3	-42.4	60.5	-17.1	-33.4	-51.8	60.5
4:12	-13.9	-27.3	-42.4	53.6	-13.9	-27.3	-42.4	53.6	-17.1	-33.4	-51.8	53.6
5:12	-13.9	-27.4	-42.5	47.0	-13.9	-27.4	-42.5	47.0	-17.2	-33.5	-51.8	47.0
6:12	-14.0	-27.4	-42.5	40.9	-14.0	-27.4	-42.5	40.9	-17.2	-33.5	-51.9	40.9
7:12	-15.7	-19.0	-19.0	38.6	-15.7	-19.0	-19.0	38.6	-19.3	-23.4	-23.4	41.0
8:12	-15.7	-19.1	-19.1	34.8	-15.7	-19.1	-19.1	34.8	-19.3	-23.4	-23.4	37.3
9:12	-15.8	-19.1	-19.1	31.5	-15.8	-19.1	-19.1	31.5	-19.4	-23.4	-23.4	34.0
10:12	-15.8	-19.2	-19.2	28.7	-15.8	-19.2	-19.2	28.7	-19.4	-23.5	-23.5	31.1
11:12	-15.8	-19.2	-19.2	26.2	-15.8	-19.2	-19.2	26.2	-19.4	-23.5	-23.5	28.7
12:12	-15.9	-19.2	-19.2	24.2	-15.9	-19.2	-19.2	24.2	-19.5	-23.6	-23.6	26.6
Exposure Category C												
1:12	-19.1	-35.4	-55.8	73.4	-22.2	-41.0	-64.5	73.4	-25.8	-47.5	-74.6	73.4
2:12	-17.1	-33.4	-51.8	67.2	-19.9	-38.7	-59.9	67.2	-23.1	-44.8	-69.2	67.2
3:12	-17.1	-33.4	-51.8	60.5	-19.9	-38.7	-59.9	60.5	-23.2	-44.8	-69.2	60.5
4:12	-17.1	-33.4	-51.8	53.6	-19.9	-38.7	-59.9	53.6	-23.2	-44.9	-69.3	53.6
5:12	-17.2	-33.5	-51.8	47.0	-20.0	-38.8	-59.9	47.0	-23.2	-44.9	-69.3	47.0
6:12	-17.2	-33.5	-51.9	40.9	-20.0	-38.8	-60.0	40.9	-23.2	-44.9	-69.3	41.7
7:12	-19.3	-23.4	-23.4	41.0	-22.4	-27.1	-27.1	43.1	-26.0	-31.4	-31.4	45.6
8:12	-19.3	-23.4	-23.4	37.3	-22.4	-27.1	-27.1	39.4	-26.0	-31.5	-31.5	41.8
9:12	-19.4	-23.4	-23.4	34.0	-22.5	-27.2	-27.2	36.1	-26.1	-31.5	-31.5	38.5
10:12	-19.4	-23.5	-23.5	31.1	-22.5	-27.2	-27.2	33.2	-26.1	-31.5	-31.5	35.6
11:12	-19.4	-23.5	-23.5	28.7	-22.6	-27.3	-27.3	30.8	-26.2	-31.6	-31.6	33.2
12:12	-19.5	-23.6	-23.6	26.6	-22.6	-27.3	-27.3	28.7	-26.2	-31.6	-31.6	31.1
Exposure Category D												
1:12	-23.4	-43.2	-67.9	66.4	-26.5	-48.8	-76.6	66.4	-30.1	-55.3	-86.7	66.4
2:12	-21.0	-40.7	-63.0	60.9	-23.8	-46.0	-71.1	60.9	-27.0	-52.2	-80.4	60.9
3:12	-21.0	-40.8	-63.0	54.8	-23.8	-46.1	-71.1	54.8	-27.0	-52.2	-80.5	54.8
4:12	-21.0	-40.8	-63.0	48.6	-23.8	-46.1	-71.1	48.6	-27.1	-52.2	-80.5	49.2
5:12	-21.1	-40.8	-63.1	42.7	-23.9	-46.1	-71.2	43.3	-27.1	-52.2	-80.5	44.7
6:12	-21.1	-40.9	-63.1	38.0	-23.9	-46.2	-71.2	39.1	-27.1	-52.3	-80.6	40.5
7:12	-23.6	-28.5	-28.5	41.6	-26.7	-32.3	-32.3	43.7	-30.3	-36.6	-36.6	46.1
8:12	-23.6	-28.6	-28.6	38.2	-26.8	-32.3	-32.3	40.3	-30.4	-36.6	-36.6	42.7
9:12	-23.7	-28.6	-28.6	35.2	-26.8	-32.4	-32.4	37.3	-30.4	-36.7	-36.7	39.7
10:12	-23.7	-28.7	-28.7	32.6	-26.8	-32.4	-32.4	34.7	-30.4	-36.7	-36.7	37.1
11:12	-23.8	-28.7	-28.7	30.4	-26.9	-32.4	-32.4	32.5	-30.5	-36.8	-36.8	34.9
12:12	-23.8	-28.7	-28.7	28.5	-26.9	-32.5	-32.5	30.6	-30.5	-36.8	-36.8	33.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

110 mph

Ground Snow Load

0 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-17.2	-31.9	-50.3	13.8	-17.2	-31.9	-50.3	13.8	-21.1	-39.0	-61.4	13.8
2:12	-15.3	-30.1	-46.7	13.8	-15.3	-30.1	-46.7	13.8	-18.9	-36.8	-56.9	15.0
3:12	-15.3	-30.1	-46.7	13.7	-15.3	-30.1	-46.7	13.7	-18.9	-36.8	-56.9	14.9
4:12	-15.4	-30.1	-46.7	13.6	-15.4	-30.1	-46.7	13.6	-18.9	-36.8	-57.0	14.8
5:12	-15.4	-30.1	-46.7	13.6	-15.4	-30.1	-46.7	13.6	-19.0	-36.9	-57.0	14.7
6:12	-15.4	-30.2	-46.8	13.4	-15.4	-30.2	-46.8	13.4	-19.0	-36.9	-57.0	14.6
7:12	-17.3	-21.0	-21.0	19.9	-17.3	-21.0	-21.0	19.9	-21.3	-25.7	-25.7	23.5
8:12	-17.4	-21.0	-21.0	19.8	-17.4	-21.0	-21.0	19.8	-21.3	-25.8	-25.8	23.3
9:12	-17.4	-21.1	-21.1	19.7	-17.4	-21.1	-21.1	19.7	-21.4	-25.8	-25.8	23.2
10:12	-17.4	-21.1	-21.1	19.5	-17.4	-21.1	-21.1	19.5	-21.4	-25.9	-25.9	23.1
11:12	-17.5	-21.2	-21.2	19.4	-17.5	-21.2	-21.2	19.4	-21.4	-25.9	-25.9	23.0
12:12	-17.5	-21.2	-21.2	19.3	-17.5	-21.2	-21.2	19.3	-21.5	-25.9	-25.9	22.9
1:12	-21.1	-39.0	-61.4	13.8	-24.5	-45.2	-71.0	13.8	-28.5	-52.3	-82.0	13.8
2:12	-18.9	-36.8	-56.9	15.0	-22.0	-42.6	-65.8	16.7	-25.5	-49.3	-76.1	18.7
3:12	-18.9	-36.8	-56.9	14.9	-22.0	-42.6	-65.8	16.6	-25.5	-49.3	-76.1	18.6
4:12	-18.9	-36.8	-57.0	14.8	-22.0	-42.6	-65.9	16.6	-25.6	-49.4	-76.1	18.5
5:12	-19.0	-36.9	-57.0	14.7	-22.0	-42.7	-65.9	16.5	-25.6	-49.4	-76.2	18.4
6:12	-19.0	-36.9	-57.0	14.6	-22.1	-42.7	-65.9	16.3	-25.6	-49.4	-76.2	18.3
7:12	-21.3	-25.7	-25.7	23.5	-24.7	-29.9	-29.9	26.5	-28.6	-34.6	-34.6	30.1
8:12	-21.3	-25.8	-25.8	23.3	-24.7	-29.9	-29.9	26.4	-28.7	-34.6	-34.6	30.0
9:12	-21.4	-25.8	-25.8	23.2	-24.8	-29.9	-29.9	26.3	-28.7	-34.7	-34.7	29.9
10:12	-21.4	-25.9	-25.9	23.1	-24.8	-30.0	-30.0	26.2	-28.8	-34.7	-34.7	29.7
11:12	-21.4	-25.9	-25.9	23.0	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
1:12	-25.8	-47.5	-74.7	13.8	-29.3	-53.7	-84.2	13.8	-33.2	-60.8	-95.3	14.2
2:12	-23.1	-44.8	-69.2	17.4	-26.2	-50.7	-78.1	19.1	-29.8	-57.4	-88.4	21.0
3:12	-23.2	-44.9	-69.3	17.3	-26.2	-50.7	-78.2	19.0	-29.8	-57.4	-88.4	21.0
4:12	-23.2	-44.9	-69.3	17.2	-26.3	-50.7	-78.2	18.9	-29.8	-57.4	-88.5	20.9
5:12	-23.2	-44.9	-69.3	17.1	-26.3	-50.7	-78.2	18.8	-29.9	-57.5	-88.5	20.8
6:12	-23.3	-45.0	-69.4	17.0	-26.3	-50.8	-78.3	18.7	-29.9	-57.5	-88.5	20.7
7:12	-26.0	-31.4	-31.4	27.7	-29.4	-35.5	-35.5	30.8	-33.4	-40.3	-40.3	34.4
8:12	-26.1	-31.5	-31.5	27.6	-29.5	-35.6	-35.6	30.7	-33.4	-40.3	-40.3	34.2
9:12	-26.1	-31.5	-31.5	27.5	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
110 mph

Ground Snow Load
5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.2	-31.9	-50.3	15.1	-17.2	-31.9	-50.3	15.1	-21.1	-39.0	-61.4	15.1
2:12	-15.3	-30.1	-46.7	14.7	-15.3	-30.1	-46.7	14.7	-18.9	-36.8	-56.9	15.6
3:12	-15.3	-30.1	-46.7	14.3	-15.3	-30.1	-46.7	14.3	-18.9	-36.8	-56.9	15.2
4:12	-15.4	-30.1	-46.7	13.6	-15.4	-30.1	-46.7	13.6	-18.9	-36.8	-57.0	14.8
5:12	-15.4	-30.1	-46.7	13.6	-15.4	-30.1	-46.7	13.6	-19.0	-36.9	-57.0	14.7
6:12	-15.4	-30.2	-46.8	13.4	-15.4	-30.2	-46.8	13.4	-19.0	-36.9	-57.0	14.6
7:12	-17.3	-21.0	-21.0	19.9	-17.3	-21.0	-21.0	19.9	-21.3	-25.7	-25.7	23.5
8:12	-17.4	-21.0	-21.0	19.8	-17.4	-21.0	-21.0	19.8	-21.3	-25.8	-25.8	23.3
9:12	-17.4	-21.1	-21.1	19.7	-17.4	-21.1	-21.1	19.7	-21.4	-25.8	-25.8	23.2
10:12	-17.4	-21.1	-21.1	19.5	-17.4	-21.1	-21.1	19.5	-21.4	-25.9	-25.9	23.1
11:12	-17.5	-21.2	-21.2	19.4	-17.5	-21.2	-21.2	19.4	-21.4	-25.9	-25.9	23.0
12:12	-17.5	-21.2	-21.2	19.3	-17.5	-21.2	-21.2	19.3	-21.5	-25.9	-25.9	22.9
Exposure Category C												
1:12	-21.1	-39.0	-61.4	15.1	-24.5	-45.2	-71.0	15.1	-28.5	-52.3	-82.0	15.1
2:12	-18.9	-36.8	-56.9	15.6	-22.0	-42.6	-65.8	16.9	-25.5	-49.3	-76.1	18.7
3:12	-18.9	-36.8	-56.9	15.2	-22.0	-42.6	-65.8	16.6	-25.5	-49.3	-76.1	18.6
4:12	-18.9	-36.8	-57.0	14.8	-22.0	-42.6	-65.9	16.6	-25.6	-49.4	-76.1	18.5
5:12	-19.0	-36.9	-57.0	14.7	-22.0	-42.7	-65.9	16.5	-25.6	-49.4	-76.2	18.4
6:12	-19.0	-36.9	-57.0	14.6	-22.1	-42.7	-65.9	16.3	-25.6	-49.4	-76.2	18.3
7:12	-21.3	-25.7	-25.7	23.5	-24.7	-29.9	-29.9	26.5	-28.6	-34.6	-34.6	30.1
8:12	-21.3	-25.8	-25.8	23.3	-24.7	-29.9	-29.9	26.4	-28.7	-34.6	-34.6	30.0
9:12	-21.4	-25.8	-25.8	23.2	-24.8	-29.9	-29.9	26.3	-28.7	-34.7	-34.7	29.9
10:12	-21.4	-25.9	-25.9	23.1	-24.8	-30.0	-30.0	26.2	-28.8	-34.7	-34.7	29.7
11:12	-21.4	-25.9	-25.9	23.0	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
Exposure Category D												
1:12	-25.8	-47.5	-74.7	15.1	-29.3	-53.7	-84.2	15.1	-33.2	-60.8	-95.3	15.3
2:12	-23.1	-44.8	-69.2	17.4	-26.2	-50.7	-78.1	19.1	-29.8	-57.4	-88.4	21.0
3:12	-23.2	-44.9	-69.3	17.3	-26.2	-50.7	-78.2	19.0	-29.8	-57.4	-88.4	21.0
4:12	-23.2	-44.9	-69.3	17.2	-26.3	-50.7	-78.2	18.9	-29.8	-57.4	-88.5	20.9
5:12	-23.2	-44.9	-69.3	17.1	-26.3	-50.7	-78.2	18.8	-29.9	-57.5	-88.5	20.8
6:12	-23.3	-45.0	-69.4	17.0	-26.3	-50.8	-78.3	18.7	-29.9	-57.5	-88.5	20.7
7:12	-26.0	-31.4	-31.4	27.7	-29.4	-35.5	-35.5	30.8	-33.4	-40.3	-40.3	34.4
8:12	-26.1	-31.5	-31.5	27.6	-29.5	-35.6	-35.6	30.7	-33.4	-40.3	-40.3	34.2
9:12	-26.1	-31.5	-31.5	27.5	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-17.2	-31.9	-50.3	18.8	-17.2	-31.9	-50.3	18.8	-21.1	-39.0	-61.4	18.8
	2:12	-15.3	-30.1	-46.7	18.1	-15.3	-30.1	-46.7	18.1	-18.9	-36.8	-56.9	19.0
	3:12	-15.3	-30.1	-46.7	17.3	-15.3	-30.1	-46.7	17.3	-18.9	-36.8	-56.9	18.2
	4:12	-15.4	-30.1	-46.7	14.9	-15.4	-30.1	-46.7	14.9	-18.9	-36.8	-57.0	15.8
	5:12	-15.4	-30.1	-46.7	14.3	-15.4	-30.1	-46.7	14.3	-19.0	-36.9	-57.0	15.2
	6:12	-15.4	-30.2	-46.8	13.7	-15.4	-30.2	-46.8	13.7	-19.0	-36.9	-57.0	14.6
	7:12	-17.3	-21.0	-21.0	19.9	-17.3	-21.0	-21.0	19.9	-21.3	-25.7	-25.7	23.5
	8:12	-17.4	-21.0	-21.0	19.8	-17.4	-21.0	-21.0	19.8	-21.3	-25.8	-25.8	23.3
	9:12	-17.4	-21.1	-21.1	19.7	-17.4	-21.1	-21.1	19.7	-21.4	-25.8	-25.8	23.2
	10:12	-17.4	-21.1	-21.1	19.5	-17.4	-21.1	-21.1	19.5	-21.4	-25.9	-25.9	23.1
	11:12	-17.5	-21.2	-21.2	19.4	-17.5	-21.2	-21.2	19.4	-21.4	-25.9	-25.9	23.0
	12:12	-17.5	-21.2	-21.2	19.3	-17.5	-21.2	-21.2	19.3	-21.5	-25.9	-25.9	22.9
Exposure Category C	1:12	-21.1	-39.0	-61.4	18.8	-24.5	-45.2	-71.0	18.8	-28.5	-52.3	-82.0	18.8
	2:12	-18.9	-36.8	-56.9	19.0	-22.0	-42.6	-65.8	20.3	-25.5	-49.3	-76.1	21.7
	3:12	-18.9	-36.8	-56.9	18.2	-22.0	-42.6	-65.8	19.5	-25.5	-49.3	-76.1	21.0
	4:12	-18.9	-36.8	-57.0	15.8	-22.0	-42.6	-65.9	17.1	-25.6	-49.4	-76.1	18.6
	5:12	-19.0	-36.9	-57.0	15.2	-22.0	-42.7	-65.9	16.5	-25.6	-49.4	-76.2	18.4
	6:12	-19.0	-36.9	-57.0	14.6	-22.1	-42.7	-65.9	16.3	-25.6	-49.4	-76.2	18.3
	7:12	-21.3	-25.7	-25.7	23.5	-24.7	-29.9	-29.9	26.5	-28.6	-34.6	-34.6	30.1
	8:12	-21.3	-25.8	-25.8	23.3	-24.7	-29.9	-29.9	26.4	-28.7	-34.6	-34.6	30.0
	9:12	-21.4	-25.8	-25.8	23.2	-24.8	-29.9	-29.9	26.3	-28.7	-34.7	-34.7	29.9
	10:12	-21.4	-25.9	-25.9	23.1	-24.8	-30.0	-30.0	26.2	-28.8	-34.7	-34.7	29.7
	11:12	-21.4	-25.9	-25.9	23.0	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
	12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
Exposure Category D	1:12	-25.8	-47.5	-74.7	18.8	-29.3	-53.7	-84.2	18.8	-33.2	-60.8	-95.3	19.0
	2:12	-23.1	-44.8	-69.2	20.8	-26.2	-50.7	-78.1	22.0	-29.8	-57.4	-88.4	23.5
	3:12	-23.2	-44.9	-69.3	20.0	-26.2	-50.7	-78.2	21.3	-29.8	-57.4	-88.4	22.7
	4:12	-23.2	-44.9	-69.3	17.2	-26.3	-50.7	-78.2	18.9	-29.8	-57.4	-88.5	20.9
	5:12	-23.2	-44.9	-69.3	17.1	-26.3	-50.7	-78.2	18.8	-29.9	-57.5	-88.5	20.8
	6:12	-23.3	-45.0	-69.4	17.0	-26.3	-50.8	-78.3	18.7	-29.9	-57.5	-88.5	20.7
	7:12	-26.0	-31.4	-31.4	27.7	-29.4	-35.5	-35.5	30.8	-33.4	-40.3	-40.3	34.4
	8:12	-26.1	-31.5	-31.5	27.6	-29.5	-35.6	-35.6	30.7	-33.4	-40.3	-40.3	34.2
	9:12	-26.1	-31.5	-31.5	27.5	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
	10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
	11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
	12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
	2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
	3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
	4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
	5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
	6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
	7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
	8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
	9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
	10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
	11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **10 psf**

Up and Down (psf)

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-17.2	-31.9	-50.3	22.5	-17.2	-31.9	-50.3	22.5	-21.1	-39.0	-61.4	22.5
	2:12	-15.3	-30.1	-46.7	21.5	-15.3	-30.1	-46.7	21.5	-18.9	-36.8	-56.9	22.4
	3:12	-15.3	-30.1	-46.7	20.3	-15.3	-30.1	-46.7	20.3	-18.9	-36.8	-56.9	21.2
	4:12	-15.4	-30.1	-46.7	16.8	-15.4	-30.1	-46.7	16.8	-18.9	-36.8	-57.0	17.7
	5:12	-15.4	-30.1	-46.7	15.9	-15.4	-30.1	-46.7	15.9	-19.0	-36.9	-57.0	16.8
	6:12	-15.4	-30.2	-46.8	15.2	-15.4	-30.2	-46.8	15.2	-19.0	-36.9	-57.0	16.0
	7:12	-17.3	-21.0	-21.0	19.9	-17.3	-21.0	-21.0	19.9	-21.3	-25.7	-25.7	23.5
	8:12	-17.4	-21.0	-21.0	19.8	-17.4	-21.0	-21.0	19.8	-21.3	-25.8	-25.8	23.3
	9:12	-17.4	-21.1	-21.1	19.7	-17.4	-21.1	-21.1	19.7	-21.4	-25.8	-25.8	23.2
	10:12	-17.4	-21.1	-21.1	19.5	-17.4	-21.1	-21.1	19.5	-21.4	-25.9	-25.9	23.1
	11:12	-17.5	-21.2	-21.2	19.4	-17.5	-21.2	-21.2	19.4	-21.4	-25.9	-25.9	23.0
	12:12	-17.5	-21.2	-21.2	19.3	-17.5	-21.2	-21.2	19.3	-21.5	-25.9	-25.9	22.9
Exposure Category C	1:12	-21.1	-39.0	-61.4	22.5	-24.5	-45.2	-71.0	22.5	-28.5	-52.3	-82.0	22.5
	2:12	-18.9	-36.8	-56.9	22.4	-22.0	-42.6	-65.8	23.7	-25.5	-49.3	-76.1	25.1
	3:12	-18.9	-36.8	-56.9	21.2	-22.0	-42.6	-65.8	22.5	-25.5	-49.3	-76.1	24.0
	4:12	-18.9	-36.8	-57.0	17.7	-22.0	-42.6	-65.9	18.9	-25.6	-49.4	-76.1	20.4
	5:12	-19.0	-36.9	-57.0	16.8	-22.0	-42.7	-65.9	18.1	-25.6	-49.4	-76.2	19.6
	6:12	-19.0	-36.9	-57.0	16.0	-22.1	-42.7	-65.9	17.3	-25.6	-49.4	-76.2	18.8
	7:12	-21.3	-25.7	-25.7	23.5	-24.7	-29.9	-29.9	26.5	-28.6	-34.6	-34.6	30.1
	8:12	-21.3	-25.8	-25.8	23.3	-24.7	-29.9	-29.9	26.4	-28.7	-34.6	-34.6	30.0
	9:12	-21.4	-25.8	-25.8	23.2	-24.8	-29.9	-29.9	26.3	-28.7	-34.7	-34.7	29.9
	10:12	-21.4	-25.9	-25.9	23.1	-24.8	-30.0	-30.0	26.2	-28.8	-34.7	-34.7	29.7
	11:12	-21.4	-25.9	-25.9	23.0	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
	12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
Exposure Category D	1:12	-25.8	-47.5	-74.7	22.5	-29.3	-53.7	-84.2	22.5	-33.2	-60.8	-95.3	22.8
	2:12	-23.1	-44.8	-69.2	24.2	-26.2	-50.7	-78.1	25.4	-29.8	-57.4	-88.4	26.9
	3:12	-23.2	-44.9	-69.3	23.0	-26.2	-50.7	-78.2	24.3	-29.8	-57.4	-88.4	25.8
	4:12	-23.2	-44.9	-69.3	18.9	-26.3	-50.7	-78.2	20.2	-29.8	-57.4	-88.5	21.6
	5:12	-23.2	-44.9	-69.3	18.1	-26.3	-50.7	-78.2	19.4	-29.9	-57.5	-88.5	20.9
	6:12	-23.3	-45.0	-69.4	17.4	-26.3	-50.8	-78.3	18.7	-29.9	-57.5	-88.5	20.7
	7:12	-26.0	-31.4	-31.4	27.7	-29.4	-35.5	-35.5	30.8	-33.4	-40.3	-40.3	34.4
	8:12	-26.1	-31.5	-31.5	27.6	-29.5	-35.6	-35.6	30.7	-33.4	-40.3	-40.3	34.2
	9:12	-26.1	-31.5	-31.5	27.5	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
	10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
	11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
	12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
	2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
	4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
	5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
	6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
	7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
	8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
	9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **15 psf**

Up and Down (psf)

Side Load (psf)

Table W110-S15

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-17.2	-31.9	-50.3	26.2	-17.2	-31.9	-50.3	26.2	-21.1	-39.0	-61.4	26.2
2:12	-15.3	-30.1	-46.7	24.9	-15.3	-30.1	-46.7	24.9	-18.9	-36.8	-56.9	25.8
3:12	-15.3	-30.1	-46.7	23.4	-15.3	-30.1	-46.7	23.4	-18.9	-36.8	-56.9	24.3
4:12	-15.4	-30.1	-46.7	18.6	-15.4	-30.1	-46.7	18.6	-18.9	-36.8	-57.0	19.5
5:12	-15.4	-30.1	-46.7	17.6	-15.4	-30.1	-46.7	17.6	-19.0	-36.9	-57.0	18.5
6:12	-15.4	-30.2	-46.8	16.6	-15.4	-30.2	-46.8	16.6	-19.0	-36.9	-57.0	17.4
7:12	-17.3	-21.0	-21.0	20.6	-17.3	-21.0	-21.0	20.6	-21.3	-25.7	-25.7	23.5
8:12	-17.4	-21.0	-21.0	19.8	-17.4	-21.0	-21.0	19.8	-21.3	-25.8	-25.8	23.3
9:12	-17.4	-21.1	-21.1	19.7	-17.4	-21.1	-21.1	19.7	-21.4	-25.8	-25.8	23.2
10:12	-17.4	-21.1	-21.1	19.5	-17.4	-21.1	-21.1	19.5	-21.4	-25.9	-25.9	23.1
11:12	-17.5	-21.2	-21.2	19.4	-17.5	-21.2	-21.2	19.4	-21.4	-25.9	-25.9	23.0
12:12	-17.5	-21.2	-21.2	19.3	-17.5	-21.2	-21.2	19.3	-21.5	-25.9	-25.9	22.9
1:12	-21.1	-39.0	-61.4	26.2	-24.5	-45.2	-71.0	26.2	-28.5	-52.3	-82.0	26.2
2:12	-18.9	-36.8	-56.9	25.8	-22.0	-42.6	-65.8	27.1	-25.5	-49.3	-76.1	28.5
3:12	-18.9	-36.8	-56.9	24.3	-22.0	-42.6	-65.8	25.6	-25.5	-49.3	-76.1	27.0
4:12	-18.9	-36.8	-57.0	19.5	-22.0	-42.6	-65.9	20.8	-25.6	-49.4	-76.1	22.3
5:12	-19.0	-36.9	-57.0	18.5	-22.0	-42.7	-65.9	19.7	-25.6	-49.4	-76.2	21.2
6:12	-19.0	-36.9	-57.0	17.4	-22.1	-42.7	-65.9	18.7	-25.6	-49.4	-76.2	20.2
7:12	-21.3	-25.7	-25.7	23.5	-24.7	-29.9	-29.9	26.5	-28.6	-34.6	-34.6	30.1
8:12	-21.3	-25.8	-25.8	23.3	-24.7	-29.9	-29.9	26.4	-28.7	-34.6	-34.6	30.0
9:12	-21.4	-25.8	-25.8	23.2	-24.8	-29.9	-29.9	26.3	-28.7	-34.7	-34.7	29.9
10:12	-21.4	-25.9	-25.9	23.1	-24.8	-30.0	-30.0	26.2	-28.8	-34.7	-34.7	29.7
11:12	-21.4	-25.9	-25.9	23.0	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
1:12	-25.8	-47.5	-74.7	26.2	-29.3	-53.7	-84.2	26.2	-33.2	-60.8	-95.3	26.5
2:12	-23.1	-44.8	-69.2	27.6	-26.2	-50.7	-78.1	28.8	-29.8	-57.4	-88.4	30.3
3:12	-23.2	-44.9	-69.3	26.1	-26.2	-50.7	-78.2	27.3	-29.8	-57.4	-88.4	28.8
4:12	-23.2	-44.9	-69.3	20.6	-26.3	-50.7	-78.2	21.9	-29.8	-57.4	-88.5	23.3
5:12	-23.2	-44.9	-69.3	19.6	-26.3	-50.7	-78.2	20.9	-29.9	-57.5	-88.5	22.4
6:12	-23.3	-45.0	-69.4	18.7	-26.3	-50.8	-78.3	19.9	-29.9	-57.5	-88.5	21.4
7:12	-26.0	-31.4	-31.4	27.7	-29.4	-35.5	-35.5	30.8	-33.4	-40.3	-40.3	34.4
8:12	-26.1	-31.5	-31.5	27.6	-29.5	-35.6	-35.6	30.7	-33.4	-40.3	-40.3	34.2
9:12	-26.1	-31.5	-31.5	27.5	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**
Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-17.2	-31.9	-50.3	26.2	-17.2	-31.9	-50.3	26.2	-21.1	-39.0	-61.4	26.2
	2:12	-15.3	-30.1	-46.7	24.9	-15.3	-30.1	-46.7	24.9	-18.9	-36.8	-56.9	25.8
	3:12	-15.3	-30.1	-46.7	23.4	-15.3	-30.1	-46.7	23.4	-18.9	-36.8	-56.9	24.3
	4:12	-15.4	-30.1	-46.7	20.5	-15.4	-30.1	-46.7	20.5	-18.9	-36.8	-57.0	21.4
	5:12	-15.4	-30.1	-46.7	19.2	-15.4	-30.1	-46.7	19.2	-19.0	-36.9	-57.0	20.1
	6:12	-15.4	-30.2	-46.8	18.0	-15.4	-30.2	-46.8	18.0	-19.0	-36.9	-57.0	18.9
	7:12	-17.3	-21.0	-21.0	21.8	-17.3	-21.0	-21.0	21.8	-21.3	-25.7	-25.7	24.4
	8:12	-17.4	-21.0	-21.0	20.7	-17.4	-21.0	-21.0	20.7	-21.3	-25.8	-25.8	23.4
	9:12	-17.4	-21.1	-21.1	19.8	-17.4	-21.1	-21.1	19.8	-21.4	-25.8	-25.8	23.2
	10:12	-17.4	-21.1	-21.1	19.5	-17.4	-21.1	-21.1	19.5	-21.4	-25.9	-25.9	23.1
	11:12	-17.5	-21.2	-21.2	19.4	-17.5	-21.2	-21.2	19.4	-21.4	-25.9	-25.9	23.0
	12:12	-17.5	-21.2	-21.2	19.3	-17.5	-21.2	-21.2	19.3	-21.5	-25.9	-25.9	22.9
Exposure Category C	1:12	-21.1	-39.0	-61.4	26.2	-24.5	-45.2	-71.0	26.2	-28.5	-52.3	-82.0	26.2
	2:12	-18.9	-36.8	-56.9	25.8	-22.0	-42.6	-65.8	27.1	-25.5	-49.3	-76.1	28.5
	3:12	-18.9	-36.8	-56.9	24.3	-22.0	-42.6	-65.8	25.6	-25.5	-49.3	-76.1	27.0
	4:12	-18.9	-36.8	-57.0	21.4	-22.0	-42.6	-65.9	22.7	-25.6	-49.4	-76.1	24.2
	5:12	-19.0	-36.9	-57.0	20.1	-22.0	-42.7	-65.9	21.4	-25.6	-49.4	-76.2	22.9
	6:12	-19.0	-36.9	-57.0	18.9	-22.1	-42.7	-65.9	20.1	-25.6	-49.4	-76.2	21.6
	7:12	-21.3	-25.7	-25.7	24.4	-24.7	-29.9	-29.9	26.7	-28.6	-34.6	-34.6	30.1
	8:12	-21.3	-25.8	-25.8	23.4	-24.7	-29.9	-29.9	26.4	-28.7	-34.6	-34.6	30.0
	9:12	-21.4	-25.8	-25.8	23.2	-24.8	-29.9	-29.9	26.3	-28.7	-34.7	-34.7	29.9
	10:12	-21.4	-25.9	-25.9	23.1	-24.8	-30.0	-30.0	26.2	-28.8	-34.7	-34.7	29.7
	11:12	-21.4	-25.9	-25.9	23.0	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
	12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
Exposure Category D	1:12	-25.8	-47.5	-74.7	26.2	-29.3	-53.7	-84.2	26.2	-33.2	-60.8	-95.3	26.5
	2:12	-23.1	-44.8	-69.2	27.6	-26.2	-50.7	-78.1	28.8	-29.8	-57.4	-88.4	30.3
	3:12	-23.2	-44.9	-69.3	26.1	-26.2	-50.7	-78.2	27.3	-29.8	-57.4	-88.4	28.8
	4:12	-23.2	-44.9	-69.3	22.3	-26.3	-50.7	-78.2	23.5	-29.8	-57.4	-88.5	25.0
	5:12	-23.2	-44.9	-69.3	21.1	-26.3	-50.7	-78.2	22.3	-29.9	-57.5	-88.5	23.8
	6:12	-23.3	-45.0	-69.4	19.9	-26.3	-50.8	-78.3	21.2	-29.9	-57.5	-88.5	22.7
	7:12	-26.0	-31.4	-31.4	27.7	-29.4	-35.5	-35.5	30.8	-33.4	-40.3	-40.3	34.4
	8:12	-26.1	-31.5	-31.5	27.6	-29.5	-35.6	-35.6	30.7	-33.4	-40.3	-40.3	34.2
	9:12	-26.1	-31.5	-31.5	27.5	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
	10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
	11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
	12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
	5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
	6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
	7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
	8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
	9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
	10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
	11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Table W110-S25

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.2	-31.9	-50.3	27.0	-17.2	-31.9	-50.3	27.0	-21.1	-39.0	-61.4	27.0
2:12	-15.3	-30.1	-46.7	25.6	-15.3	-30.1	-46.7	25.6	-18.9	-36.8	-56.9	26.5
3:12	-15.3	-30.1	-46.7	24.0	-15.3	-30.1	-46.7	24.0	-18.9	-36.8	-56.9	24.9
4:12	-15.4	-30.1	-46.7	22.4	-15.4	-30.1	-46.7	22.4	-18.9	-36.8	-57.0	23.3
5:12	-15.4	-30.1	-46.7	20.8	-15.4	-30.1	-46.7	20.8	-19.0	-36.9	-57.0	21.7
6:12	-15.4	-30.2	-46.8	19.4	-15.4	-30.2	-46.8	19.4	-19.0	-36.9	-57.0	20.3
7:12	-17.3	-21.0	-21.0	22.9	-17.3	-21.0	-21.0	22.9	-21.3	-25.7	-25.7	25.6
8:12	-17.4	-21.0	-21.0	21.7	-17.4	-21.0	-21.0	21.7	-21.3	-25.8	-25.8	24.4
9:12	-17.4	-21.1	-21.1	20.7	-17.4	-21.1	-21.1	20.7	-21.4	-25.8	-25.8	23.3
10:12	-17.4	-21.1	-21.1	19.7	-17.4	-21.1	-21.1	19.7	-21.4	-25.9	-25.9	23.1
11:12	-17.5	-21.2	-21.2	19.4	-17.5	-21.2	-21.2	19.4	-21.4	-25.9	-25.9	23.0
12:12	-17.5	-21.2	-21.2	19.3	-17.5	-21.2	-21.2	19.3	-21.5	-25.9	-25.9	22.9
Exposure Category C												
1:12	-21.1	-39.0	-61.4	27.0	-24.5	-45.2	-71.0	27.0	-28.5	-52.3	-82.0	27.0
2:12	-18.9	-36.8	-56.9	26.5	-22.0	-42.6	-65.8	27.7	-25.5	-49.3	-76.1	29.2
3:12	-18.9	-36.8	-56.9	24.9	-22.0	-42.6	-65.8	26.2	-25.5	-49.3	-76.1	27.7
4:12	-18.9	-36.8	-57.0	23.3	-22.0	-42.6	-65.9	24.6	-25.6	-49.4	-76.1	26.1
5:12	-19.0	-36.9	-57.0	21.7	-22.0	-42.7	-65.9	23.0	-25.6	-49.4	-76.2	24.5
6:12	-19.0	-36.9	-57.0	20.3	-22.1	-42.7	-65.9	21.5	-25.6	-49.4	-76.2	23.0
7:12	-21.3	-25.7	-25.7	25.6	-24.7	-29.9	-29.9	27.9	-28.6	-34.6	-34.6	30.6
8:12	-21.3	-25.8	-25.8	24.4	-24.7	-29.9	-29.9	26.7	-28.7	-34.6	-34.6	30.0
9:12	-21.4	-25.8	-25.8	23.3	-24.8	-29.9	-29.9	26.3	-28.7	-34.7	-34.7	29.9
10:12	-21.4	-25.9	-25.9	23.1	-24.8	-30.0	-30.0	26.2	-28.8	-34.7	-34.7	29.7
11:12	-21.4	-25.9	-25.9	23.0	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
Exposure Category D												
1:12	-25.8	-47.5	-74.7	26.2	-29.3	-53.7	-84.2	26.2	-33.2	-60.8	-95.3	26.5
2:12	-23.1	-44.8	-69.2	27.6	-26.2	-50.7	-78.1	28.8	-29.8	-57.4	-88.4	30.3
3:12	-23.2	-44.9	-69.3	26.1	-26.2	-50.7	-78.2	27.3	-29.8	-57.4	-88.4	28.8
4:12	-23.2	-44.9	-69.3	23.9	-26.3	-50.7	-78.2	25.2	-29.8	-57.4	-88.5	26.7
5:12	-23.2	-44.9	-69.3	22.5	-26.3	-50.7	-78.2	23.8	-29.9	-57.5	-88.5	25.3
6:12	-23.3	-45.0	-69.4	21.2	-26.3	-50.8	-78.3	22.5	-29.9	-57.5	-88.5	24.0
7:12	-26.0	-31.4	-31.4	28.1	-29.4	-35.5	-35.5	30.8	-33.4	-40.3	-40.3	34.4
8:12	-26.1	-31.5	-31.5	27.6	-29.5	-35.6	-35.6	30.7	-33.4	-40.3	-40.3	34.2
9:12	-26.1	-31.5	-31.5	27.5	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

110 mph

Ground Snow Load

30 psf

Up and Down (psf)

Basic Wind Speed **110 mph**
Ground Snow Load **35 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.2	-31.9	-50.3	29.6	-17.2	-31.9	-50.3	29.6	-21.1	-39.0	-61.4	29.6
2:12	-15.3	-30.1	-46.7	27.9	-15.3	-30.1	-46.7	27.9	-18.9	-36.8	-56.9	28.8
3:12	-15.3	-30.1	-46.7	26.1	-15.3	-30.1	-46.7	26.1	-18.9	-36.8	-56.9	27.0
4:12	-15.4	-30.1	-46.7	24.3	-15.4	-30.1	-46.7	24.3	-18.9	-36.8	-57.0	25.2
5:12	-15.4	-30.1	-46.7	22.5	-15.4	-30.1	-46.7	22.5	-19.0	-36.9	-57.0	23.4
6:12	-15.4	-30.2	-46.8	20.8	-15.4	-30.2	-46.8	20.8	-19.0	-36.9	-57.0	21.7
7:12	-17.3	-21.0	-21.0	24.1	-17.3	-21.0	-21.0	24.1	-21.3	-25.7	-25.7	26.8
8:12	-17.4	-21.0	-21.0	22.7	-17.4	-21.0	-21.0	22.7	-21.3	-25.8	-25.8	25.4
9:12	-17.4	-21.1	-21.1	21.5	-17.4	-21.1	-21.1	21.5	-21.4	-25.8	-25.8	24.2
10:12	-17.4	-21.1	-21.1	20.4	-17.4	-21.1	-21.1	20.4	-21.4	-25.9	-25.9	23.1
11:12	-17.5	-21.2	-21.2	19.5	-17.5	-21.2	-21.2	19.5	-21.4	-25.9	-25.9	23.0
12:12	-17.5	-21.2	-21.2	19.3	-17.5	-21.2	-21.2	19.3	-21.5	-25.9	-25.9	22.9
Exposure Category C												
1:12	-21.1	-39.0	-61.4	29.6	-24.5	-45.2	-71.0	29.6	-28.5	-52.3	-82.0	29.6
2:12	-18.9	-36.8	-56.9	28.8	-22.0	-42.6	-65.8	30.1	-25.5	-49.3	-76.1	31.6
3:12	-18.9	-36.8	-56.9	27.0	-22.0	-42.6	-65.8	28.3	-25.5	-49.3	-76.1	29.8
4:12	-18.9	-36.8	-57.0	25.2	-22.0	-42.6	-65.9	26.4	-25.6	-49.4	-76.1	27.9
5:12	-19.0	-36.9	-57.0	23.4	-22.0	-42.7	-65.9	24.6	-25.6	-49.4	-76.2	26.1
6:12	-19.0	-36.9	-57.0	21.7	-22.1	-42.7	-65.9	22.9	-25.6	-49.4	-76.2	24.4
7:12	-21.3	-25.7	-25.7	26.8	-24.7	-29.9	-29.9	29.1	-28.6	-34.6	-34.6	31.8
8:12	-21.3	-25.8	-25.8	25.4	-24.7	-29.9	-29.9	27.7	-28.7	-34.6	-34.6	30.4
9:12	-21.4	-25.8	-25.8	24.2	-24.8	-29.9	-29.9	26.5	-28.7	-34.7	-34.7	29.9
10:12	-21.4	-25.9	-25.9	23.1	-24.8	-30.0	-30.0	26.2	-28.8	-34.7	-34.7	29.7
11:12	-21.4	-25.9	-25.9	23.0	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
Exposure Category D												
1:12	-25.8	-47.5	-74.7	27.8	-29.3	-53.7	-84.2	27.8	-33.2	-60.8	-95.3	28.0
2:12	-23.1	-44.8	-69.2	29.0	-26.2	-50.7	-78.1	30.2	-29.8	-57.4	-88.4	31.7
3:12	-23.2	-44.9	-69.3	27.3	-26.2	-50.7	-78.2	28.6	-29.8	-57.4	-88.4	30.1
4:12	-23.2	-44.9	-69.3	25.6	-26.3	-50.7	-78.2	26.9	-29.8	-57.4	-88.5	28.4
5:12	-23.2	-44.9	-69.3	24.0	-26.3	-50.7	-78.2	25.3	-29.9	-57.5	-88.5	26.8
6:12	-23.3	-45.0	-69.4	22.5	-26.3	-50.8	-78.3	23.7	-29.9	-57.5	-88.5	25.2
7:12	-26.0	-31.4	-31.4	29.2	-29.4	-35.5	-35.5	31.5	-33.4	-40.3	-40.3	34.4
8:12	-26.1	-31.5	-31.5	27.9	-29.5	-35.6	-35.6	30.7	-33.4	-40.3	-40.3	34.2
9:12	-26.1	-31.5	-31.5	27.5	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
110 mph
Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-17.2	-31.9	-50.3	32.2	-17.2	-31.9	-50.3	32.2	-21.1	-39.0	-61.4	32.2
2:12	-15.3	-30.1	-46.7	30.3	-15.3	-30.1	-46.7	30.3	-18.9	-36.8	-56.9	31.2
3:12	-15.3	-30.1	-46.7	28.2	-15.3	-30.1	-46.7	28.2	-18.9	-36.8	-56.9	29.1
4:12	-15.4	-30.1	-46.7	26.1	-15.4	-30.1	-46.7	26.1	-18.9	-36.8	-57.0	27.0
5:12	-15.4	-30.1	-46.7	24.1	-15.4	-30.1	-46.7	24.1	-19.0	-36.9	-57.0	25.0
6:12	-15.4	-30.2	-46.8	22.2	-15.4	-30.2	-46.8	22.2	-19.0	-36.9	-57.0	23.1
7:12	-17.3	-21.0	-21.0	25.3	-17.3	-21.0	-21.0	25.3	-21.3	-25.7	-25.7	28.0
8:12	-17.4	-21.0	-21.0	23.8	-17.4	-21.0	-21.0	23.8	-21.3	-25.8	-25.8	26.4
9:12	-17.4	-21.1	-21.1	22.4	-17.4	-21.1	-21.1	22.4	-21.4	-25.8	-25.8	25.0
10:12	-17.4	-21.1	-21.1	21.2	-17.4	-21.1	-21.1	21.2	-21.4	-25.9	-25.9	23.8
11:12	-17.5	-21.2	-21.2	20.1	-17.5	-21.2	-21.2	20.1	-21.4	-25.9	-25.9	23.0
12:12	-17.5	-21.2	-21.2	19.3	-17.5	-21.2	-21.2	19.3	-21.5	-25.9	-25.9	22.9
1:12	-21.1	-39.0	-61.4	32.2	-24.5	-45.2	-71.0	32.2	-28.5	-52.3	-82.0	32.2
2:12	-18.9	-36.8	-56.9	31.2	-22.0	-42.6	-65.8	32.5	-25.5	-49.3	-76.1	34.0
3:12	-18.9	-36.8	-56.9	29.1	-22.0	-42.6	-65.8	30.4	-25.5	-49.3	-76.1	31.9
4:12	-18.9	-36.8	-57.0	27.0	-22.0	-42.6	-65.9	28.3	-25.6	-49.4	-76.1	29.8
5:12	-19.0	-36.9	-57.0	25.0	-22.0	-42.7	-65.9	26.3	-25.6	-49.4	-76.2	27.8
6:12	-19.0	-36.9	-57.0	23.1	-22.1	-42.7	-65.9	24.3	-25.6	-49.4	-76.2	25.8
7:12	-21.3	-25.7	-25.7	28.0	-24.7	-29.9	-29.9	30.3	-28.6	-34.6	-34.6	33.0
8:12	-21.3	-25.8	-25.8	26.4	-24.7	-29.9	-29.9	28.7	-28.7	-34.6	-34.6	31.4
9:12	-21.4	-25.8	-25.8	25.0	-24.8	-29.9	-29.9	27.3	-28.7	-34.7	-34.7	30.0
10:12	-21.4	-25.9	-25.9	23.8	-24.8	-30.0	-30.0	26.2	-28.8	-34.7	-34.7	29.7
11:12	-21.4	-25.9	-25.9	23.0	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
1:12	-25.8	-47.5	-74.7	30.1	-29.3	-53.7	-84.2	30.1	-33.2	-60.8	-95.3	30.4
2:12	-23.1	-44.8	-69.2	31.1	-26.2	-50.7	-78.1	32.4	-29.8	-57.4	-88.4	33.9
3:12	-23.2	-44.9	-69.3	29.2	-26.2	-50.7	-78.2	30.5	-29.8	-57.4	-88.4	32.0
4:12	-23.2	-44.9	-69.3	27.3	-26.3	-50.7	-78.2	28.6	-29.8	-57.4	-88.5	30.1
5:12	-23.2	-44.9	-69.3	25.5	-26.3	-50.7	-78.2	26.7	-29.9	-57.5	-88.5	28.2
6:12	-23.3	-45.0	-69.4	23.7	-26.3	-50.8	-78.3	25.0	-29.9	-57.5	-88.5	26.5
7:12	-26.0	-31.4	-31.4	30.3	-29.4	-35.5	-35.5	32.6	-33.4	-40.3	-40.3	35.2
8:12	-26.1	-31.5	-31.5	28.8	-29.5	-35.6	-35.6	31.1	-33.4	-40.3	-40.3	34.2
9:12	-26.1	-31.5	-31.5	27.5	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.2	-31.9	-50.3	35.1	-17.2	-31.9	-50.3	35.1	-21.1	-39.0	-61.4	35.1
2:12	-15.3	-30.1	-46.7	32.7	-15.3	-30.1	-46.7	32.7	-18.9	-36.8	-56.9	33.6
3:12	-15.3	-30.1	-46.7	30.4	-15.3	-30.1	-46.7	30.4	-18.9	-36.8	-56.9	31.3
4:12	-15.4	-30.1	-46.7	28.0	-15.4	-30.1	-46.7	28.0	-18.9	-36.8	-57.0	28.9
5:12	-15.4	-30.1	-46.7	25.7	-15.4	-30.1	-46.7	25.7	-19.0	-36.9	-57.0	26.6
6:12	-15.4	-30.2	-46.8	23.6	-15.4	-30.2	-46.8	23.6	-19.0	-36.9	-57.0	24.5
7:12	-17.3	-21.0	-21.0	26.5	-17.3	-21.0	-21.0	26.5	-21.3	-25.7	-25.7	29.2
8:12	-17.4	-21.0	-21.0	24.8	-17.4	-21.0	-21.0	24.8	-21.3	-25.8	-25.8	27.4
9:12	-17.4	-21.1	-21.1	23.2	-17.4	-21.1	-21.1	23.2	-21.4	-25.8	-25.8	25.9
10:12	-17.4	-21.1	-21.1	21.9	-17.4	-21.1	-21.1	21.9	-21.4	-25.9	-25.9	24.5
11:12	-17.5	-21.2	-21.2	20.7	-17.5	-21.2	-21.2	20.7	-21.4	-25.9	-25.9	23.4
12:12	-17.5	-21.2	-21.2	19.7	-17.5	-21.2	-21.2	19.7	-21.5	-25.9	-25.9	22.9
Exposure Category C												
1:12	-21.1	-39.0	-61.4	35.1	-24.5	-45.2	-71.0	35.1	-28.5	-52.3	-82.0	35.1
2:12	-18.9	-36.8	-56.9	33.6	-22.0	-42.6	-65.8	34.9	-25.5	-49.3	-76.1	36.4
3:12	-18.9	-36.8	-56.9	31.3	-22.0	-42.6	-65.8	32.6	-25.5	-49.3	-76.1	34.0
4:12	-18.9	-36.8	-57.0	28.9	-22.0	-42.6	-65.9	30.2	-25.6	-49.4	-76.1	31.7
5:12	-19.0	-36.9	-57.0	26.6	-22.0	-42.7	-65.9	27.9	-25.6	-49.4	-76.2	29.4
6:12	-19.0	-36.9	-57.0	24.5	-22.1	-42.7	-65.9	25.7	-25.6	-49.4	-76.2	27.2
7:12	-21.3	-25.7	-25.7	29.2	-24.7	-29.9	-29.9	31.5	-28.6	-34.6	-34.6	34.2
8:12	-21.3	-25.8	-25.8	27.4	-24.7	-29.9	-29.9	29.8	-28.7	-34.6	-34.6	32.4
9:12	-21.4	-25.8	-25.8	25.9	-24.8	-29.9	-29.9	28.2	-28.7	-34.7	-34.7	30.9
10:12	-21.4	-25.9	-25.9	24.5	-24.8	-30.0	-30.0	26.8	-28.8	-34.7	-34.7	29.7
11:12	-21.4	-25.9	-25.9	23.4	-24.9	-30.0	-30.0	26.1	-28.8	-34.8	-34.8	29.6
12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
Exposure Category D												
1:12	-25.8	-47.5	-74.7	32.5	-29.3	-53.7	-84.2	32.5	-33.2	-60.8	-95.3	32.7
2:12	-23.1	-44.8	-69.2	33.2	-26.2	-50.7	-78.1	34.5	-29.8	-57.4	-88.4	36.0
3:12	-23.2	-44.9	-69.3	31.1	-26.2	-50.7	-78.2	32.4	-29.8	-57.4	-88.4	33.9
4:12	-23.2	-44.9	-69.3	29.0	-26.3	-50.7	-78.2	30.3	-29.8	-57.4	-88.5	31.8
5:12	-23.2	-44.9	-69.3	26.9	-26.3	-50.7	-78.2	28.2	-29.9	-57.5	-88.5	29.7
6:12	-23.3	-45.0	-69.4	25.0	-26.3	-50.8	-78.3	26.3	-29.9	-57.5	-88.5	27.7
7:12	-26.0	-31.4	-31.4	31.3	-29.4	-35.5	-35.5	33.6	-33.4	-40.3	-40.3	36.3
8:12	-26.1	-31.5	-31.5	29.7	-29.5	-35.6	-35.6	32.0	-33.4	-40.3	-40.3	34.7
9:12	-26.1	-31.5	-31.5	28.3	-29.5	-35.6	-35.6	30.6	-33.5	-40.4	-40.4	34.1
10:12	-26.1	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.2	-31.9	-50.3	38.6	-17.2	-31.9	-50.3	38.6	-21.1	-39.0	-61.4	38.6
2:12	-15.3	-30.1	-46.7	35.5	-15.3	-30.1	-46.7	35.5	-18.9	-36.8	-56.9	36.0
3:12	-15.3	-30.1	-46.7	32.5	-15.3	-30.1	-46.7	32.5	-18.9	-36.8	-56.9	33.4
4:12	-15.4	-30.1	-46.7	29.9	-15.4	-30.1	-46.7	29.9	-18.9	-36.8	-57.0	30.8
5:12	-15.4	-30.1	-46.7	27.4	-15.4	-30.1	-46.7	27.4	-19.0	-36.9	-57.0	28.2
6:12	-15.4	-30.2	-46.8	25.0	-15.4	-30.2	-46.8	25.0	-19.0	-36.9	-57.0	25.9
7:12	-17.3	-21.0	-21.0	27.7	-17.3	-21.0	-21.0	27.7	-21.3	-25.7	-25.7	30.4
8:12	-17.4	-21.0	-21.0	25.8	-17.4	-21.0	-21.0	25.8	-21.3	-25.8	-25.8	28.5
9:12	-17.4	-21.1	-21.1	24.1	-17.4	-21.1	-21.1	24.1	-21.4	-25.8	-25.8	26.7
10:12	-17.4	-21.1	-21.1	22.6	-17.4	-21.1	-21.1	22.6	-21.4	-25.9	-25.9	25.3
11:12	-17.5	-21.2	-21.2	21.3	-17.5	-21.2	-21.2	21.3	-21.4	-25.9	-25.9	24.0
12:12	-17.5	-21.2	-21.2	20.2	-17.5	-21.2	-21.2	20.2	-21.5	-25.9	-25.9	22.9
Exposure Category C												
1:12	-21.1	-39.0	-61.4	38.6	-24.5	-45.2	-71.0	38.6	-28.5	-52.3	-82.0	38.6
2:12	-18.9	-36.8	-56.9	36.0	-22.0	-42.6	-65.8	37.3	-25.5	-49.3	-76.1	38.7
3:12	-18.9	-36.8	-56.9	33.4	-22.0	-42.6	-65.8	34.7	-25.5	-49.3	-76.1	36.2
4:12	-18.9	-36.8	-57.0	30.8	-22.0	-42.6	-65.9	32.1	-25.6	-49.4	-76.1	33.5
5:12	-19.0	-36.9	-57.0	28.2	-22.0	-42.7	-65.9	29.5	-25.6	-49.4	-76.2	31.0
6:12	-19.0	-36.9	-57.0	25.9	-22.1	-42.7	-65.9	27.2	-25.6	-49.4	-76.2	28.6
7:12	-21.3	-25.7	-25.7	30.4	-24.7	-29.9	-29.9	32.7	-28.6	-34.6	-34.6	35.4
8:12	-21.3	-25.8	-25.8	28.5	-24.7	-29.9	-29.9	30.8	-28.7	-34.6	-34.6	33.4
9:12	-21.4	-25.8	-25.8	26.7	-24.8	-29.9	-29.9	29.1	-28.7	-34.7	-34.7	31.7
10:12	-21.4	-25.9	-25.9	25.3	-24.8	-30.0	-30.0	27.6	-28.8	-34.7	-34.7	30.2
11:12	-21.4	-25.9	-25.9	24.0	-24.9	-30.0	-30.0	26.3	-28.8	-34.8	-34.8	29.6
12:12	-21.5	-25.9	-25.9	22.9	-24.9	-30.1	-30.1	25.9	-28.8	-34.8	-34.8	29.5
Exposure Category D												
1:12	-25.8	-47.5	-74.7	35.1	-29.3	-53.7	-84.2	35.1	-33.2	-60.8	-95.3	35.1
2:12	-23.1	-44.8	-69.2	35.4	-26.2	-50.7	-78.1	36.7	-29.8	-57.4	-88.4	38.1
3:12	-23.2	-44.9	-69.3	33.0	-26.2	-50.7	-78.2	34.3	-29.8	-57.4	-88.4	35.8
4:12	-23.2	-44.9	-69.3	30.7	-26.3	-50.7	-78.2	32.0	-29.8	-57.4	-88.5	33.5
5:12	-23.2	-44.9	-69.3	28.4	-26.3	-50.7	-78.2	29.7	-29.9	-57.5	-88.5	31.2
6:12	-23.3	-45.0	-69.4	26.2	-26.3	-50.8	-78.3	27.5	-29.9	-57.5	-88.5	29.0
7:12	-26.0	-31.4	-31.4	32.4	-29.4	-35.5	-35.5	34.7	-33.4	-40.3	-40.3	37.4
8:12	-26.1	-31.5	-31.5	30.6	-29.5	-35.6	-35.6	33.0	-33.4	-40.3	-40.3	35.6
9:12	-26.1	-31.5	-31.5	29.1	-29.5	-35.6	-35.6	31.4	-33.5	-40.4	-40.4	34.1
10:12	-26.1	-31.6	-31.6	27.7	-29.6	-35.7	-35.7	30.4	-33.5	-40.4	-40.4	34.0
11:12	-26.2	-31.6	-31.6	27.2	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

110 mph

Ground Snow Load

50 psf

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

110 mph

Ground Snow Load

60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.2	-31.9	-50.3	45.5	-17.2	-31.9	-50.3	45.5	-21.1	-39.0	-61.4	45.5
2:12	-15.3	-30.1	-46.7	41.9	-15.3	-30.1	-46.7	41.9	-18.9	-36.8	-56.9	41.9
3:12	-15.3	-30.1	-46.7	37.8	-15.3	-30.1	-46.7	37.8	-18.9	-36.8	-56.9	37.8
4:12	-15.4	-30.1	-46.7	33.6	-15.4	-30.1	-46.7	33.6	-18.9	-36.8	-57.0	34.5
5:12	-15.4	-30.1	-46.7	30.6	-15.4	-30.1	-46.7	30.6	-19.0	-36.9	-57.0	31.5
6:12	-15.4	-30.2	-46.8	27.8	-15.4	-30.2	-46.8	27.8	-19.0	-36.9	-57.0	28.7
7:12	-17.3	-21.0	-21.0	30.1	-17.3	-21.0	-21.0	30.1	-21.3	-25.7	-25.7	32.8
8:12	-17.4	-21.0	-21.0	27.8	-17.4	-21.0	-21.0	27.8	-21.3	-25.8	-25.8	30.5
9:12	-17.4	-21.1	-21.1	25.8	-17.4	-21.1	-21.1	25.8	-21.4	-25.8	-25.8	28.5
10:12	-17.4	-21.1	-21.1	24.0	-17.4	-21.1	-21.1	24.0	-21.4	-25.9	-25.9	26.7
11:12	-17.5	-21.2	-21.2	22.5	-17.5	-21.2	-21.2	22.5	-21.4	-25.9	-25.9	25.2
12:12	-17.5	-21.2	-21.2	21.2	-17.5	-21.2	-21.2	21.2	-21.5	-25.9	-25.9	23.9
Exposure Category C												
1:12	-21.1	-39.0	-61.4	45.5	-24.5	-45.2	-71.0	45.5	-28.5	-52.3	-82.0	45.5
2:12	-18.9	-36.8	-56.9	41.9	-22.0	-42.6	-65.8	42.0	-25.5	-49.3	-76.1	43.5
3:12	-18.9	-36.8	-56.9	37.8	-22.0	-42.6	-65.8	38.9	-25.5	-49.3	-76.1	40.4
4:12	-18.9	-36.8	-57.0	34.5	-22.0	-42.6	-65.9	35.8	-25.6	-49.4	-76.1	37.3
5:12	-19.0	-36.9	-57.0	31.5	-22.0	-42.7	-65.9	32.8	-25.6	-49.4	-76.2	34.3
6:12	-19.0	-36.9	-57.0	28.7	-22.1	-42.7	-65.9	30.0	-25.6	-49.4	-76.2	31.4
7:12	-21.3	-25.7	-25.7	32.8	-24.7	-29.9	-29.9	35.1	-28.6	-34.6	-34.6	37.8
8:12	-21.3	-25.8	-25.8	30.5	-24.7	-29.9	-29.9	32.8	-28.7	-34.6	-34.6	35.5
9:12	-21.4	-25.8	-25.8	28.5	-24.8	-29.9	-29.9	30.8	-28.7	-34.7	-34.7	33.4
10:12	-21.4	-25.9	-25.9	26.7	-24.8	-30.0	-30.0	29.0	-28.8	-34.7	-34.7	31.7
11:12	-21.4	-25.9	-25.9	25.2	-24.9	-30.0	-30.0	27.5	-28.8	-34.8	-34.8	30.2
12:12	-21.5	-25.9	-25.9	23.9	-24.9	-30.1	-30.1	26.2	-28.8	-34.8	-34.8	29.5
Exposure Category D												
1:12	-25.8	-47.5	-74.7	41.4	-29.3	-53.7	-84.2	41.4	-33.2	-60.8	-95.3	41.4
2:12	-23.1	-44.8	-69.2	39.7	-26.2	-50.7	-78.1	40.9	-29.8	-57.4	-88.4	42.4
3:12	-23.2	-44.9	-69.3	36.9	-26.2	-50.7	-78.2	38.2	-29.8	-57.4	-88.4	39.6
4:12	-23.2	-44.9	-69.3	34.1	-26.3	-50.7	-78.2	35.3	-29.8	-57.4	-88.5	36.8
5:12	-23.2	-44.9	-69.3	31.3	-26.3	-50.7	-78.2	32.6	-29.9	-57.5	-88.5	34.1
6:12	-23.3	-45.0	-69.4	28.8	-26.3	-50.8	-78.3	30.1	-29.9	-57.5	-88.5	31.5
7:12	-26.0	-31.4	-31.4	34.6	-29.4	-35.5	-35.5	36.9	-33.4	-40.3	-40.3	39.5
8:12	-26.1	-31.5	-31.5	32.5	-29.5	-35.6	-35.6	34.8	-33.4	-40.3	-40.3	37.4
9:12	-26.1	-31.5	-31.5	30.6	-29.5	-35.6	-35.6	32.9	-33.5	-40.4	-40.4	35.6
10:12	-26.1	-31.6	-31.6	29.0	-29.6	-35.7	-35.7	31.3	-33.5	-40.4	-40.4	34.0
11:12	-26.2	-31.6	-31.6	27.7	-29.6	-35.7	-35.7	30.3	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.1	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.2	-31.9	-50.3	52.5	-17.2	-31.9	-50.3	52.5	-21.1	-39.0	-61.4	52.5
2:12	-15.3	-30.1	-46.7	48.2	-15.3	-30.1	-46.7	48.2	-18.9	-36.8	-56.9	48.2
3:12	-15.3	-30.1	-46.7	43.4	-15.3	-30.1	-46.7	43.4	-18.9	-36.8	-56.9	43.4
4:12	-15.4	-30.1	-46.7	38.6	-15.4	-30.1	-46.7	38.6	-18.9	-36.8	-57.0	38.6
5:12	-15.4	-30.1	-46.7	34.0	-15.4	-30.1	-46.7	34.0	-19.0	-36.9	-57.0	34.8
6:12	-15.4	-30.2	-46.8	30.6	-15.4	-30.2	-46.8	30.6	-19.0	-36.9	-57.0	31.5
7:12	-17.3	-21.0	-21.0	32.5	-17.3	-21.0	-21.0	32.5	-21.3	-25.7	-25.7	35.2
8:12	-17.4	-21.0	-21.0	29.9	-17.4	-21.0	-21.0	29.9	-21.3	-25.8	-25.8	32.5
9:12	-17.4	-21.1	-21.1	27.5	-17.4	-21.1	-21.1	27.5	-21.4	-25.8	-25.8	30.2
10:12	-17.4	-21.1	-21.1	25.5	-17.4	-21.1	-21.1	25.5	-21.4	-25.9	-25.9	28.1
11:12	-17.5	-21.2	-21.2	23.7	-17.5	-21.2	-21.2	23.7	-21.4	-25.9	-25.9	26.4
12:12	-17.5	-21.2	-21.2	22.2	-17.5	-21.2	-21.2	22.2	-21.5	-25.9	-25.9	24.9
Exposure Category C												
1:12	-21.1	-39.0	-61.4	52.5	-24.5	-45.2	-71.0	52.5	-28.5	-52.3	-82.0	52.5
2:12	-18.9	-36.8	-56.9	48.2	-22.0	-42.6	-65.8	48.2	-25.5	-49.3	-76.1	48.3
3:12	-18.9	-36.8	-56.9	43.4	-22.0	-42.6	-65.8	43.4	-25.5	-49.3	-76.1	44.7
4:12	-18.9	-36.8	-57.0	38.6	-22.0	-42.6	-65.9	39.6	-25.6	-49.4	-76.1	41.0
5:12	-19.0	-36.9	-57.0	34.8	-22.0	-42.7	-65.9	36.1	-25.6	-49.4	-76.2	37.5
6:12	-19.0	-36.9	-57.0	31.5	-22.1	-42.7	-65.9	32.8	-25.6	-49.4	-76.2	34.2
7:12	-21.3	-25.7	-25.7	35.2	-24.7	-29.9	-29.9	37.5	-28.6	-34.6	-34.6	40.2
8:12	-21.3	-25.8	-25.8	32.5	-24.7	-29.9	-29.9	34.8	-28.7	-34.6	-34.6	37.5
9:12	-21.4	-25.8	-25.8	30.2	-24.8	-29.9	-29.9	32.5	-28.7	-34.7	-34.7	35.1
10:12	-21.4	-25.9	-25.9	28.1	-24.8	-30.0	-30.0	30.4	-28.8	-34.7	-34.7	33.1
11:12	-21.4	-25.9	-25.9	26.4	-24.9	-30.0	-30.0	28.7	-28.8	-34.8	-34.8	31.4
12:12	-21.5	-25.9	-25.9	24.9	-24.9	-30.1	-30.1	27.2	-28.8	-34.8	-34.8	29.9
Exposure Category D												
1:12	-25.8	-47.5	-74.7	47.6	-29.3	-53.7	-84.2	47.6	-33.2	-60.8	-95.3	47.6
2:12	-23.1	-44.8	-69.2	43.9	-26.2	-50.7	-78.1	45.2	-29.8	-57.4	-88.4	46.7
3:12	-23.2	-44.9	-69.3	40.7	-26.2	-50.7	-78.2	42.0	-29.8	-57.4	-88.4	43.5
4:12	-23.2	-44.9	-69.3	37.4	-26.3	-50.7	-78.2	38.7	-29.8	-57.4	-88.5	40.2
5:12	-23.2	-44.9	-69.3	34.3	-26.3	-50.7	-78.2	35.5	-29.9	-57.5	-88.5	37.0
6:12	-23.3	-45.0	-69.4	31.3	-26.3	-50.8	-78.3	32.6	-29.9	-57.5	-88.5	34.1
7:12	-26.0	-31.4	-31.4	36.7	-29.4	-35.5	-35.5	39.0	-33.4	-40.3	-40.3	41.7
8:12	-26.1	-31.5	-31.5	34.3	-29.5	-35.6	-35.6	36.6	-33.4	-40.3	-40.3	39.3
9:12	-26.1	-31.5	-31.5	32.2	-29.5	-35.6	-35.6	34.5	-33.5	-40.4	-40.4	37.1
10:12	-26.1	-31.6	-31.6	30.3	-29.6	-35.7	-35.7	32.6	-33.5	-40.4	-40.4	35.3
11:12	-26.2	-31.6	-31.6	28.7	-29.6	-35.7	-35.7	31.1	-33.5	-40.4	-40.4	33.9
12:12	-26.2	-31.6	-31.6	27.4	-29.6	-35.7	-35.7	30.2	-33.6	-40.5	-40.5	33.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **70 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-17.2	-31.9	-50.3	59.4	-17.2	-31.9	-50.3	59.4	-21.1	-39.0	-61.4	59.4
2:12	-15.3	-30.1	-46.7	54.5	-15.3	-30.1	-46.7	54.5	-18.9	-36.8	-56.9	54.5
3:12	-15.3	-30.1	-46.7	49.1	-15.3	-30.1	-46.7	49.1	-18.9	-36.8	-56.9	49.1
4:12	-15.4	-30.1	-46.7	43.6	-15.4	-30.1	-46.7	43.6	-18.9	-36.8	-57.0	43.6
5:12	-15.4	-30.1	-46.7	38.3	-15.4	-30.1	-46.7	38.3	-19.0	-36.9	-57.0	38.3
6:12	-15.4	-30.2	-46.8	33.4	-15.4	-30.2	-46.8	33.4	-19.0	-36.9	-57.0	34.3
7:12	-17.3	-21.0	-21.0	34.9	-17.3	-21.0	-21.0	34.9	-21.3	-25.7	-25.7	37.6
8:12	-17.4	-21.0	-21.0	31.9	-17.4	-21.0	-21.0	31.9	-21.3	-25.8	-25.8	34.6
9:12	-17.4	-21.1	-21.1	29.2	-17.4	-21.1	-21.1	29.2	-21.4	-25.8	-25.8	31.9
10:12	-17.4	-21.1	-21.1	26.9	-17.4	-21.1	-21.1	26.9	-21.4	-25.9	-25.9	29.6
11:12	-17.5	-21.2	-21.2	24.9	-17.5	-21.2	-21.2	24.9	-21.4	-25.9	-25.9	27.6
12:12	-17.5	-21.2	-21.2	23.2	-17.5	-21.2	-21.2	23.2	-21.5	-25.9	-25.9	25.9
1:12	-21.1	-39.0	-61.4	59.4	-24.5	-45.2	-71.0	59.4	-28.5	-52.3	-82.0	59.4
2:12	-18.9	-36.8	-56.9	54.5	-22.0	-42.6	-65.8	54.5	-25.5	-49.3	-76.1	54.5
3:12	-18.9	-36.8	-56.9	49.1	-22.0	-42.6	-65.8	49.1	-25.5	-49.3	-76.1	49.1
4:12	-18.9	-36.8	-57.0	43.6	-22.0	-42.6	-65.9	43.6	-25.6	-49.4	-76.1	44.8
5:12	-19.0	-36.9	-57.0	38.3	-22.0	-42.7	-65.9	39.3	-25.6	-49.4	-76.2	40.8
6:12	-19.0	-36.9	-57.0	34.3	-22.1	-42.7	-65.9	35.6	-25.6	-49.4	-76.2	37.1
7:12	-21.3	-25.7	-25.7	37.6	-24.7	-29.9	-29.9	39.9	-28.6	-34.6	-34.6	42.6
8:12	-21.3	-25.8	-25.8	34.6	-24.7	-29.9	-29.9	36.9	-28.7	-34.6	-34.6	39.5
9:12	-21.4	-25.8	-25.8	31.9	-24.8	-29.9	-29.9	34.2	-28.7	-34.7	-34.7	36.9
10:12	-21.4	-25.9	-25.9	29.6	-24.8	-30.0	-30.0	31.9	-28.8	-34.7	-34.7	34.6
11:12	-21.4	-25.9	-25.9	27.6	-24.9	-30.0	-30.0	29.9	-28.8	-34.8	-34.8	32.6
12:12	-21.5	-25.9	-25.9	25.9	-24.9	-30.1	-30.1	28.2	-28.8	-34.8	-34.8	30.9
1:12	-25.8	-47.5	-74.7	53.9	-29.3	-53.7	-84.2	53.9	-33.2	-60.8	-95.3	53.9
2:12	-23.1	-44.8	-69.2	49.5	-26.2	-50.7	-78.1	49.5	-29.8	-57.4	-88.4	51.0
3:12	-23.2	-44.9	-69.3	44.6	-26.2	-50.7	-78.2	45.8	-29.8	-57.4	-88.4	47.3
4:12	-23.2	-44.9	-69.3	40.8	-26.3	-50.7	-78.2	42.1	-29.8	-57.4	-88.5	43.6
5:12	-23.2	-44.9	-69.3	37.2	-26.3	-50.7	-78.2	38.5	-29.9	-57.5	-88.5	40.0
6:12	-23.3	-45.0	-69.4	33.8	-26.3	-50.8	-78.3	35.1	-29.9	-57.5	-88.5	36.6
7:12	-26.0	-31.4	-31.4	38.9	-29.4	-35.5	-35.5	41.2	-33.4	-40.3	-40.3	43.8
8:12	-26.1	-31.5	-31.5	36.1	-29.5	-35.6	-35.6	38.4	-33.4	-40.3	-40.3	41.1
9:12	-26.1	-31.5	-31.5	33.7	-29.5	-35.6	-35.6	36.0	-33.5	-40.4	-40.4	38.7
10:12	-26.1	-31.6	-31.6	31.6	-29.6	-35.7	-35.7	33.9	-33.5	-40.4	-40.4	36.6
11:12	-26.2	-31.6	-31.6	29.8	-29.6	-35.7	-35.7	32.1	-33.5	-40.4	-40.4	34.8
12:12	-26.2	-31.6	-31.6	28.3	-29.6	-35.7	-35.7	30.6	-33.6	-40.5	-40.5	33.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **80 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
110 mph

Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.2	-31.9	-50.3	66.4	-17.2	-31.9	-50.3	66.4	-21.1	-39.0	-61.4	66.4
2:12	-15.3	-30.1	-46.7	60.9	-15.3	-30.1	-46.7	60.9	-18.9	-36.8	-56.9	60.9
3:12	-15.3	-30.1	-46.7	54.8	-15.3	-30.1	-46.7	54.8	-18.9	-36.8	-56.9	54.8
4:12	-15.4	-30.1	-46.7	48.6	-15.4	-30.1	-46.7	48.6	-18.9	-36.8	-57.0	48.6
5:12	-15.4	-30.1	-46.7	42.7	-15.4	-30.1	-46.7	42.7	-19.0	-36.9	-57.0	42.7
6:12	-15.4	-30.2	-46.8	37.1	-15.4	-30.2	-46.8	37.1	-19.0	-36.9	-57.0	37.1
7:12	-17.3	-21.0	-21.0	37.3	-17.3	-21.0	-21.0	37.3	-21.3	-25.7	-25.7	40.0
8:12	-17.4	-21.0	-21.0	33.9	-17.4	-21.0	-21.0	33.9	-21.3	-25.8	-25.8	36.6
9:12	-17.4	-21.1	-21.1	30.9	-17.4	-21.1	-21.1	30.9	-21.4	-25.8	-25.8	33.6
10:12	-17.4	-21.1	-21.1	28.3	-17.4	-21.1	-21.1	28.3	-21.4	-25.9	-25.9	31.0
11:12	-17.5	-21.2	-21.2	26.1	-17.5	-21.2	-21.2	26.1	-21.4	-25.9	-25.9	28.8
12:12	-17.5	-21.2	-21.2	24.2	-17.5	-21.2	-21.2	24.2	-21.5	-25.9	-25.9	26.9
Exposure Category C												
1:12	-21.1	-39.0	-61.4	66.4	-24.5	-45.2	-71.0	66.4	-28.5	-52.3	-82.0	66.4
2:12	-18.9	-36.8	-56.9	60.9	-22.0	-42.6	-65.8	60.9	-25.5	-49.3	-76.1	60.9
3:12	-18.9	-36.8	-56.9	54.8	-22.0	-42.6	-65.8	54.8	-25.5	-49.3	-76.1	54.8
4:12	-18.9	-36.8	-57.0	48.6	-22.0	-42.6	-65.9	48.6	-25.6	-49.4	-76.1	48.6
5:12	-19.0	-36.9	-57.0	42.7	-22.0	-42.7	-65.9	42.7	-25.6	-49.4	-76.2	44.1
6:12	-19.0	-36.9	-57.0	37.1	-22.1	-42.7	-65.9	38.4	-25.6	-49.4	-76.2	39.9
7:12	-21.3	-25.7	-25.7	40.0	-24.7	-29.9	-29.9	42.3	-28.6	-34.6	-34.6	45.0
8:12	-21.3	-25.8	-25.8	36.6	-24.7	-29.9	-29.9	38.9	-28.7	-34.6	-34.6	41.6
9:12	-21.4	-25.8	-25.8	33.6	-24.8	-29.9	-29.9	35.9	-28.7	-34.7	-34.7	38.6
10:12	-21.4	-25.9	-25.9	31.0	-24.8	-30.0	-30.0	33.3	-28.8	-34.7	-34.7	36.0
11:12	-21.4	-25.9	-25.9	28.8	-24.9	-30.0	-30.0	31.1	-28.8	-34.8	-34.8	33.8
12:12	-21.5	-25.9	-25.9	26.9	-24.9	-30.1	-30.1	29.2	-28.8	-34.8	-34.8	31.9
Exposure Category D												
1:12	-25.8	-47.5	-74.7	60.1	-29.3	-53.7	-84.2	60.1	-33.2	-60.8	-95.3	60.1
2:12	-23.1	-44.8	-69.2	55.2	-26.2	-50.7	-78.1	55.2	-29.8	-57.4	-88.4	55.3
3:12	-23.2	-44.9	-69.3	49.7	-26.2	-50.7	-78.2	49.7	-29.8	-57.4	-88.4	51.1
4:12	-23.2	-44.9	-69.3	44.2	-26.3	-50.7	-78.2	45.5	-29.8	-57.4	-88.5	46.9
5:12	-23.2	-44.9	-69.3	40.1	-26.3	-50.7	-78.2	41.4	-29.9	-57.5	-88.5	42.9
6:12	-23.3	-45.0	-69.4	36.3	-26.3	-50.8	-78.3	37.6	-29.9	-57.5	-88.5	39.1
7:12	-26.0	-31.4	-31.4	41.0	-29.4	-35.5	-35.5	43.3	-33.4	-40.3	-40.3	46.0
8:12	-26.1	-31.5	-31.5	38.0	-29.5	-35.6	-35.6	40.3	-33.4	-40.3	-40.3	42.9
9:12	-26.1	-31.5	-31.5	35.3	-29.5	-35.6	-35.6	37.6	-33.5	-40.4	-40.4	40.2
10:12	-26.1	-31.6	-31.6	32.9	-29.6	-35.7	-35.7	35.2	-33.5	-40.4	-40.4	37.9
11:12	-26.2	-31.6	-31.6	30.9	-29.6	-35.7	-35.7	33.2	-33.5	-40.4	-40.4	35.9
12:12	-26.2	-31.6	-31.6	29.2	-29.6	-35.7	-35.7	31.5	-33.6	-40.5	-40.5	34.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.2	-31.9	-50.3	73.4	-17.2	-31.9	-50.3	73.4	-21.1	-39.0	-61.4	73.4
2:12	-15.3	-30.1	-46.7	67.2	-15.3	-30.1	-46.7	67.2	-18.9	-36.8	-56.9	67.2
3:12	-15.3	-30.1	-46.7	60.5	-15.3	-30.1	-46.7	60.5	-18.9	-36.8	-56.9	60.5
4:12	-15.4	-30.1	-46.7	53.6	-15.4	-30.1	-46.7	53.6	-18.9	-36.8	-57.0	53.6
5:12	-15.4	-30.1	-46.7	47.0	-15.4	-30.1	-46.7	47.0	-19.0	-36.9	-57.0	47.0
6:12	-15.4	-30.2	-46.8	40.9	-15.4	-30.2	-46.8	40.9	-19.0	-36.9	-57.0	40.9
7:12	-17.3	-21.0	-21.0	39.7	-17.3	-21.0	-21.0	39.7	-21.3	-25.7	-25.7	42.4
8:12	-17.4	-21.0	-21.0	35.9	-17.4	-21.0	-21.0	35.9	-21.3	-25.8	-25.8	38.6
9:12	-17.4	-21.1	-21.1	32.6	-17.4	-21.1	-21.1	32.6	-21.4	-25.8	-25.8	35.3
10:12	-17.4	-21.1	-21.1	29.8	-17.4	-21.1	-21.1	29.8	-21.4	-25.9	-25.9	32.5
11:12	-17.5	-21.2	-21.2	27.3	-17.5	-21.2	-21.2	27.3	-21.4	-25.9	-25.9	30.0
12:12	-17.5	-21.2	-21.2	25.3	-17.5	-21.2	-21.2	25.3	-21.5	-25.9	-25.9	27.9
Exposure Category C												
1:12	-21.1	-39.0	-61.4	73.4	-24.5	-45.2	-71.0	73.4	-28.5	-52.3	-82.0	73.4
2:12	-18.9	-36.8	-56.9	67.2	-22.0	-42.6	-65.8	67.2	-25.5	-49.3	-76.1	67.2
3:12	-18.9	-36.8	-56.9	60.5	-22.0	-42.6	-65.8	60.5	-25.5	-49.3	-76.1	60.5
4:12	-18.9	-36.8	-57.0	53.6	-22.0	-42.6	-65.9	53.6	-25.6	-49.4	-76.1	53.6
5:12	-19.0	-36.9	-57.0	47.0	-22.0	-42.7	-65.9	47.0	-25.6	-49.4	-76.2	47.3
6:12	-19.0	-36.9	-57.0	40.9	-22.1	-42.7	-65.9	41.2	-25.6	-49.4	-76.2	42.7
7:12	-21.3	-25.7	-25.7	42.4	-24.7	-29.9	-29.9	44.7	-28.6	-34.6	-34.6	47.4
8:12	-21.3	-25.8	-25.8	38.6	-24.7	-29.9	-29.9	40.9	-28.7	-34.6	-34.6	43.6
9:12	-21.4	-25.8	-25.8	35.3	-24.8	-29.9	-29.9	37.6	-28.7	-34.7	-34.7	40.3
10:12	-21.4	-25.9	-25.9	32.5	-24.8	-30.0	-30.0	34.8	-28.8	-34.7	-34.7	37.4
11:12	-21.4	-25.9	-25.9	30.0	-24.9	-30.0	-30.0	32.3	-28.8	-34.8	-34.8	35.0
12:12	-21.5	-25.9	-25.9	27.9	-24.9	-30.1	-30.1	30.2	-28.8	-34.8	-34.8	32.9
Exposure Category D												
1:12	-25.8	-47.5	-74.7	66.4	-29.3	-53.7	-84.2	66.4	-33.2	-60.8	-95.3	66.4
2:12	-23.1	-44.8	-69.2	60.9	-26.2	-50.7	-78.1	60.9	-29.8	-57.4	-88.4	60.9
3:12	-23.2	-44.9	-69.3	54.8	-26.2	-50.7	-78.2	54.8	-29.8	-57.4	-88.4	55.0
4:12	-23.2	-44.9	-69.3	48.6	-26.3	-50.7	-78.2	48.8	-29.8	-57.4	-88.5	50.3
5:12	-23.2	-44.9	-69.3	43.1	-26.3	-50.7	-78.2	44.4	-29.9	-57.5	-88.5	45.8
6:12	-23.3	-45.0	-69.4	38.9	-26.3	-50.8	-78.3	40.2	-29.9	-57.5	-88.5	41.6
7:12	-26.0	-31.4	-31.4	43.2	-29.4	-35.5	-35.5	45.5	-33.4	-40.3	-40.3	48.2
8:12	-26.1	-31.5	-31.5	39.8	-29.5	-35.6	-35.6	42.1	-33.4	-40.3	-40.3	44.8
9:12	-26.1	-31.5	-31.5	36.8	-29.5	-35.6	-35.6	39.1	-33.5	-40.4	-40.4	41.8
10:12	-26.1	-31.6	-31.6	34.2	-29.6	-35.7	-35.7	36.5	-33.5	-40.4	-40.4	39.2
11:12	-26.2	-31.6	-31.6	32.0	-29.6	-35.7	-35.7	34.3	-33.5	-40.4	-40.4	37.0
12:12	-26.2	-31.6	-31.6	30.1	-29.6	-35.7	-35.7	32.4	-33.6	-40.5	-40.5	35.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-18.9	-35.0	-55.1	13.8	-18.9	-35.0	-55.1	13.8	-23.2	-42.7	-67.2	13.8
	2:12	-16.9	-33.0	-51.1	13.9	-16.9	-33.0	-51.1	13.9	-20.7	-40.3	-62.3	16.0
	3:12	-16.9	-33.0	-51.1	13.8	-16.9	-33.0	-51.1	13.8	-20.8	-40.3	-62.4	16.0
	4:12	-16.9	-33.0	-51.2	13.7	-16.9	-33.0	-51.2	13.7	-20.8	-40.4	-62.4	15.9
	5:12	-16.9	-33.1	-51.2	13.6	-16.9	-33.1	-51.2	13.6	-20.8	-40.4	-62.4	15.8
	6:12	-17.0	-33.1	-51.2	13.5	-17.0	-33.1	-51.2	13.5	-20.9	-40.4	-62.4	15.7
	7:12	-19.0	-23.1	-23.1	21.5	-19.0	-23.1	-23.1	21.5	-23.4	-28.2	-28.2	25.3
	8:12	-19.1	-23.1	-23.1	21.3	-19.1	-23.1	-23.1	21.3	-23.4	-28.3	-28.3	25.2
	9:12	-19.1	-23.1	-23.1	21.2	-19.1	-23.1	-23.1	21.2	-23.4	-28.3	-28.3	25.1
	10:12	-19.2	-23.2	-23.2	21.1	-19.2	-23.2	-23.2	21.1	-23.5	-28.4	-28.4	25.0
	11:12	-19.2	-23.2	-23.2	21.0	-19.2	-23.2	-23.2	21.0	-23.5	-28.4	-28.4	24.9
	12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
Exposure Category C	1:12	-23.2	-42.7	-67.2	13.8	-26.9	-49.5	-77.7	13.8	-31.2	-57.3	-89.8	13.8
	2:12	-20.7	-40.3	-62.3	16.0	-24.1	-46.7	-72.1	17.9	-28.0	-54.0	-83.3	20.1
	3:12	-20.8	-40.3	-62.4	16.0	-24.1	-46.7	-72.1	17.8	-28.0	-54.0	-83.3	20.0
	4:12	-20.8	-40.4	-62.4	15.9	-24.2	-46.7	-72.1	17.8	-28.0	-54.1	-83.3	19.9
	5:12	-20.8	-40.4	-62.4	15.8	-24.2	-46.8	-72.1	17.7	-28.1	-54.1	-83.4	19.8
	6:12	-20.9	-40.4	-62.4	15.7	-24.2	-46.8	-72.2	17.5	-28.1	-54.1	-83.4	19.7
	7:12	-23.4	-28.2	-28.2	25.3	-27.1	-32.7	-32.7	28.7	-31.4	-37.9	-37.9	32.6
	8:12	-23.4	-28.3	-28.3	25.2	-27.1	-32.8	-32.8	28.6	-31.5	-38.0	-38.0	32.5
	9:12	-23.4	-28.3	-28.3	25.1	-27.2	-32.8	-32.8	28.5	-31.5	-38.0	-38.0	32.3
	10:12	-23.5	-28.4	-28.4	25.0	-27.2	-32.9	-32.9	28.3	-31.5	-38.0	-38.0	32.2
	11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
	12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
Exposure Category D	1:12	-28.4	-52.1	-81.7	13.8	-32.1	-58.8	-92.2	13.8	-36.4	-66.6	-104.3	15.1
	2:12	-25.4	-49.1	-75.8	18.6	-28.8	-55.5	-85.5	20.5	-32.7	-62.8	-96.7	22.6
	3:12	-25.4	-49.1	-75.8	18.6	-28.8	-55.5	-85.5	20.4	-32.7	-62.8	-96.8	22.6
	4:12	-25.5	-49.2	-75.8	18.5	-28.8	-55.5	-85.6	20.3	-32.7	-62.9	-96.8	22.5
	5:12	-25.5	-49.2	-75.9	18.4	-28.9	-55.6	-85.6	20.2	-32.7	-62.9	-96.8	22.4
	6:12	-25.5	-49.2	-75.9	18.3	-28.9	-55.6	-85.6	20.1	-32.8	-62.9	-96.9	22.3
	7:12	-28.5	-34.5	-34.5	30.0	-32.3	-38.9	-38.9	33.4	-36.6	-44.1	-44.1	37.3
	8:12	-28.6	-34.5	-34.5	29.9	-32.3	-39.0	-39.0	33.2	-36.6	-44.2	-44.2	37.1
	9:12	-28.6	-34.5	-34.5	29.8	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
	10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
	11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
	12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
	2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
	3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
	4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
	5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
	6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
	7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
	8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
	9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
	10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
	11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
115 mph

Ground Snow Load
0 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-18.9	-35.0	-55.1	15.1	-18.9	-35.0	-55.1	15.1	-23.2	-42.7	-67.2	15.1
2:12	-16.9	-33.0	-51.1	14.7	-16.9	-33.0	-51.1	14.7	-20.7	-40.3	-62.3	16.4
3:12	-16.9	-33.0	-51.1	14.3	-16.9	-33.0	-51.1	14.3	-20.8	-40.3	-62.4	16.0
4:12	-16.9	-33.0	-51.2	13.7	-16.9	-33.0	-51.2	13.7	-20.8	-40.4	-62.4	15.9
5:12	-16.9	-33.1	-51.2	13.6	-16.9	-33.1	-51.2	13.6	-20.8	-40.4	-62.4	15.8
6:12	-17.0	-33.1	-51.2	13.5	-17.0	-33.1	-51.2	13.5	-20.9	-40.4	-62.4	15.7
7:12	-19.0	-23.1	-23.1	21.5	-19.0	-23.1	-23.1	21.5	-23.4	-28.2	-28.2	25.3
8:12	-19.1	-23.1	-23.1	21.3	-19.1	-23.1	-23.1	21.3	-23.4	-28.3	-28.3	25.2
9:12	-19.1	-23.1	-23.1	21.2	-19.1	-23.1	-23.1	21.2	-23.4	-28.3	-28.3	25.1
10:12	-19.2	-23.2	-23.2	21.1	-19.2	-23.2	-23.2	21.1	-23.5	-28.4	-28.4	25.0
11:12	-19.2	-23.2	-23.2	21.0	-19.2	-23.2	-23.2	21.0	-23.5	-28.4	-28.4	24.9
12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
Exposure Category C												
1:12	-23.2	-42.7	-67.2	15.1	-26.9	-49.5	-77.7	15.1	-31.2	-57.3	-89.8	15.1
2:12	-20.7	-40.3	-62.3	16.4	-24.1	-46.7	-72.1	17.9	-28.0	-54.0	-83.3	20.1
3:12	-20.8	-40.3	-62.4	16.0	-24.1	-46.7	-72.1	17.8	-28.0	-54.0	-83.3	20.0
4:12	-20.8	-40.4	-62.4	15.9	-24.2	-46.7	-72.1	17.8	-28.0	-54.1	-83.3	19.9
5:12	-20.8	-40.4	-62.4	15.8	-24.2	-46.8	-72.1	17.7	-28.1	-54.1	-83.4	19.8
6:12	-20.9	-40.4	-62.4	15.7	-24.2	-46.8	-72.2	17.5	-28.1	-54.1	-83.4	19.7
7:12	-23.4	-28.2	-28.2	25.3	-27.1	-32.7	-32.7	28.7	-31.4	-37.9	-37.9	32.6
8:12	-23.4	-28.3	-28.3	25.2	-27.1	-32.8	-32.8	28.6	-31.5	-38.0	-38.0	32.5
9:12	-23.4	-28.3	-28.3	25.1	-27.2	-32.8	-32.8	28.5	-31.5	-38.0	-38.0	32.3
10:12	-23.5	-28.4	-28.4	25.0	-27.2	-32.9	-32.9	28.3	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
Exposure Category D												
1:12	-28.4	-52.1	-81.7	15.1	-32.1	-58.8	-92.2	15.1	-36.4	-66.6	-104.3	16.0
2:12	-25.4	-49.1	-75.8	18.6	-28.8	-55.5	-85.5	20.5	-32.7	-62.8	-96.7	22.6
3:12	-25.4	-49.1	-75.8	18.6	-28.8	-55.5	-85.5	20.4	-32.7	-62.8	-96.8	22.6
4:12	-25.5	-49.2	-75.8	18.5	-28.8	-55.5	-85.6	20.3	-32.7	-62.9	-96.8	22.5
5:12	-25.5	-49.2	-75.9	18.4	-28.9	-55.6	-85.6	20.2	-32.7	-62.9	-96.8	22.4
6:12	-25.5	-49.2	-75.9	18.3	-28.9	-55.6	-85.6	20.1	-32.8	-62.9	-96.9	22.3
7:12	-28.5	-34.5	-34.5	30.0	-32.3	-38.9	-38.9	33.4	-36.6	-44.1	-44.1	37.3
8:12	-28.6	-34.5	-34.5	29.9	-32.3	-39.0	-39.0	33.2	-36.6	-44.2	-44.2	37.1
9:12	-28.6	-34.5	-34.5	29.8	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

115 mph

Ground Snow Load

5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-18.9	-35.0	-55.1	18.8	-18.9	-35.0	-55.1	18.8	-23.2	-42.7	-67.2	18.8
2:12	-16.9	-33.0	-51.1	18.1	-16.9	-33.0	-51.1	18.1	-20.7	-40.3	-62.3	19.8
3:12	-16.9	-33.0	-51.1	17.4	-16.9	-33.0	-51.1	17.4	-20.8	-40.3	-62.4	19.0
4:12	-16.9	-33.0	-51.2	15.0	-16.9	-33.0	-51.2	15.0	-20.8	-40.4	-62.4	16.6
5:12	-16.9	-33.1	-51.2	14.4	-16.9	-33.1	-51.2	14.4	-20.8	-40.4	-62.4	16.0
6:12	-17.0	-33.1	-51.2	13.8	-17.0	-33.1	-51.2	13.8	-20.9	-40.4	-62.4	15.7
7:12	-19.0	-23.1	-23.1	21.5	-19.0	-23.1	-23.1	21.5	-23.4	-28.2	-28.2	25.3
8:12	-19.1	-23.1	-23.1	21.3	-19.1	-23.1	-23.1	21.3	-23.4	-28.3	-28.3	25.2
9:12	-19.1	-23.1	-23.1	21.2	-19.1	-23.1	-23.1	21.2	-23.4	-28.3	-28.3	25.1
10:12	-19.2	-23.2	-23.2	21.1	-19.2	-23.2	-23.2	21.1	-23.5	-28.4	-28.4	25.0
11:12	-19.2	-23.2	-23.2	21.0	-19.2	-23.2	-23.2	21.0	-23.5	-28.4	-28.4	24.9
12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
1:12	-23.2	-42.7	-67.2	18.8	-26.9	-49.5	-77.7	18.8	-31.2	-57.3	-89.8	18.8
2:12	-20.7	-40.3	-62.3	19.8	-24.1	-46.7	-72.1	21.2	-28.0	-54.0	-83.3	22.8
3:12	-20.8	-40.3	-62.4	19.0	-24.1	-46.7	-72.1	20.4	-28.0	-54.0	-83.3	22.0
4:12	-20.8	-40.4	-62.4	16.6	-24.2	-46.7	-72.1	18.0	-28.0	-54.1	-83.3	19.9
5:12	-20.8	-40.4	-62.4	16.0	-24.2	-46.8	-72.1	17.7	-28.1	-54.1	-83.4	19.8
6:12	-20.9	-40.4	-62.4	15.7	-24.2	-46.8	-72.2	17.5	-28.1	-54.1	-83.4	19.7
7:12	-23.4	-28.2	-28.2	25.3	-27.1	-32.7	-32.7	28.7	-31.4	-37.9	-37.9	32.6
8:12	-23.4	-28.3	-28.3	25.2	-27.1	-32.8	-32.8	28.6	-31.5	-38.0	-38.0	32.5
9:12	-23.4	-28.3	-28.3	25.1	-27.2	-32.8	-32.8	28.5	-31.5	-38.0	-38.0	32.3
10:12	-23.5	-28.4	-28.4	25.0	-27.2	-32.9	-32.9	28.3	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
1:12	-28.4	-52.1	-81.7	18.8	-32.1	-58.8	-92.2	18.8	-36.4	-66.6	-104.3	19.8
2:12	-25.4	-49.1	-75.8	21.7	-28.8	-55.5	-85.5	23.1	-32.7	-62.8	-96.7	24.7
3:12	-25.4	-49.1	-75.8	20.9	-28.8	-55.5	-85.5	22.3	-32.7	-62.8	-96.8	23.9
4:12	-25.5	-49.2	-75.8	18.5	-28.8	-55.5	-85.6	20.3	-32.7	-62.9	-96.8	22.5
5:12	-25.5	-49.2	-75.9	18.4	-28.9	-55.6	-85.6	20.2	-32.7	-62.9	-96.8	22.4
6:12	-25.5	-49.2	-75.9	18.3	-28.9	-55.6	-85.6	20.1	-32.8	-62.9	-96.9	22.3
7:12	-28.5	-34.5	-34.5	30.0	-32.3	-38.9	-38.9	33.4	-36.6	-44.1	-44.1	37.3
8:12	-28.6	-34.5	-34.5	29.9	-32.3	-39.0	-39.0	33.2	-36.6	-44.2	-44.2	37.1
9:12	-28.6	-34.5	-34.5	29.8	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**

Ground Snow Load **10 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-18.9	-35.0	-55.1	22.5	-18.9	-35.0	-55.1	22.5	-23.2	-42.7	-67.2	22.5
2:12	-16.9	-33.0	-51.1	21.5	-16.9	-33.0	-51.1	21.5	-20.7	-40.3	-62.3	23.2
3:12	-16.9	-33.0	-51.1	20.4	-16.9	-33.0	-51.1	20.4	-20.8	-40.3	-62.4	22.0
4:12	-16.9	-33.0	-51.2	16.8	-16.9	-33.0	-51.2	16.8	-20.8	-40.4	-62.4	18.4
5:12	-16.9	-33.1	-51.2	16.0	-16.9	-33.1	-51.2	16.0	-20.8	-40.4	-62.4	17.6
6:12	-17.0	-33.1	-51.2	15.2	-17.0	-33.1	-51.2	15.2	-20.9	-40.4	-62.4	16.8
7:12	-19.0	-23.1	-23.1	21.5	-19.0	-23.1	-23.1	21.5	-23.4	-28.2	-28.2	25.3
8:12	-19.1	-23.1	-23.1	21.3	-19.1	-23.1	-23.1	21.3	-23.4	-28.3	-28.3	25.2
9:12	-19.1	-23.1	-23.1	21.2	-19.1	-23.1	-23.1	21.2	-23.4	-28.3	-28.3	25.1
10:12	-19.2	-23.2	-23.2	21.1	-19.2	-23.2	-23.2	21.1	-23.5	-28.4	-28.4	25.0
11:12	-19.2	-23.2	-23.2	21.0	-19.2	-23.2	-23.2	21.0	-23.5	-28.4	-28.4	24.9
12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
1:12	-23.2	-42.7	-67.2	22.5	-26.9	-49.5	-77.7	22.5	-31.2	-57.3	-89.8	22.5
2:12	-20.7	-40.3	-62.3	23.2	-24.1	-46.7	-72.1	24.6	-28.0	-54.0	-83.3	26.2
3:12	-20.8	-40.3	-62.4	22.0	-24.1	-46.7	-72.1	23.4	-28.0	-54.0	-83.3	25.0
4:12	-20.8	-40.4	-62.4	18.4	-24.2	-46.7	-72.1	19.8	-28.0	-54.1	-83.3	21.5
5:12	-20.8	-40.4	-62.4	17.6	-24.2	-46.8	-72.1	19.0	-28.1	-54.1	-83.4	20.6
6:12	-20.9	-40.4	-62.4	16.8	-24.2	-46.8	-72.2	18.2	-28.1	-54.1	-83.4	19.8
7:12	-23.4	-28.2	-28.2	25.3	-27.1	-32.7	-32.7	28.7	-31.4	-37.9	-37.9	32.6
8:12	-23.4	-28.3	-28.3	25.2	-27.1	-32.8	-32.8	28.6	-31.5	-38.0	-38.0	32.5
9:12	-23.4	-28.3	-28.3	25.1	-27.2	-32.8	-32.8	28.5	-31.5	-38.0	-38.0	32.3
10:12	-23.5	-28.4	-28.4	25.0	-27.2	-32.9	-32.9	28.3	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
1:12	-28.4	-52.1	-81.7	22.5	-32.1	-58.8	-92.2	22.5	-36.4	-66.6	-104.3	23.5
2:12	-25.4	-49.1	-75.8	25.1	-28.8	-55.5	-85.5	26.5	-32.7	-62.8	-96.7	28.1
3:12	-25.4	-49.1	-75.8	24.0	-28.8	-55.5	-85.5	25.4	-32.7	-62.8	-96.8	27.0
4:12	-25.5	-49.2	-75.8	19.8	-28.8	-55.5	-85.6	21.2	-32.7	-62.9	-96.8	22.8
5:12	-25.5	-49.2	-75.9	19.1	-28.9	-55.6	-85.6	20.5	-32.7	-62.9	-96.8	22.4
6:12	-25.5	-49.2	-75.9	18.3	-28.9	-55.6	-85.6	20.1	-32.8	-62.9	-96.9	22.3
7:12	-28.5	-34.5	-34.5	30.0	-32.3	-38.9	-38.9	33.4	-36.6	-44.1	-44.1	37.3
8:12	-28.6	-34.5	-34.5	29.9	-32.3	-39.0	-39.0	33.2	-36.6	-44.2	-44.2	37.1
9:12	-28.6	-34.5	-34.5	29.8	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**
Ground Snow Load **15 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-18.9	-35.0	-55.1	26.2	-18.9	-35.0	-55.1	26.2	-23.2	-42.7	-67.2	26.2
2:12	-16.9	-33.0	-51.1	24.9	-16.9	-33.0	-51.1	24.9	-20.7	-40.3	-62.3	26.6
3:12	-16.9	-33.0	-51.1	23.4	-16.9	-33.0	-51.1	23.4	-20.8	-40.3	-62.4	25.1
4:12	-16.9	-33.0	-51.2	18.7	-16.9	-33.0	-51.2	18.7	-20.8	-40.4	-62.4	20.3
5:12	-16.9	-33.1	-51.2	17.6	-16.9	-33.1	-51.2	17.6	-20.8	-40.4	-62.4	19.2
6:12	-17.0	-33.1	-51.2	16.6	-17.0	-33.1	-51.2	16.6	-20.9	-40.4	-62.4	18.2
7:12	-19.0	-23.1	-23.1	21.7	-19.0	-23.1	-23.1	21.7	-23.4	-28.2	-28.2	25.3
8:12	-19.1	-23.1	-23.1	21.3	-19.1	-23.1	-23.1	21.3	-23.4	-28.3	-28.3	25.2
9:12	-19.1	-23.1	-23.1	21.2	-19.1	-23.1	-23.1	21.2	-23.4	-28.3	-28.3	25.1
10:12	-19.2	-23.2	-23.2	21.1	-19.2	-23.2	-23.2	21.1	-23.5	-28.4	-28.4	25.0
11:12	-19.2	-23.2	-23.2	21.0	-19.2	-23.2	-23.2	21.0	-23.5	-28.4	-28.4	24.9
12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
1:12	-23.2	-42.7	-67.2	26.2	-26.9	-49.5	-77.7	26.2	-31.2	-57.3	-89.8	26.2
2:12	-20.7	-40.3	-62.3	26.6	-24.1	-46.7	-72.1	28.0	-28.0	-54.0	-83.3	29.6
3:12	-20.8	-40.3	-62.4	25.1	-24.1	-46.7	-72.1	26.5	-28.0	-54.0	-83.3	28.1
4:12	-20.8	-40.4	-62.4	20.3	-24.2	-46.7	-72.1	21.7	-28.0	-54.1	-83.3	23.3
5:12	-20.8	-40.4	-62.4	19.2	-24.2	-46.8	-72.1	20.6	-28.1	-54.1	-83.4	22.3
6:12	-20.9	-40.4	-62.4	18.2	-24.2	-46.8	-72.2	19.6	-28.1	-54.1	-83.4	21.2
7:12	-23.4	-28.2	-28.2	25.3	-27.1	-32.7	-32.7	28.7	-31.4	-37.9	-37.9	32.6
8:12	-23.4	-28.3	-28.3	25.2	-27.1	-32.8	-32.8	28.6	-31.5	-38.0	-38.0	32.5
9:12	-23.4	-28.3	-28.3	25.1	-27.2	-32.8	-32.8	28.5	-31.5	-38.0	-38.0	32.3
10:12	-23.5	-28.4	-28.4	25.0	-27.2	-32.9	-32.9	28.3	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
1:12	-28.4	-52.1	-81.7	26.2	-32.1	-58.8	-92.2	26.2	-36.4	-66.6	-104.3	27.2
2:12	-25.4	-49.1	-75.8	28.5	-28.8	-55.5	-85.5	29.9	-32.7	-62.8	-96.7	31.5
3:12	-25.4	-49.1	-75.8	27.0	-28.8	-55.5	-85.5	28.4	-32.7	-62.8	-96.8	30.0
4:12	-25.5	-49.2	-75.8	21.5	-28.8	-55.5	-85.6	22.9	-32.7	-62.9	-96.8	24.5
5:12	-25.5	-49.2	-75.9	20.5	-28.9	-55.6	-85.6	21.9	-32.7	-62.9	-96.8	23.6
6:12	-25.5	-49.2	-75.9	19.6	-28.9	-55.6	-85.6	21.0	-32.8	-62.9	-96.9	22.6
7:12	-28.5	-34.5	-34.5	30.0	-32.3	-38.9	-38.9	33.4	-36.6	-44.1	-44.1	37.3
8:12	-28.6	-34.5	-34.5	29.9	-32.3	-39.0	-39.0	33.2	-36.6	-44.2	-44.2	37.1
9:12	-28.6	-34.5	-34.5	29.8	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**
Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-18.9	-35.0	-55.1	26.2	-18.9	-35.0	-55.1	26.2	-23.2	-42.7	-67.2	26.2
2:12	-16.9	-33.0	-51.1	24.9	-16.9	-33.0	-51.1	24.9	-20.7	-40.3	-62.3	26.6
3:12	-16.9	-33.0	-51.1	23.4	-16.9	-33.0	-51.1	23.4	-20.8	-40.3	-62.4	25.1
4:12	-16.9	-33.0	-51.2	20.6	-16.9	-33.0	-51.2	20.6	-20.8	-40.4	-62.4	22.2
5:12	-16.9	-33.1	-51.2	19.3	-16.9	-33.1	-51.2	19.3	-20.8	-40.4	-62.4	20.9
6:12	-17.0	-33.1	-51.2	18.0	-17.0	-33.1	-51.2	18.0	-20.9	-40.4	-62.4	19.6
7:12	-19.0	-23.1	-23.1	22.9	-19.0	-23.1	-23.1	22.9	-23.4	-28.2	-28.2	25.8
8:12	-19.1	-23.1	-23.1	21.9	-19.1	-23.1	-23.1	21.9	-23.4	-28.3	-28.3	25.2
9:12	-19.1	-23.1	-23.1	21.2	-19.1	-23.1	-23.1	21.2	-23.4	-28.3	-28.3	25.1
10:12	-19.2	-23.2	-23.2	21.1	-19.2	-23.2	-23.2	21.1	-23.5	-28.4	-28.4	25.0
11:12	-19.2	-23.2	-23.2	21.0	-19.2	-23.2	-23.2	21.0	-23.5	-28.4	-28.4	24.9
12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
Exposure Category C												
1:12	-23.2	-42.7	-67.2	26.2	-26.9	-49.5	-77.7	26.2	-31.2	-57.3	-89.8	26.2
2:12	-20.7	-40.3	-62.3	26.6	-24.1	-46.7	-72.1	28.0	-28.0	-54.0	-83.3	29.6
3:12	-20.8	-40.3	-62.4	25.1	-24.1	-46.7	-72.1	26.5	-28.0	-54.0	-83.3	28.1
4:12	-20.8	-40.4	-62.4	22.2	-24.2	-46.7	-72.1	23.6	-28.0	-54.1	-83.3	25.2
5:12	-20.8	-40.4	-62.4	20.9	-24.2	-46.8	-72.1	22.3	-28.1	-54.1	-83.4	23.9
6:12	-20.9	-40.4	-62.4	19.6	-24.2	-46.8	-72.2	21.0	-28.1	-54.1	-83.4	22.7
7:12	-23.4	-28.2	-28.2	25.8	-27.1	-32.7	-32.7	28.7	-31.4	-37.9	-37.9	32.6
8:12	-23.4	-28.3	-28.3	25.2	-27.1	-32.8	-32.8	28.6	-31.5	-38.0	-38.0	32.5
9:12	-23.4	-28.3	-28.3	25.1	-27.2	-32.8	-32.8	28.5	-31.5	-38.0	-38.0	32.3
10:12	-23.5	-28.4	-28.4	25.0	-27.2	-32.9	-32.9	28.3	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
Exposure Category D												
1:12	-28.4	-52.1	-81.7	26.2	-32.1	-58.8	-92.2	26.2	-36.4	-66.6	-104.3	27.2
2:12	-25.4	-49.1	-75.8	28.5	-28.8	-55.5	-85.5	29.9	-32.7	-62.8	-96.7	31.5
3:12	-25.4	-49.1	-75.8	27.0	-28.8	-55.5	-85.5	28.4	-32.7	-62.8	-96.8	30.0
4:12	-25.5	-49.2	-75.8	23.2	-28.8	-55.5	-85.6	24.6	-32.7	-62.9	-96.8	26.2
5:12	-25.5	-49.2	-75.9	22.0	-28.9	-55.6	-85.6	23.4	-32.7	-62.9	-96.8	25.0
6:12	-25.5	-49.2	-75.9	20.9	-28.9	-55.6	-85.6	22.3	-32.8	-62.9	-96.9	23.9
7:12	-28.5	-34.5	-34.5	30.0	-32.3	-38.9	-38.9	33.4	-36.6	-44.1	-44.1	37.3
8:12	-28.6	-34.5	-34.5	29.9	-32.3	-39.0	-39.0	33.2	-36.6	-44.2	-44.2	37.1
9:12	-28.6	-34.5	-34.5	29.8	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

115 mph

Ground Snow Load

25 psf

Up and Down (psf)

Basic Wind Speed
115 mph
Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-18.9	-35.0	-55.1	27.0	-18.9	-35.0	-55.1	27.0	-23.2	-42.7	-67.2	27.0
2:12	-16.9	-33.0	-51.1	25.6	-16.9	-33.0	-51.1	25.6	-20.7	-40.3	-62.3	27.2
3:12	-16.9	-33.0	-51.1	24.0	-16.9	-33.0	-51.1	24.0	-20.8	-40.3	-62.4	25.7
4:12	-16.9	-33.0	-51.2	22.4	-16.9	-33.0	-51.2	22.4	-20.8	-40.4	-62.4	24.1
5:12	-16.9	-33.1	-51.2	20.9	-16.9	-33.1	-51.2	20.9	-20.8	-40.4	-62.4	22.5
6:12	-17.0	-33.1	-51.2	19.4	-17.0	-33.1	-51.2	19.4	-20.9	-40.4	-62.4	21.0
7:12	-19.0	-23.1	-23.1	24.1	-19.0	-23.1	-23.1	24.1	-23.4	-28.2	-28.2	27.0
8:12	-19.1	-23.1	-23.1	22.9	-19.1	-23.1	-23.1	22.9	-23.4	-28.3	-28.3	25.8
9:12	-19.1	-23.1	-23.1	21.8	-19.1	-23.1	-23.1	21.8	-23.4	-28.3	-28.3	25.1
10:12	-19.2	-23.2	-23.2	21.1	-19.2	-23.2	-23.2	21.1	-23.5	-28.4	-28.4	25.0
11:12	-19.2	-23.2	-23.2	21.0	-19.2	-23.2	-23.2	21.0	-23.5	-28.4	-28.4	24.9
12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
1:12	-23.2	-42.7	-67.2	27.0	-26.9	-49.5	-77.7	27.0	-31.2	-57.3	-89.8	27.0
2:12	-20.7	-40.3	-62.3	27.2	-24.1	-46.7	-72.1	28.6	-28.0	-54.0	-83.3	30.3
3:12	-20.8	-40.3	-62.4	25.7	-24.1	-46.7	-72.1	27.1	-28.0	-54.0	-83.3	28.7
4:12	-20.8	-40.4	-62.4	24.1	-24.2	-46.7	-72.1	25.5	-28.0	-54.1	-83.3	27.1
5:12	-20.8	-40.4	-62.4	22.5	-24.2	-46.8	-72.1	23.9	-28.1	-54.1	-83.4	25.5
6:12	-20.9	-40.4	-62.4	21.0	-24.2	-46.8	-72.2	22.4	-28.1	-54.1	-83.4	24.1
7:12	-23.4	-28.2	-28.2	27.0	-27.1	-32.7	-32.7	29.5	-31.4	-37.9	-37.9	32.6
8:12	-23.4	-28.3	-28.3	25.8	-27.1	-32.8	-32.8	28.6	-31.5	-38.0	-38.0	32.5
9:12	-23.4	-28.3	-28.3	25.1	-27.2	-32.8	-32.8	28.5	-31.5	-38.0	-38.0	32.3
10:12	-23.5	-28.4	-28.4	25.0	-27.2	-32.9	-32.9	28.3	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
1:12	-28.4	-52.1	-81.7	26.2	-32.1	-58.8	-92.2	26.2	-36.4	-66.6	-104.3	27.2
2:12	-25.4	-49.1	-75.8	28.5	-28.8	-55.5	-85.5	29.9	-32.7	-62.8	-96.7	31.5
3:12	-25.4	-49.1	-75.8	27.0	-28.8	-55.5	-85.5	28.4	-32.7	-62.8	-96.8	30.0
4:12	-25.5	-49.2	-75.8	24.9	-28.8	-55.5	-85.6	26.3	-32.7	-62.9	-96.8	27.9
5:12	-25.5	-49.2	-75.9	23.5	-28.9	-55.6	-85.6	24.9	-32.7	-62.9	-96.8	26.5
6:12	-25.5	-49.2	-75.9	22.1	-28.9	-55.6	-85.6	23.5	-32.8	-62.9	-96.9	25.2
7:12	-28.5	-34.5	-34.5	30.0	-32.3	-38.9	-38.9	33.4	-36.6	-44.1	-44.1	37.3
8:12	-28.6	-34.5	-34.5	29.9	-32.3	-39.0	-39.0	33.2	-36.6	-44.2	-44.2	37.1
9:12	-28.6	-34.5	-34.5	29.8	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-18.9	-35.0	-55.1	29.6	-18.9	-35.0	-55.1	29.6	-23.2	-42.7	-67.2	29.6
2:12	-16.9	-33.0	-51.1	28.0	-16.9	-33.0	-51.1	28.0	-20.7	-40.3	-62.3	29.6
3:12	-16.9	-33.0	-51.1	26.2	-16.9	-33.0	-51.1	26.2	-20.8	-40.3	-62.4	27.8
4:12	-16.9	-33.0	-51.2	24.3	-16.9	-33.0	-51.2	24.3	-20.8	-40.4	-62.4	25.9
5:12	-16.9	-33.1	-51.2	22.5	-16.9	-33.1	-51.2	22.5	-20.8	-40.4	-62.4	24.1
6:12	-17.0	-33.1	-51.2	20.8	-17.0	-33.1	-51.2	20.8	-20.9	-40.4	-62.4	22.4
7:12	-19.0	-23.1	-23.1	25.3	-19.0	-23.1	-23.1	25.3	-23.4	-28.2	-28.2	28.2
8:12	-19.1	-23.1	-23.1	23.9	-19.1	-23.1	-23.1	23.9	-23.4	-28.3	-28.3	26.8
9:12	-19.1	-23.1	-23.1	22.7	-19.1	-23.1	-23.1	22.7	-23.4	-28.3	-28.3	25.6
10:12	-19.2	-23.2	-23.2	21.6	-19.2	-23.2	-23.2	21.6	-23.5	-28.4	-28.4	25.0
11:12	-19.2	-23.2	-23.2	21.0	-19.2	-23.2	-23.2	21.0	-23.5	-28.4	-28.4	24.9
12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
1:12	-23.2	-42.7	-67.2	29.6	-26.9	-49.5	-77.7	29.6	-31.2	-57.3	-89.8	29.6
2:12	-20.7	-40.3	-62.3	29.6	-24.1	-46.7	-72.1	31.0	-28.0	-54.0	-83.3	32.6
3:12	-20.8	-40.3	-62.4	27.8	-24.1	-46.7	-72.1	29.2	-28.0	-54.0	-83.3	30.8
4:12	-20.8	-40.4	-62.4	25.9	-24.2	-46.7	-72.1	27.3	-28.0	-54.1	-83.3	29.0
5:12	-20.8	-40.4	-62.4	24.1	-24.2	-46.8	-72.1	25.5	-28.1	-54.1	-83.4	27.2
6:12	-20.9	-40.4	-62.4	22.4	-24.2	-46.8	-72.2	23.8	-28.1	-54.1	-83.4	25.5
7:12	-23.4	-28.2	-28.2	28.2	-27.1	-32.7	-32.7	30.7	-31.4	-37.9	-37.9	33.7
8:12	-23.4	-28.3	-28.3	26.8	-27.1	-32.8	-32.8	29.3	-31.5	-38.0	-38.0	32.5
9:12	-23.4	-28.3	-28.3	25.6	-27.2	-32.8	-32.8	28.5	-31.5	-38.0	-38.0	32.3
10:12	-23.5	-28.4	-28.4	25.0	-27.2	-32.9	-32.9	28.3	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
1:12	-28.4	-52.1	-81.7	27.8	-32.1	-58.8	-92.2	27.8	-36.4	-66.6	-104.3	28.7
2:12	-25.4	-49.1	-75.8	29.9	-28.8	-55.5	-85.5	31.3	-32.7	-62.8	-96.7	32.9
3:12	-25.4	-49.1	-75.8	28.2	-28.8	-55.5	-85.5	29.7	-32.7	-62.8	-96.8	31.3
4:12	-25.5	-49.2	-75.8	26.6	-28.8	-55.5	-85.6	28.0	-32.7	-62.9	-96.8	29.6
5:12	-25.5	-49.2	-75.9	24.9	-28.9	-55.6	-85.6	26.3	-32.7	-62.9	-96.8	28.0
6:12	-25.5	-49.2	-75.9	23.4	-28.9	-55.6	-85.6	24.8	-32.8	-62.9	-96.9	26.4
7:12	-28.5	-34.5	-34.5	30.9	-32.3	-38.9	-38.9	33.4	-36.6	-44.1	-44.1	37.3
8:12	-28.6	-34.5	-34.5	29.9	-32.3	-39.0	-39.0	33.2	-36.6	-44.2	-44.2	37.1
9:12	-28.6	-34.5	-34.5	29.8	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**

Ground Snow Load **35 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-18.9	-35.0	-55.1	32.2	-18.9	-35.0	-55.1	32.2	-23.2	-42.7	-67.2	32.2
2:12	-16.9	-33.0	-51.1	30.4	-16.9	-33.0	-51.1	30.4	-20.7	-40.3	-62.3	32.0
3:12	-16.9	-33.0	-51.1	28.3	-16.9	-33.0	-51.1	28.3	-20.8	-40.3	-62.4	29.9
4:12	-16.9	-33.0	-51.2	26.2	-16.9	-33.0	-51.2	26.2	-20.8	-40.4	-62.4	27.8
5:12	-16.9	-33.1	-51.2	24.1	-16.9	-33.1	-51.2	24.1	-20.8	-40.4	-62.4	25.8
6:12	-17.0	-33.1	-51.2	22.2	-17.0	-33.1	-51.2	22.2	-20.9	-40.4	-62.4	23.8
7:12	-19.0	-23.1	-23.1	26.5	-19.0	-23.1	-23.1	26.5	-23.4	-28.2	-28.2	29.4
8:12	-19.1	-23.1	-23.1	24.9	-19.1	-23.1	-23.1	24.9	-23.4	-28.3	-28.3	27.8
9:12	-19.1	-23.1	-23.1	23.5	-19.1	-23.1	-23.1	23.5	-23.4	-28.3	-28.3	26.4
10:12	-19.2	-23.2	-23.2	22.3	-19.2	-23.2	-23.2	22.3	-23.5	-28.4	-28.4	25.2
11:12	-19.2	-23.2	-23.2	21.3	-19.2	-23.2	-23.2	21.3	-23.5	-28.4	-28.4	24.9
12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
Exposure Category C												
1:12	-23.2	-42.7	-67.2	32.2	-26.9	-49.5	-77.7	32.2	-31.2	-57.3	-89.8	32.2
2:12	-20.7	-40.3	-62.3	32.0	-24.1	-46.7	-72.1	33.4	-28.0	-54.0	-83.3	35.0
3:12	-20.8	-40.3	-62.4	29.9	-24.1	-46.7	-72.1	31.3	-28.0	-54.0	-83.3	32.9
4:12	-20.8	-40.4	-62.4	27.8	-24.2	-46.7	-72.1	29.2	-28.0	-54.1	-83.3	30.8
5:12	-20.8	-40.4	-62.4	25.8	-24.2	-46.8	-72.1	27.2	-28.1	-54.1	-83.4	28.8
6:12	-20.9	-40.4	-62.4	23.8	-24.2	-46.8	-72.2	25.2	-28.1	-54.1	-83.4	26.9
7:12	-23.4	-28.2	-28.2	29.4	-27.1	-32.7	-32.7	31.9	-31.4	-37.9	-37.9	34.9
8:12	-23.4	-28.3	-28.3	27.8	-27.1	-32.8	-32.8	30.4	-31.5	-38.0	-38.0	33.3
9:12	-23.4	-28.3	-28.3	26.4	-27.2	-32.8	-32.8	29.0	-31.5	-38.0	-38.0	32.3
10:12	-23.5	-28.4	-28.4	25.2	-27.2	-32.9	-32.9	28.3	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
Exposure Category D												
1:12	-28.4	-52.1	-81.7	30.1	-32.1	-58.8	-92.2	30.1	-36.4	-66.6	-104.3	31.1
2:12	-25.4	-49.1	-75.8	32.0	-28.8	-55.5	-85.5	33.4	-32.7	-62.8	-96.7	35.1
3:12	-25.4	-49.1	-75.8	30.2	-28.8	-55.5	-85.5	31.6	-32.7	-62.8	-96.8	33.2
4:12	-25.5	-49.2	-75.8	28.3	-28.8	-55.5	-85.6	29.7	-32.7	-62.9	-96.8	31.3
5:12	-25.5	-49.2	-75.9	26.4	-28.9	-55.6	-85.6	27.8	-32.7	-62.9	-96.8	29.4
6:12	-25.5	-49.2	-75.9	24.7	-28.9	-55.6	-85.6	26.1	-32.8	-62.9	-96.9	27.7
7:12	-28.5	-34.5	-34.5	32.0	-32.3	-38.9	-38.9	34.5	-36.6	-44.1	-44.1	37.4
8:12	-28.6	-34.5	-34.5	30.5	-32.3	-39.0	-39.0	33.2	-36.6	-44.2	-44.2	37.1
9:12	-28.6	-34.5	-34.5	29.8	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

115 mph

Ground Snow Load

40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-18.9	-35.0	-55.1	35.1	-18.9	-35.0	-55.1	35.1	-23.2	-42.7	-67.2	35.1
2:12	-16.9	-33.0	-51.1	32.8	-16.9	-33.0	-51.1	32.8	-20.7	-40.3	-62.3	34.4
3:12	-16.9	-33.0	-51.1	30.4	-16.9	-33.0	-51.1	30.4	-20.8	-40.3	-62.4	32.0
4:12	-16.9	-33.0	-51.2	28.1	-16.9	-33.0	-51.2	28.1	-20.8	-40.4	-62.4	29.7
5:12	-16.9	-33.1	-51.2	25.8	-16.9	-33.1	-51.2	25.8	-20.8	-40.4	-62.4	27.4
6:12	-17.0	-33.1	-51.2	23.6	-17.0	-33.1	-51.2	23.6	-20.9	-40.4	-62.4	25.2
7:12	-19.0	-23.1	-23.1	27.7	-19.0	-23.1	-23.1	27.7	-23.4	-28.2	-28.2	30.6
8:12	-19.1	-23.1	-23.1	25.9	-19.1	-23.1	-23.1	25.9	-23.4	-28.3	-28.3	28.8
9:12	-19.1	-23.1	-23.1	24.4	-19.1	-23.1	-23.1	24.4	-23.4	-28.3	-28.3	27.3
10:12	-19.2	-23.2	-23.2	23.0	-19.2	-23.2	-23.2	23.0	-23.5	-28.4	-28.4	25.9
11:12	-19.2	-23.2	-23.2	21.9	-19.2	-23.2	-23.2	21.9	-23.5	-28.4	-28.4	24.9
12:12	-19.2	-23.3	-23.3	20.9	-19.2	-23.3	-23.3	20.9	-23.6	-28.4	-28.4	24.7
1:12	-23.2	-42.7	-67.2	35.1	-26.9	-49.5	-77.7	35.1	-31.2	-57.3	-89.8	35.1
2:12	-20.7	-40.3	-62.3	34.4	-24.1	-46.7	-72.1	35.8	-28.0	-54.0	-83.3	37.4
3:12	-20.8	-40.3	-62.4	32.0	-24.1	-46.7	-72.1	33.5	-28.0	-54.0	-83.3	35.1
4:12	-20.8	-40.4	-62.4	29.7	-24.2	-46.7	-72.1	31.1	-28.0	-54.1	-83.3	32.7
5:12	-20.8	-40.4	-62.4	27.4	-24.2	-46.8	-72.1	28.8	-28.1	-54.1	-83.4	30.4
6:12	-20.9	-40.4	-62.4	25.2	-24.2	-46.8	-72.2	26.6	-28.1	-54.1	-83.4	28.3
7:12	-23.4	-28.2	-28.2	30.6	-27.1	-32.7	-32.7	33.1	-31.4	-37.9	-37.9	36.1
8:12	-23.4	-28.3	-28.3	28.8	-27.1	-32.8	-32.8	31.4	-31.5	-38.0	-38.0	34.3
9:12	-23.4	-28.3	-28.3	27.3	-27.2	-32.8	-32.8	29.8	-31.5	-38.0	-38.0	32.7
10:12	-23.5	-28.4	-28.4	25.9	-27.2	-32.9	-32.9	28.5	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	24.9	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
1:12	-28.4	-52.1	-81.7	32.5	-32.1	-58.8	-92.2	32.5	-36.4	-66.6	-104.3	33.4
2:12	-25.4	-49.1	-75.8	34.2	-28.8	-55.5	-85.5	35.6	-32.7	-62.8	-96.7	37.2
3:12	-25.4	-49.1	-75.8	32.1	-28.8	-55.5	-85.5	33.5	-32.7	-62.8	-96.8	35.1
4:12	-25.5	-49.2	-75.8	29.9	-28.8	-55.5	-85.6	31.3	-32.7	-62.9	-96.8	33.0
5:12	-25.5	-49.2	-75.9	27.9	-28.9	-55.6	-85.6	29.3	-32.7	-62.9	-96.8	30.9
6:12	-25.5	-49.2	-75.9	25.9	-28.9	-55.6	-85.6	27.3	-32.8	-62.9	-96.9	28.9
7:12	-28.5	-34.5	-34.5	33.0	-32.3	-38.9	-38.9	35.6	-36.6	-44.1	-44.1	38.5
8:12	-28.6	-34.5	-34.5	31.4	-32.3	-39.0	-39.0	34.0	-36.6	-44.2	-44.2	37.1
9:12	-28.6	-34.5	-34.5	30.0	-32.4	-39.0	-39.0	33.1	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**
Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

115 mph
Basic Wind Speed

50 psf
Ground Snow Load

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-18.9	-35.0	-55.1	38.6	-18.9	-35.0	-55.1	38.6	-23.2	-42.7	-67.2	38.6
2:12	-16.9	-33.0	-51.1	35.5	-16.9	-33.0	-51.1	35.5	-20.7	-40.3	-62.3	36.8
3:12	-16.9	-33.0	-51.1	32.6	-16.9	-33.0	-51.1	32.6	-20.8	-40.3	-62.4	34.2
4:12	-16.9	-33.0	-51.2	29.9	-16.9	-33.0	-51.2	29.9	-20.8	-40.4	-62.4	31.6
5:12	-16.9	-33.1	-51.2	27.4	-16.9	-33.1	-51.2	27.4	-20.8	-40.4	-62.4	29.0
6:12	-17.0	-33.1	-51.2	25.0	-17.0	-33.1	-51.2	25.0	-20.9	-40.4	-62.4	26.6
7:12	-19.0	-23.1	-23.1	28.9	-19.0	-23.1	-23.1	28.9	-23.4	-28.2	-28.2	31.8
8:12	-19.1	-23.1	-23.1	27.0	-19.1	-23.1	-23.1	27.0	-23.4	-28.3	-28.3	29.9
9:12	-19.1	-23.1	-23.1	25.2	-19.1	-23.1	-23.1	25.2	-23.4	-28.3	-28.3	28.2
10:12	-19.2	-23.2	-23.2	23.7	-19.2	-23.2	-23.2	23.7	-23.5	-28.4	-28.4	26.7
11:12	-19.2	-23.2	-23.2	22.5	-19.2	-23.2	-23.2	22.5	-23.5	-28.4	-28.4	25.4
12:12	-19.2	-23.3	-23.3	21.4	-19.2	-23.3	-23.3	21.4	-23.6	-28.4	-28.4	24.7
Exposure Category C												
1:12	-23.2	-42.7	-67.2	38.6	-26.9	-49.5	-77.7	38.6	-31.2	-57.3	-89.8	38.6
2:12	-20.7	-40.3	-62.3	36.8	-24.1	-46.7	-72.1	38.2	-28.0	-54.0	-83.3	39.8
3:12	-20.8	-40.3	-62.4	34.2	-24.1	-46.7	-72.1	35.6	-28.0	-54.0	-83.3	37.2
4:12	-20.8	-40.4	-62.4	31.6	-24.2	-46.7	-72.1	33.0	-28.0	-54.1	-83.3	34.6
5:12	-20.8	-40.4	-62.4	29.0	-24.2	-46.8	-72.1	30.4	-28.1	-54.1	-83.4	32.0
6:12	-20.9	-40.4	-62.4	26.6	-24.2	-46.8	-72.2	28.0	-28.1	-54.1	-83.4	29.7
7:12	-23.4	-28.2	-28.2	31.8	-27.1	-32.7	-32.7	34.3	-31.4	-37.9	-37.9	37.2
8:12	-23.4	-28.3	-28.3	29.9	-27.1	-32.8	-32.8	32.4	-31.5	-38.0	-38.0	35.3
9:12	-23.4	-28.3	-28.3	28.2	-27.2	-32.8	-32.8	30.7	-31.5	-38.0	-38.0	33.6
10:12	-23.5	-28.4	-28.4	26.7	-27.2	-32.9	-32.9	29.2	-31.5	-38.0	-38.0	32.2
11:12	-23.5	-28.4	-28.4	25.4	-27.3	-32.9	-32.9	28.2	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	24.7	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
Exposure Category D												
1:12	-28.4	-52.1	-81.7	35.1	-32.1	-58.8	-92.2	35.1	-36.4	-66.6	-104.3	35.8
2:12	-25.4	-49.1	-75.8	36.3	-28.8	-55.5	-85.5	37.7	-32.7	-62.8	-96.7	39.3
3:12	-25.4	-49.1	-75.8	34.0	-28.8	-55.5	-85.5	35.4	-32.7	-62.8	-96.8	37.0
4:12	-25.5	-49.2	-75.8	31.6	-28.8	-55.5	-85.6	33.0	-32.7	-62.9	-96.8	34.7
5:12	-25.5	-49.2	-75.9	29.3	-28.9	-55.6	-85.6	30.7	-32.7	-62.9	-96.8	32.4
6:12	-25.5	-49.2	-75.9	27.2	-28.9	-55.6	-85.6	28.6	-32.8	-62.9	-96.9	30.2
7:12	-28.5	-34.5	-34.5	34.1	-32.3	-38.9	-38.9	36.6	-36.6	-44.1	-44.1	39.5
8:12	-28.6	-34.5	-34.5	32.3	-32.3	-39.0	-39.0	34.9	-36.6	-44.2	-44.2	37.8
9:12	-28.6	-34.5	-34.5	30.8	-32.4	-39.0	-39.0	33.3	-36.7	-44.2	-44.2	37.0
10:12	-28.7	-34.6	-34.6	29.6	-32.4	-39.1	-39.1	33.0	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-18.9	-35.0	-55.1	45.5	-18.9	-35.0	-55.1	45.5	-23.2	-42.7	-67.2	45.5
2:12	-16.9	-33.0	-51.1	41.9	-16.9	-33.0	-51.1	41.9	-20.7	-40.3	-62.3	41.9
3:12	-16.9	-33.0	-51.1	37.8	-16.9	-33.0	-51.1	37.8	-20.8	-40.3	-62.4	38.4
4:12	-16.9	-33.0	-51.2	33.7	-16.9	-33.0	-51.2	33.7	-20.8	-40.4	-62.4	35.3
5:12	-16.9	-33.1	-51.2	30.7	-16.9	-33.1	-51.2	30.7	-20.8	-40.4	-62.4	32.3
6:12	-17.0	-33.1	-51.2	27.8	-17.0	-33.1	-51.2	27.8	-20.9	-40.4	-62.4	29.5
7:12	-19.0	-23.1	-23.1	31.3	-19.0	-23.1	-23.1	31.3	-23.4	-28.2	-28.2	34.2
8:12	-19.1	-23.1	-23.1	29.0	-19.1	-23.1	-23.1	29.0	-23.4	-28.3	-28.3	31.9
9:12	-19.1	-23.1	-23.1	27.0	-19.1	-23.1	-23.1	27.0	-23.4	-28.3	-28.3	29.9
10:12	-19.2	-23.2	-23.2	25.2	-19.2	-23.2	-23.2	25.2	-23.5	-28.4	-28.4	28.1
11:12	-19.2	-23.2	-23.2	23.7	-19.2	-23.2	-23.2	23.7	-23.5	-28.4	-28.4	26.6
12:12	-19.2	-23.3	-23.3	22.4	-19.2	-23.3	-23.3	22.4	-23.6	-28.4	-28.4	25.3
Exposure Category C												
1:12	-23.2	-42.7	-67.2	45.5	-26.9	-49.5	-77.7	45.5	-31.2	-57.3	-89.8	45.5
2:12	-20.7	-40.3	-62.3	41.9	-24.1	-46.7	-72.1	42.9	-28.0	-54.0	-83.3	44.5
3:12	-20.8	-40.3	-62.4	38.4	-24.1	-46.7	-72.1	39.8	-28.0	-54.0	-83.3	41.5
4:12	-20.8	-40.4	-62.4	35.3	-24.2	-46.7	-72.1	36.7	-28.0	-54.1	-83.3	38.3
5:12	-20.8	-40.4	-62.4	32.3	-24.2	-46.8	-72.1	33.7	-28.1	-54.1	-83.4	35.3
6:12	-20.9	-40.4	-62.4	29.5	-24.2	-46.8	-72.2	30.9	-28.1	-54.1	-83.4	32.5
7:12	-23.4	-28.2	-28.2	34.2	-27.1	-32.7	-32.7	36.7	-31.4	-37.9	-37.9	39.6
8:12	-23.4	-28.3	-28.3	31.9	-27.1	-32.8	-32.8	34.4	-31.5	-38.0	-38.0	37.3
9:12	-23.4	-28.3	-28.3	29.9	-27.2	-32.8	-32.8	32.4	-31.5	-38.0	-38.0	35.3
10:12	-23.5	-28.4	-28.4	28.1	-27.2	-32.9	-32.9	30.6	-31.5	-38.0	-38.0	33.5
11:12	-23.5	-28.4	-28.4	26.6	-27.3	-32.9	-32.9	29.1	-31.6	-38.1	-38.1	32.1
12:12	-23.6	-28.4	-28.4	25.3	-27.3	-32.9	-32.9	28.1	-31.6	-38.1	-38.1	32.0
Exposure Category D												
1:12	-28.4	-52.1	-81.7	41.4	-32.1	-58.8	-92.2	41.4	-36.4	-66.6	-104.3	41.4
2:12	-25.4	-49.1	-75.8	40.6	-28.8	-55.5	-85.5	42.0	-32.7	-62.8	-96.7	43.6
3:12	-25.4	-49.1	-75.8	37.8	-28.8	-55.5	-85.5	39.2	-32.7	-62.8	-96.8	40.8
4:12	-25.5	-49.2	-75.8	35.0	-28.8	-55.5	-85.6	36.4	-32.7	-62.9	-96.8	38.0
5:12	-25.5	-49.2	-75.9	32.3	-28.9	-55.6	-85.6	33.7	-32.7	-62.9	-96.8	35.3
6:12	-25.5	-49.2	-75.9	29.7	-28.9	-55.6	-85.6	31.1	-32.8	-62.9	-96.9	32.7
7:12	-28.5	-34.5	-34.5	36.3	-32.3	-38.9	-38.9	38.8	-36.6	-44.1	-44.1	41.7
8:12	-28.6	-34.5	-34.5	34.2	-32.3	-39.0	-39.0	36.7	-36.6	-44.2	-44.2	39.6
9:12	-28.6	-34.5	-34.5	32.3	-32.4	-39.0	-39.0	34.9	-36.7	-44.2	-44.2	37.8
10:12	-28.7	-34.6	-34.6	30.7	-32.4	-39.1	-39.1	33.3	-36.7	-44.3	-44.3	36.9
11:12	-28.7	-34.6	-34.6	29.5	-32.4	-39.1	-39.1	32.9	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**

Ground Snow Load **60 psf**

Up and Down (psf)

Basic Wind Speed
115 mph
Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-18.9	-35.0	-55.1	52.5	-18.9	-35.0	-55.1	52.5	-23.2	-42.7	-67.2	52.5
2:12	-16.9	-33.0	-51.1	48.2	-16.9	-33.0	-51.1	48.2	-20.7	-40.3	-62.3	48.2
3:12	-16.9	-33.0	-51.1	43.4	-16.9	-33.0	-51.1	43.4	-20.8	-40.3	-62.4	43.4
4:12	-16.9	-33.0	-51.2	38.6	-16.9	-33.0	-51.2	38.6	-20.8	-40.4	-62.4	39.1
5:12	-16.9	-33.1	-51.2	34.0	-16.9	-33.1	-51.2	34.0	-20.8	-40.4	-62.4	35.5
6:12	-17.0	-33.1	-51.2	30.6	-17.0	-33.1	-51.2	30.6	-20.9	-40.4	-62.4	32.3
7:12	-19.0	-23.1	-23.1	33.7	-19.0	-23.1	-23.1	33.7	-23.4	-28.2	-28.2	36.6
8:12	-19.1	-23.1	-23.1	31.0	-19.1	-23.1	-23.1	31.0	-23.4	-28.3	-28.3	33.9
9:12	-19.1	-23.1	-23.1	28.7	-19.1	-23.1	-23.1	28.7	-23.4	-28.3	-28.3	31.6
10:12	-19.2	-23.2	-23.2	26.6	-19.2	-23.2	-23.2	26.6	-23.5	-28.4	-28.4	29.5
11:12	-19.2	-23.2	-23.2	24.9	-19.2	-23.2	-23.2	24.9	-23.5	-28.4	-28.4	27.8
12:12	-19.2	-23.3	-23.3	23.4	-19.2	-23.3	-23.3	23.4	-23.6	-28.4	-28.4	26.3
Exposure Category C												
1:12	-23.2	-42.7	-67.2	52.5	-26.9	-49.5	-77.7	52.5	-31.2	-57.3	-89.8	52.5
2:12	-20.7	-40.3	-62.3	48.2	-24.1	-46.7	-72.1	48.2	-28.0	-54.0	-83.3	49.3
3:12	-20.8	-40.3	-62.4	43.4	-24.1	-46.7	-72.1	44.1	-28.0	-54.0	-83.3	45.7
4:12	-20.8	-40.4	-62.4	39.1	-24.2	-46.7	-72.1	40.5	-28.0	-54.1	-83.3	42.1
5:12	-20.8	-40.4	-62.4	35.5	-24.2	-46.8	-72.1	37.0	-28.1	-54.1	-83.4	38.6
6:12	-20.9	-40.4	-62.4	32.3	-24.2	-46.8	-72.2	33.7	-28.1	-54.1	-83.4	35.3
7:12	-23.4	-28.2	-28.2	36.6	-27.1	-32.7	-32.7	39.1	-31.4	-37.9	-37.9	42.0
8:12	-23.4	-28.3	-28.3	33.9	-27.1	-32.8	-32.8	36.5	-31.5	-38.0	-38.0	39.4
9:12	-23.4	-28.3	-28.3	31.6	-27.2	-32.8	-32.8	34.1	-31.5	-38.0	-38.0	37.0
10:12	-23.5	-28.4	-28.4	29.5	-27.2	-32.9	-32.9	32.1	-31.5	-38.0	-38.0	35.0
11:12	-23.5	-28.4	-28.4	27.8	-27.3	-32.9	-32.9	30.3	-31.6	-38.1	-38.1	33.2
12:12	-23.6	-28.4	-28.4	26.3	-27.3	-32.9	-32.9	28.8	-31.6	-38.1	-38.1	32.0
Exposure Category D												
1:12	-28.4	-52.1	-81.7	47.6	-32.1	-58.8	-92.2	47.6	-36.4	-66.6	-104.3	47.6
2:12	-25.4	-49.1	-75.8	44.9	-28.8	-55.5	-85.5	46.3	-32.7	-62.8	-96.7	47.9
3:12	-25.4	-49.1	-75.8	41.6	-28.8	-55.5	-85.5	43.1	-32.7	-62.8	-96.8	44.7
4:12	-25.5	-49.2	-75.8	38.4	-28.8	-55.5	-85.6	39.8	-32.7	-62.9	-96.8	41.4
5:12	-25.5	-49.2	-75.9	35.2	-28.9	-55.6	-85.6	36.6	-32.7	-62.9	-96.8	38.2
6:12	-25.5	-49.2	-75.9	32.2	-28.9	-55.6	-85.6	33.6	-32.8	-62.9	-96.9	35.3
7:12	-28.5	-34.5	-34.5	38.4	-32.3	-38.9	-38.9	40.9	-36.6	-44.1	-44.1	43.9
8:12	-28.6	-34.5	-34.5	36.0	-32.3	-39.0	-39.0	38.5	-36.6	-44.2	-44.2	41.4
9:12	-28.6	-34.5	-34.5	33.9	-32.4	-39.0	-39.0	36.4	-36.7	-44.2	-44.2	39.3
10:12	-28.7	-34.6	-34.6	32.0	-32.4	-39.1	-39.1	34.6	-36.7	-44.3	-44.3	37.5
11:12	-28.7	-34.6	-34.6	30.4	-32.4	-39.1	-39.1	33.0	-36.8	-44.3	-44.3	36.8
12:12	-28.7	-34.7	-34.7	29.4	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
115 mph
Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-18.9	-35.0	-55.1	59.4	-18.9	-35.0	-55.1	59.4	-23.2	-42.7	-67.2	59.4
	2:12	-16.9	-33.0	-51.1	54.5	-16.9	-33.0	-51.1	54.5	-20.7	-40.3	-62.3	54.5
	3:12	-16.9	-33.0	-51.1	49.1	-16.9	-33.0	-51.1	49.1	-20.8	-40.3	-62.4	49.1
	4:12	-16.9	-33.0	-51.2	43.6	-16.9	-33.0	-51.2	43.6	-20.8	-40.4	-62.4	43.6
	5:12	-16.9	-33.1	-51.2	38.3	-16.9	-33.1	-51.2	38.3	-20.8	-40.4	-62.4	38.8
	6:12	-17.0	-33.1	-51.2	33.4	-17.0	-33.1	-51.2	33.4	-20.9	-40.4	-62.4	35.1
	7:12	-19.0	-23.1	-23.1	36.1	-19.0	-23.1	-23.1	36.1	-23.4	-28.2	-28.2	39.0
	8:12	-19.1	-23.1	-23.1	33.0	-19.1	-23.1	-23.1	33.0	-23.4	-28.3	-28.3	36.0
	9:12	-19.1	-23.1	-23.1	30.4	-19.1	-23.1	-23.1	30.4	-23.4	-28.3	-28.3	33.3
	10:12	-19.2	-23.2	-23.2	28.1	-19.2	-23.2	-23.2	28.1	-23.5	-28.4	-28.4	31.0
	11:12	-19.2	-23.2	-23.2	26.1	-19.2	-23.2	-23.2	26.1	-23.5	-28.4	-28.4	29.0
	12:12	-19.2	-23.3	-23.3	24.4	-19.2	-23.3	-23.3	24.4	-23.6	-28.4	-28.4	27.3
Exposure Category C	1:12	-23.2	-42.7	-67.2	59.4	-26.9	-49.5	-77.7	59.4	-31.2	-57.3	-89.8	59.4
	2:12	-20.7	-40.3	-62.3	54.5	-24.1	-46.7	-72.1	54.5	-28.0	-54.0	-83.3	54.5
	3:12	-20.8	-40.3	-62.4	49.1	-24.1	-46.7	-72.1	49.1	-28.0	-54.0	-83.3	50.0
	4:12	-20.8	-40.4	-62.4	43.6	-24.2	-46.7	-72.1	44.2	-28.0	-54.1	-83.3	45.8
	5:12	-20.8	-40.4	-62.4	38.8	-24.2	-46.8	-72.1	40.2	-28.1	-54.1	-83.4	41.8
	6:12	-20.9	-40.4	-62.4	35.1	-24.2	-46.8	-72.2	36.5	-28.1	-54.1	-83.4	38.1
	7:12	-23.4	-28.2	-28.2	39.0	-27.1	-32.7	-32.7	41.5	-31.4	-37.9	-37.9	44.4
	8:12	-23.4	-28.3	-28.3	36.0	-27.1	-32.8	-32.8	38.5	-31.5	-38.0	-38.0	41.4
	9:12	-23.4	-28.3	-28.3	33.3	-27.2	-32.8	-32.8	35.8	-31.5	-38.0	-38.0	38.7
	10:12	-23.5	-28.4	-28.4	31.0	-27.2	-32.9	-32.9	33.5	-31.5	-38.0	-38.0	36.4
	11:12	-23.5	-28.4	-28.4	29.0	-27.3	-32.9	-32.9	31.5	-31.6	-38.1	-38.1	34.4
	12:12	-23.6	-28.4	-28.4	27.3	-27.3	-32.9	-32.9	29.8	-31.6	-38.1	-38.1	32.7
Exposure Category D	1:12	-28.4	-52.1	-81.7	53.9	-32.1	-58.8	-92.2	53.9	-36.4	-66.6	-104.3	53.9
	2:12	-25.4	-49.1	-75.8	49.5	-28.8	-55.5	-85.5	50.6	-32.7	-62.8	-96.7	52.2
	3:12	-25.4	-49.1	-75.8	45.5	-28.8	-55.5	-85.5	46.9	-32.7	-62.8	-96.8	48.5
	4:12	-25.5	-49.2	-75.8	41.8	-28.8	-55.5	-85.6	43.2	-32.7	-62.9	-96.8	44.8
	5:12	-25.5	-49.2	-75.9	38.1	-28.9	-55.6	-85.6	39.5	-32.7	-62.9	-96.8	41.2
	6:12	-25.5	-49.2	-75.9	34.8	-28.9	-55.6	-85.6	36.2	-32.8	-62.9	-96.9	37.8
	7:12	-28.5	-34.5	-34.5	40.6	-32.3	-38.9	-38.9	43.1	-36.6	-44.1	-44.1	46.0
	8:12	-28.6	-34.5	-34.5	37.8	-32.3	-39.0	-39.0	40.4	-36.6	-44.2	-44.2	43.3
	9:12	-28.6	-34.5	-34.5	35.4	-32.4	-39.0	-39.0	37.9	-36.7	-44.2	-44.2	40.9
	10:12	-28.7	-34.6	-34.6	33.3	-32.4	-39.1	-39.1	35.9	-36.7	-44.3	-44.3	38.8
	11:12	-28.7	-34.6	-34.6	31.5	-32.4	-39.1	-39.1	34.1	-36.8	-44.3	-44.3	37.0
	12:12	-28.7	-34.7	-34.7	30.0	-32.5	-39.2	-39.2	32.8	-36.8	-44.3	-44.3	36.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
	2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
	3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
	4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
	5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
	6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
	7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
	8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
	9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
	10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
	11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Table W115-S80

Up and Down (psf)

Basic Wind Speed
115 mph
Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-18.9	-35.0	-55.1	66.4	-18.9	-35.0	-55.1	66.4	-23.2	-42.7	-67.2	66.4
2:12	-16.9	-33.0	-51.1	60.9	-16.9	-33.0	-51.1	60.9	-20.7	-40.3	-62.3	60.9
3:12	-16.9	-33.0	-51.1	54.8	-16.9	-33.0	-51.1	54.8	-20.8	-40.3	-62.4	54.8
4:12	-16.9	-33.0	-51.2	48.6	-16.9	-33.0	-51.2	48.6	-20.8	-40.4	-62.4	48.6
5:12	-16.9	-33.1	-51.2	42.7	-16.9	-33.1	-51.2	42.7	-20.8	-40.4	-62.4	42.7
6:12	-17.0	-33.1	-51.2	37.1	-17.0	-33.1	-51.2	37.1	-20.9	-40.4	-62.4	37.9
7:12	-19.0	-23.1	-23.1	38.5	-19.0	-23.1	-23.1	38.5	-23.4	-28.2	-28.2	41.4
8:12	-19.1	-23.1	-23.1	35.1	-19.1	-23.1	-23.1	35.1	-23.4	-28.3	-28.3	38.0
9:12	-19.1	-23.1	-23.1	32.1	-19.1	-23.1	-23.1	32.1	-23.4	-28.3	-28.3	35.0
10:12	-19.2	-23.2	-23.2	29.5	-19.2	-23.2	-23.2	29.5	-23.5	-28.4	-28.4	32.4
11:12	-19.2	-23.2	-23.2	27.3	-19.2	-23.2	-23.2	27.3	-23.5	-28.4	-28.4	30.2
12:12	-19.2	-23.3	-23.3	25.4	-19.2	-23.3	-23.3	25.4	-23.6	-28.4	-28.4	28.3
1:12	-23.2	-42.7	-67.2	66.4	-26.9	-49.5	-77.7	66.4	-31.2	-57.3	-89.8	66.4
2:12	-20.7	-40.3	-62.3	60.9	-24.1	-46.7	-72.1	60.9	-28.0	-54.0	-83.3	60.9
3:12	-20.8	-40.3	-62.4	54.8	-24.1	-46.7	-72.1	54.8	-28.0	-54.0	-83.3	54.8
4:12	-20.8	-40.4	-62.4	48.6	-24.2	-46.7	-72.1	48.6	-28.0	-54.1	-83.3	49.6
5:12	-20.8	-40.4	-62.4	42.7	-24.2	-46.8	-72.1	43.5	-28.1	-54.1	-83.4	45.1
6:12	-20.9	-40.4	-62.4	37.9	-24.2	-46.8	-72.2	39.3	-28.1	-54.1	-83.4	40.9
7:12	-23.4	-28.2	-28.2	41.4	-27.1	-32.7	-32.7	43.9	-31.4	-37.9	-37.9	46.8
8:12	-23.4	-28.3	-28.3	38.0	-27.1	-32.8	-32.8	40.5	-31.5	-38.0	-38.0	43.4
9:12	-23.4	-28.3	-28.3	35.0	-27.2	-32.8	-32.8	37.5	-31.5	-38.0	-38.0	40.4
10:12	-23.5	-28.4	-28.4	32.4	-27.2	-32.9	-32.9	34.9	-31.5	-38.0	-38.0	37.9
11:12	-23.5	-28.4	-28.4	30.2	-27.3	-32.9	-32.9	32.7	-31.6	-38.1	-38.1	35.6
12:12	-23.6	-28.4	-28.4	28.3	-27.3	-32.9	-32.9	30.8	-31.6	-38.1	-38.1	33.8
1:12	-28.4	-52.1	-81.7	60.1	-32.1	-58.8	-92.2	60.1	-36.4	-66.6	-104.3	60.1
2:12	-25.4	-49.1	-75.8	55.2	-28.8	-55.5	-85.5	55.2	-32.7	-62.8	-96.7	56.5
3:12	-25.4	-49.1	-75.8	49.7	-28.8	-55.5	-85.5	50.7	-32.7	-62.8	-96.8	52.3
4:12	-25.5	-49.2	-75.8	45.1	-28.8	-55.5	-85.6	46.5	-32.7	-62.9	-96.8	48.1
5:12	-25.5	-49.2	-75.9	41.1	-28.9	-55.6	-85.6	42.5	-32.7	-62.9	-96.8	44.1
6:12	-25.5	-49.2	-75.9	37.3	-28.9	-55.6	-85.6	38.7	-32.8	-62.9	-96.9	40.3
7:12	-28.5	-34.5	-34.5	42.7	-32.3	-38.9	-38.9	45.3	-36.6	-44.1	-44.1	48.2
8:12	-28.6	-34.5	-34.5	39.7	-32.3	-39.0	-39.0	42.2	-36.6	-44.2	-44.2	45.1
9:12	-28.6	-34.5	-34.5	37.0	-32.4	-39.0	-39.0	39.5	-36.7	-44.2	-44.2	42.4
10:12	-28.7	-34.6	-34.6	34.6	-32.4	-39.1	-39.1	37.1	-36.7	-44.3	-44.3	40.1
11:12	-28.7	-34.6	-34.6	32.6	-32.4	-39.1	-39.1	35.1	-36.8	-44.3	-44.3	38.1
12:12	-28.7	-34.7	-34.7	30.9	-32.5	-39.2	-39.2	33.4	-36.8	-44.3	-44.3	36.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-18.9	-35.0	-55.1	73.4	-18.9	-35.0	-55.1	73.4	-23.2	-42.7	-67.2	73.4
	2:12	-16.9	-33.0	-51.1	67.2	-16.9	-33.0	-51.1	67.2	-20.7	-40.3	-62.3	67.2
	3:12	-16.9	-33.0	-51.1	60.5	-16.9	-33.0	-51.1	60.5	-20.8	-40.3	-62.4	60.5
	4:12	-16.9	-33.0	-51.2	53.6	-16.9	-33.0	-51.2	53.6	-20.8	-40.4	-62.4	53.6
	5:12	-16.9	-33.1	-51.2	47.0	-16.9	-33.1	-51.2	47.0	-20.8	-40.4	-62.4	47.0
	6:12	-17.0	-33.1	-51.2	40.9	-17.0	-33.1	-51.2	40.9	-20.9	-40.4	-62.4	40.9
	7:12	-19.0	-23.1	-23.1	40.9	-19.0	-23.1	-23.1	40.9	-23.4	-28.2	-28.2	43.8
	8:12	-19.1	-23.1	-23.1	37.1	-19.1	-23.1	-23.1	37.1	-23.4	-28.3	-28.3	40.0
	9:12	-19.1	-23.1	-23.1	33.8	-19.1	-23.1	-23.1	33.8	-23.4	-28.3	-28.3	36.7
	10:12	-19.2	-23.2	-23.2	30.9	-19.2	-23.2	-23.2	30.9	-23.5	-28.4	-28.4	33.9
	11:12	-19.2	-23.2	-23.2	28.5	-19.2	-23.2	-23.2	28.5	-23.5	-28.4	-28.4	31.4
	12:12	-19.2	-23.3	-23.3	26.4	-19.2	-23.3	-23.3	26.4	-23.6	-28.4	-28.4	29.3
Exposure Category C	1:12	-23.2	-42.7	-67.2	73.4	-26.9	-49.5	-77.7	73.4	-31.2	-57.3	-89.8	73.4
	2:12	-20.7	-40.3	-62.3	67.2	-24.1	-46.7	-72.1	67.2	-28.0	-54.0	-83.3	67.2
	3:12	-20.8	-40.3	-62.4	60.5	-24.1	-46.7	-72.1	60.5	-28.0	-54.0	-83.3	60.5
	4:12	-20.8	-40.4	-62.4	53.6	-24.2	-46.7	-72.1	53.6	-28.0	-54.1	-83.3	53.6
	5:12	-20.8	-40.4	-62.4	47.0	-24.2	-46.8	-72.1	47.0	-28.1	-54.1	-83.4	48.4
	6:12	-20.9	-40.4	-62.4	40.9	-24.2	-46.8	-72.2	42.1	-28.1	-54.1	-83.4	43.7
	7:12	-23.4	-28.2	-28.2	43.8	-27.1	-32.7	-32.7	46.3	-31.4	-37.9	-37.9	49.2
	8:12	-23.4	-28.3	-28.3	40.0	-27.1	-32.8	-32.8	42.5	-31.5	-38.0	-38.0	45.5
	9:12	-23.4	-28.3	-28.3	36.7	-27.2	-32.8	-32.8	39.2	-31.5	-38.0	-38.0	42.2
	10:12	-23.5	-28.4	-28.4	33.9	-27.2	-32.9	-32.9	36.4	-31.5	-38.0	-38.0	39.3
	11:12	-23.5	-28.4	-28.4	31.4	-27.3	-32.9	-32.9	33.9	-31.6	-38.1	-38.1	36.9
	12:12	-23.6	-28.4	-28.4	29.3	-27.3	-32.9	-32.9	31.9	-31.6	-38.1	-38.1	34.8
Exposure Category D	1:12	-28.4	-52.1	-81.7	66.4	-32.1	-58.8	-92.2	66.4	-36.4	-66.6	-104.3	66.4
	2:12	-25.4	-49.1	-75.8	60.9	-28.8	-55.5	-85.5	60.9	-32.7	-62.8	-96.7	60.9
	3:12	-25.4	-49.1	-75.8	54.8	-28.8	-55.5	-85.5	54.8	-32.7	-62.8	-96.8	56.2
	4:12	-25.5	-49.2	-75.8	48.6	-28.8	-55.5	-85.6	49.9	-32.7	-62.9	-96.8	51.5
	5:12	-25.5	-49.2	-75.9	44.0	-28.9	-55.6	-85.6	45.4	-32.7	-62.9	-96.8	47.0
	6:12	-25.5	-49.2	-75.9	39.8	-28.9	-55.6	-85.6	41.2	-32.8	-62.9	-96.9	42.8
	7:12	-28.5	-34.5	-34.5	44.9	-32.3	-38.9	-38.9	47.4	-36.6	-44.1	-44.1	50.3
	8:12	-28.6	-34.5	-34.5	41.5	-32.3	-39.0	-39.0	44.0	-36.6	-44.2	-44.2	46.9
	9:12	-28.6	-34.5	-34.5	38.5	-32.4	-39.0	-39.0	41.0	-36.7	-44.2	-44.2	43.9
	10:12	-28.7	-34.6	-34.6	35.9	-32.4	-39.1	-39.1	38.4	-36.7	-44.3	-44.3	41.4
	11:12	-28.7	-34.6	-34.6	33.7	-32.4	-39.1	-39.1	36.2	-36.8	-44.3	-44.3	39.1
	12:12	-28.7	-34.7	-34.7	31.8	-32.5	-39.2	-39.2	34.3	-36.8	-44.3	-44.3	37.3
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
	2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
	3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
	4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
	5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
	6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
	7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
	8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
	9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
	10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
	11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed **120 mph**
Ground Snow Load **0 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.1	13.8	-20.7	-38.2	-60.1	13.8	-25.4	-46.7	-73.3	13.8
2:12	-18.5	-36.0	-55.8	14.8	-18.5	-36.0	-55.8	14.8	-22.7	-44.0	-68.0	17.1
3:12	-18.5	-36.0	-55.8	14.7	-18.5	-36.0	-55.8	14.7	-22.7	-44.0	-68.0	17.0
4:12	-18.5	-36.1	-55.8	14.6	-18.5	-36.1	-55.8	14.6	-22.8	-44.1	-68.0	17.0
5:12	-18.6	-36.1	-55.8	14.5	-18.6	-36.1	-55.8	14.5	-22.8	-44.1	-68.1	16.9
6:12	-18.6	-36.1	-55.9	14.4	-18.6	-36.1	-55.9	14.4	-22.8	-44.1	-68.1	16.8
7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.5	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	22.9	-20.9	-25.3	-25.3	22.9	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-30.9	-30.9	27.0
10:12	-20.9	-25.3	-25.3	22.7	-20.9	-25.3	-25.3	22.7	-25.6	-31.0	-31.0	26.9
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.3	13.8	-29.4	-54.0	-84.7	13.8	-34.1	-62.5	-97.9	14.5
2:12	-22.7	-44.0	-68.0	17.1	-26.4	-50.9	-78.6	19.1	-30.6	-58.9	-90.8	21.5
3:12	-22.7	-44.0	-68.0	17.0	-26.4	-51.0	-78.6	19.1	-30.6	-58.9	-90.8	21.4
4:12	-22.8	-44.1	-68.0	17.0	-26.4	-51.0	-78.6	19.0	-30.6	-59.0	-90.8	21.4
5:12	-22.8	-44.1	-68.1	16.9	-26.5	-51.0	-78.7	18.9	-30.7	-59.0	-90.9	21.3
6:12	-22.8	-44.1	-68.1	16.8	-26.5	-51.1	-78.7	18.8	-30.7	-59.0	-90.9	21.1
7:12	-25.5	-30.9	-30.9	27.3	-29.6	-35.7	-35.7	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.6	-35.8	-35.8	30.8	-34.3	-41.4	-41.4	35.1
9:12	-25.6	-30.9	-30.9	27.0	-29.7	-35.8	-35.8	30.7	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	26.9	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.8	-89.1	13.8	-35.1	-64.1	-100.5	14.7	-39.8	-72.6	-113.7	16.1
2:12	-27.8	-53.6	-82.6	19.9	-31.4	-60.5	-93.2	22.0	-35.7	-68.5	-105.5	24.3
3:12	-27.8	-53.6	-82.7	19.9	-31.5	-60.5	-93.3	21.9	-35.7	-68.5	-105.5	24.3
4:12	-27.8	-53.6	-82.7	19.8	-31.5	-60.6	-93.3	21.8	-35.7	-68.6	-105.5	24.2
5:12	-27.9	-53.7	-82.7	19.7	-31.5	-60.6	-93.3	21.7	-35.8	-68.6	-105.5	24.1
6:12	-27.9	-53.7	-82.8	19.6	-31.6	-60.6	-93.4	21.6	-35.8	-68.6	-105.6	24.0
7:12	-31.2	-37.6	-37.6	32.4	-35.2	-42.5	-42.5	36.0	-39.9	-48.1	-48.1	40.3
8:12	-31.2	-37.7	-37.7	32.2	-35.3	-42.5	-42.5	35.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.1	15.1	-20.7	-38.2	-60.1	15.1	-25.4	-46.7	-73.3	15.1
2:12	-18.5	-36.0	-55.8	15.4	-18.5	-36.0	-55.8	15.4	-22.7	-44.0	-68.0	17.2
3:12	-18.5	-36.0	-55.8	15.0	-18.5	-36.0	-55.8	15.0	-22.7	-44.0	-68.0	17.0
4:12	-18.5	-36.1	-55.8	14.6	-18.5	-36.1	-55.8	14.6	-22.8	-44.1	-68.0	17.0
5:12	-18.6	-36.1	-55.8	14.5	-18.6	-36.1	-55.8	14.5	-22.8	-44.1	-68.1	16.9
6:12	-18.6	-36.1	-55.9	14.4	-18.6	-36.1	-55.9	14.4	-22.8	-44.1	-68.1	16.8
7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.5	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	22.9	-20.9	-25.3	-25.3	22.9	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-30.9	-30.9	27.0
10:12	-20.9	-25.3	-25.3	22.7	-20.9	-25.3	-25.3	22.7	-25.6	-31.0	-31.0	26.9
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.3	15.1	-29.4	-54.0	-84.7	15.1	-34.1	-62.5	-97.9	15.5
2:12	-22.7	-44.0	-68.0	17.2	-26.4	-50.9	-78.6	19.1	-30.6	-58.9	-90.8	21.5
3:12	-22.7	-44.0	-68.0	17.0	-26.4	-51.0	-78.6	19.1	-30.6	-58.9	-90.8	21.4
4:12	-22.8	-44.1	-68.0	17.0	-26.4	-51.0	-78.6	19.0	-30.6	-59.0	-90.8	21.4
5:12	-22.8	-44.1	-68.1	16.9	-26.5	-51.0	-78.7	18.9	-30.7	-59.0	-90.9	21.3
6:12	-22.8	-44.1	-68.1	16.8	-26.5	-51.1	-78.7	18.8	-30.7	-59.0	-90.9	21.1
7:12	-25.5	-30.9	-30.9	27.3	-29.6	-35.7	-35.7	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.6	-35.8	-35.8	30.8	-34.3	-41.4	-41.4	35.1
9:12	-25.6	-30.9	-30.9	27.0	-29.7	-35.8	-35.8	30.7	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	26.9	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.8	-89.1	15.1	-35.1	-64.1	-100.5	15.7	-39.8	-72.6	-113.7	16.8
2:12	-27.8	-53.6	-82.6	19.9	-31.4	-60.5	-93.2	22.0	-35.7	-68.5	-105.5	24.3
3:12	-27.8	-53.6	-82.7	19.9	-31.5	-60.5	-93.3	21.9	-35.7	-68.5	-105.5	24.3
4:12	-27.8	-53.6	-82.7	19.8	-31.5	-60.6	-93.3	21.8	-35.7	-68.6	-105.5	24.2
5:12	-27.9	-53.7	-82.7	19.7	-31.5	-60.6	-93.3	21.7	-35.8	-68.6	-105.5	24.1
6:12	-27.9	-53.7	-82.8	19.6	-31.6	-60.6	-93.4	21.6	-35.8	-68.6	-105.6	24.0
7:12	-31.2	-37.6	-37.6	32.4	-35.2	-42.5	-42.5	36.0	-39.9	-48.1	-48.1	40.3
8:12	-31.2	-37.7	-37.7	32.2	-35.3	-42.5	-42.5	35.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7

Basic Wind Speed **120 mph**
Ground Snow Load **5 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.1	18.8	-20.7	-38.2	-60.1	18.8	-25.4	-46.7	-73.3	18.8
2:12	-18.5	-36.0	-55.8	18.8	-18.5	-36.0	-55.8	18.8	-22.7	-44.0	-68.0	20.6
3:12	-18.5	-36.0	-55.8	18.0	-18.5	-36.0	-55.8	18.0	-22.7	-44.0	-68.0	19.8
4:12	-18.5	-36.1	-55.8	15.6	-18.5	-36.1	-55.8	15.6	-22.8	-44.1	-68.0	17.4
5:12	-18.6	-36.1	-55.8	15.0	-18.6	-36.1	-55.8	15.0	-22.8	-44.1	-68.1	16.9
6:12	-18.6	-36.1	-55.9	14.5	-18.6	-36.1	-55.9	14.5	-22.8	-44.1	-68.1	16.8
7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.5	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	22.9	-20.9	-25.3	-25.3	22.9	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-30.9	-30.9	27.0
10:12	-20.9	-25.3	-25.3	22.7	-20.9	-25.3	-25.3	22.7	-25.6	-31.0	-31.0	26.9
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.3	18.8	-29.4	-54.0	-84.7	18.8	-34.1	-62.5	-97.9	19.2
2:12	-22.7	-44.0	-68.0	20.6	-26.4	-50.9	-78.6	22.1	-30.6	-58.9	-90.8	23.9
3:12	-22.7	-44.0	-68.0	19.8	-26.4	-51.0	-78.6	21.3	-30.6	-58.9	-90.8	23.1
4:12	-22.8	-44.1	-68.0	17.4	-26.4	-51.0	-78.6	19.0	-30.6	-59.0	-90.8	21.4
5:12	-22.8	-44.1	-68.1	16.9	-26.5	-51.0	-78.7	18.9	-30.7	-59.0	-90.9	21.3
6:12	-22.8	-44.1	-68.1	16.8	-26.5	-51.1	-78.7	18.8	-30.7	-59.0	-90.9	21.1
7:12	-25.5	-30.9	-30.9	27.3	-29.6	-35.7	-35.7	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.6	-35.8	-35.8	30.8	-34.3	-41.4	-41.4	35.1
9:12	-25.6	-30.9	-30.9	27.0	-29.7	-35.8	-35.8	30.7	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	26.9	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.8	-89.1	18.8	-35.1	-64.1	-100.5	19.5	-39.8	-72.6	-113.7	20.5
2:12	-27.8	-53.6	-82.6	22.7	-31.4	-60.5	-93.2	24.2	-35.7	-68.5	-105.5	26.0
3:12	-27.8	-53.6	-82.7	21.9	-31.5	-60.5	-93.3	23.4	-35.7	-68.5	-105.5	25.2
4:12	-27.8	-53.6	-82.7	19.8	-31.5	-60.6	-93.3	21.8	-35.7	-68.6	-105.5	24.2
5:12	-27.9	-53.7	-82.7	19.7	-31.5	-60.6	-93.3	21.7	-35.8	-68.6	-105.5	24.1
6:12	-27.9	-53.7	-82.8	19.6	-31.6	-60.6	-93.4	21.6	-35.8	-68.6	-105.6	24.0
7:12	-31.2	-37.6	-37.6	32.4	-35.2	-42.5	-42.5	36.0	-39.9	-48.1	-48.1	40.3
8:12	-31.2	-37.7	-37.7	32.2	-35.3	-42.5	-42.5	35.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **120 mph**
Ground Snow Load **10 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.1	22.5	-20.7	-38.2	-60.1	22.5	-25.4	-46.7	-73.3	22.5
2:12	-18.5	-36.0	-55.8	22.2	-18.5	-36.0	-55.8	22.2	-22.7	-44.0	-68.0	24.0
3:12	-18.5	-36.0	-55.8	21.1	-18.5	-36.0	-55.8	21.1	-22.7	-44.0	-68.0	22.8
4:12	-18.5	-36.1	-55.8	17.5	-18.5	-36.1	-55.8	17.5	-22.8	-44.1	-68.0	19.3
5:12	-18.6	-36.1	-55.8	16.7	-18.6	-36.1	-55.8	16.7	-22.8	-44.1	-68.1	18.4
6:12	-18.6	-36.1	-55.9	15.9	-18.6	-36.1	-55.9	15.9	-22.8	-44.1	-68.1	17.6
7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.5	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	22.9	-20.9	-25.3	-25.3	22.9	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-30.9	-30.9	27.0
10:12	-20.9	-25.3	-25.3	22.7	-20.9	-25.3	-25.3	22.7	-25.6	-31.0	-31.0	26.9
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.3	22.5	-29.4	-54.0	-84.7	22.5	-34.1	-62.5	-97.9	23.0
2:12	-22.7	-44.0	-68.0	24.0	-26.4	-50.9	-78.6	25.5	-30.6	-58.9	-90.8	27.3
3:12	-22.7	-44.0	-68.0	22.8	-26.4	-51.0	-78.6	24.4	-30.6	-58.9	-90.8	26.1
4:12	-22.8	-44.1	-68.0	19.3	-26.4	-51.0	-78.6	20.8	-30.6	-59.0	-90.8	22.6
5:12	-22.8	-44.1	-68.1	18.4	-26.5	-51.0	-78.7	20.0	-30.7	-59.0	-90.9	21.7
6:12	-22.8	-44.1	-68.1	17.6	-26.5	-51.1	-78.7	19.2	-30.7	-59.0	-90.9	21.1
7:12	-25.5	-30.9	-30.9	27.3	-29.6	-35.7	-35.7	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.6	-35.8	-35.8	30.8	-34.3	-41.4	-41.4	35.1
9:12	-25.6	-30.9	-30.9	27.0	-29.7	-35.8	-35.8	30.7	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	26.9	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.8	-89.1	22.5	-35.1	-64.1	-100.5	23.2	-39.8	-72.6	-113.7	24.2
2:12	-27.8	-53.6	-82.6	26.1	-31.4	-60.5	-93.2	27.6	-35.7	-68.5	-105.5	29.4
3:12	-27.8	-53.6	-82.7	25.0	-31.5	-60.5	-93.3	26.5	-35.7	-68.5	-105.5	28.2
4:12	-27.8	-53.6	-82.7	20.8	-31.5	-60.6	-93.3	22.3	-35.7	-68.6	-105.5	24.2
5:12	-27.9	-53.7	-82.7	20.1	-31.5	-60.6	-93.3	21.7	-35.8	-68.6	-105.5	24.1
6:12	-27.9	-53.7	-82.8	19.6	-31.6	-60.6	-93.4	21.6	-35.8	-68.6	-105.6	24.0
7:12	-31.2	-37.6	-37.6	32.4	-35.2	-42.5	-42.5	36.0	-39.9	-48.1	-48.1	40.3
8:12	-31.2	-37.7	-37.7	32.2	-35.3	-42.5	-42.5	35.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7

Basic Wind Speed

120 mph

Ground Snow Load

15 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.1	26.2	-20.7	-38.2	-60.1	26.2	-25.4	-46.7	-73.3	26.2
2:12	-18.5	-36.0	-55.8	25.6	-18.5	-36.0	-55.8	25.6	-22.7	-44.0	-68.0	27.4
3:12	-18.5	-36.0	-55.8	24.1	-18.5	-36.0	-55.8	24.1	-22.7	-44.0	-68.0	25.9
4:12	-18.5	-36.1	-55.8	19.4	-18.5	-36.1	-55.8	19.4	-22.8	-44.1	-68.0	21.1
5:12	-18.6	-36.1	-55.8	18.3	-18.6	-36.1	-55.8	18.3	-22.8	-44.1	-68.1	20.1
6:12	-18.6	-36.1	-55.9	17.3	-18.6	-36.1	-55.9	17.3	-22.8	-44.1	-68.1	19.0
7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.5	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	22.9	-20.9	-25.3	-25.3	22.9	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-30.9	-30.9	27.0
10:12	-20.9	-25.3	-25.3	22.7	-20.9	-25.3	-25.3	22.7	-25.6	-31.0	-31.0	26.9
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.3	26.2	-29.4	-54.0	-84.7	26.2	-34.1	-62.5	-97.9	26.7
2:12	-22.7	-44.0	-68.0	27.4	-26.4	-50.9	-78.6	28.9	-30.6	-58.9	-90.8	30.7
3:12	-22.7	-44.0	-68.0	25.9	-26.4	-51.0	-78.6	27.4	-30.6	-58.9	-90.8	29.2
4:12	-22.8	-44.1	-68.0	21.1	-26.4	-51.0	-78.6	22.7	-30.6	-59.0	-90.8	24.4
5:12	-22.8	-44.1	-68.1	20.1	-26.5	-51.0	-78.7	21.6	-30.7	-59.0	-90.9	23.4
6:12	-22.8	-44.1	-68.1	19.0	-26.5	-51.1	-78.7	20.6	-30.7	-59.0	-90.9	22.3
7:12	-25.5	-30.9	-30.9	27.3	-29.6	-35.7	-35.7	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.6	-35.8	-35.8	30.8	-34.3	-41.4	-41.4	35.1
9:12	-25.6	-30.9	-30.9	27.0	-29.7	-35.8	-35.8	30.7	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	26.9	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.8	-89.1	26.2	-35.1	-64.1	-100.5	26.9	-39.8	-72.6	-113.7	28.0
2:12	-27.8	-53.6	-82.6	29.5	-31.4	-60.5	-93.2	31.0	-35.7	-68.5	-105.5	32.8
3:12	-27.8	-53.6	-82.7	28.0	-31.5	-60.5	-93.3	29.5	-35.7	-68.5	-105.5	31.3
4:12	-27.8	-53.6	-82.7	22.5	-31.5	-60.6	-93.3	24.0	-35.7	-68.6	-105.5	25.8
5:12	-27.9	-53.7	-82.7	21.5	-31.5	-60.6	-93.3	23.1	-35.8	-68.6	-105.5	24.8
6:12	-27.9	-53.7	-82.8	20.6	-31.6	-60.6	-93.4	22.1	-35.8	-68.6	-105.6	24.0
7:12	-31.2	-37.6	-37.6	32.4	-35.2	-42.5	-42.5	36.0	-39.9	-48.1	-48.1	40.3
8:12	-31.2	-37.7	-37.7	32.2	-35.3	-42.5	-42.5	35.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7

Basic Wind Speed **120 mph**
Ground Snow Load **20 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
120 mph
Ground Snow Load
25 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.1	26.2	-20.7	-38.2	-60.1	26.2	-25.4	-46.7	-73.3	26.2
2:12	-18.5	-36.0	-55.8	25.6	-18.5	-36.0	-55.8	25.6	-22.7	-44.0	-68.0	27.4
3:12	-18.5	-36.0	-55.8	24.1	-18.5	-36.0	-55.8	24.1	-22.7	-44.0	-68.0	25.9
4:12	-18.5	-36.1	-55.8	21.2	-18.5	-36.1	-55.8	21.2	-22.8	-44.1	-68.0	23.0
5:12	-18.6	-36.1	-55.8	19.9	-18.6	-36.1	-55.8	19.9	-22.8	-44.1	-68.1	21.7
6:12	-18.6	-36.1	-55.9	18.7	-18.6	-36.1	-55.9	18.7	-22.8	-44.1	-68.1	20.4
7:12	-20.8	-25.2	-25.2	24.1	-20.8	-25.2	-25.2	24.1	-25.5	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	23.1	-20.9	-25.3	-25.3	23.1	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-30.9	-30.9	27.0
10:12	-20.9	-25.3	-25.3	22.7	-20.9	-25.3	-25.3	22.7	-25.6	-31.0	-31.0	26.9
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.3	26.2	-29.4	-54.0	-84.7	26.2	-34.1	-62.5	-97.9	26.7
2:12	-22.7	-44.0	-68.0	27.4	-26.4	-50.9	-78.6	28.9	-30.6	-58.9	-90.8	30.7
3:12	-22.7	-44.0	-68.0	25.9	-26.4	-51.0	-78.6	27.4	-30.6	-58.9	-90.8	29.2
4:12	-22.8	-44.1	-68.0	23.0	-26.4	-51.0	-78.6	24.5	-30.6	-59.0	-90.8	26.3
5:12	-22.8	-44.1	-68.1	21.7	-26.5	-51.0	-78.7	23.2	-30.7	-59.0	-90.9	25.0
6:12	-22.8	-44.1	-68.1	20.4	-26.5	-51.1	-78.7	22.0	-30.7	-59.0	-90.9	23.7
7:12	-25.5	-30.9	-30.9	27.3	-29.6	-35.7	-35.7	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.6	-35.8	-35.8	30.8	-34.3	-41.4	-41.4	35.1
9:12	-25.6	-30.9	-30.9	27.0	-29.7	-35.8	-35.8	30.7	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	26.9	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.8	-89.1	26.2	-35.1	-64.1	-100.5	26.9	-39.8	-72.6	-113.7	28.0
2:12	-27.8	-53.6	-82.6	29.5	-31.4	-60.5	-93.2	31.0	-35.7	-68.5	-105.5	32.8
3:12	-27.8	-53.6	-82.7	28.0	-31.5	-60.5	-93.3	29.5	-35.7	-68.5	-105.5	31.3
4:12	-27.8	-53.6	-82.7	24.2	-31.5	-60.6	-93.3	25.7	-35.7	-68.6	-105.5	27.5
5:12	-27.9	-53.7	-82.7	23.0	-31.5	-60.6	-93.3	24.5	-35.8	-68.6	-105.5	26.3
6:12	-27.9	-53.7	-82.8	21.9	-31.6	-60.6	-93.4	23.4	-35.8	-68.6	-105.6	25.1
7:12	-31.2	-37.6	-37.6	32.4	-35.2	-42.5	-42.5	36.0	-39.9	-48.1	-48.1	40.3
8:12	-31.2	-37.7	-37.7	32.2	-35.3	-42.5	-42.5	35.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.1	27.0	-20.7	-38.2	-60.1	27.0	-25.4	-46.7	-73.3	27.0
2:12	-18.5	-36.0	-55.8	26.3	-18.5	-36.0	-55.8	26.3	-22.7	-44.0	-68.0	28.1
3:12	-18.5	-36.0	-55.8	24.7	-18.5	-36.0	-55.8	24.7	-22.7	-44.0	-68.0	26.5
4:12	-18.5	-36.1	-55.8	23.1	-18.5	-36.1	-55.8	23.1	-22.8	-44.1	-68.0	24.9
5:12	-18.6	-36.1	-55.8	21.6	-18.6	-36.1	-55.8	21.6	-22.8	-44.1	-68.1	23.3
6:12	-18.6	-36.1	-55.9	20.1	-18.6	-36.1	-55.9	20.1	-22.8	-44.1	-68.1	21.8
7:12	-20.8	-25.2	-25.2	25.3	-20.8	-25.2	-25.2	25.3	-25.5	-30.9	-30.9	28.5
8:12	-20.9	-25.3	-25.3	24.1	-20.9	-25.3	-25.3	24.1	-25.6	-30.9	-30.9	27.3
9:12	-20.9	-25.3	-25.3	23.0	-20.9	-25.3	-25.3	23.0	-25.6	-30.9	-30.9	27.0
10:12	-20.9	-25.3	-25.3	22.7	-20.9	-25.3	-25.3	22.7	-25.6	-31.0	-31.0	26.9
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.3	27.0	-29.4	-54.0	-84.7	27.0	-34.1	-62.5	-97.9	27.4
2:12	-22.7	-44.0	-68.0	28.1	-26.4	-50.9	-78.6	29.6	-30.6	-58.9	-90.8	31.3
3:12	-22.7	-44.0	-68.0	26.5	-26.4	-51.0	-78.6	28.0	-30.6	-58.9	-90.8	29.8
4:12	-22.8	-44.1	-68.0	24.9	-26.4	-51.0	-78.6	26.4	-30.6	-59.0	-90.8	28.2
5:12	-22.8	-44.1	-68.1	23.3	-26.5	-51.0	-78.7	24.8	-30.7	-59.0	-90.9	26.6
6:12	-22.8	-44.1	-68.1	21.8	-26.5	-51.1	-78.7	23.4	-30.7	-59.0	-90.9	25.1
7:12	-25.5	-30.9	-30.9	28.5	-29.6	-35.7	-35.7	31.2	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.3	-29.6	-35.8	-35.8	30.8	-34.3	-41.4	-41.4	35.1
9:12	-25.6	-30.9	-30.9	27.0	-29.7	-35.8	-35.8	30.7	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	26.9	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.8	-89.1	26.2	-35.1	-64.1	-100.5	26.9	-39.8	-72.6	-113.7	28.0
2:12	-27.8	-53.6	-82.6	29.5	-31.4	-60.5	-93.2	31.0	-35.7	-68.5	-105.5	32.8
3:12	-27.8	-53.6	-82.7	28.0	-31.5	-60.5	-93.3	29.5	-35.7	-68.5	-105.5	31.3
4:12	-27.8	-53.6	-82.7	25.9	-31.5	-60.6	-93.3	27.4	-35.7	-68.6	-105.5	29.2
5:12	-27.9	-53.7	-82.7	24.5	-31.5	-60.6	-93.3	26.0	-35.8	-68.6	-105.5	27.7
6:12	-27.9	-53.7	-82.8	23.1	-31.6	-60.6	-93.4	24.6	-35.8	-68.6	-105.6	26.4
7:12	-31.2	-37.6	-37.6	32.4	-35.2	-42.5	-42.5	36.0	-39.9	-48.1	-48.1	40.3
8:12	-31.2	-37.7	-37.7	32.2	-35.3	-42.5	-42.5	35.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **120 mph**
Ground Snow Load **30 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
120 mph
Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.1	29.6	-20.7	-38.2	-60.1	29.6	-25.4	-46.7	-73.3	29.6
2:12	-18.5	-36.0	-55.8	28.7	-18.5	-36.0	-55.8	28.7	-22.7	-44.0	-68.0	30.4
3:12	-18.5	-36.0	-55.8	26.8	-18.5	-36.0	-55.8	26.8	-22.7	-44.0	-68.0	28.6
4:12	-18.5	-36.1	-55.8	25.0	-18.5	-36.1	-55.8	25.0	-22.8	-44.1	-68.0	26.8
5:12	-18.6	-36.1	-55.8	23.2	-18.6	-36.1	-55.8	23.2	-22.8	-44.1	-68.1	25.0
6:12	-18.6	-36.1	-55.9	21.5	-18.6	-36.1	-55.9	21.5	-22.8	-44.1	-68.1	23.3
7:12	-20.8	-25.2	-25.2	26.5	-20.8	-25.2	-25.2	26.5	-25.5	-30.9	-30.9	29.7
8:12	-20.9	-25.3	-25.3	25.1	-20.9	-25.3	-25.3	25.1	-25.6	-30.9	-30.9	28.3
9:12	-20.9	-25.3	-25.3	23.9	-20.9	-25.3	-25.3	23.9	-25.6	-30.9	-30.9	27.1
10:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-31.0	-31.0	26.9
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.3	29.6	-29.4	-54.0	-84.7	29.6	-34.1	-62.5	-97.9	30.0
2:12	-22.7	-44.0	-68.0	30.4	-26.4	-50.9	-78.6	32.0	-30.6	-58.9	-90.8	33.7
3:12	-22.7	-44.0	-68.0	28.6	-26.4	-51.0	-78.6	30.1	-30.6	-58.9	-90.8	31.9
4:12	-22.8	-44.1	-68.0	26.8	-26.4	-51.0	-78.6	28.3	-30.6	-59.0	-90.8	30.0
5:12	-22.8	-44.1	-68.1	25.0	-26.5	-51.0	-78.7	26.5	-30.7	-59.0	-90.9	28.2
6:12	-22.8	-44.1	-68.1	23.3	-26.5	-51.1	-78.7	24.8	-30.7	-59.0	-90.9	26.5
7:12	-25.5	-30.9	-30.9	29.7	-29.6	-35.7	-35.7	32.4	-34.3	-41.4	-41.4	35.6
8:12	-25.6	-30.9	-30.9	28.3	-29.6	-35.8	-35.8	31.0	-34.3	-41.4	-41.4	35.1
9:12	-25.6	-30.9	-30.9	27.1	-29.7	-35.8	-35.8	30.7	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	26.9	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.8	-89.1	27.8	-35.1	-64.1	-100.5	28.4	-39.8	-72.6	-113.7	29.5
2:12	-27.8	-53.6	-82.6	30.9	-31.4	-60.5	-93.2	32.4	-35.7	-68.5	-105.5	34.2
3:12	-27.8	-53.6	-82.7	29.2	-31.5	-60.5	-93.3	30.8	-35.7	-68.5	-105.5	32.5
4:12	-27.8	-53.6	-82.7	27.6	-31.5	-60.6	-93.3	29.1	-35.7	-68.6	-105.5	30.9
5:12	-27.9	-53.7	-82.7	25.9	-31.5	-60.6	-93.3	27.5	-35.8	-68.6	-105.5	29.2
6:12	-27.9	-53.7	-82.8	24.4	-31.6	-60.6	-93.4	25.9	-35.8	-68.6	-105.6	27.7
7:12	-31.2	-37.6	-37.6	32.7	-35.2	-42.5	-42.5	36.0	-39.9	-48.1	-48.1	40.3
8:12	-31.2	-37.7	-37.7	32.2	-35.3	-42.5	-42.5	35.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.1	32.2	-20.7	-38.2	-60.1	32.2	-25.4	-46.7	-73.3	32.2
2:12	-18.5	-36.0	-55.8	31.1	-18.5	-36.0	-55.8	31.1	-22.7	-44.0	-68.0	32.8
3:12	-18.5	-36.0	-55.8	29.0	-18.5	-36.0	-55.8	29.0	-22.7	-44.0	-68.0	30.7
4:12	-18.5	-36.1	-55.8	26.9	-18.5	-36.1	-55.8	26.9	-22.8	-44.1	-68.0	28.6
5:12	-18.6	-36.1	-55.8	24.8	-18.6	-36.1	-55.8	24.8	-22.8	-44.1	-68.1	26.6
6:12	-18.6	-36.1	-55.9	22.9	-18.6	-36.1	-55.9	22.9	-22.8	-44.1	-68.1	24.7
7:12	-20.8	-25.2	-25.2	27.7	-20.8	-25.2	-25.2	27.7	-25.5	-30.9	-30.9	30.9
8:12	-20.9	-25.3	-25.3	26.1	-20.9	-25.3	-25.3	26.1	-25.6	-30.9	-30.9	29.3
9:12	-20.9	-25.3	-25.3	24.7	-20.9	-25.3	-25.3	24.7	-25.6	-30.9	-30.9	27.9
10:12	-20.9	-25.3	-25.3	23.5	-20.9	-25.3	-25.3	23.5	-25.6	-31.0	-31.0	26.9
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.3	32.2	-29.4	-54.0	-84.7	32.2	-34.1	-62.5	-97.9	32.7
2:12	-22.7	-44.0	-68.0	32.8	-26.4	-50.9	-78.6	34.3	-30.6	-58.9	-90.8	36.1
3:12	-22.7	-44.0	-68.0	30.7	-26.4	-51.0	-78.6	32.3	-30.6	-58.9	-90.8	34.0
4:12	-22.8	-44.1	-68.0	28.6	-26.4	-51.0	-78.6	30.2	-30.6	-59.0	-90.8	31.9
5:12	-22.8	-44.1	-68.1	26.6	-26.5	-51.0	-78.7	28.1	-30.7	-59.0	-90.9	29.9
6:12	-22.8	-44.1	-68.1	24.7	-26.5	-51.1	-78.7	26.2	-30.7	-59.0	-90.9	27.9
7:12	-25.5	-30.9	-30.9	30.9	-29.6	-35.7	-35.7	33.6	-34.3	-41.4	-41.4	36.8
8:12	-25.6	-30.9	-30.9	29.3	-29.6	-35.8	-35.8	32.1	-34.3	-41.4	-41.4	35.2
9:12	-25.6	-30.9	-30.9	27.9	-29.7	-35.8	-35.8	30.7	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	26.9	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.8	-89.1	30.1	-35.1	-64.1	-100.5	30.8	-39.8	-72.6	-113.7	31.8
2:12	-27.8	-53.6	-82.6	33.0	-31.4	-60.5	-93.2	34.6	-35.7	-68.5	-105.5	36.3
3:12	-27.8	-53.6	-82.7	31.2	-31.5	-60.5	-93.3	32.7	-35.7	-68.5	-105.5	34.4
4:12	-27.8	-53.6	-82.7	29.2	-31.5	-60.6	-93.3	30.8	-35.7	-68.6	-105.5	32.5
5:12	-27.9	-53.7	-82.7	27.4	-31.5	-60.6	-93.3	28.9	-35.8	-68.6	-105.5	30.7
6:12	-27.9	-53.7	-82.8	25.6	-31.6	-60.6	-93.4	27.2	-35.8	-68.6	-105.6	28.9
7:12	-31.2	-37.6	-37.6	33.7	-35.2	-42.5	-42.5	36.5	-39.9	-48.1	-48.1	40.3
8:12	-31.2	-37.7	-37.7	32.3	-35.3	-42.5	-42.5	35.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Basic Wind Speed
120 mph
Ground Snow Load
40 psf

Up and Down (psf)

Basic Wind Speed
120 mph
Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.1	35.1	-20.7	-38.2	-60.1	35.1	-25.4	-46.7	-73.3	35.1
2:12	-18.5	-36.0	-55.8	33.4	-18.5	-36.0	-55.8	33.4	-22.7	-44.0	-68.0	35.2
3:12	-18.5	-36.0	-55.8	31.1	-18.5	-36.0	-55.8	31.1	-22.7	-44.0	-68.0	32.9
4:12	-18.5	-36.1	-55.8	28.7	-18.5	-36.1	-55.8	28.7	-22.8	-44.1	-68.0	30.5
5:12	-18.6	-36.1	-55.8	26.5	-18.6	-36.1	-55.8	26.5	-22.8	-44.1	-68.1	28.2
6:12	-18.6	-36.1	-55.9	24.3	-18.6	-36.1	-55.9	24.3	-22.8	-44.1	-68.1	26.1
7:12	-20.8	-25.2	-25.2	28.9	-20.8	-25.2	-25.2	28.9	-25.5	-30.9	-30.9	32.1
8:12	-20.9	-25.3	-25.3	27.1	-20.9	-25.3	-25.3	27.1	-25.6	-30.9	-30.9	30.3
9:12	-20.9	-25.3	-25.3	25.6	-20.9	-25.3	-25.3	25.6	-25.6	-30.9	-30.9	28.8
10:12	-20.9	-25.3	-25.3	24.2	-20.9	-25.3	-25.3	24.2	-25.6	-31.0	-31.0	27.4
11:12	-21.0	-25.4	-25.4	23.1	-21.0	-25.4	-25.4	23.1	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.7	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.3	35.1	-29.4	-54.0	-84.7	35.1	-34.1	-62.5	-97.9	35.3
2:12	-22.7	-44.0	-68.0	35.2	-26.4	-50.9	-78.6	36.7	-30.6	-58.9	-90.8	38.5
3:12	-22.7	-44.0	-68.0	32.9	-26.4	-51.0	-78.6	34.4	-30.6	-58.9	-90.8	36.2
4:12	-22.8	-44.1	-68.0	30.5	-26.4	-51.0	-78.6	32.0	-30.6	-59.0	-90.8	33.8
5:12	-22.8	-44.1	-68.1	28.2	-26.5	-51.0	-78.7	29.7	-30.7	-59.0	-90.9	31.5
6:12	-22.8	-44.1	-68.1	26.1	-26.5	-51.1	-78.7	27.6	-30.7	-59.0	-90.9	29.3
7:12	-25.5	-30.9	-30.9	32.1	-29.6	-35.7	-35.7	34.8	-34.3	-41.4	-41.4	38.0
8:12	-25.6	-30.9	-30.9	30.3	-29.6	-35.8	-35.8	33.1	-34.3	-41.4	-41.4	36.2
9:12	-25.6	-30.9	-30.9	28.8	-29.7	-35.8	-35.8	31.5	-34.4	-41.5	-41.5	34.9
10:12	-25.6	-31.0	-31.0	27.4	-29.7	-35.9	-35.9	30.6	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.8	-89.1	32.5	-35.1	-64.1	-100.5	33.1	-39.8	-72.6	-113.7	34.2
2:12	-27.8	-53.6	-82.6	35.2	-31.4	-60.5	-93.2	36.7	-35.7	-68.5	-105.5	38.5
3:12	-27.8	-53.6	-82.7	33.1	-31.5	-60.5	-93.3	34.6	-35.7	-68.5	-105.5	36.4
4:12	-27.8	-53.6	-82.7	30.9	-31.5	-60.6	-93.3	32.5	-35.7	-68.6	-105.5	34.2
5:12	-27.9	-53.7	-82.7	28.9	-31.5	-60.6	-93.3	30.4	-35.8	-68.6	-105.5	32.2
6:12	-27.9	-53.7	-82.8	26.9	-31.6	-60.6	-93.4	28.4	-35.8	-68.6	-105.6	30.2
7:12	-31.2	-37.6	-37.6	34.8	-35.2	-42.5	-42.5	37.6	-39.9	-48.1	-48.1	40.7
8:12	-31.2	-37.7	-37.7	33.2	-35.3	-42.5	-42.5	36.0	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.1	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
120 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.1	38.6	-20.7	-38.2	-60.1	38.6	-25.4	-46.7	-73.3	38.6
2:12	-18.5	-36.0	-55.8	35.8	-18.5	-36.0	-55.8	35.8	-22.7	-44.0	-68.0	37.6
3:12	-18.5	-36.0	-55.8	33.2	-18.5	-36.0	-55.8	33.2	-22.7	-44.0	-68.0	35.0
4:12	-18.5	-36.1	-55.8	30.6	-18.5	-36.1	-55.8	30.6	-22.8	-44.1	-68.0	32.4
5:12	-18.6	-36.1	-55.8	28.1	-18.6	-36.1	-55.8	28.1	-22.8	-44.1	-68.1	29.8
6:12	-18.6	-36.1	-55.9	25.7	-18.6	-36.1	-55.9	25.7	-22.8	-44.1	-68.1	27.5
7:12	-20.8	-25.2	-25.2	30.1	-20.8	-25.2	-25.2	30.1	-25.5	-30.9	-30.9	33.3
8:12	-20.9	-25.3	-25.3	28.2	-20.9	-25.3	-25.3	28.2	-25.6	-30.9	-30.9	31.3
9:12	-20.9	-25.3	-25.3	26.4	-20.9	-25.3	-25.3	26.4	-25.6	-30.9	-30.9	29.6
10:12	-20.9	-25.3	-25.3	25.0	-20.9	-25.3	-25.3	25.0	-25.6	-31.0	-31.0	28.1
11:12	-21.0	-25.4	-25.4	23.7	-21.0	-25.4	-25.4	23.7	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.3	38.6	-29.4	-54.0	-84.7	38.6	-34.1	-62.5	-97.9	38.6
2:12	-22.7	-44.0	-68.0	37.6	-26.4	-50.9	-78.6	39.1	-30.6	-58.9	-90.8	40.9
3:12	-22.7	-44.0	-68.0	35.0	-26.4	-51.0	-78.6	36.5	-30.6	-58.9	-90.8	38.3
4:12	-22.8	-44.1	-68.0	32.4	-26.4	-51.0	-78.6	33.9	-30.6	-59.0	-90.8	35.7
5:12	-22.8	-44.1	-68.1	29.8	-26.5	-51.0	-78.7	31.4	-30.7	-59.0	-90.9	33.1
6:12	-22.8	-44.1	-68.1	27.5	-26.5	-51.1	-78.7	29.0	-30.7	-59.0	-90.9	30.8
7:12	-25.5	-30.9	-30.9	33.3	-29.6	-35.7	-35.7	36.0	-34.3	-41.4	-41.4	39.2
8:12	-25.6	-30.9	-30.9	31.3	-29.6	-35.8	-35.8	34.1	-34.3	-41.4	-41.4	37.3
9:12	-25.6	-30.9	-30.9	29.6	-29.7	-35.8	-35.8	32.4	-34.4	-41.5	-41.5	35.5
10:12	-25.6	-31.0	-31.0	28.1	-29.7	-35.9	-35.9	30.9	-34.4	-41.5	-41.5	34.8
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.7	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.8	-89.1	35.1	-35.1	-64.1	-100.5	35.5	-39.8	-72.6	-113.7	36.5
2:12	-27.8	-53.6	-82.6	37.3	-31.4	-60.5	-93.2	38.8	-35.7	-68.5	-105.5	40.6
3:12	-27.8	-53.6	-82.7	35.0	-31.5	-60.5	-93.3	36.5	-35.7	-68.5	-105.5	38.3
4:12	-27.8	-53.6	-82.7	32.6	-31.5	-60.6	-93.3	34.1	-35.7	-68.6	-105.5	35.9
5:12	-27.9	-53.7	-82.7	30.3	-31.5	-60.6	-93.3	31.9	-35.8	-68.6	-105.5	33.6
6:12	-27.9	-53.7	-82.8	28.2	-31.6	-60.6	-93.4	29.7	-35.8	-68.6	-105.6	31.5
7:12	-31.2	-37.6	-37.6	35.9	-35.2	-42.5	-42.5	38.6	-39.9	-48.1	-48.1	41.8
8:12	-31.2	-37.7	-37.7	34.1	-35.3	-42.5	-42.5	36.9	-40.0	-48.2	-48.2	40.1
9:12	-31.2	-37.7	-37.7	32.6	-35.3	-42.6	-42.6	35.8	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.0	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.1	45.5	-20.7	-38.2	-60.1	45.5	-25.4	-46.7	-73.3	45.5
2:12	-18.5	-36.0	-55.8	41.9	-18.5	-36.0	-55.8	41.9	-22.7	-44.0	-68.0	42.3
3:12	-18.5	-36.0	-55.8	37.8	-18.5	-36.0	-55.8	37.8	-22.7	-44.0	-68.0	39.2
4:12	-18.5	-36.1	-55.8	34.4	-18.5	-36.1	-55.8	34.4	-22.8	-44.1	-68.0	36.1
5:12	-18.6	-36.1	-55.8	31.3	-18.6	-36.1	-55.8	31.3	-22.8	-44.1	-68.1	33.1
6:12	-18.6	-36.1	-55.9	28.5	-18.6	-36.1	-55.9	28.5	-22.8	-44.1	-68.1	30.3
7:12	-20.8	-25.2	-25.2	32.5	-20.8	-25.2	-25.2	32.5	-25.5	-30.9	-30.9	35.7
8:12	-20.9	-25.3	-25.3	30.2	-20.9	-25.3	-25.3	30.2	-25.6	-30.9	-30.9	33.4
9:12	-20.9	-25.3	-25.3	28.2	-20.9	-25.3	-25.3	28.2	-25.6	-30.9	-30.9	31.3
10:12	-20.9	-25.3	-25.3	26.4	-20.9	-25.3	-25.3	26.4	-25.6	-31.0	-31.0	29.6
11:12	-21.0	-25.4	-25.4	24.9	-21.0	-25.4	-25.4	24.9	-25.7	-31.0	-31.0	28.1
12:12	-21.0	-25.4	-25.4	23.6	-21.0	-25.4	-25.4	23.6	-25.7	-31.1	-31.1	26.8
Exposure Category C												
1:12	-25.4	-46.7	-73.3	45.5	-29.4	-54.0	-84.7	45.5	-34.1	-62.5	-97.9	45.5
2:12	-22.7	-44.0	-68.0	42.3	-26.4	-50.9	-78.6	43.9	-30.6	-58.9	-90.8	45.6
3:12	-22.7	-44.0	-68.0	39.2	-26.4	-51.0	-78.6	40.8	-30.6	-58.9	-90.8	42.5
4:12	-22.8	-44.1	-68.0	36.1	-26.4	-51.0	-78.6	37.7	-30.6	-59.0	-90.8	39.4
5:12	-22.8	-44.1	-68.1	33.1	-26.5	-51.0	-78.7	34.6	-30.7	-59.0	-90.9	36.4
6:12	-22.8	-44.1	-68.1	30.3	-26.5	-51.1	-78.7	31.8	-30.7	-59.0	-90.9	33.6
7:12	-25.5	-30.9	-30.9	35.7	-29.6	-35.7	-35.7	38.4	-34.3	-41.4	-41.4	41.6
8:12	-25.6	-30.9	-30.9	33.4	-29.6	-35.8	-35.8	36.1	-34.3	-41.4	-41.4	39.3
9:12	-25.6	-30.9	-30.9	31.3	-29.7	-35.8	-35.8	34.1	-34.4	-41.5	-41.5	37.3
10:12	-25.6	-31.0	-31.0	29.6	-29.7	-35.9	-35.9	32.3	-34.4	-41.5	-41.5	35.5
11:12	-25.7	-31.0	-31.0	28.1	-29.8	-35.9	-35.9	30.8	-34.5	-41.5	-41.5	34.7
12:12	-25.7	-31.1	-31.1	26.8	-29.8	-35.9	-35.9	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.8	-89.1	41.4	-35.1	-64.1	-100.5	41.4	-39.8	-72.6	-113.7	41.4
2:12	-27.8	-53.6	-82.6	41.6	-31.4	-60.5	-93.2	43.1	-35.7	-68.5	-105.5	44.9
3:12	-27.8	-53.6	-82.7	38.8	-31.5	-60.5	-93.3	40.3	-35.7	-68.5	-105.5	42.1
4:12	-27.8	-53.6	-82.7	36.0	-31.5	-60.6	-93.3	37.5	-35.7	-68.6	-105.5	39.3
5:12	-27.9	-53.7	-82.7	33.3	-31.5	-60.6	-93.3	34.8	-35.8	-68.6	-105.5	36.6
6:12	-27.9	-53.7	-82.8	30.7	-31.6	-60.6	-93.4	32.2	-35.8	-68.6	-105.6	34.0
7:12	-31.2	-37.6	-37.6	38.0	-35.2	-42.5	-42.5	40.8	-39.9	-48.1	-48.1	44.0
8:12	-31.2	-37.7	-37.7	36.0	-35.3	-42.5	-42.5	38.7	-40.0	-48.2	-48.2	41.9
9:12	-31.2	-37.7	-37.7	34.1	-35.3	-42.6	-42.6	36.9	-40.0	-48.2	-48.2	40.0
10:12	-31.3	-37.7	-37.7	32.5	-35.4	-42.6	-42.6	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
120 mph

Ground Snow Load
60 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.1	52.5	-20.7	-38.2	-60.1	52.5	-25.4	-46.7	-73.3	52.5
2:12	-18.5	-36.0	-55.8	48.2	-18.5	-36.0	-55.8	48.2	-22.7	-44.0	-68.0	48.2
3:12	-18.5	-36.0	-55.8	43.4	-18.5	-36.0	-55.8	43.4	-22.7	-44.0	-68.0	43.5
4:12	-18.5	-36.1	-55.8	38.6	-18.5	-36.1	-55.8	38.6	-22.8	-44.1	-68.0	39.9
5:12	-18.6	-36.1	-55.8	34.6	-18.6	-36.1	-55.8	34.6	-22.8	-44.1	-68.1	36.4
6:12	-18.6	-36.1	-55.9	31.3	-18.6	-36.1	-55.9	31.3	-22.8	-44.1	-68.1	33.1
7:12	-20.8	-25.2	-25.2	34.9	-20.8	-25.2	-25.2	34.9	-25.5	-30.9	-30.9	38.1
8:12	-20.9	-25.3	-25.3	32.2	-20.9	-25.3	-25.3	32.2	-25.6	-30.9	-30.9	35.4
9:12	-20.9	-25.3	-25.3	29.9	-20.9	-25.3	-25.3	29.9	-25.6	-30.9	-30.9	33.0
10:12	-20.9	-25.3	-25.3	27.8	-20.9	-25.3	-25.3	27.8	-25.6	-31.0	-31.0	31.0
11:12	-21.0	-25.4	-25.4	26.1	-21.0	-25.4	-25.4	26.1	-25.7	-31.0	-31.0	29.3
12:12	-21.0	-25.4	-25.4	24.6	-21.0	-25.4	-25.4	24.6	-25.7	-31.1	-31.1	27.8
Exposure Category C												
1:12	-25.4	-46.7	-73.3	52.5	-29.4	-54.0	-84.7	52.5	-34.1	-62.5	-97.9	52.5
2:12	-22.7	-44.0	-68.0	48.2	-26.4	-50.9	-78.6	48.6	-30.6	-58.9	-90.8	50.4
3:12	-22.7	-44.0	-68.0	43.5	-26.4	-51.0	-78.6	45.0	-30.6	-58.9	-90.8	46.8
4:12	-22.8	-44.1	-68.0	39.9	-26.4	-51.0	-78.6	41.4	-30.6	-59.0	-90.8	43.2
5:12	-22.8	-44.1	-68.1	36.4	-26.5	-51.0	-78.7	37.9	-30.7	-59.0	-90.9	39.7
6:12	-22.8	-44.1	-68.1	33.1	-26.5	-51.1	-78.7	34.6	-30.7	-59.0	-90.9	36.4
7:12	-25.5	-30.9	-30.9	38.1	-29.6	-35.7	-35.7	40.8	-34.3	-41.4	-41.4	44.0
8:12	-25.6	-30.9	-30.9	35.4	-29.6	-35.8	-35.8	38.1	-34.3	-41.4	-41.4	41.3
9:12	-25.6	-30.9	-30.9	33.0	-29.7	-35.8	-35.8	35.8	-34.4	-41.5	-41.5	39.0
10:12	-25.6	-31.0	-31.0	31.0	-29.7	-35.9	-35.9	33.8	-34.4	-41.5	-41.5	36.9
11:12	-25.7	-31.0	-31.0	29.3	-29.8	-35.9	-35.9	32.0	-34.5	-41.5	-41.5	35.2
12:12	-25.7	-31.1	-31.1	27.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.8	-89.1	47.6	-35.1	-64.1	-100.5	47.6	-39.8	-72.6	-113.7	47.6
2:12	-27.8	-53.6	-82.6	45.9	-31.4	-60.5	-93.2	47.4	-35.7	-68.5	-105.5	49.2
3:12	-27.8	-53.6	-82.7	42.6	-31.5	-60.5	-93.3	44.2	-35.7	-68.5	-105.5	45.9
4:12	-27.8	-53.6	-82.7	39.4	-31.5	-60.6	-93.3	40.9	-35.7	-68.6	-105.5	42.7
5:12	-27.9	-53.7	-82.7	36.2	-31.5	-60.6	-93.3	37.7	-35.8	-68.6	-105.5	39.5
6:12	-27.9	-53.7	-82.8	33.2	-31.6	-60.6	-93.4	34.8	-35.8	-68.6	-105.6	36.5
7:12	-31.2	-37.6	-37.6	40.2	-35.2	-42.5	-42.5	42.9	-39.9	-48.1	-48.1	46.1
8:12	-31.2	-37.7	-37.7	37.8	-35.3	-42.5	-42.5	40.5	-40.0	-48.2	-48.2	43.7
9:12	-31.2	-37.7	-37.7	35.7	-35.3	-42.6	-42.6	38.4	-40.0	-48.2	-48.2	41.6
10:12	-31.3	-37.7	-37.7	33.8	-35.4	-42.6	-42.6	36.6	-40.1	-48.3	-48.3	39.9
11:12	-31.3	-37.8	-37.8	32.2	-35.4	-42.7	-42.7	35.5	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7

Basic Wind Speed **120 mph**
Ground Snow Load **70 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.1	59.4	-20.7	-38.2	-60.1	59.4	-25.4	-46.7	-73.3	59.4
2:12	-18.5	-36.0	-55.8	54.5	-18.5	-36.0	-55.8	54.5	-22.7	-44.0	-68.0	54.5
3:12	-18.5	-36.0	-55.8	49.1	-18.5	-36.0	-55.8	49.1	-22.7	-44.0	-68.0	49.1
4:12	-18.5	-36.1	-55.8	43.6	-18.5	-36.1	-55.8	43.6	-22.8	-44.1	-68.0	43.6
5:12	-18.6	-36.1	-55.8	38.3	-18.6	-36.1	-55.8	38.3	-22.8	-44.1	-68.1	39.6
6:12	-18.6	-36.1	-55.9	34.1	-18.6	-36.1	-55.9	34.1	-22.8	-44.1	-68.1	35.9
7:12	-20.8	-25.2	-25.2	37.3	-20.8	-25.2	-25.2	37.3	-25.5	-30.9	-30.9	40.5
8:12	-20.9	-25.3	-25.3	34.2	-20.9	-25.3	-25.3	34.2	-25.6	-30.9	-30.9	37.4
9:12	-20.9	-25.3	-25.3	31.6	-20.9	-25.3	-25.3	31.6	-25.6	-30.9	-30.9	34.8
10:12	-20.9	-25.3	-25.3	29.3	-20.9	-25.3	-25.3	29.3	-25.6	-31.0	-31.0	32.4
11:12	-21.0	-25.4	-25.4	27.3	-21.0	-25.4	-25.4	27.3	-25.7	-31.0	-31.0	30.5
12:12	-21.0	-25.4	-25.4	25.6	-21.0	-25.4	-25.4	25.6	-25.7	-31.1	-31.1	28.8
Exposure Category C												
1:12	-25.4	-46.7	-73.3	59.4	-29.4	-54.0	-84.7	59.4	-34.1	-62.5	-97.9	59.4
2:12	-22.7	-44.0	-68.0	54.5	-26.4	-50.9	-78.6	54.5	-30.6	-58.9	-90.8	55.1
3:12	-22.7	-44.0	-68.0	49.1	-26.4	-51.0	-78.6	49.3	-30.6	-58.9	-90.8	51.0
4:12	-22.8	-44.1	-68.0	43.6	-26.4	-51.0	-78.6	45.2	-30.6	-59.0	-90.8	46.9
5:12	-22.8	-44.1	-68.1	39.6	-26.5	-51.0	-78.7	41.2	-30.7	-59.0	-90.9	42.9
6:12	-22.8	-44.1	-68.1	35.9	-26.5	-51.1	-78.7	37.4	-30.7	-59.0	-90.9	39.2
7:12	-25.5	-30.9	-30.9	40.5	-29.6	-35.7	-35.7	43.2	-34.3	-41.4	-41.4	46.4
8:12	-25.6	-30.9	-30.9	37.4	-29.6	-35.8	-35.8	40.2	-34.3	-41.4	-41.4	43.3
9:12	-25.6	-30.9	-30.9	34.8	-29.7	-35.8	-35.8	37.5	-34.4	-41.5	-41.5	40.7
10:12	-25.6	-31.0	-31.0	32.4	-29.7	-35.9	-35.9	35.2	-34.4	-41.5	-41.5	38.4
11:12	-25.7	-31.0	-31.0	30.5	-29.8	-35.9	-35.9	33.2	-34.5	-41.5	-41.5	36.4
12:12	-25.7	-31.1	-31.1	28.8	-29.8	-35.9	-35.9	31.5	-34.5	-41.6	-41.6	34.7
Exposure Category D												
1:12	-31.0	-56.8	-89.1	53.9	-35.1	-64.1	-100.5	53.9	-39.8	-72.6	-113.7	53.9
2:12	-27.8	-53.6	-82.6	50.2	-31.4	-60.5	-93.2	51.7	-35.7	-68.5	-105.5	53.4
3:12	-27.8	-53.6	-82.7	46.5	-31.5	-60.5	-93.3	48.0	-35.7	-68.5	-105.5	49.8
4:12	-27.8	-53.6	-82.7	42.7	-31.5	-60.6	-93.3	44.3	-35.7	-68.6	-105.5	46.0
5:12	-27.9	-53.7	-82.7	39.1	-31.5	-60.6	-93.3	40.7	-35.8	-68.6	-105.5	42.4
6:12	-27.9	-53.7	-82.8	35.8	-31.6	-60.6	-93.4	37.3	-35.8	-68.6	-105.6	39.0
7:12	-31.2	-37.6	-37.6	42.4	-35.2	-42.5	-42.5	45.1	-39.9	-48.1	-48.1	48.3
8:12	-31.2	-37.7	-37.7	39.6	-35.3	-42.5	-42.5	42.4	-40.0	-48.2	-48.2	45.5
9:12	-31.2	-37.7	-37.7	37.2	-35.3	-42.6	-42.6	39.9	-40.0	-48.2	-48.2	43.1
10:12	-31.3	-37.7	-37.7	35.1	-35.4	-42.6	-42.6	37.9	-40.1	-48.3	-48.3	41.0
11:12	-31.3	-37.8	-37.8	33.3	-35.4	-42.7	-42.7	36.1	-40.1	-48.3	-48.3	39.8
12:12	-31.4	-37.8	-37.8	31.8	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7

Basic Wind Speed **120 mph**
Ground Snow Load **80 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.1	66.4	-20.7	-38.2	-60.1	66.4	-25.4	-46.7	-73.3	66.4
2:12	-18.5	-36.0	-55.8	60.9	-18.5	-36.0	-55.8	60.9	-22.7	-44.0	-68.0	60.9
3:12	-18.5	-36.0	-55.8	54.8	-18.5	-36.0	-55.8	54.8	-22.7	-44.0	-68.0	54.8
4:12	-18.5	-36.1	-55.8	48.6	-18.5	-36.1	-55.8	48.6	-22.8	-44.1	-68.0	48.6
5:12	-18.6	-36.1	-55.8	42.7	-18.6	-36.1	-55.8	42.7	-22.8	-44.1	-68.1	42.9
6:12	-18.6	-36.1	-55.9	37.1	-18.6	-36.1	-55.9	37.1	-22.8	-44.1	-68.1	38.7
7:12	-20.8	-25.2	-25.2	39.7	-20.8	-25.2	-25.2	39.7	-25.5	-30.9	-30.9	42.9
8:12	-20.9	-25.3	-25.3	36.3	-20.9	-25.3	-25.3	36.3	-25.6	-30.9	-30.9	39.5
9:12	-20.9	-25.3	-25.3	33.3	-20.9	-25.3	-25.3	33.3	-25.6	-30.9	-30.9	36.5
10:12	-20.9	-25.3	-25.3	30.7	-20.9	-25.3	-25.3	30.7	-25.6	-31.0	-31.0	33.9
11:12	-21.0	-25.4	-25.4	28.5	-21.0	-25.4	-25.4	28.5	-25.7	-31.0	-31.0	31.7
12:12	-21.0	-25.4	-25.4	26.6	-21.0	-25.4	-25.4	26.6	-25.7	-31.1	-31.1	29.8
Exposure Category C												
1:12	-25.4	-46.7	-73.3	66.4	-29.4	-54.0	-84.7	66.4	-34.1	-62.5	-97.9	66.4
2:12	-22.7	-44.0	-68.0	60.9	-26.4	-50.9	-78.6	60.9	-30.6	-58.9	-90.8	60.9
3:12	-22.7	-44.0	-68.0	54.8	-26.4	-51.0	-78.6	54.8	-30.6	-58.9	-90.8	55.3
4:12	-22.8	-44.1	-68.0	48.6	-26.4	-51.0	-78.6	48.9	-30.6	-59.0	-90.8	50.7
5:12	-22.8	-44.1	-68.1	42.9	-26.5	-51.0	-78.7	44.4	-30.7	-59.0	-90.9	46.2
6:12	-22.8	-44.1	-68.1	38.7	-26.5	-51.1	-78.7	40.2	-30.7	-59.0	-90.9	42.0
7:12	-25.5	-30.9	-30.9	42.9	-29.6	-35.7	-35.7	45.6	-34.3	-41.4	-41.4	48.8
8:12	-25.6	-30.9	-30.9	39.5	-29.6	-35.8	-35.8	42.2	-34.3	-41.4	-41.4	45.4
9:12	-25.6	-30.9	-30.9	36.5	-29.7	-35.8	-35.8	39.2	-34.4	-41.5	-41.5	42.4
10:12	-25.6	-31.0	-31.0	33.9	-29.7	-35.9	-35.9	36.6	-34.4	-41.5	-41.5	39.8
11:12	-25.7	-31.0	-31.0	31.7	-29.8	-35.9	-35.9	34.4	-34.5	-41.5	-41.5	37.6
12:12	-25.7	-31.1	-31.1	29.8	-29.8	-35.9	-35.9	32.5	-34.5	-41.6	-41.6	35.7
Exposure Category D												
1:12	-31.0	-56.8	-89.1	60.1	-35.1	-64.1	-100.5	60.1	-39.8	-72.6	-113.7	60.1
2:12	-27.8	-53.6	-82.6	55.2	-31.4	-60.5	-93.2	56.0	-35.7	-68.5	-105.5	57.7
3:12	-27.8	-53.6	-82.7	50.3	-31.5	-60.5	-93.3	51.8	-35.7	-68.5	-105.5	53.6
4:12	-27.8	-53.6	-82.7	46.1	-31.5	-60.6	-93.3	47.6	-35.7	-68.6	-105.5	49.4
5:12	-27.9	-53.7	-82.7	42.1	-31.5	-60.6	-93.3	43.6	-35.8	-68.6	-105.5	45.4
6:12	-27.9	-53.7	-82.8	38.3	-31.6	-60.6	-93.4	39.8	-35.8	-68.6	-105.6	41.6
7:12	-31.2	-37.6	-37.6	44.5	-35.2	-42.5	-42.5	47.3	-39.9	-48.1	-48.1	50.4
8:12	-31.2	-37.7	-37.7	41.4	-35.3	-42.5	-42.5	44.2	-40.0	-48.2	-48.2	47.4
9:12	-31.2	-37.7	-37.7	38.7	-35.3	-42.6	-42.6	41.5	-40.0	-48.2	-48.2	44.7
10:12	-31.3	-37.7	-37.7	36.4	-35.4	-42.6	-42.6	39.1	-40.1	-48.3	-48.3	42.3
11:12	-31.3	-37.8	-37.8	34.4	-35.4	-42.7	-42.7	37.1	-40.1	-48.3	-48.3	40.3
12:12	-31.4	-37.8	-37.8	32.7	-35.4	-42.7	-42.7	35.4	-40.1	-48.3	-48.3	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **120 mph**

Ground Snow Load **90 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.1	73.4	-20.7	-38.2	-60.1	73.4	-25.4	-46.7	-73.3	73.4
2:12	-18.5	-36.0	-55.8	67.2	-18.5	-36.0	-55.8	67.2	-22.7	-44.0	-68.0	67.2
3:12	-18.5	-36.0	-55.8	60.5	-18.5	-36.0	-55.8	60.5	-22.7	-44.0	-68.0	60.5
4:12	-18.5	-36.1	-55.8	53.6	-18.5	-36.1	-55.8	53.6	-22.8	-44.1	-68.0	53.6
5:12	-18.6	-36.1	-55.8	47.0	-18.6	-36.1	-55.8	47.0	-22.8	-44.1	-68.1	47.0
6:12	-18.6	-36.1	-55.9	40.9	-18.6	-36.1	-55.9	40.9	-22.8	-44.1	-68.1	41.5
7:12	-20.8	-25.2	-25.2	42.1	-20.8	-25.2	-25.2	42.1	-25.5	-30.9	-30.9	45.3
8:12	-20.9	-25.3	-25.3	38.3	-20.9	-25.3	-25.3	38.3	-25.6	-30.9	-30.9	41.5
9:12	-20.9	-25.3	-25.3	35.0	-20.9	-25.3	-25.3	35.0	-25.6	-30.9	-30.9	38.2
10:12	-20.9	-25.3	-25.3	32.2	-20.9	-25.3	-25.3	32.2	-25.6	-31.0	-31.0	35.3
11:12	-21.0	-25.4	-25.4	29.7	-21.0	-25.4	-25.4	29.7	-25.7	-31.0	-31.0	32.9
12:12	-21.0	-25.4	-25.4	27.6	-21.0	-25.4	-25.4	27.6	-25.7	-31.1	-31.1	30.8
Exposure Category C												
1:12	-25.4	-46.7	-73.3	73.4	-29.4	-54.0	-84.7	73.4	-34.1	-62.5	-97.9	73.4
2:12	-22.7	-44.0	-68.0	67.2	-26.4	-50.9	-78.6	67.2	-30.6	-58.9	-90.8	67.2
3:12	-22.7	-44.0	-68.0	60.5	-26.4	-51.0	-78.6	60.5	-30.6	-58.9	-90.8	60.5
4:12	-22.8	-44.1	-68.0	53.6	-26.4	-51.0	-78.6	53.6	-30.6	-59.0	-90.8	54.4
5:12	-22.8	-44.1	-68.1	47.0	-26.5	-51.0	-78.7	47.7	-30.7	-59.0	-90.9	49.4
6:12	-22.8	-44.1	-68.1	41.5	-26.5	-51.1	-78.7	43.0	-30.7	-59.0	-90.9	44.8
7:12	-25.5	-30.9	-30.9	45.3	-29.6	-35.7	-35.7	48.0	-34.3	-41.4	-41.4	51.2
8:12	-25.6	-30.9	-30.9	41.5	-29.6	-35.8	-35.8	44.2	-34.3	-41.4	-41.4	47.4
9:12	-25.6	-30.9	-30.9	38.2	-29.7	-35.8	-35.8	40.9	-34.4	-41.5	-41.5	44.1
10:12	-25.6	-31.0	-31.0	35.3	-29.7	-35.9	-35.9	38.1	-34.4	-41.5	-41.5	41.2
11:12	-25.7	-31.0	-31.0	32.9	-29.8	-35.9	-35.9	35.6	-34.5	-41.5	-41.5	38.8
12:12	-25.7	-31.1	-31.1	30.8	-29.8	-35.9	-35.9	33.5	-34.5	-41.6	-41.6	36.7
Exposure Category D												
1:12	-31.0	-56.8	-89.1	66.4	-35.1	-64.1	-100.5	66.4	-39.8	-72.6	-113.7	66.4
2:12	-27.8	-53.6	-82.6	60.9	-31.4	-60.5	-93.2	60.9	-35.7	-68.5	-105.5	62.0
3:12	-27.8	-53.6	-82.7	54.8	-31.5	-60.5	-93.3	55.7	-35.7	-68.5	-105.5	57.4
4:12	-27.8	-53.6	-82.7	49.5	-31.5	-60.6	-93.3	51.0	-35.7	-68.6	-105.5	52.8
5:12	-27.9	-53.7	-82.7	45.0	-31.5	-60.6	-93.3	46.5	-35.8	-68.6	-105.5	48.3
6:12	-27.9	-53.7	-82.8	40.8	-31.6	-60.6	-93.4	42.3	-35.8	-68.6	-105.6	44.1
7:12	-31.2	-37.6	-37.6	46.7	-35.2	-42.5	-42.5	49.4	-39.9	-48.1	-48.1	52.6
8:12	-31.2	-37.7	-37.7	43.3	-35.3	-42.5	-42.5	46.0	-40.0	-48.2	-48.2	49.2
9:12	-31.2	-37.7	-37.7	40.3	-35.3	-42.6	-42.6	43.0	-40.0	-48.2	-48.2	46.2
10:12	-31.3	-37.7	-37.7	37.7	-35.4	-42.6	-42.6	40.4	-40.1	-48.3	-48.3	43.6
11:12	-31.3	-37.8	-37.8	35.5	-35.4	-42.7	-42.7	38.2	-40.1	-48.3	-48.3	41.4
12:12	-31.4	-37.8	-37.8	33.6	-35.4	-42.7	-42.7	36.3	-40.1	-48.3	-48.3	39.7

Basic Wind Speed
120 mph

Ground Snow Load
100 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	13.8	-22.5	-41.6	-65.4	13.8	-27.6	-50.7	-79.6	13.8
2:12	-20.2	-39.2	-60.6	15.7	-20.2	-39.2	-60.6	15.7	-24.7	-47.9	-73.9	18.2
3:12	-20.2	-39.2	-60.6	15.6	-20.2	-39.2	-60.6	15.6	-24.8	-47.9	-73.9	18.2
4:12	-20.2	-39.2	-60.7	15.5	-20.2	-39.2	-60.7	15.5	-24.8	-47.9	-73.9	18.1
5:12	-20.2	-39.3	-60.7	15.5	-20.2	-39.3	-60.7	15.5	-24.8	-47.9	-74.0	18.0
6:12	-20.3	-39.3	-60.7	15.3	-20.3	-39.3	-60.7	15.3	-24.9	-48.0	-74.0	17.9
7:12	-22.7	-27.5	-27.5	24.7	-22.7	-27.5	-27.5	24.7	-27.8	-33.6	-33.6	29.3
8:12	-22.7	-27.5	-27.5	24.6	-22.7	-27.5	-27.5	24.6	-27.8	-33.6	-33.6	29.2
9:12	-22.8	-27.5	-27.5	24.5	-22.8	-27.5	-27.5	24.5	-27.9	-33.7	-33.7	29.1
10:12	-22.8	-27.6	-27.6	24.4	-22.8	-27.6	-27.6	24.4	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	13.8	-32.0	-58.7	-92.0	13.8	-37.1	-67.9	-106.3	15.4
2:12	-24.7	-47.9	-73.9	18.2	-28.7	-55.4	-85.4	20.5	-33.3	-64.0	-98.6	23.0
3:12	-24.8	-47.9	-73.9	18.2	-28.7	-55.4	-85.4	20.4	-33.3	-64.1	-98.6	22.9
4:12	-24.8	-47.9	-73.9	18.1	-28.8	-55.4	-85.4	20.3	-33.4	-64.1	-98.7	22.9
5:12	-24.8	-47.9	-74.0	18.0	-28.8	-55.5	-85.4	20.2	-33.4	-64.1	-98.7	22.8
6:12	-24.9	-48.0	-74.0	17.9	-28.8	-55.5	-85.5	20.1	-33.4	-64.2	-98.7	22.7
7:12	-27.8	-33.6	-33.6	29.3	-32.2	-38.9	-38.9	33.3	-37.3	-45.0	-45.0	37.9
8:12	-27.8	-33.6	-33.6	29.2	-32.3	-38.9	-38.9	33.2	-37.4	-45.0	-45.0	37.8
9:12	-27.9	-33.7	-33.7	29.1	-32.3	-39.0	-39.0	33.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	14.3	-38.2	-69.7	-109.2	15.7	-43.3	-78.9	-123.4	17.2
2:12	-30.3	-58.3	-89.8	21.3	-34.2	-65.8	-101.3	23.5	-38.8	-74.5	-114.5	26.1
3:12	-30.3	-58.3	-89.8	21.2	-34.3	-65.8	-101.3	23.5	-38.8	-74.5	-114.6	26.0
4:12	-30.3	-58.3	-89.8	21.2	-34.3	-65.8	-101.3	23.4	-38.9	-74.5	-114.6	25.9
5:12	-30.3	-58.3	-89.9	21.1	-34.3	-65.9	-101.4	23.3	-38.9	-74.5	-114.6	25.8
6:12	-30.4	-58.4	-89.9	21.0	-34.3	-65.9	-101.4	23.2	-38.9	-74.6	-114.7	25.7
7:12	-33.9	-40.9	-40.9	34.8	-38.3	-46.2	-46.2	38.8	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	34.7	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8

Basic Wind Speed **125 mph**
Ground Snow Load **0 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-22.5	-41.6	-65.4	15.1	-22.5	-41.6	-65.4	15.1	-27.6	-50.7	-79.6	15.1
2:12	-20.2	-39.2	-60.6	16.1	-20.2	-39.2	-60.6	16.1	-24.7	-47.9	-73.9	18.2
3:12	-20.2	-39.2	-60.6	15.7	-20.2	-39.2	-60.6	15.7	-24.8	-47.9	-73.9	18.2
4:12	-20.2	-39.2	-60.7	15.5	-20.2	-39.2	-60.7	15.5	-24.8	-47.9	-73.9	18.1
5:12	-20.2	-39.3	-60.7	15.5	-20.2	-39.3	-60.7	15.5	-24.8	-47.9	-74.0	18.0
6:12	-20.3	-39.3	-60.7	15.3	-20.3	-39.3	-60.7	15.3	-24.9	-48.0	-74.0	17.9
7:12	-22.7	-27.5	-27.5	24.7	-22.7	-27.5	-27.5	24.7	-27.8	-33.6	-33.6	29.3
8:12	-22.7	-27.5	-27.5	24.6	-22.7	-27.5	-27.5	24.6	-27.8	-33.6	-33.6	29.2
9:12	-22.8	-27.5	-27.5	24.5	-22.8	-27.5	-27.5	24.5	-27.9	-33.7	-33.7	29.1
10:12	-22.8	-27.6	-27.6	24.4	-22.8	-27.6	-27.6	24.4	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
1:12	-27.6	-50.7	-79.6	15.1	-32.0	-58.7	-92.0	15.1	-37.1	-67.9	-106.3	16.2
2:12	-24.7	-47.9	-73.9	18.2	-28.7	-55.4	-85.4	20.5	-33.3	-64.0	-98.6	23.0
3:12	-24.8	-47.9	-73.9	18.2	-28.7	-55.4	-85.4	20.4	-33.3	-64.1	-98.6	22.9
4:12	-24.8	-47.9	-73.9	18.1	-28.8	-55.4	-85.4	20.3	-33.4	-64.1	-98.7	22.9
5:12	-24.8	-47.9	-74.0	18.0	-28.8	-55.5	-85.4	20.2	-33.4	-64.1	-98.7	22.8
6:12	-24.9	-48.0	-74.0	17.9	-28.8	-55.5	-85.5	20.1	-33.4	-64.2	-98.7	22.7
7:12	-27.8	-33.6	-33.6	29.3	-32.2	-38.9	-38.9	33.3	-37.3	-45.0	-45.0	37.9
8:12	-27.8	-33.6	-33.6	29.2	-32.3	-38.9	-38.9	33.2	-37.4	-45.0	-45.0	37.8
9:12	-27.9	-33.7	-33.7	29.1	-32.3	-39.0	-39.0	33.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
1:12	-33.7	-61.8	-96.8	15.4	-38.2	-69.7	-109.2	16.4	-43.3	-78.9	-123.4	17.6
2:12	-30.3	-58.3	-89.8	21.3	-34.2	-65.8	-101.3	23.5	-38.8	-74.5	-114.5	26.1
3:12	-30.3	-58.3	-89.8	21.2	-34.3	-65.8	-101.3	23.5	-38.8	-74.5	-114.6	26.0
4:12	-30.3	-58.3	-89.8	21.2	-34.3	-65.8	-101.3	23.4	-38.9	-74.5	-114.6	25.9
5:12	-30.3	-58.3	-89.9	21.1	-34.3	-65.9	-101.4	23.3	-38.9	-74.5	-114.6	25.8
6:12	-30.4	-58.4	-89.9	21.0	-34.3	-65.9	-101.4	23.2	-38.9	-74.6	-114.7	25.7
7:12	-33.9	-40.9	-40.9	34.8	-38.3	-46.2	-46.2	38.8	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	34.7	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8

Basic Wind Speed
125 mph

Ground Snow Load
5 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	18.8	-22.5	-41.6	-65.4	18.8	-27.6	-50.7	-79.6	18.8
2:12	-20.2	-39.2	-60.6	19.5	-20.2	-39.2	-60.6	19.5	-24.7	-47.9	-73.9	21.4
3:12	-20.2	-39.2	-60.6	18.7	-20.2	-39.2	-60.6	18.7	-24.8	-47.9	-73.9	20.6
4:12	-20.2	-39.2	-60.7	16.3	-20.2	-39.2	-60.7	16.3	-24.8	-47.9	-73.9	18.2
5:12	-20.2	-39.3	-60.7	15.7	-20.2	-39.3	-60.7	15.7	-24.8	-47.9	-74.0	18.0
6:12	-20.3	-39.3	-60.7	15.3	-20.3	-39.3	-60.7	15.3	-24.9	-48.0	-74.0	17.9
7:12	-22.7	-27.5	-27.5	24.7	-22.7	-27.5	-27.5	24.7	-27.8	-33.6	-33.6	29.3
8:12	-22.7	-27.5	-27.5	24.6	-22.7	-27.5	-27.5	24.6	-27.8	-33.6	-33.6	29.2
9:12	-22.8	-27.5	-27.5	24.5	-22.8	-27.5	-27.5	24.5	-27.9	-33.7	-33.7	29.1
10:12	-22.8	-27.6	-27.6	24.4	-22.8	-27.6	-27.6	24.4	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	18.8	-32.0	-58.7	-92.0	18.8	-37.1	-67.9	-106.3	19.9
2:12	-24.7	-47.9	-73.9	21.4	-28.7	-55.4	-85.4	23.1	-33.3	-64.0	-98.6	25.0
3:12	-24.8	-47.9	-73.9	20.6	-28.7	-55.4	-85.4	22.3	-33.3	-64.1	-98.6	24.2
4:12	-24.8	-47.9	-73.9	18.2	-28.8	-55.4	-85.4	20.3	-33.4	-64.1	-98.7	22.9
5:12	-24.8	-47.9	-74.0	18.0	-28.8	-55.5	-85.4	20.2	-33.4	-64.1	-98.7	22.8
6:12	-24.9	-48.0	-74.0	17.9	-28.8	-55.5	-85.5	20.1	-33.4	-64.2	-98.7	22.7
7:12	-27.8	-33.6	-33.6	29.3	-32.2	-38.9	-38.9	33.3	-37.3	-45.0	-45.0	37.9
8:12	-27.8	-33.6	-33.6	29.2	-32.3	-38.9	-38.9	33.2	-37.4	-45.0	-45.0	37.8
9:12	-27.9	-33.7	-33.7	29.1	-32.3	-39.0	-39.0	33.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	19.2	-38.2	-69.7	-109.2	20.2	-43.3	-78.9	-123.4	21.3
2:12	-30.3	-58.3	-89.8	23.7	-34.2	-65.8	-101.3	25.4	-38.8	-74.5	-114.5	27.3
3:12	-30.3	-58.3	-89.8	22.9	-34.3	-65.8	-101.3	24.6	-38.8	-74.5	-114.6	26.5
4:12	-30.3	-58.3	-89.8	21.2	-34.3	-65.8	-101.3	23.4	-38.9	-74.5	-114.6	25.9
5:12	-30.3	-58.3	-89.9	21.1	-34.3	-65.9	-101.4	23.3	-38.9	-74.5	-114.6	25.8
6:12	-30.4	-58.4	-89.9	21.0	-34.3	-65.9	-101.4	23.2	-38.9	-74.6	-114.7	25.7
7:12	-33.9	-40.9	-40.9	34.8	-38.3	-46.2	-46.2	38.8	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	34.7	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
125 mph

Ground Snow Load
10 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	22.5	-22.5	-41.6	-65.4	22.5	-27.6	-50.7	-79.6	22.5
2:12	-20.2	-39.2	-60.6	22.9	-20.2	-39.2	-60.6	22.9	-24.7	-47.9	-73.9	24.8
3:12	-20.2	-39.2	-60.6	21.8	-20.2	-39.2	-60.6	21.8	-24.8	-47.9	-73.9	23.7
4:12	-20.2	-39.2	-60.7	18.2	-20.2	-39.2	-60.7	18.2	-24.8	-47.9	-73.9	20.1
5:12	-20.2	-39.3	-60.7	17.4	-20.2	-39.3	-60.7	17.4	-24.8	-47.9	-74.0	19.3
6:12	-20.3	-39.3	-60.7	16.6	-20.3	-39.3	-60.7	16.6	-24.9	-48.0	-74.0	18.5
7:12	-22.7	-27.5	-27.5	24.7	-22.7	-27.5	-27.5	24.7	-27.8	-33.6	-33.6	29.3
8:12	-22.7	-27.5	-27.5	24.6	-22.7	-27.5	-27.5	24.6	-27.8	-33.6	-33.6	29.2
9:12	-22.8	-27.5	-27.5	24.5	-22.8	-27.5	-27.5	24.5	-27.9	-33.7	-33.7	29.1
10:12	-22.8	-27.6	-27.6	24.4	-22.8	-27.6	-27.6	24.4	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	22.5	-32.0	-58.7	-92.0	22.5	-37.1	-67.9	-106.3	23.7
2:12	-24.7	-47.9	-73.9	24.8	-28.7	-55.4	-85.4	26.5	-33.3	-64.0	-98.6	28.4
3:12	-24.8	-47.9	-73.9	23.7	-28.7	-55.4	-85.4	25.3	-33.3	-64.1	-98.6	27.3
4:12	-24.8	-47.9	-73.9	20.1	-28.8	-55.4	-85.4	21.8	-33.4	-64.1	-98.7	23.7
5:12	-24.8	-47.9	-74.0	19.3	-28.8	-55.5	-85.4	20.9	-33.4	-64.1	-98.7	22.9
6:12	-24.9	-48.0	-74.0	18.5	-28.8	-55.5	-85.5	20.1	-33.4	-64.2	-98.7	22.7
7:12	-27.8	-33.6	-33.6	29.3	-32.2	-38.9	-38.9	33.3	-37.3	-45.0	-45.0	37.9
8:12	-27.8	-33.6	-33.6	29.2	-32.3	-38.9	-38.9	33.2	-37.4	-45.0	-45.0	37.8
9:12	-27.9	-33.7	-33.7	29.1	-32.3	-39.0	-39.0	33.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	22.9	-38.2	-69.7	-109.2	23.9	-43.3	-78.9	-123.4	25.0
2:12	-30.3	-58.3	-89.8	27.1	-34.2	-65.8	-101.3	28.8	-38.8	-74.5	-114.5	30.7
3:12	-30.3	-58.3	-89.8	26.0	-34.3	-65.8	-101.3	27.6	-38.8	-74.5	-114.6	29.6
4:12	-30.3	-58.3	-89.8	21.8	-34.3	-65.8	-101.3	23.5	-38.9	-74.5	-114.6	25.9
5:12	-30.3	-58.3	-89.9	21.1	-34.3	-65.9	-101.4	23.3	-38.9	-74.5	-114.6	25.8
6:12	-30.4	-58.4	-89.9	21.0	-34.3	-65.9	-101.4	23.2	-38.9	-74.6	-114.7	25.7
7:12	-33.9	-40.9	-40.9	34.8	-38.3	-46.2	-46.2	38.8	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	34.7	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8

Basic Wind Speed **125 mph**
Ground Snow Load **15 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	26.2	-22.5	-41.6	-65.4	26.2	-27.6	-50.7	-79.6	26.2
2:12	-20.2	-39.2	-60.6	26.3	-20.2	-39.2	-60.6	26.3	-24.7	-47.9	-73.9	28.2
3:12	-20.2	-39.2	-60.6	24.8	-20.2	-39.2	-60.6	24.8	-24.8	-47.9	-73.9	26.7
4:12	-20.2	-39.2	-60.7	20.1	-20.2	-39.2	-60.7	20.1	-24.8	-47.9	-73.9	22.0
5:12	-20.2	-39.3	-60.7	19.0	-20.2	-39.3	-60.7	19.0	-24.8	-47.9	-74.0	20.9
6:12	-20.3	-39.3	-60.7	18.0	-20.3	-39.3	-60.7	18.0	-24.9	-48.0	-74.0	19.9
7:12	-22.7	-27.5	-27.5	24.7	-22.7	-27.5	-27.5	24.7	-27.8	-33.6	-33.6	29.3
8:12	-22.7	-27.5	-27.5	24.6	-22.7	-27.5	-27.5	24.6	-27.8	-33.6	-33.6	29.2
9:12	-22.8	-27.5	-27.5	24.5	-22.8	-27.5	-27.5	24.5	-27.9	-33.7	-33.7	29.1
10:12	-22.8	-27.6	-27.6	24.4	-22.8	-27.6	-27.6	24.4	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	26.2	-32.0	-58.7	-92.0	26.2	-37.1	-67.9	-106.3	27.4
2:12	-24.7	-47.9	-73.9	28.2	-28.7	-55.4	-85.4	29.9	-33.3	-64.0	-98.6	31.8
3:12	-24.8	-47.9	-73.9	26.7	-28.7	-55.4	-85.4	28.4	-33.3	-64.1	-98.6	30.3
4:12	-24.8	-47.9	-73.9	22.0	-28.8	-55.4	-85.4	23.6	-33.4	-64.1	-98.7	25.6
5:12	-24.8	-47.9	-74.0	20.9	-28.8	-55.5	-85.4	22.6	-33.4	-64.1	-98.7	24.5
6:12	-24.9	-48.0	-74.0	19.9	-28.8	-55.5	-85.5	21.5	-33.4	-64.2	-98.7	23.5
7:12	-27.8	-33.6	-33.6	29.3	-32.2	-38.9	-38.9	33.3	-37.3	-45.0	-45.0	37.9
8:12	-27.8	-33.6	-33.6	29.2	-32.3	-38.9	-38.9	33.2	-37.4	-45.0	-45.0	37.8
9:12	-27.9	-33.7	-33.7	29.1	-32.3	-39.0	-39.0	33.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	26.6	-38.2	-69.7	-109.2	27.6	-43.3	-78.9	-123.4	28.8
2:12	-30.3	-58.3	-89.8	30.5	-34.2	-65.8	-101.3	32.2	-38.8	-74.5	-114.5	34.1
3:12	-30.3	-58.3	-89.8	29.0	-34.3	-65.8	-101.3	30.7	-38.8	-74.5	-114.6	32.6
4:12	-30.3	-58.3	-89.8	23.5	-34.3	-65.8	-101.3	25.2	-38.9	-74.5	-114.6	27.1
5:12	-30.3	-58.3	-89.9	22.6	-34.3	-65.9	-101.4	24.2	-38.9	-74.5	-114.6	26.1
6:12	-30.4	-58.4	-89.9	21.6	-34.3	-65.9	-101.4	23.3	-38.9	-74.6	-114.7	25.7
7:12	-33.9	-40.9	-40.9	34.8	-38.3	-46.2	-46.2	38.8	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	34.7	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **125 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Basic Wind Speed
125 mph
Ground Snow Load
25 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-22.5	-41.6	-65.4	26.2	-22.5	-41.6	-65.4	26.2	-27.6	-50.7	-79.6	26.2
2:12	-20.2	-39.2	-60.6	26.3	-20.2	-39.2	-60.6	26.3	-24.7	-47.9	-73.9	28.2
3:12	-20.2	-39.2	-60.6	24.8	-20.2	-39.2	-60.6	24.8	-24.8	-47.9	-73.9	26.7
4:12	-20.2	-39.2	-60.7	21.9	-20.2	-39.2	-60.7	21.9	-24.8	-47.9	-73.9	23.9
5:12	-20.2	-39.3	-60.7	20.6	-20.2	-39.3	-60.7	20.6	-24.8	-47.9	-74.0	22.5
6:12	-20.3	-39.3	-60.7	19.4	-20.3	-39.3	-60.7	19.4	-24.9	-48.0	-74.0	21.3
7:12	-22.7	-27.5	-27.5	25.4	-22.7	-27.5	-27.5	25.4	-27.8	-33.6	-33.6	29.3
8:12	-22.7	-27.5	-27.5	24.6	-22.7	-27.5	-27.5	24.6	-27.8	-33.6	-33.6	29.2
9:12	-22.8	-27.5	-27.5	24.5	-22.8	-27.5	-27.5	24.5	-27.9	-33.7	-33.7	29.1
10:12	-22.8	-27.6	-27.6	24.4	-22.8	-27.6	-27.6	24.4	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
1:12	-27.6	-50.7	-79.6	26.2	-32.0	-58.7	-92.0	26.2	-37.1	-67.9	-106.3	27.4
2:12	-24.7	-47.9	-73.9	28.2	-28.7	-55.4	-85.4	29.9	-33.3	-64.0	-98.6	31.8
3:12	-24.8	-47.9	-73.9	26.7	-28.7	-55.4	-85.4	28.4	-33.3	-64.1	-98.6	30.3
4:12	-24.8	-47.9	-73.9	23.9	-28.8	-55.4	-85.4	25.5	-33.4	-64.1	-98.7	27.4
5:12	-24.8	-47.9	-74.0	22.5	-28.8	-55.5	-85.4	24.2	-33.4	-64.1	-98.7	26.1
6:12	-24.9	-48.0	-74.0	21.3	-28.8	-55.5	-85.5	23.0	-33.4	-64.2	-98.7	24.9
7:12	-27.8	-33.6	-33.6	29.3	-32.2	-38.9	-38.9	33.3	-37.3	-45.0	-45.0	37.9
8:12	-27.8	-33.6	-33.6	29.2	-32.3	-38.9	-38.9	33.2	-37.4	-45.0	-45.0	37.8
9:12	-27.9	-33.7	-33.7	29.1	-32.3	-39.0	-39.0	33.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
1:12	-33.7	-61.8	-96.8	26.6	-38.2	-69.7	-109.2	27.6	-43.3	-78.9	-123.4	28.8
2:12	-30.3	-58.3	-89.8	30.5	-34.2	-65.8	-101.3	32.2	-38.8	-74.5	-114.5	34.1
3:12	-30.3	-58.3	-89.8	29.0	-34.3	-65.8	-101.3	30.7	-38.8	-74.5	-114.6	32.6
4:12	-30.3	-58.3	-89.8	25.2	-34.3	-65.8	-101.3	26.9	-38.9	-74.5	-114.6	28.8
5:12	-30.3	-58.3	-89.9	24.0	-34.3	-65.9	-101.4	25.7	-38.9	-74.5	-114.6	27.6
6:12	-30.4	-58.4	-89.9	22.9	-34.3	-65.9	-101.4	24.5	-38.9	-74.6	-114.7	26.5
7:12	-33.9	-40.9	-40.9	34.8	-38.3	-46.2	-46.2	38.8	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	34.7	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	27.0	-22.5	-41.6	-65.4	27.0	-27.6	-50.7	-79.6	27.0
2:12	-20.2	-39.2	-60.6	27.0	-20.2	-39.2	-60.6	27.0	-24.7	-47.9	-73.9	28.9
3:12	-20.2	-39.2	-60.6	25.4	-20.2	-39.2	-60.6	25.4	-24.8	-47.9	-73.9	27.3
4:12	-20.2	-39.2	-60.7	23.8	-20.2	-39.2	-60.7	23.8	-24.8	-47.9	-73.9	25.7
5:12	-20.2	-39.3	-60.7	22.3	-20.2	-39.3	-60.7	22.3	-24.8	-47.9	-74.0	24.2
6:12	-20.3	-39.3	-60.7	20.8	-20.3	-39.3	-60.7	20.8	-24.9	-48.0	-74.0	22.7
7:12	-22.7	-27.5	-27.5	26.6	-22.7	-27.5	-27.5	26.6	-27.8	-33.6	-33.6	30.0
8:12	-22.7	-27.5	-27.5	25.4	-22.7	-27.5	-27.5	25.4	-27.8	-33.6	-33.6	29.2
9:12	-22.8	-27.5	-27.5	24.5	-22.8	-27.5	-27.5	24.5	-27.9	-33.7	-33.7	29.1
10:12	-22.8	-27.6	-27.6	24.4	-22.8	-27.6	-27.6	24.4	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	27.0	-32.0	-58.7	-92.0	27.0	-37.1	-67.9	-106.3	28.1
2:12	-24.7	-47.9	-73.9	28.9	-28.7	-55.4	-85.4	30.6	-33.3	-64.0	-98.6	32.5
3:12	-24.8	-47.9	-73.9	27.3	-28.7	-55.4	-85.4	29.0	-33.3	-64.1	-98.6	30.9
4:12	-24.8	-47.9	-73.9	25.7	-28.8	-55.4	-85.4	27.4	-33.4	-64.1	-98.7	29.3
5:12	-24.8	-47.9	-74.0	24.2	-28.8	-55.5	-85.4	25.8	-33.4	-64.1	-98.7	27.7
6:12	-24.9	-48.0	-74.0	22.7	-28.8	-55.5	-85.5	24.4	-33.4	-64.2	-98.7	26.3
7:12	-27.8	-33.6	-33.6	30.0	-32.2	-38.9	-38.9	33.3	-37.3	-45.0	-45.0	37.9
8:12	-27.8	-33.6	-33.6	29.2	-32.3	-38.9	-38.9	33.2	-37.4	-45.0	-45.0	37.8
9:12	-27.9	-33.7	-33.7	29.1	-32.3	-39.0	-39.0	33.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	26.6	-38.2	-69.7	-109.2	27.6	-43.3	-78.9	-123.4	28.8
2:12	-30.3	-58.3	-89.8	30.5	-34.2	-65.8	-101.3	32.2	-38.8	-74.5	-114.5	34.1
3:12	-30.3	-58.3	-89.8	29.0	-34.3	-65.8	-101.3	30.7	-38.8	-74.5	-114.6	32.6
4:12	-30.3	-58.3	-89.8	26.9	-34.3	-65.8	-101.3	28.6	-38.9	-74.5	-114.6	30.5
5:12	-30.3	-58.3	-89.9	25.5	-34.3	-65.9	-101.4	27.1	-38.9	-74.5	-114.6	29.1
6:12	-30.4	-58.4	-89.9	24.2	-34.3	-65.9	-101.4	25.8	-38.9	-74.6	-114.7	27.7
7:12	-33.9	-40.9	-40.9	34.8	-38.3	-46.2	-46.2	38.8	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	34.7	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8

Basic Wind Speed **125 mph**
Ground Snow Load **30 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	29.6	-22.5	-41.6	-65.4	29.6	-27.6	-50.7	-79.6	29.6
2:12	-20.2	-39.2	-60.6	29.4	-20.2	-39.2	-60.6	29.4	-24.7	-47.9	-73.9	31.3
3:12	-20.2	-39.2	-60.6	27.5	-20.2	-39.2	-60.6	27.5	-24.8	-47.9	-73.9	29.5
4:12	-20.2	-39.2	-60.7	25.7	-20.2	-39.2	-60.7	25.7	-24.8	-47.9	-73.9	27.6
5:12	-20.2	-39.3	-60.7	23.9	-20.2	-39.3	-60.7	23.9	-24.8	-47.9	-74.0	25.8
6:12	-20.3	-39.3	-60.7	22.2	-20.3	-39.3	-60.7	22.2	-24.9	-48.0	-74.0	24.1
7:12	-22.7	-27.5	-27.5	27.8	-22.7	-27.5	-27.5	27.8	-27.8	-33.6	-33.6	31.2
8:12	-22.7	-27.5	-27.5	26.4	-22.7	-27.5	-27.5	26.4	-27.8	-33.6	-33.6	29.8
9:12	-22.8	-27.5	-27.5	25.1	-22.8	-27.5	-27.5	25.1	-27.9	-33.7	-33.7	29.1
10:12	-22.8	-27.6	-27.6	24.4	-22.8	-27.6	-27.6	24.4	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	29.6	-32.0	-58.7	-92.0	29.6	-37.1	-67.9	-106.3	30.7
2:12	-24.7	-47.9	-73.9	31.3	-28.7	-55.4	-85.4	32.9	-33.3	-64.0	-98.6	34.9
3:12	-24.8	-47.9	-73.9	29.5	-28.7	-55.4	-85.4	31.1	-33.3	-64.1	-98.6	33.0
4:12	-24.8	-47.9	-73.9	27.6	-28.8	-55.4	-85.4	29.3	-33.4	-64.1	-98.7	31.2
5:12	-24.8	-47.9	-74.0	25.8	-28.8	-55.5	-85.4	27.5	-33.4	-64.1	-98.7	29.4
6:12	-24.9	-48.0	-74.0	24.1	-28.8	-55.5	-85.5	25.8	-33.4	-64.2	-98.7	27.7
7:12	-27.8	-33.6	-33.6	31.2	-32.2	-38.9	-38.9	34.2	-37.3	-45.0	-45.0	37.9
8:12	-27.8	-33.6	-33.6	29.8	-32.3	-38.9	-38.9	33.2	-37.4	-45.0	-45.0	37.8
9:12	-27.9	-33.7	-33.7	29.1	-32.3	-39.0	-39.0	33.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	28.1	-38.2	-69.7	-109.2	29.1	-43.3	-78.9	-123.4	30.3
2:12	-30.3	-58.3	-89.8	31.9	-34.2	-65.8	-101.3	33.6	-38.8	-74.5	-114.5	35.5
3:12	-30.3	-58.3	-89.8	30.3	-34.3	-65.8	-101.3	31.9	-38.8	-74.5	-114.6	33.8
4:12	-30.3	-58.3	-89.8	28.6	-34.3	-65.8	-101.3	30.2	-38.9	-74.5	-114.6	32.2
5:12	-30.3	-58.3	-89.9	27.0	-34.3	-65.9	-101.4	28.6	-38.9	-74.5	-114.6	30.5
6:12	-30.4	-58.4	-89.9	25.4	-34.3	-65.9	-101.4	27.1	-38.9	-74.6	-114.7	29.0
7:12	-33.9	-40.9	-40.9	34.8	-38.3	-46.2	-46.2	38.8	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	34.7	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8

Basic Wind Speed **125 mph**
Ground Snow Load **35 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	32.2	-22.5	-41.6	-65.4	32.2	-27.6	-50.7	-79.6	32.2
2:12	-20.2	-39.2	-60.6	31.7	-20.2	-39.2	-60.6	31.7	-24.7	-47.9	-73.9	33.7
3:12	-20.2	-39.2	-60.6	29.7	-20.2	-39.2	-60.6	29.7	-24.8	-47.9	-73.9	31.6
4:12	-20.2	-39.2	-60.7	27.6	-20.2	-39.2	-60.7	27.6	-24.8	-47.9	-73.9	29.5
5:12	-20.2	-39.3	-60.7	25.5	-20.2	-39.3	-60.7	25.5	-24.8	-47.9	-74.0	27.4
6:12	-20.3	-39.3	-60.7	23.6	-20.3	-39.3	-60.7	23.6	-24.9	-48.0	-74.0	25.5
7:12	-22.7	-27.5	-27.5	29.0	-22.7	-27.5	-27.5	29.0	-27.8	-33.6	-33.6	32.4
8:12	-22.7	-27.5	-27.5	27.4	-22.7	-27.5	-27.5	27.4	-27.8	-33.6	-33.6	30.8
9:12	-22.8	-27.5	-27.5	26.0	-22.8	-27.5	-27.5	26.0	-27.9	-33.7	-33.7	29.4
10:12	-22.8	-27.6	-27.6	24.8	-22.8	-27.6	-27.6	24.8	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	32.2	-32.0	-58.7	-92.0	32.2	-37.1	-67.9	-106.3	33.3
2:12	-24.7	-47.9	-73.9	33.7	-28.7	-55.4	-85.4	35.3	-33.3	-64.0	-98.6	37.2
3:12	-24.8	-47.9	-73.9	31.6	-28.7	-55.4	-85.4	33.2	-33.3	-64.1	-98.6	35.2
4:12	-24.8	-47.9	-73.9	29.5	-28.8	-55.4	-85.4	31.1	-33.4	-64.1	-98.7	33.1
5:12	-24.8	-47.9	-74.0	27.4	-28.8	-55.5	-85.4	29.1	-33.4	-64.1	-98.7	31.0
6:12	-24.9	-48.0	-74.0	25.5	-28.8	-55.5	-85.5	27.2	-33.4	-64.2	-98.7	29.1
7:12	-27.8	-33.6	-33.6	32.4	-32.2	-38.9	-38.9	35.4	-37.3	-45.0	-45.0	38.8
8:12	-27.8	-33.6	-33.6	30.8	-32.3	-38.9	-38.9	33.8	-37.4	-45.0	-45.0	37.8
9:12	-27.9	-33.7	-33.7	29.4	-32.3	-39.0	-39.0	33.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	30.5	-38.2	-69.7	-109.2	31.5	-43.3	-78.9	-123.4	32.6
2:12	-30.3	-58.3	-89.8	34.1	-34.2	-65.8	-101.3	35.7	-38.8	-74.5	-114.5	37.6
3:12	-30.3	-58.3	-89.8	32.2	-34.3	-65.8	-101.3	33.8	-38.8	-74.5	-114.6	35.8
4:12	-30.3	-58.3	-89.8	30.3	-34.3	-65.8	-101.3	31.9	-38.9	-74.5	-114.6	33.8
5:12	-30.3	-58.3	-89.9	28.4	-34.3	-65.9	-101.4	30.1	-38.9	-74.5	-114.6	32.0
6:12	-30.4	-58.4	-89.9	26.7	-34.3	-65.9	-101.4	28.3	-38.9	-74.6	-114.7	30.2
7:12	-33.9	-40.9	-40.9	35.6	-38.3	-46.2	-46.2	38.8	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	34.7	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8

Basic Wind Speed **125 mph**
Ground Snow Load **40 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
125 mph
Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	35.1	-22.5	-41.6	-65.4	35.1	-27.6	-50.7	-79.6	35.1
2:12	-20.2	-39.2	-60.6	34.1	-20.2	-39.2	-60.6	34.1	-24.7	-47.9	-73.9	36.0
3:12	-20.2	-39.2	-60.6	31.8	-20.2	-39.2	-60.6	31.8	-24.8	-47.9	-73.9	33.7
4:12	-20.2	-39.2	-60.7	29.4	-20.2	-39.2	-60.7	29.4	-24.8	-47.9	-73.9	31.4
5:12	-20.2	-39.3	-60.7	27.1	-20.2	-39.3	-60.7	27.1	-24.8	-47.9	-74.0	29.1
6:12	-20.3	-39.3	-60.7	25.0	-20.3	-39.3	-60.7	25.0	-24.9	-48.0	-74.0	26.9
7:12	-22.7	-27.5	-27.5	30.2	-22.7	-27.5	-27.5	30.2	-27.8	-33.6	-33.6	33.6
8:12	-22.7	-27.5	-27.5	28.4	-22.7	-27.5	-27.5	28.4	-27.8	-33.6	-33.6	31.8
9:12	-22.8	-27.5	-27.5	26.8	-22.8	-27.5	-27.5	26.8	-27.9	-33.7	-33.7	30.3
10:12	-22.8	-27.6	-27.6	25.5	-22.8	-27.6	-27.6	25.5	-27.9	-33.7	-33.7	29.0
11:12	-22.9	-27.6	-27.6	24.3	-22.9	-27.6	-27.6	24.3	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	35.1	-32.0	-58.7	-92.0	35.1	-37.1	-67.9	-106.3	35.9
2:12	-24.7	-47.9	-73.9	36.0	-28.7	-55.4	-85.4	37.7	-33.3	-64.0	-98.6	39.6
3:12	-24.8	-47.9	-73.9	33.7	-28.7	-55.4	-85.4	35.4	-33.3	-64.1	-98.6	37.3
4:12	-24.8	-47.9	-73.9	31.4	-28.8	-55.4	-85.4	33.0	-33.4	-64.1	-98.7	34.9
5:12	-24.8	-47.9	-74.0	29.1	-28.8	-55.5	-85.4	30.7	-33.4	-64.1	-98.7	32.6
6:12	-24.9	-48.0	-74.0	26.9	-28.8	-55.5	-85.5	28.6	-33.4	-64.2	-98.7	30.5
7:12	-27.8	-33.6	-33.6	33.6	-32.2	-38.9	-38.9	36.6	-37.3	-45.0	-45.0	40.0
8:12	-27.8	-33.6	-33.6	31.8	-32.3	-38.9	-38.9	34.8	-37.4	-45.0	-45.0	38.3
9:12	-27.9	-33.7	-33.7	30.3	-32.3	-39.0	-39.0	33.3	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.0	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	32.8	-38.2	-69.7	-109.2	33.8	-43.3	-78.9	-123.4	35.0
2:12	-30.3	-58.3	-89.8	36.2	-34.2	-65.8	-101.3	37.9	-38.8	-74.5	-114.5	39.8
3:12	-30.3	-58.3	-89.8	34.1	-34.3	-65.8	-101.3	35.8	-38.8	-74.5	-114.6	37.7
4:12	-30.3	-58.3	-89.8	32.0	-34.3	-65.8	-101.3	33.6	-38.9	-74.5	-114.6	35.5
5:12	-30.3	-58.3	-89.9	29.9	-34.3	-65.9	-101.4	31.5	-38.9	-74.5	-114.6	33.5
6:12	-30.4	-58.4	-89.9	27.9	-34.3	-65.9	-101.4	29.6	-38.9	-74.6	-114.7	31.5
7:12	-33.9	-40.9	-40.9	36.7	-38.3	-46.2	-46.2	39.6	-43.4	-52.3	-52.3	43.4
8:12	-34.0	-41.0	-41.0	35.1	-38.4	-46.3	-46.3	38.7	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	38.6	-22.5	-41.6	-65.4	38.6	-27.6	-50.7	-79.6	38.6
2:12	-20.2	-39.2	-60.6	36.5	-20.2	-39.2	-60.6	36.5	-24.7	-47.9	-73.9	38.4
3:12	-20.2	-39.2	-60.6	33.9	-20.2	-39.2	-60.6	33.9	-24.8	-47.9	-73.9	35.8
4:12	-20.2	-39.2	-60.7	31.3	-20.2	-39.2	-60.7	31.3	-24.8	-47.9	-73.9	33.2
5:12	-20.2	-39.3	-60.7	28.8	-20.2	-39.3	-60.7	28.8	-24.8	-47.9	-74.0	30.7
6:12	-20.3	-39.3	-60.7	26.4	-20.3	-39.3	-60.7	26.4	-24.9	-48.0	-74.0	28.3
7:12	-22.7	-27.5	-27.5	31.4	-22.7	-27.5	-27.5	31.4	-27.8	-33.6	-33.6	34.8
8:12	-22.7	-27.5	-27.5	29.4	-22.7	-27.5	-27.5	29.4	-27.8	-33.6	-33.6	32.9
9:12	-22.8	-27.5	-27.5	27.7	-22.8	-27.5	-27.5	27.7	-27.9	-33.7	-33.7	31.1
10:12	-22.8	-27.6	-27.6	26.2	-22.8	-27.6	-27.6	26.2	-27.9	-33.7	-33.7	29.7
11:12	-22.9	-27.6	-27.6	24.9	-22.9	-27.6	-27.6	24.9	-28.0	-33.7	-33.7	28.8
12:12	-22.9	-27.7	-27.7	24.1	-22.9	-27.7	-27.7	24.1	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	38.6	-32.0	-58.7	-92.0	38.6	-37.1	-67.9	-106.3	38.6
2:12	-24.7	-47.9	-73.9	38.4	-28.7	-55.4	-85.4	40.1	-33.3	-64.0	-98.6	42.0
3:12	-24.8	-47.9	-73.9	35.8	-28.7	-55.4	-85.4	37.5	-33.3	-64.1	-98.6	39.4
4:12	-24.8	-47.9	-73.9	33.2	-28.8	-55.4	-85.4	34.9	-33.4	-64.1	-98.7	36.8
5:12	-24.8	-47.9	-74.0	30.7	-28.8	-55.5	-85.4	32.4	-33.4	-64.1	-98.7	34.3
6:12	-24.9	-48.0	-74.0	28.3	-28.8	-55.5	-85.5	30.0	-33.4	-64.2	-98.7	31.9
7:12	-27.8	-33.6	-33.6	34.8	-32.2	-38.9	-38.9	37.8	-37.3	-45.0	-45.0	41.2
8:12	-27.8	-33.6	-33.6	32.9	-32.3	-38.9	-38.9	35.8	-37.4	-45.0	-45.0	39.3
9:12	-27.9	-33.7	-33.7	31.1	-32.3	-39.0	-39.0	34.1	-37.4	-45.1	-45.1	37.7
10:12	-27.9	-33.7	-33.7	29.7	-32.3	-39.0	-39.0	32.9	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	28.8	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	35.2	-38.2	-69.7	-109.2	36.2	-43.3	-78.9	-123.4	37.3
2:12	-30.3	-58.3	-89.8	38.3	-34.2	-65.8	-101.3	40.0	-38.8	-74.5	-114.5	41.9
3:12	-30.3	-58.3	-89.8	36.0	-34.3	-65.8	-101.3	37.7	-38.8	-74.5	-114.6	39.6
4:12	-30.3	-58.3	-89.8	33.7	-34.3	-65.8	-101.3	35.3	-38.9	-74.5	-114.6	37.2
5:12	-30.3	-58.3	-89.9	31.4	-34.3	-65.9	-101.4	33.0	-38.9	-74.5	-114.6	34.9
6:12	-30.4	-58.4	-89.9	29.2	-34.3	-65.9	-101.4	30.9	-38.9	-74.6	-114.7	32.8
7:12	-33.9	-40.9	-40.9	37.7	-38.3	-46.2	-46.2	40.7	-43.4	-52.3	-52.3	44.2
8:12	-34.0	-41.0	-41.0	36.0	-38.4	-46.3	-46.3	39.0	-43.5	-52.4	-52.4	43.3
9:12	-34.0	-41.0	-41.0	34.6	-38.4	-46.3	-46.3	38.6	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
125 mph

Ground Snow Load
50 psf

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	45.5	-22.5	-41.6	-65.4	45.5	-27.6	-50.7	-79.6	45.5
2:12	-20.2	-39.2	-60.6	41.9	-20.2	-39.2	-60.6	41.9	-24.7	-47.9	-73.9	43.2
3:12	-20.2	-39.2	-60.6	38.2	-20.2	-39.2	-60.6	38.2	-24.8	-47.9	-73.9	40.1
4:12	-20.2	-39.2	-60.7	35.1	-20.2	-39.2	-60.7	35.1	-24.8	-47.9	-73.9	37.0
5:12	-20.2	-39.3	-60.7	32.0	-20.2	-39.3	-60.7	32.0	-24.8	-47.9	-74.0	34.0
6:12	-20.3	-39.3	-60.7	29.2	-20.3	-39.3	-60.7	29.2	-24.9	-48.0	-74.0	31.1
7:12	-22.7	-27.5	-27.5	33.8	-22.7	-27.5	-27.5	33.8	-27.8	-33.6	-33.6	37.2
8:12	-22.7	-27.5	-27.5	31.4	-22.7	-27.5	-27.5	31.4	-27.8	-33.6	-33.6	34.9
9:12	-22.8	-27.5	-27.5	29.4	-22.8	-27.5	-27.5	29.4	-27.9	-33.7	-33.7	32.9
10:12	-22.8	-27.6	-27.6	27.7	-22.8	-27.6	-27.6	27.7	-27.9	-33.7	-33.7	31.1
11:12	-22.9	-27.6	-27.6	26.1	-22.9	-27.6	-27.6	26.1	-28.0	-33.7	-33.7	29.6
12:12	-22.9	-27.7	-27.7	24.8	-22.9	-27.7	-27.7	24.8	-28.0	-33.8	-33.8	28.7
Exposure Category C												
1:12	-27.6	-50.7	-79.6	45.5	-32.0	-58.7	-92.0	45.5	-37.1	-67.9	-106.3	45.5
2:12	-24.7	-47.9	-73.9	43.2	-28.7	-55.4	-85.4	44.8	-33.3	-64.0	-98.6	46.7
3:12	-24.8	-47.9	-73.9	40.1	-28.7	-55.4	-85.4	41.8	-33.3	-64.1	-98.6	43.7
4:12	-24.8	-47.9	-73.9	37.0	-28.8	-55.4	-85.4	38.6	-33.4	-64.1	-98.7	40.5
5:12	-24.8	-47.9	-74.0	34.0	-28.8	-55.5	-85.4	35.6	-33.4	-64.1	-98.7	37.5
6:12	-24.9	-48.0	-74.0	31.1	-28.8	-55.5	-85.5	32.8	-33.4	-64.2	-98.7	34.7
7:12	-27.8	-33.6	-33.6	37.2	-32.2	-38.9	-38.9	40.2	-37.3	-45.0	-45.0	43.6
8:12	-27.8	-33.6	-33.6	34.9	-32.3	-38.9	-38.9	37.9	-37.4	-45.0	-45.0	41.3
9:12	-27.9	-33.7	-33.7	32.9	-32.3	-39.0	-39.0	35.8	-37.4	-45.1	-45.1	39.3
10:12	-27.9	-33.7	-33.7	31.1	-32.3	-39.0	-39.0	34.1	-37.4	-45.1	-45.1	37.5
11:12	-28.0	-33.7	-33.7	29.6	-32.4	-39.0	-39.0	32.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	28.7	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	41.4	-38.2	-69.7	-109.2	41.4	-43.3	-78.9	-123.4	42.0
2:12	-30.3	-58.3	-89.8	42.6	-34.2	-65.8	-101.3	44.3	-38.8	-74.5	-114.5	46.2
3:12	-30.3	-58.3	-89.8	39.8	-34.3	-65.8	-101.3	41.5	-38.8	-74.5	-114.6	43.4
4:12	-30.3	-58.3	-89.8	37.0	-34.3	-65.8	-101.3	38.7	-38.9	-74.5	-114.6	40.6
5:12	-30.3	-58.3	-89.9	34.3	-34.3	-65.9	-101.4	35.9	-38.9	-74.5	-114.6	37.9
6:12	-30.4	-58.4	-89.9	31.7	-34.3	-65.9	-101.4	33.4	-38.9	-74.6	-114.7	35.3
7:12	-33.9	-40.9	-40.9	39.9	-38.3	-46.2	-46.2	42.9	-43.4	-52.3	-52.3	46.3
8:12	-34.0	-41.0	-41.0	37.8	-38.4	-46.3	-46.3	40.8	-43.5	-52.4	-52.4	44.2
9:12	-34.0	-41.0	-41.0	36.0	-38.4	-46.3	-46.3	38.9	-43.5	-52.4	-52.4	43.2
10:12	-34.0	-41.0	-41.0	34.5	-38.5	-46.3	-46.3	38.5	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **125 mph**
Ground Snow Load **60 psf**

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	52.5	-22.5	-41.6	-65.4	52.5	-27.6	-50.7	-79.6	52.5
2:12	-20.2	-39.2	-60.6	48.2	-20.2	-39.2	-60.6	48.2	-24.7	-47.9	-73.9	48.2
3:12	-20.2	-39.2	-60.6	43.4	-20.2	-39.2	-60.6	43.4	-24.8	-47.9	-73.9	44.3
4:12	-20.2	-39.2	-60.7	38.8	-20.2	-39.2	-60.7	38.8	-24.8	-47.9	-73.9	40.7
5:12	-20.2	-39.3	-60.7	35.3	-20.2	-39.3	-60.7	35.3	-24.8	-47.9	-74.0	37.2
6:12	-20.3	-39.3	-60.7	32.0	-20.3	-39.3	-60.7	32.0	-24.9	-48.0	-74.0	33.9
7:12	-22.7	-27.5	-27.5	36.2	-22.7	-27.5	-27.5	36.2	-27.8	-33.6	-33.6	39.6
8:12	-22.7	-27.5	-27.5	33.5	-22.7	-27.5	-27.5	33.5	-27.8	-33.6	-33.6	36.9
9:12	-22.8	-27.5	-27.5	31.1	-22.8	-27.5	-27.5	31.1	-27.9	-33.7	-33.7	34.6
10:12	-22.8	-27.6	-27.6	29.1	-22.8	-27.6	-27.6	29.1	-27.9	-33.7	-33.7	32.5
11:12	-22.9	-27.6	-27.6	27.3	-22.9	-27.6	-27.6	27.3	-28.0	-33.7	-33.7	30.8
12:12	-22.9	-27.7	-27.7	25.9	-22.9	-27.7	-27.7	25.9	-28.0	-33.8	-33.8	29.3
Exposure Category C												
1:12	-27.6	-50.7	-79.6	52.5	-32.0	-58.7	-92.0	52.5	-37.1	-67.9	-106.3	52.5
2:12	-24.7	-47.9	-73.9	48.2	-28.7	-55.4	-85.4	49.6	-33.3	-64.0	-98.6	51.5
3:12	-24.8	-47.9	-73.9	44.3	-28.7	-55.4	-85.4	46.0	-33.3	-64.1	-98.6	47.9
4:12	-24.8	-47.9	-73.9	40.7	-28.8	-55.4	-85.4	42.4	-33.4	-64.1	-98.7	44.3
5:12	-24.8	-47.9	-74.0	37.2	-28.8	-55.5	-85.4	38.9	-33.4	-64.1	-98.7	40.8
6:12	-24.9	-48.0	-74.0	33.9	-28.8	-55.5	-85.5	35.6	-33.4	-64.2	-98.7	37.5
7:12	-27.8	-33.6	-33.6	39.6	-32.2	-38.9	-38.9	42.6	-37.3	-45.0	-45.0	46.0
8:12	-27.8	-33.6	-33.6	36.9	-32.3	-38.9	-38.9	39.9	-37.4	-45.0	-45.0	43.3
9:12	-27.9	-33.7	-33.7	34.6	-32.3	-39.0	-39.0	37.6	-37.4	-45.1	-45.1	41.0
10:12	-27.9	-33.7	-33.7	32.5	-32.3	-39.0	-39.0	35.5	-37.4	-45.1	-45.1	39.0
11:12	-28.0	-33.7	-33.7	30.8	-32.4	-39.0	-39.0	33.8	-37.5	-45.2	-45.2	37.4
12:12	-28.0	-33.8	-33.8	29.3	-32.4	-39.1	-39.1	32.7	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	47.6	-38.2	-69.7	-109.2	47.6	-43.3	-78.9	-123.4	47.6
2:12	-30.3	-58.3	-89.8	46.9	-34.2	-65.8	-101.3	48.6	-38.8	-74.5	-114.5	50.5
3:12	-30.3	-58.3	-89.8	43.7	-34.3	-65.8	-101.3	45.3	-38.8	-74.5	-114.6	47.2
4:12	-30.3	-58.3	-89.8	40.4	-34.3	-65.8	-101.3	42.1	-38.9	-74.5	-114.6	44.0
5:12	-30.3	-58.3	-89.9	37.2	-34.3	-65.9	-101.4	38.9	-38.9	-74.5	-114.6	40.8
6:12	-30.4	-58.4	-89.9	34.3	-34.3	-65.9	-101.4	35.9	-38.9	-74.6	-114.7	37.8
7:12	-33.9	-40.9	-40.9	42.1	-38.3	-46.2	-46.2	45.0	-43.4	-52.3	-52.3	48.5
8:12	-34.0	-41.0	-41.0	39.6	-38.4	-46.3	-46.3	42.6	-43.5	-52.4	-52.4	46.1
9:12	-34.0	-41.0	-41.0	37.5	-38.4	-46.3	-46.3	40.5	-43.5	-52.4	-52.4	43.9
10:12	-34.0	-41.0	-41.0	35.7	-38.5	-46.3	-46.3	38.6	-43.6	-52.5	-52.5	43.0
11:12	-34.1	-41.1	-41.1	34.4	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8

Basic Wind Speed **125 mph**
Ground Snow Load **70 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
125 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	59.4	-22.5	-41.6	-65.4	59.4	-27.6	-50.7	-79.6	59.4
2:12	-20.2	-39.2	-60.6	54.5	-20.2	-39.2	-60.6	54.5	-24.7	-47.9	-73.9	54.5
3:12	-20.2	-39.2	-60.6	49.1	-20.2	-39.2	-60.6	49.1	-24.8	-47.9	-73.9	49.1
4:12	-20.2	-39.2	-60.7	43.6	-20.2	-39.2	-60.7	43.6	-24.8	-47.9	-73.9	44.5
5:12	-20.2	-39.3	-60.7	38.6	-20.2	-39.3	-60.7	38.6	-24.8	-47.9	-74.0	40.5
6:12	-20.3	-39.3	-60.7	34.8	-20.3	-39.3	-60.7	34.8	-24.9	-48.0	-74.0	36.7
7:12	-22.7	-27.5	-27.5	38.5	-22.7	-27.5	-27.5	38.5	-27.8	-33.6	-33.6	42.0
8:12	-22.7	-27.5	-27.5	35.5	-22.7	-27.5	-27.5	35.5	-27.8	-33.6	-33.6	39.0
9:12	-22.8	-27.5	-27.5	32.8	-22.8	-27.5	-27.5	32.8	-27.9	-33.7	-33.7	36.3
10:12	-22.8	-27.6	-27.6	30.5	-22.8	-27.6	-27.6	30.5	-27.9	-33.7	-33.7	34.0
11:12	-22.9	-27.6	-27.6	28.6	-22.9	-27.6	-27.6	28.6	-28.0	-33.7	-33.7	32.0
12:12	-22.9	-27.7	-27.7	26.9	-22.9	-27.7	-27.7	26.9	-28.0	-33.8	-33.8	30.3
Exposure Category C												
1:12	-27.6	-50.7	-79.6	59.4	-32.0	-58.7	-92.0	59.4	-37.1	-67.9	-106.3	59.4
2:12	-24.7	-47.9	-73.9	54.5	-28.7	-55.4	-85.4	54.5	-33.3	-64.0	-98.6	56.3
3:12	-24.8	-47.9	-73.9	49.1	-28.7	-55.4	-85.4	50.3	-33.3	-64.1	-98.6	52.2
4:12	-24.8	-47.9	-73.9	44.5	-28.8	-55.4	-85.4	46.1	-33.4	-64.1	-98.7	48.0
5:12	-24.8	-47.9	-74.0	40.5	-28.8	-55.5	-85.4	42.1	-33.4	-64.1	-98.7	44.0
6:12	-24.9	-48.0	-74.0	36.7	-28.8	-55.5	-85.5	38.4	-33.4	-64.2	-98.7	40.3
7:12	-27.8	-33.6	-33.6	42.0	-32.2	-38.9	-38.9	45.0	-37.3	-45.0	-45.0	48.4
8:12	-27.8	-33.6	-33.6	39.0	-32.3	-38.9	-38.9	41.9	-37.4	-45.0	-45.0	45.4
9:12	-27.9	-33.7	-33.7	36.3	-32.3	-39.0	-39.0	39.3	-37.4	-45.1	-45.1	42.7
10:12	-27.9	-33.7	-33.7	34.0	-32.3	-39.0	-39.0	37.0	-37.4	-45.1	-45.1	40.4
11:12	-28.0	-33.7	-33.7	32.0	-32.4	-39.0	-39.0	35.0	-37.5	-45.2	-45.2	38.4
12:12	-28.0	-33.8	-33.8	30.3	-32.4	-39.1	-39.1	33.3	-37.5	-45.2	-45.2	37.3
Exposure Category D												
1:12	-33.7	-61.8	-96.8	53.9	-38.2	-69.7	-109.2	53.9	-43.3	-78.9	-123.4	53.9
2:12	-30.3	-58.3	-89.8	51.2	-34.2	-65.8	-101.3	52.8	-38.8	-74.5	-114.5	54.8
3:12	-30.3	-58.3	-89.8	47.5	-34.3	-65.8	-101.3	49.2	-38.8	-74.5	-114.6	51.1
4:12	-30.3	-58.3	-89.8	43.8	-34.3	-65.8	-101.3	45.4	-38.9	-74.5	-114.6	47.3
5:12	-30.3	-58.3	-89.9	40.2	-34.3	-65.9	-101.4	41.8	-38.9	-74.5	-114.6	43.7
6:12	-30.4	-58.4	-89.9	36.8	-34.3	-65.9	-101.4	38.4	-38.9	-74.6	-114.7	40.4
7:12	-33.9	-40.9	-40.9	44.2	-38.3	-46.2	-46.2	47.2	-43.4	-52.3	-52.3	50.6
8:12	-34.0	-41.0	-41.0	41.5	-38.4	-46.3	-46.3	44.4	-43.5	-52.4	-52.4	47.9
9:12	-34.0	-41.0	-41.0	39.0	-38.4	-46.3	-46.3	42.0	-43.5	-52.4	-52.4	45.5
10:12	-34.0	-41.0	-41.0	37.0	-38.5	-46.3	-46.3	39.9	-43.6	-52.5	-52.5	43.4
11:12	-34.1	-41.1	-41.1	35.2	-38.5	-46.4	-46.4	38.3	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.2	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.5	-41.6	-65.4	66.4	-22.5	-41.6	-65.4	66.4	-27.6	-50.7	-79.6	66.4
2:12	-20.2	-39.2	-60.6	60.9	-20.2	-39.2	-60.6	60.9	-24.7	-47.9	-73.9	60.9
3:12	-20.2	-39.2	-60.6	54.8	-20.2	-39.2	-60.6	54.8	-24.8	-47.9	-73.9	54.8
4:12	-20.2	-39.2	-60.7	48.6	-20.2	-39.2	-60.7	48.6	-24.8	-47.9	-73.9	48.6
5:12	-20.2	-39.3	-60.7	42.7	-20.2	-39.3	-60.7	42.7	-24.8	-47.9	-74.0	43.7
6:12	-20.3	-39.3	-60.7	37.6	-20.3	-39.3	-60.7	37.6	-24.9	-48.0	-74.0	39.5
7:12	-22.7	-27.5	-27.5	40.9	-22.7	-27.5	-27.5	40.9	-27.8	-33.6	-33.6	44.4
8:12	-22.7	-27.5	-27.5	37.5	-22.7	-27.5	-27.5	37.5	-27.8	-33.6	-33.6	41.0
9:12	-22.8	-27.5	-27.5	34.6	-22.8	-27.5	-27.5	34.6	-27.9	-33.7	-33.7	38.0
10:12	-22.8	-27.6	-27.6	32.0	-22.8	-27.6	-27.6	32.0	-27.9	-33.7	-33.7	35.4
11:12	-22.9	-27.6	-27.6	29.8	-22.9	-27.6	-27.6	29.8	-28.0	-33.7	-33.7	33.2
12:12	-22.9	-27.7	-27.7	27.9	-22.9	-27.7	-27.7	27.9	-28.0	-33.8	-33.8	31.3
Exposure Category C												
1:12	-27.6	-50.7	-79.6	66.4	-32.0	-58.7	-92.0	66.4	-37.1	-67.9	-106.3	66.4
2:12	-24.7	-47.9	-73.9	60.9	-28.7	-55.4	-85.4	60.9	-33.3	-64.0	-98.6	61.0
3:12	-24.8	-47.9	-73.9	54.8	-28.7	-55.4	-85.4	54.8	-33.3	-64.1	-98.6	56.4
4:12	-24.8	-47.9	-73.9	48.6	-28.8	-55.4	-85.4	49.9	-33.4	-64.1	-98.7	51.8
5:12	-24.8	-47.9	-74.0	43.7	-28.8	-55.5	-85.4	45.4	-33.4	-64.1	-98.7	47.3
6:12	-24.9	-48.0	-74.0	39.5	-28.8	-55.5	-85.5	41.2	-33.4	-64.2	-98.7	43.1
7:12	-27.8	-33.6	-33.6	44.4	-32.2	-38.9	-38.9	47.4	-37.3	-45.0	-45.0	50.8
8:12	-27.8	-33.6	-33.6	41.0	-32.3	-38.9	-38.9	44.0	-37.4	-45.0	-45.0	47.4
9:12	-27.9	-33.7	-33.7	38.0	-32.3	-39.0	-39.0	41.0	-37.4	-45.1	-45.1	44.4
10:12	-27.9	-33.7	-33.7	35.4	-32.3	-39.0	-39.0	38.4	-37.4	-45.1	-45.1	41.8
11:12	-28.0	-33.7	-33.7	33.2	-32.4	-39.0	-39.0	36.2	-37.5	-45.2	-45.2	39.6
12:12	-28.0	-33.8	-33.8	31.3	-32.4	-39.1	-39.1	34.3	-37.5	-45.2	-45.2	37.7
Exposure Category D												
1:12	-33.7	-61.8	-96.8	60.1	-38.2	-69.7	-109.2	60.1	-43.3	-78.9	-123.4	60.1
2:12	-30.3	-58.3	-89.8	55.5	-34.2	-65.8	-101.3	57.1	-38.8	-74.5	-114.5	59.0
3:12	-30.3	-58.3	-89.8	51.3	-34.3	-65.8	-101.3	53.0	-38.8	-74.5	-114.6	54.9
4:12	-30.3	-58.3	-89.8	47.1	-34.3	-65.8	-101.3	48.8	-38.9	-74.5	-114.6	50.7
5:12	-30.3	-58.3	-89.9	43.1	-34.3	-65.9	-101.4	44.8	-38.9	-74.5	-114.6	46.7
6:12	-30.4	-58.4	-89.9	39.3	-34.3	-65.9	-101.4	41.0	-38.9	-74.6	-114.7	42.9
7:12	-33.9	-40.9	-40.9	46.4	-38.3	-46.2	-46.2	49.3	-43.4	-52.3	-52.3	52.8
8:12	-34.0	-41.0	-41.0	43.3	-38.4	-46.3	-46.3	46.3	-43.5	-52.4	-52.4	49.7
9:12	-34.0	-41.0	-41.0	40.6	-38.4	-46.3	-46.3	43.6	-43.5	-52.4	-52.4	47.0
10:12	-34.0	-41.0	-41.0	38.3	-38.5	-46.3	-46.3	41.2	-43.6	-52.5	-52.5	44.7
11:12	-34.1	-41.1	-41.1	36.2	-38.5	-46.4	-46.4	39.2	-43.6	-52.5	-52.5	42.9
12:12	-34.1	-41.1	-41.1	34.5	-38.5	-46.4	-46.4	38.2	-43.6	-52.5	-52.5	42.8

Basic Wind Speed **125 mph**
Ground Snow Load **90 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
125 mph

Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-22.5	-41.6	-65.4	73.4	-22.5	-41.6	-65.4	73.4	-27.6	-50.7	-79.6	73.4
2:12	-20.2	-39.2	-60.6	67.2	-20.2	-39.2	-60.6	67.2	-24.7	-47.9	-73.9	67.2
3:12	-20.2	-39.2	-60.6	60.5	-20.2	-39.2	-60.6	60.5	-24.8	-47.9	-73.9	60.5
4:12	-20.2	-39.2	-60.7	53.6	-20.2	-39.2	-60.7	53.6	-24.8	-47.9	-73.9	53.6
5:12	-20.2	-39.3	-60.7	47.0	-20.2	-39.3	-60.7	47.0	-24.8	-47.9	-74.0	47.0
6:12	-20.3	-39.3	-60.7	40.9	-20.3	-39.3	-60.7	40.9	-24.9	-48.0	-74.0	42.3
7:12	-22.7	-27.5	-27.5	43.3	-22.7	-27.5	-27.5	43.3	-27.8	-33.6	-33.6	46.8
8:12	-22.7	-27.5	-27.5	39.6	-22.7	-27.5	-27.5	39.6	-27.8	-33.6	-33.6	43.0
9:12	-22.8	-27.5	-27.5	36.3	-22.8	-27.5	-27.5	36.3	-27.9	-33.7	-33.7	39.7
10:12	-22.8	-27.6	-27.6	33.4	-22.8	-27.6	-27.6	33.4	-27.9	-33.7	-33.7	36.9
11:12	-22.9	-27.6	-27.6	31.0	-22.9	-27.6	-27.6	31.0	-28.0	-33.7	-33.7	34.4
12:12	-22.9	-27.7	-27.7	28.9	-22.9	-27.7	-27.7	28.9	-28.0	-33.8	-33.8	32.3
1:12	-27.6	-50.7	-79.6	73.4	-32.0	-58.7	-92.0	73.4	-37.1	-67.9	-106.3	73.4
2:12	-24.7	-47.9	-73.9	67.2	-28.7	-55.4	-85.4	67.2	-33.3	-64.0	-98.6	67.2
3:12	-24.8	-47.9	-73.9	60.5	-28.7	-55.4	-85.4	60.5	-33.3	-64.1	-98.6	60.7
4:12	-24.8	-47.9	-73.9	53.6	-28.8	-55.4	-85.4	53.6	-33.4	-64.1	-98.7	55.5
5:12	-24.8	-47.9	-74.0	47.0	-28.8	-55.5	-85.4	48.7	-33.4	-64.1	-98.7	50.6
6:12	-24.9	-48.0	-74.0	42.3	-28.8	-55.5	-85.5	44.0	-33.4	-64.2	-98.7	45.9
7:12	-27.8	-33.6	-33.6	46.8	-32.2	-38.9	-38.9	49.8	-37.3	-45.0	-45.0	53.2
8:12	-27.8	-33.6	-33.6	43.0	-32.3	-38.9	-38.9	46.0	-37.4	-45.0	-45.0	49.4
9:12	-27.9	-33.7	-33.7	39.7	-32.3	-39.0	-39.0	42.7	-37.4	-45.1	-45.1	46.1
10:12	-27.9	-33.7	-33.7	36.9	-32.3	-39.0	-39.0	39.8	-37.4	-45.1	-45.1	43.3
11:12	-28.0	-33.7	-33.7	34.4	-32.4	-39.0	-39.0	37.4	-37.5	-45.2	-45.2	40.8
12:12	-28.0	-33.8	-33.8	32.3	-32.4	-39.1	-39.1	35.3	-37.5	-45.2	-45.2	38.8
1:12	-33.7	-61.8	-96.8	66.4	-38.2	-69.7	-109.2	66.4	-43.3	-78.9	-123.4	66.4
2:12	-30.3	-58.3	-89.8	60.9	-34.2	-65.8	-101.3	61.4	-38.8	-74.5	-114.5	63.3
3:12	-30.3	-58.3	-89.8	55.2	-34.3	-65.8	-101.3	56.8	-38.8	-74.5	-114.6	58.7
4:12	-30.3	-58.3	-89.8	50.5	-34.3	-65.8	-101.3	52.2	-38.9	-74.5	-114.6	54.1
5:12	-30.3	-58.3	-89.9	46.0	-34.3	-65.9	-101.4	47.7	-38.9	-74.5	-114.6	49.6
6:12	-30.4	-58.4	-89.9	41.8	-34.3	-65.9	-101.4	43.5	-38.9	-74.6	-114.7	45.4
7:12	-33.9	-40.9	-40.9	48.5	-38.3	-46.2	-46.2	51.5	-43.4	-52.3	-52.3	54.9
8:12	-34.0	-41.0	-41.0	45.1	-38.4	-46.3	-46.3	48.1	-43.5	-52.4	-52.4	51.5
9:12	-34.0	-41.0	-41.0	42.1	-38.4	-46.3	-46.3	45.1	-43.5	-52.4	-52.4	48.6
10:12	-34.0	-41.0	-41.0	39.5	-38.5	-46.3	-46.3	42.5	-43.6	-52.5	-52.5	46.0
11:12	-34.1	-41.1	-41.1	37.3	-38.5	-46.4	-46.4	40.3	-43.6	-52.5	-52.5	43.8
12:12	-34.1	-41.1	-41.1	35.4	-38.5	-46.4	-46.4	38.4	-43.6	-52.5	-52.5	42.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-24.5	-45.1	-70.8	13.8	-24.5	-45.1	-70.8	13.8	-30.0	-55.0	-86.2	13.8
	2:12	-21.9	-42.5	-65.7	16.7	-21.9	-42.5	-65.7	16.7	-26.9	-51.9	-80.0	19.4
	3:12	-21.9	-42.5	-65.7	16.6	-21.9	-42.5	-65.7	16.6	-26.9	-51.9	-80.0	19.4
	4:12	-21.9	-42.5	-65.7	16.5	-21.9	-42.5	-65.7	16.5	-26.9	-51.9	-80.1	19.3
	5:12	-22.0	-42.6	-65.7	16.4	-22.0	-42.6	-65.7	16.4	-26.9	-52.0	-80.1	19.2
	6:12	-22.0	-42.6	-65.8	16.3	-22.0	-42.6	-65.8	16.3	-27.0	-52.0	-80.1	19.1
	7:12	-24.6	-29.8	-29.8	26.5	-24.6	-29.8	-29.8	26.5	-30.1	-36.4	-36.4	31.5
	8:12	-24.7	-29.8	-29.8	26.4	-24.7	-29.8	-29.8	26.4	-30.2	-36.4	-36.4	31.3
	9:12	-24.7	-29.9	-29.9	26.2	-24.7	-29.9	-29.9	26.2	-30.2	-36.5	-36.5	31.2
	10:12	-24.8	-29.9	-29.9	26.1	-24.8	-29.9	-29.9	26.1	-30.3	-36.5	-36.5	31.1
	11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
	12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C	1:12	-30.0	-55.0	-86.2	13.8	-34.8	-63.6	-99.6	14.6	-40.3	-73.5	-115.1	16.3
	2:12	-26.9	-51.9	-80.0	19.4	-31.2	-60.0	-92.4	21.8	-36.1	-69.4	-106.8	24.6
	3:12	-26.9	-51.9	-80.0	19.4	-31.2	-60.0	-92.5	21.8	-36.2	-69.4	-106.8	24.5
	4:12	-26.9	-51.9	-80.1	19.3	-31.2	-60.0	-92.5	21.7	-36.2	-69.4	-106.8	24.4
	5:12	-26.9	-52.0	-80.1	19.2	-31.2	-60.1	-92.5	21.6	-36.2	-69.5	-106.9	24.3
	6:12	-27.0	-52.0	-80.1	19.1	-31.3	-60.1	-92.6	21.5	-36.3	-69.5	-106.9	24.2
	7:12	-30.1	-36.4	-36.4	31.5	-34.9	-42.1	-42.1	35.8	-40.4	-48.8	-48.8	40.7
	8:12	-30.2	-36.4	-36.4	31.3	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.6
	9:12	-30.2	-36.5	-36.5	31.2	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
	10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
	11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
	12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D	1:12	-36.6	-66.9	-104.8	15.2	-41.4	-75.5	-118.2	16.6	-46.9	-85.4	-133.6	18.3
	2:12	-32.8	-63.1	-97.2	22.7	-37.1	-71.3	-109.6	25.1	-42.1	-80.6	-124.0	27.9
	3:12	-32.8	-63.1	-97.2	22.7	-37.1	-71.3	-109.7	25.1	-42.1	-80.7	-124.0	27.8
	4:12	-32.9	-63.2	-97.3	22.6	-37.2	-71.3	-109.7	25.0	-42.1	-80.7	-124.0	27.7
	5:12	-32.9	-63.2	-97.3	22.5	-37.2	-71.3	-109.7	24.9	-42.2	-80.7	-124.1	27.6
	6:12	-32.9	-63.2	-97.3	22.4	-37.2	-71.4	-109.8	24.8	-42.2	-80.7	-124.1	27.5
	7:12	-36.8	-44.3	-44.3	37.4	-41.5	-50.1	-50.1	41.7	-47.1	-56.7	-56.7	46.7
	8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
	9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
	10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
	11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
	12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1

Basic Wind Speed

130 mph

Ground Snow Load

0 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed **130 mph**
Ground Snow Load **5 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	15.1	-24.5	-45.1	-70.8	15.1	-30.0	-55.0	-86.2	15.1
2:12	-21.9	-42.5	-65.7	16.8	-21.9	-42.5	-65.7	16.8	-26.9	-51.9	-80.0	19.4
3:12	-21.9	-42.5	-65.7	16.6	-21.9	-42.5	-65.7	16.6	-26.9	-51.9	-80.0	19.4
4:12	-21.9	-42.5	-65.7	16.5	-21.9	-42.5	-65.7	16.5	-26.9	-51.9	-80.1	19.3
5:12	-22.0	-42.6	-65.7	16.4	-22.0	-42.6	-65.7	16.4	-26.9	-52.0	-80.1	19.2
6:12	-22.0	-42.6	-65.8	16.3	-22.0	-42.6	-65.8	16.3	-27.0	-52.0	-80.1	19.1
7:12	-24.6	-29.8	-29.8	26.5	-24.6	-29.8	-29.8	26.5	-30.1	-36.4	-36.4	31.5
8:12	-24.7	-29.8	-29.8	26.4	-24.7	-29.8	-29.8	26.4	-30.2	-36.4	-36.4	31.3
9:12	-24.7	-29.9	-29.9	26.2	-24.7	-29.9	-29.9	26.2	-30.2	-36.5	-36.5	31.2
10:12	-24.8	-29.9	-29.9	26.1	-24.8	-29.9	-29.9	26.1	-30.3	-36.5	-36.5	31.1
11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	15.1	-34.8	-63.6	-99.6	15.7	-40.3	-73.5	-115.1	16.9
2:12	-26.9	-51.9	-80.0	19.4	-31.2	-60.0	-92.4	21.8	-36.1	-69.4	-106.8	24.6
3:12	-26.9	-51.9	-80.0	19.4	-31.2	-60.0	-92.5	21.8	-36.2	-69.4	-106.8	24.5
4:12	-26.9	-51.9	-80.1	19.3	-31.2	-60.0	-92.5	21.7	-36.2	-69.4	-106.8	24.4
5:12	-26.9	-52.0	-80.1	19.2	-31.2	-60.1	-92.5	21.6	-36.2	-69.5	-106.9	24.3
6:12	-27.0	-52.0	-80.1	19.1	-31.3	-60.1	-92.6	21.5	-36.3	-69.5	-106.9	24.2
7:12	-30.1	-36.4	-36.4	31.5	-34.9	-42.1	-42.1	35.8	-40.4	-48.8	-48.8	40.7
8:12	-30.2	-36.4	-36.4	31.3	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.6
9:12	-30.2	-36.5	-36.5	31.2	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	16.1	-41.4	-75.5	-118.2	17.2	-46.9	-85.4	-133.6	18.4
2:12	-32.8	-63.1	-97.2	22.7	-37.1	-71.3	-109.6	25.1	-42.1	-80.6	-124.0	27.9
3:12	-32.8	-63.1	-97.2	22.7	-37.1	-71.3	-109.7	25.1	-42.1	-80.7	-124.0	27.8
4:12	-32.9	-63.2	-97.3	22.6	-37.2	-71.3	-109.7	25.0	-42.1	-80.7	-124.0	27.7
5:12	-32.9	-63.2	-97.3	22.5	-37.2	-71.3	-109.7	24.9	-42.2	-80.7	-124.1	27.6
6:12	-32.9	-63.2	-97.3	22.4	-37.2	-71.4	-109.8	24.8	-42.2	-80.7	-124.1	27.5
7:12	-36.8	-44.3	-44.3	37.4	-41.5	-50.1	-50.1	41.7	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
130 mph

Ground Snow Load
10 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	18.8	-24.5	-45.1	-70.8	18.8	-30.0	-55.0	-86.2	18.8
2:12	-21.9	-42.5	-65.7	20.2	-21.9	-42.5	-65.7	20.2	-26.9	-51.9	-80.0	22.3
3:12	-21.9	-42.5	-65.7	19.5	-21.9	-42.5	-65.7	19.5	-26.9	-51.9	-80.0	21.5
4:12	-21.9	-42.5	-65.7	17.1	-21.9	-42.5	-65.7	17.1	-26.9	-51.9	-80.1	19.3
5:12	-22.0	-42.6	-65.7	16.5	-22.0	-42.6	-65.7	16.5	-26.9	-52.0	-80.1	19.2
6:12	-22.0	-42.6	-65.8	16.3	-22.0	-42.6	-65.8	16.3	-27.0	-52.0	-80.1	19.1
7:12	-24.6	-29.8	-29.8	26.5	-24.6	-29.8	-29.8	26.5	-30.1	-36.4	-36.4	31.5
8:12	-24.7	-29.8	-29.8	26.4	-24.7	-29.8	-29.8	26.4	-30.2	-36.4	-36.4	31.3
9:12	-24.7	-29.9	-29.9	26.2	-24.7	-29.9	-29.9	26.2	-30.2	-36.5	-36.5	31.2
10:12	-24.8	-29.9	-29.9	26.1	-24.8	-29.9	-29.9	26.1	-30.3	-36.5	-36.5	31.1
11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	18.8	-34.8	-63.6	-99.6	19.4	-40.3	-73.5	-115.1	20.6
2:12	-26.9	-51.9	-80.0	22.3	-31.2	-60.0	-92.4	24.1	-36.1	-69.4	-106.8	26.2
3:12	-26.9	-51.9	-80.0	21.5	-31.2	-60.0	-92.5	23.3	-36.2	-69.4	-106.8	25.4
4:12	-26.9	-51.9	-80.1	19.3	-31.2	-60.0	-92.5	21.7	-36.2	-69.4	-106.8	24.4
5:12	-26.9	-52.0	-80.1	19.2	-31.2	-60.1	-92.5	21.6	-36.2	-69.5	-106.9	24.3
6:12	-27.0	-52.0	-80.1	19.1	-31.3	-60.1	-92.6	21.5	-36.3	-69.5	-106.9	24.2
7:12	-30.1	-36.4	-36.4	31.5	-34.9	-42.1	-42.1	35.8	-40.4	-48.8	-48.8	40.7
8:12	-30.2	-36.4	-36.4	31.3	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.6
9:12	-30.2	-36.5	-36.5	31.2	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	19.8	-41.4	-75.5	-118.2	20.9	-46.9	-85.4	-133.6	22.1
2:12	-32.8	-63.1	-97.2	24.8	-37.1	-71.3	-109.6	26.6	-42.1	-80.6	-124.0	28.7
3:12	-32.8	-63.1	-97.2	24.0	-37.1	-71.3	-109.7	25.8	-42.1	-80.7	-124.0	27.9
4:12	-32.9	-63.2	-97.3	22.6	-37.2	-71.3	-109.7	25.0	-42.1	-80.7	-124.0	27.7
5:12	-32.9	-63.2	-97.3	22.5	-37.2	-71.3	-109.7	24.9	-42.2	-80.7	-124.1	27.6
6:12	-32.9	-63.2	-97.3	22.4	-37.2	-71.4	-109.8	24.8	-42.2	-80.7	-124.1	27.5
7:12	-36.8	-44.3	-44.3	37.4	-41.5	-50.1	-50.1	41.7	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
130 mph

Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	22.5	-24.5	-45.1	-70.8	22.5	-30.0	-55.0	-86.2	22.5
2:12	-21.9	-42.5	-65.7	23.6	-21.9	-42.5	-65.7	23.6	-26.9	-51.9	-80.0	25.7
3:12	-21.9	-42.5	-65.7	22.5	-21.9	-42.5	-65.7	22.5	-26.9	-51.9	-80.0	24.6
4:12	-21.9	-42.5	-65.7	18.9	-21.9	-42.5	-65.7	18.9	-26.9	-51.9	-80.1	21.0
5:12	-22.0	-42.6	-65.7	18.1	-22.0	-42.6	-65.7	18.1	-26.9	-52.0	-80.1	20.2
6:12	-22.0	-42.6	-65.8	17.3	-22.0	-42.6	-65.8	17.3	-27.0	-52.0	-80.1	19.4
7:12	-24.6	-29.8	-29.8	26.5	-24.6	-29.8	-29.8	26.5	-30.1	-36.4	-36.4	31.5
8:12	-24.7	-29.8	-29.8	26.4	-24.7	-29.8	-29.8	26.4	-30.2	-36.4	-36.4	31.3
9:12	-24.7	-29.9	-29.9	26.2	-24.7	-29.9	-29.9	26.2	-30.2	-36.5	-36.5	31.2
10:12	-24.8	-29.9	-29.9	26.1	-24.8	-29.9	-29.9	26.1	-30.3	-36.5	-36.5	31.1
11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	22.5	-34.8	-63.6	-99.6	23.1	-40.3	-73.5	-115.1	24.4
2:12	-26.9	-51.9	-80.0	25.7	-31.2	-60.0	-92.4	27.5	-36.1	-69.4	-106.8	29.6
3:12	-26.9	-51.9	-80.0	24.6	-31.2	-60.0	-92.5	26.4	-36.2	-69.4	-106.8	28.4
4:12	-26.9	-51.9	-80.1	21.0	-31.2	-60.0	-92.5	22.8	-36.2	-69.4	-106.8	24.9
5:12	-26.9	-52.0	-80.1	20.2	-31.2	-60.1	-92.5	22.0	-36.2	-69.5	-106.9	24.3
6:12	-27.0	-52.0	-80.1	19.4	-31.3	-60.1	-92.6	21.5	-36.3	-69.5	-106.9	24.2
7:12	-30.1	-36.4	-36.4	31.5	-34.9	-42.1	-42.1	35.8	-40.4	-48.8	-48.8	40.7
8:12	-30.2	-36.4	-36.4	31.3	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.6
9:12	-30.2	-36.5	-36.5	31.2	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	23.5	-41.4	-75.5	-118.2	24.6	-46.9	-85.4	-133.6	25.8
2:12	-32.8	-63.1	-97.2	28.2	-37.1	-71.3	-109.6	30.0	-42.1	-80.6	-124.0	32.1
3:12	-32.8	-63.1	-97.2	27.1	-37.1	-71.3	-109.7	28.8	-42.1	-80.7	-124.0	30.9
4:12	-32.9	-63.2	-97.3	22.9	-37.2	-71.3	-109.7	25.0	-42.1	-80.7	-124.0	27.7
5:12	-32.9	-63.2	-97.3	22.5	-37.2	-71.3	-109.7	24.9	-42.2	-80.7	-124.1	27.6
6:12	-32.9	-63.2	-97.3	22.4	-37.2	-71.4	-109.8	24.8	-42.2	-80.7	-124.1	27.5
7:12	-36.8	-44.3	-44.3	37.4	-41.5	-50.1	-50.1	41.7	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	26.2	-24.5	-45.1	-70.8	26.2	-30.0	-55.0	-86.2	26.2
2:12	-21.9	-42.5	-65.7	27.0	-21.9	-42.5	-65.7	27.0	-26.9	-51.9	-80.0	29.1
3:12	-21.9	-42.5	-65.7	25.5	-21.9	-42.5	-65.7	25.5	-26.9	-51.9	-80.0	27.6
4:12	-21.9	-42.5	-65.7	20.8	-21.9	-42.5	-65.7	20.8	-26.9	-51.9	-80.1	22.9
5:12	-22.0	-42.6	-65.7	19.7	-22.0	-42.6	-65.7	19.7	-26.9	-52.0	-80.1	21.8
6:12	-22.0	-42.6	-65.8	18.7	-22.0	-42.6	-65.8	18.7	-27.0	-52.0	-80.1	20.8
7:12	-24.6	-29.8	-29.8	26.5	-24.6	-29.8	-29.8	26.5	-30.1	-36.4	-36.4	31.5
8:12	-24.7	-29.8	-29.8	26.4	-24.7	-29.8	-29.8	26.4	-30.2	-36.4	-36.4	31.3
9:12	-24.7	-29.9	-29.9	26.2	-24.7	-29.9	-29.9	26.2	-30.2	-36.5	-36.5	31.2
10:12	-24.8	-29.9	-29.9	26.1	-24.8	-29.9	-29.9	26.1	-30.3	-36.5	-36.5	31.1
11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	26.2	-34.8	-63.6	-99.6	26.8	-40.3	-73.5	-115.1	28.1
2:12	-26.9	-51.9	-80.0	29.1	-31.2	-60.0	-92.4	30.9	-36.1	-69.4	-106.8	33.0
3:12	-26.9	-51.9	-80.0	27.6	-31.2	-60.0	-92.5	29.4	-36.2	-69.4	-106.8	31.5
4:12	-26.9	-51.9	-80.1	22.9	-31.2	-60.0	-92.5	24.7	-36.2	-69.4	-106.8	26.7
5:12	-26.9	-52.0	-80.1	21.8	-31.2	-60.1	-92.5	23.6	-36.2	-69.5	-106.9	25.7
6:12	-27.0	-52.0	-80.1	20.8	-31.3	-60.1	-92.6	22.6	-36.3	-69.5	-106.9	24.6
7:12	-30.1	-36.4	-36.4	31.5	-34.9	-42.1	-42.1	35.8	-40.4	-48.8	-48.8	40.7
8:12	-30.2	-36.4	-36.4	31.3	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.6
9:12	-30.2	-36.5	-36.5	31.2	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	27.3	-41.4	-75.5	-118.2	28.3	-46.9	-85.4	-133.6	29.6
2:12	-32.8	-63.1	-97.2	31.6	-37.1	-71.3	-109.6	33.4	-42.1	-80.6	-124.0	35.5
3:12	-32.8	-63.1	-97.2	30.1	-37.1	-71.3	-109.7	31.9	-42.1	-80.7	-124.0	34.0
4:12	-32.9	-63.2	-97.3	24.6	-37.2	-71.3	-109.7	26.4	-42.1	-80.7	-124.0	28.5
5:12	-32.9	-63.2	-97.3	23.6	-37.2	-71.3	-109.7	25.4	-42.2	-80.7	-124.1	27.6
6:12	-32.9	-63.2	-97.3	22.7	-37.2	-71.4	-109.8	24.8	-42.2	-80.7	-124.1	27.5
7:12	-36.8	-44.3	-44.3	37.4	-41.5	-50.1	-50.1	41.7	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
130 mph

Ground Snow Load
20 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	26.2	-24.5	-45.1	-70.8	26.2	-30.0	-55.0	-86.2	26.2
2:12	-21.9	-42.5	-65.7	27.0	-21.9	-42.5	-65.7	27.0	-26.9	-51.9	-80.0	29.1
3:12	-21.9	-42.5	-65.7	25.5	-21.9	-42.5	-65.7	25.5	-26.9	-51.9	-80.0	27.6
4:12	-21.9	-42.5	-65.7	22.7	-21.9	-42.5	-65.7	22.7	-26.9	-51.9	-80.1	24.7
5:12	-22.0	-42.6	-65.7	21.4	-22.0	-42.6	-65.7	21.4	-26.9	-52.0	-80.1	23.4
6:12	-22.0	-42.6	-65.8	20.1	-22.0	-42.6	-65.8	20.1	-27.0	-52.0	-80.1	22.2
7:12	-24.6	-29.8	-29.8	26.7	-24.6	-29.8	-29.8	26.7	-30.1	-36.4	-36.4	31.5
8:12	-24.7	-29.8	-29.8	26.4	-24.7	-29.8	-29.8	26.4	-30.2	-36.4	-36.4	31.3
9:12	-24.7	-29.9	-29.9	26.2	-24.7	-29.9	-29.9	26.2	-30.2	-36.5	-36.5	31.2
10:12	-24.8	-29.9	-29.9	26.1	-24.8	-29.9	-29.9	26.1	-30.3	-36.5	-36.5	31.1
11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	26.2	-34.8	-63.6	-99.6	26.8	-40.3	-73.5	-115.1	28.1
2:12	-26.9	-51.9	-80.0	29.1	-31.2	-60.0	-92.4	30.9	-36.1	-69.4	-106.8	33.0
3:12	-26.9	-51.9	-80.0	27.6	-31.2	-60.0	-92.5	29.4	-36.2	-69.4	-106.8	31.5
4:12	-26.9	-51.9	-80.1	24.7	-31.2	-60.0	-92.5	26.5	-36.2	-69.4	-106.8	28.6
5:12	-26.9	-52.0	-80.1	23.4	-31.2	-60.1	-92.5	25.2	-36.2	-69.5	-106.9	27.3
6:12	-27.0	-52.0	-80.1	22.2	-31.3	-60.1	-92.6	24.0	-36.3	-69.5	-106.9	26.0
7:12	-30.1	-36.4	-36.4	31.5	-34.9	-42.1	-42.1	35.8	-40.4	-48.8	-48.8	40.7
8:12	-30.2	-36.4	-36.4	31.3	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.6
9:12	-30.2	-36.5	-36.5	31.2	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	27.3	-41.4	-75.5	-118.2	28.3	-46.9	-85.4	-133.6	29.6
2:12	-32.8	-63.1	-97.2	31.6	-37.1	-71.3	-109.6	33.4	-42.1	-80.6	-124.0	35.5
3:12	-32.8	-63.1	-97.2	30.1	-37.1	-71.3	-109.7	31.9	-42.1	-80.7	-124.0	34.0
4:12	-32.9	-63.2	-97.3	26.3	-37.2	-71.3	-109.7	28.1	-42.1	-80.7	-124.0	30.1
5:12	-32.9	-63.2	-97.3	25.1	-37.2	-71.3	-109.7	26.9	-42.2	-80.7	-124.1	29.0
6:12	-32.9	-63.2	-97.3	24.0	-37.2	-71.4	-109.8	25.8	-42.2	-80.7	-124.1	27.8
7:12	-36.8	-44.3	-44.3	37.4	-41.5	-50.1	-50.1	41.7	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

130 mph

Ground Snow Load

25 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	27.0	-24.5	-45.1	-70.8	27.0	-30.0	-55.0	-86.2	27.0
2:12	-21.9	-42.5	-65.7	27.7	-21.9	-42.5	-65.7	27.7	-26.9	-51.9	-80.0	29.8
3:12	-21.9	-42.5	-65.7	26.1	-21.9	-42.5	-65.7	26.1	-26.9	-51.9	-80.0	28.2
4:12	-21.9	-42.5	-65.7	24.5	-21.9	-42.5	-65.7	24.5	-26.9	-51.9	-80.1	26.6
5:12	-22.0	-42.6	-65.7	23.0	-22.0	-42.6	-65.7	23.0	-26.9	-52.0	-80.1	25.1
6:12	-22.0	-42.6	-65.8	21.5	-22.0	-42.6	-65.8	21.5	-27.0	-52.0	-80.1	23.6
7:12	-24.6	-29.8	-29.8	27.9	-24.6	-29.8	-29.8	27.9	-30.1	-36.4	-36.4	31.6
8:12	-24.7	-29.8	-29.8	26.7	-24.7	-29.8	-29.8	26.7	-30.2	-36.4	-36.4	31.3
9:12	-24.7	-29.9	-29.9	26.2	-24.7	-29.9	-29.9	26.2	-30.2	-36.5	-36.5	31.2
10:12	-24.8	-29.9	-29.9	26.1	-24.8	-29.9	-29.9	26.1	-30.3	-36.5	-36.5	31.1
11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	27.0	-34.8	-63.6	-99.6	27.6	-40.3	-73.5	-115.1	28.8
2:12	-26.9	-51.9	-80.0	29.8	-31.2	-60.0	-92.4	31.6	-36.1	-69.4	-106.8	33.7
3:12	-26.9	-51.9	-80.0	28.2	-31.2	-60.0	-92.5	30.0	-36.2	-69.4	-106.8	32.1
4:12	-26.9	-51.9	-80.1	26.6	-31.2	-60.0	-92.5	28.4	-36.2	-69.4	-106.8	30.5
5:12	-26.9	-52.0	-80.1	25.1	-31.2	-60.1	-92.5	26.8	-36.2	-69.5	-106.9	28.9
6:12	-27.0	-52.0	-80.1	23.6	-31.3	-60.1	-92.6	25.4	-36.3	-69.5	-106.9	27.4
7:12	-30.1	-36.4	-36.4	31.6	-34.9	-42.1	-42.1	35.8	-40.4	-48.8	-48.8	40.7
8:12	-30.2	-36.4	-36.4	31.3	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.6
9:12	-30.2	-36.5	-36.5	31.2	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	27.3	-41.4	-75.5	-118.2	28.3	-46.9	-85.4	-133.6	29.6
2:12	-32.8	-63.1	-97.2	31.6	-37.1	-71.3	-109.6	33.4	-42.1	-80.6	-124.0	35.5
3:12	-32.8	-63.1	-97.2	30.1	-37.1	-71.3	-109.7	31.9	-42.1	-80.7	-124.0	34.0
4:12	-32.9	-63.2	-97.3	28.0	-37.2	-71.3	-109.7	29.8	-42.1	-80.7	-124.0	31.8
5:12	-32.9	-63.2	-97.3	26.6	-37.2	-71.3	-109.7	28.4	-42.2	-80.7	-124.1	30.4
6:12	-32.9	-63.2	-97.3	25.2	-37.2	-71.4	-109.8	27.0	-42.2	-80.7	-124.1	29.1
7:12	-36.8	-44.3	-44.3	37.4	-41.5	-50.1	-50.1	41.7	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

130 mph

Ground Snow Load

30 psf

Up and Down (psf)

Basic Wind Speed
130 mph

Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	29.6	-24.5	-45.1	-70.8	29.6	-30.0	-55.0	-86.2	29.6
2:12	-21.9	-42.5	-65.7	30.1	-21.9	-42.5	-65.7	30.1	-26.9	-51.9	-80.0	32.2
3:12	-21.9	-42.5	-65.7	28.3	-21.9	-42.5	-65.7	28.3	-26.9	-51.9	-80.0	30.3
4:12	-21.9	-42.5	-65.7	26.4	-21.9	-42.5	-65.7	26.4	-26.9	-51.9	-80.1	28.5
5:12	-22.0	-42.6	-65.7	24.6	-22.0	-42.6	-65.7	24.6	-26.9	-52.0	-80.1	26.7
6:12	-22.0	-42.6	-65.8	22.9	-22.0	-42.6	-65.8	22.9	-27.0	-52.0	-80.1	25.0
7:12	-24.6	-29.8	-29.8	29.1	-24.6	-29.8	-29.8	29.1	-30.1	-36.4	-36.4	32.8
8:12	-24.7	-29.8	-29.8	27.7	-24.7	-29.8	-29.8	27.7	-30.2	-36.4	-36.4	31.4
9:12	-24.7	-29.9	-29.9	26.4	-24.7	-29.9	-29.9	26.4	-30.2	-36.5	-36.5	31.2
10:12	-24.8	-29.9	-29.9	26.1	-24.8	-29.9	-29.9	26.1	-30.3	-36.5	-36.5	31.1
11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	29.6	-34.8	-63.6	-99.6	30.2	-40.3	-73.5	-115.1	31.4
2:12	-26.9	-51.9	-80.0	32.2	-31.2	-60.0	-92.4	34.0	-36.1	-69.4	-106.8	36.0
3:12	-26.9	-51.9	-80.0	30.3	-31.2	-60.0	-92.5	32.1	-36.2	-69.4	-106.8	34.2
4:12	-26.9	-51.9	-80.1	28.5	-31.2	-60.0	-92.5	30.3	-36.2	-69.4	-106.8	32.4
5:12	-26.9	-52.0	-80.1	26.7	-31.2	-60.1	-92.5	28.5	-36.2	-69.5	-106.9	30.5
6:12	-27.0	-52.0	-80.1	25.0	-31.3	-60.1	-92.6	26.8	-36.3	-69.5	-106.9	28.8
7:12	-30.1	-36.4	-36.4	32.8	-34.9	-42.1	-42.1	36.0	-40.4	-48.8	-48.8	40.7
8:12	-30.2	-36.4	-36.4	31.4	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.6
9:12	-30.2	-36.5	-36.5	31.2	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	28.8	-41.4	-75.5	-118.2	29.9	-46.9	-85.4	-133.6	31.1
2:12	-32.8	-63.1	-97.2	33.0	-37.1	-71.3	-109.6	34.8	-42.1	-80.6	-124.0	36.8
3:12	-32.8	-63.1	-97.2	31.3	-37.1	-71.3	-109.7	33.1	-42.1	-80.7	-124.0	35.2
4:12	-32.9	-63.2	-97.3	29.7	-37.2	-71.3	-109.7	31.5	-42.1	-80.7	-124.0	33.5
5:12	-32.9	-63.2	-97.3	28.0	-37.2	-71.3	-109.7	29.8	-42.2	-80.7	-124.1	31.9
6:12	-32.9	-63.2	-97.3	26.5	-37.2	-71.4	-109.8	28.3	-42.2	-80.7	-124.1	30.3
7:12	-36.8	-44.3	-44.3	37.4	-41.5	-50.1	-50.1	41.7	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
130 mph

Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	32.2	-24.5	-45.1	-70.8	32.2	-30.0	-55.0	-86.2	32.2
2:12	-21.9	-42.5	-65.7	32.5	-21.9	-42.5	-65.7	32.5	-26.9	-51.9	-80.0	34.5
3:12	-21.9	-42.5	-65.7	30.4	-21.9	-42.5	-65.7	30.4	-26.9	-51.9	-80.0	32.5
4:12	-21.9	-42.5	-65.7	28.3	-21.9	-42.5	-65.7	28.3	-26.9	-51.9	-80.1	30.4
5:12	-22.0	-42.6	-65.7	26.2	-22.0	-42.6	-65.7	26.2	-26.9	-52.0	-80.1	28.3
6:12	-22.0	-42.6	-65.8	24.3	-22.0	-42.6	-65.8	24.3	-27.0	-52.0	-80.1	26.4
7:12	-24.6	-29.8	-29.8	30.3	-24.6	-29.8	-29.8	30.3	-30.1	-36.4	-36.4	34.0
8:12	-24.7	-29.8	-29.8	28.7	-24.7	-29.8	-29.8	28.7	-30.2	-36.4	-36.4	32.4
9:12	-24.7	-29.9	-29.9	27.3	-24.7	-29.9	-29.9	27.3	-30.2	-36.5	-36.5	31.2
10:12	-24.8	-29.9	-29.9	26.1	-24.8	-29.9	-29.9	26.1	-30.3	-36.5	-36.5	31.1
11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	32.2	-34.8	-63.6	-99.6	32.8	-40.3	-73.5	-115.1	34.0
2:12	-26.9	-51.9	-80.0	34.5	-31.2	-60.0	-92.4	36.3	-36.1	-69.4	-106.8	38.4
3:12	-26.9	-51.9	-80.0	32.5	-31.2	-60.0	-92.5	34.3	-36.2	-69.4	-106.8	36.3
4:12	-26.9	-51.9	-80.1	30.4	-31.2	-60.0	-92.5	32.2	-36.2	-69.4	-106.8	34.2
5:12	-26.9	-52.0	-80.1	28.3	-31.2	-60.1	-92.5	30.1	-36.2	-69.5	-106.9	32.2
6:12	-27.0	-52.0	-80.1	26.4	-31.3	-60.1	-92.6	28.2	-36.3	-69.5	-106.9	30.3
7:12	-30.1	-36.4	-36.4	34.0	-34.9	-42.1	-42.1	37.2	-40.4	-48.8	-48.8	41.0
8:12	-30.2	-36.4	-36.4	32.4	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.6
9:12	-30.2	-36.5	-36.5	31.2	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	31.1	-41.4	-75.5	-118.2	32.2	-46.9	-85.4	-133.6	33.4
2:12	-32.8	-63.1	-97.2	35.1	-37.1	-71.3	-109.6	36.9	-42.1	-80.6	-124.0	39.0
3:12	-32.8	-63.1	-97.2	33.3	-37.1	-71.3	-109.7	35.0	-42.1	-80.7	-124.0	37.1
4:12	-32.9	-63.2	-97.3	31.3	-37.2	-71.3	-109.7	33.1	-42.1	-80.7	-124.0	35.2
5:12	-32.9	-63.2	-97.3	29.5	-37.2	-71.3	-109.7	31.3	-42.2	-80.7	-124.1	33.4
6:12	-32.9	-63.2	-97.3	27.7	-37.2	-71.4	-109.8	29.5	-42.2	-80.7	-124.1	31.6
7:12	-36.8	-44.3	-44.3	37.5	-41.5	-50.1	-50.1	41.7	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W130-S40

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	35.1	-24.5	-45.1	-70.8	35.1	-30.0	-55.0	-86.2	35.1
2:12	-21.9	-42.5	-65.7	34.9	-21.9	-42.5	-65.7	34.9	-26.9	-51.9	-80.0	36.9
3:12	-21.9	-42.5	-65.7	32.5	-21.9	-42.5	-65.7	32.5	-26.9	-51.9	-80.0	34.6
4:12	-21.9	-42.5	-65.7	30.2	-21.9	-42.5	-65.7	30.2	-26.9	-51.9	-80.1	32.2
5:12	-22.0	-42.6	-65.7	27.9	-22.0	-42.6	-65.7	27.9	-26.9	-52.0	-80.1	29.9
6:12	-22.0	-42.6	-65.8	25.7	-22.0	-42.6	-65.8	25.7	-27.0	-52.0	-80.1	27.8
7:12	-24.6	-29.8	-29.8	31.5	-24.6	-29.8	-29.8	31.5	-30.1	-36.4	-36.4	35.2
8:12	-24.7	-29.8	-29.8	29.7	-24.7	-29.8	-29.8	29.7	-30.2	-36.4	-36.4	33.4
9:12	-24.7	-29.9	-29.9	28.2	-24.7	-29.9	-29.9	28.2	-30.2	-36.5	-36.5	31.9
10:12	-24.8	-29.9	-29.9	26.8	-24.8	-29.9	-29.9	26.8	-30.3	-36.5	-36.5	31.1
11:12	-24.8	-29.9	-29.9	26.0	-24.8	-29.9	-29.9	26.0	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	35.1	-34.8	-63.6	-99.6	35.4	-40.3	-73.5	-115.1	36.6
2:12	-26.9	-51.9	-80.0	36.9	-31.2	-60.0	-92.4	38.7	-36.1	-69.4	-106.8	40.8
3:12	-26.9	-51.9	-80.0	34.6	-31.2	-60.0	-92.5	36.4	-36.2	-69.4	-106.8	38.5
4:12	-26.9	-51.9	-80.1	32.2	-31.2	-60.0	-92.5	34.0	-36.2	-69.4	-106.8	36.1
5:12	-26.9	-52.0	-80.1	29.9	-31.2	-60.1	-92.5	31.7	-36.2	-69.5	-106.9	33.8
6:12	-27.0	-52.0	-80.1	27.8	-31.3	-60.1	-92.6	29.6	-36.3	-69.5	-106.9	31.7
7:12	-30.1	-36.4	-36.4	35.2	-34.9	-42.1	-42.1	38.4	-40.4	-48.8	-48.8	42.2
8:12	-30.2	-36.4	-36.4	33.4	-35.0	-42.2	-42.2	36.7	-40.5	-48.8	-48.8	40.6
9:12	-30.2	-36.5	-36.5	31.9	-35.0	-42.2	-42.2	35.5	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.1	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	33.5	-41.4	-75.5	-118.2	34.5	-46.9	-85.4	-133.6	35.8
2:12	-32.8	-63.1	-97.2	37.3	-37.1	-71.3	-109.6	39.1	-42.1	-80.6	-124.0	41.1
3:12	-32.8	-63.1	-97.2	35.2	-37.1	-71.3	-109.7	37.0	-42.1	-80.7	-124.0	39.0
4:12	-32.9	-63.2	-97.3	33.0	-37.2	-71.3	-109.7	34.8	-42.1	-80.7	-124.0	36.9
5:12	-32.9	-63.2	-97.3	31.0	-37.2	-71.3	-109.7	32.8	-42.2	-80.7	-124.1	34.8
6:12	-32.9	-63.2	-97.3	29.0	-37.2	-71.4	-109.8	30.8	-42.2	-80.7	-124.1	32.9
7:12	-36.8	-44.3	-44.3	38.6	-41.5	-50.1	-50.1	41.8	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.3	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1

Basic Wind Speed
130 mph

Ground Snow Load
45 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
130 mph

Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	38.6	-24.5	-45.1	-70.8	38.6	-30.0	-55.0	-86.2	38.6
2:12	-21.9	-42.5	-65.7	37.2	-21.9	-42.5	-65.7	37.2	-26.9	-51.9	-80.0	39.3
3:12	-21.9	-42.5	-65.7	34.7	-21.9	-42.5	-65.7	34.7	-26.9	-51.9	-80.0	36.7
4:12	-21.9	-42.5	-65.7	32.0	-21.9	-42.5	-65.7	32.0	-26.9	-51.9	-80.1	34.1
5:12	-22.0	-42.6	-65.7	29.5	-22.0	-42.6	-65.7	29.5	-26.9	-52.0	-80.1	31.6
6:12	-22.0	-42.6	-65.8	27.1	-22.0	-42.6	-65.8	27.1	-27.0	-52.0	-80.1	29.2
7:12	-24.6	-29.8	-29.8	32.7	-24.6	-29.8	-29.8	32.7	-30.1	-36.4	-36.4	36.4
8:12	-24.7	-29.8	-29.8	30.7	-24.7	-29.8	-29.8	30.7	-30.2	-36.4	-36.4	34.5
9:12	-24.7	-29.9	-29.9	29.0	-24.7	-29.9	-29.9	29.0	-30.2	-36.5	-36.5	32.7
10:12	-24.8	-29.9	-29.9	27.5	-24.8	-29.9	-29.9	27.5	-30.3	-36.5	-36.5	31.3
11:12	-24.8	-29.9	-29.9	26.2	-24.8	-29.9	-29.9	26.2	-30.3	-36.6	-36.6	31.0
12:12	-24.8	-30.0	-30.0	25.9	-24.8	-30.0	-30.0	25.9	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	38.6	-34.8	-63.6	-99.6	38.6	-40.3	-73.5	-115.1	39.3
2:12	-26.9	-51.9	-80.0	39.3	-31.2	-60.0	-92.4	41.1	-36.1	-69.4	-106.8	43.2
3:12	-26.9	-51.9	-80.0	36.7	-31.2	-60.0	-92.5	38.5	-36.2	-69.4	-106.8	40.6
4:12	-26.9	-51.9	-80.1	34.1	-31.2	-60.0	-92.5	35.9	-36.2	-69.4	-106.8	38.0
5:12	-26.9	-52.0	-80.1	31.6	-31.2	-60.1	-92.5	33.4	-36.2	-69.5	-106.9	35.4
6:12	-27.0	-52.0	-80.1	29.2	-31.3	-60.1	-92.6	31.0	-36.3	-69.5	-106.9	33.1
7:12	-30.1	-36.4	-36.4	36.4	-34.9	-42.1	-42.1	39.6	-40.4	-48.8	-48.8	43.3
8:12	-30.2	-36.4	-36.4	34.5	-35.0	-42.2	-42.2	37.7	-40.5	-48.8	-48.8	41.4
9:12	-30.2	-36.5	-36.5	32.7	-35.0	-42.2	-42.2	36.0	-40.5	-48.8	-48.8	40.5
10:12	-30.3	-36.5	-36.5	31.3	-35.1	-42.3	-42.3	35.4	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.0	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	35.8	-41.4	-75.5	-118.2	36.9	-46.9	-85.4	-133.6	38.1
2:12	-32.8	-63.1	-97.2	39.4	-37.1	-71.3	-109.6	41.2	-42.1	-80.6	-124.0	43.3
3:12	-32.8	-63.1	-97.2	37.1	-37.1	-71.3	-109.7	38.9	-42.1	-80.7	-124.0	40.9
4:12	-32.9	-63.2	-97.3	34.7	-37.2	-71.3	-109.7	36.5	-42.1	-80.7	-124.0	38.6
5:12	-32.9	-63.2	-97.3	32.4	-37.2	-71.3	-109.7	34.2	-42.2	-80.7	-124.1	36.3
6:12	-32.9	-63.2	-97.3	30.3	-37.2	-71.4	-109.8	32.1	-42.2	-80.7	-124.1	34.1
7:12	-36.8	-44.3	-44.3	39.7	-41.5	-50.1	-50.1	42.9	-47.1	-56.7	-56.7	46.7
8:12	-36.8	-44.4	-44.4	37.9	-41.6	-50.1	-50.1	41.6	-47.1	-56.7	-56.7	46.6
9:12	-36.9	-44.4	-44.4	37.2	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W130-S50

Up and Down (psf)

Basic Wind Speed
130 mph

Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	45.5	-24.5	-45.1	-70.8	45.5	-30.0	-55.0	-86.2	45.5
2:12	-21.9	-42.5	-65.7	42.0	-21.9	-42.5	-65.7	42.0	-26.9	-51.9	-80.0	44.1
3:12	-21.9	-42.5	-65.7	38.9	-21.9	-42.5	-65.7	38.9	-26.9	-51.9	-80.0	41.0
4:12	-21.9	-42.5	-65.7	35.8	-21.9	-42.5	-65.7	35.8	-26.9	-51.9	-80.1	37.9
5:12	-22.0	-42.6	-65.7	32.8	-22.0	-42.6	-65.7	32.8	-26.9	-52.0	-80.1	34.8
6:12	-22.0	-42.6	-65.8	29.9	-22.0	-42.6	-65.8	29.9	-27.0	-52.0	-80.1	32.0
7:12	-24.6	-29.8	-29.8	35.1	-24.6	-29.8	-29.8	35.1	-30.1	-36.4	-36.4	38.8
8:12	-24.7	-29.8	-29.8	32.8	-24.7	-29.8	-29.8	32.8	-30.2	-36.4	-36.4	36.5
9:12	-24.7	-29.9	-29.9	30.7	-24.7	-29.9	-29.9	30.7	-30.2	-36.5	-36.5	34.5
10:12	-24.8	-29.9	-29.9	29.0	-24.8	-29.9	-29.9	29.0	-30.3	-36.5	-36.5	32.7
11:12	-24.8	-29.9	-29.9	27.5	-24.8	-29.9	-29.9	27.5	-30.3	-36.6	-36.6	31.2
12:12	-24.8	-30.0	-30.0	26.2	-24.8	-30.0	-30.0	26.2	-30.4	-36.6	-36.6	30.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	45.5	-34.8	-63.6	-99.6	45.5	-40.3	-73.5	-115.1	45.5
2:12	-26.9	-51.9	-80.0	44.1	-31.2	-60.0	-92.4	45.9	-36.1	-69.4	-106.8	47.9
3:12	-26.9	-51.9	-80.0	41.0	-31.2	-60.0	-92.5	42.8	-36.2	-69.4	-106.8	44.8
4:12	-26.9	-51.9	-80.1	37.9	-31.2	-60.0	-92.5	39.7	-36.2	-69.4	-106.8	41.7
5:12	-26.9	-52.0	-80.1	34.8	-31.2	-60.1	-92.5	36.6	-36.2	-69.5	-106.9	38.7
6:12	-27.0	-52.0	-80.1	32.0	-31.3	-60.1	-92.6	33.8	-36.3	-69.5	-106.9	35.9
7:12	-30.1	-36.4	-36.4	38.8	-34.9	-42.1	-42.1	42.0	-40.4	-48.8	-48.8	45.7
8:12	-30.2	-36.4	-36.4	36.5	-35.0	-42.2	-42.2	39.7	-40.5	-48.8	-48.8	43.4
9:12	-30.2	-36.5	-36.5	34.5	-35.0	-42.2	-42.2	37.7	-40.5	-48.8	-48.8	41.4
10:12	-30.3	-36.5	-36.5	32.7	-35.1	-42.3	-42.3	35.9	-40.6	-48.9	-48.9	40.4
11:12	-30.3	-36.6	-36.6	31.2	-35.1	-42.3	-42.3	35.3	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
Exposure Category D												
1:12	-36.6	-66.9	-104.8	41.4	-41.4	-75.5	-118.2	41.6	-46.9	-85.4	-133.6	42.8
2:12	-32.8	-63.1	-97.2	43.7	-37.1	-71.3	-109.6	45.5	-42.1	-80.6	-124.0	47.6
3:12	-32.8	-63.1	-97.2	40.9	-37.1	-71.3	-109.7	42.7	-42.1	-80.7	-124.0	44.8
4:12	-32.9	-63.2	-97.3	38.1	-37.2	-71.3	-109.7	39.9	-42.1	-80.7	-124.0	42.0
5:12	-32.9	-63.2	-97.3	35.4	-37.2	-71.3	-109.7	37.2	-42.2	-80.7	-124.1	39.2
6:12	-32.9	-63.2	-97.3	32.8	-37.2	-71.4	-109.8	34.6	-42.2	-80.7	-124.1	36.7
7:12	-36.8	-44.3	-44.3	41.8	-41.5	-50.1	-50.1	45.1	-47.1	-56.7	-56.7	48.8
8:12	-36.8	-44.4	-44.4	39.7	-41.6	-50.1	-50.1	43.0	-47.1	-56.7	-56.7	46.7
9:12	-36.9	-44.4	-44.4	37.9	-41.6	-50.2	-50.2	41.5	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.0	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
130 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-24.5	-45.1	-70.8	52.5	-24.5	-45.1	-70.8	52.5	-30.0	-55.0	-86.2	52.5
2:12	-21.9	-42.5	-65.7	48.2	-21.9	-42.5	-65.7	48.2	-26.9	-51.9	-80.0	48.8
3:12	-21.9	-42.5	-65.7	43.4	-21.9	-42.5	-65.7	43.4	-26.9	-51.9	-80.0	45.2
4:12	-21.9	-42.5	-65.7	39.5	-21.9	-42.5	-65.7	39.5	-26.9	-51.9	-80.1	41.6
5:12	-22.0	-42.6	-65.7	36.0	-22.0	-42.6	-65.7	36.0	-26.9	-52.0	-80.1	38.1
6:12	-22.0	-42.6	-65.8	32.7	-22.0	-42.6	-65.8	32.7	-27.0	-52.0	-80.1	34.8
7:12	-24.6	-29.8	-29.8	37.5	-24.6	-29.8	-29.8	37.5	-30.1	-36.4	-36.4	41.2
8:12	-24.7	-29.8	-29.8	34.8	-24.7	-29.8	-29.8	34.8	-30.2	-36.4	-36.4	38.5
9:12	-24.7	-29.9	-29.9	32.4	-24.7	-29.9	-29.9	32.4	-30.2	-36.5	-36.5	36.2
10:12	-24.8	-29.9	-29.9	30.4	-24.8	-29.9	-29.9	30.4	-30.3	-36.5	-36.5	34.1
11:12	-24.8	-29.9	-29.9	28.7	-24.8	-29.9	-29.9	28.7	-30.3	-36.6	-36.6	32.4
12:12	-24.8	-30.0	-30.0	27.2	-24.8	-30.0	-30.0	27.2	-30.4	-36.6	-36.6	30.9
1:12	-30.0	-55.0	-86.2	52.5	-34.8	-63.6	-99.6	52.5	-40.3	-73.5	-115.1	52.5
2:12	-26.9	-51.9	-80.0	48.8	-31.2	-60.0	-92.4	50.6	-36.1	-69.4	-106.8	52.7
3:12	-26.9	-51.9	-80.0	45.2	-31.2	-60.0	-92.5	47.0	-36.2	-69.4	-106.8	49.1
4:12	-26.9	-51.9	-80.1	41.6	-31.2	-60.0	-92.5	43.4	-36.2	-69.4	-106.8	45.5
5:12	-26.9	-52.0	-80.1	38.1	-31.2	-60.1	-92.5	39.9	-36.2	-69.5	-106.9	42.0
6:12	-27.0	-52.0	-80.1	34.8	-31.3	-60.1	-92.6	36.6	-36.3	-69.5	-106.9	38.7
7:12	-30.1	-36.4	-36.4	41.2	-34.9	-42.1	-42.1	44.4	-40.4	-48.8	-48.8	48.1
8:12	-30.2	-36.4	-36.4	38.5	-35.0	-42.2	-42.2	41.7	-40.5	-48.8	-48.8	45.5
9:12	-30.2	-36.5	-36.5	36.2	-35.0	-42.2	-42.2	39.4	-40.5	-48.8	-48.8	43.1
10:12	-30.3	-36.5	-36.5	34.1	-35.1	-42.3	-42.3	37.4	-40.6	-48.9	-48.9	41.1
11:12	-30.3	-36.6	-36.6	32.4	-35.1	-42.3	-42.3	35.6	-40.6	-48.9	-48.9	40.2
12:12	-30.4	-36.6	-36.6	30.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
1:12	-36.6	-66.9	-104.8	47.6	-41.4	-75.5	-118.2	47.6	-46.9	-85.4	-133.6	47.6
2:12	-32.8	-63.1	-97.2	48.0	-37.1	-71.3	-109.6	49.8	-42.1	-80.6	-124.0	51.8
3:12	-32.8	-63.1	-97.2	44.7	-37.1	-71.3	-109.7	46.5	-42.1	-80.7	-124.0	48.6
4:12	-32.9	-63.2	-97.3	41.5	-37.2	-71.3	-109.7	43.3	-42.1	-80.7	-124.0	45.3
5:12	-32.9	-63.2	-97.3	38.3	-37.2	-71.3	-109.7	40.1	-42.2	-80.7	-124.1	42.2
6:12	-32.9	-63.2	-97.3	35.3	-37.2	-71.4	-109.8	37.1	-42.2	-80.7	-124.1	39.2
7:12	-36.8	-44.3	-44.3	44.0	-41.5	-50.1	-50.1	47.2	-47.1	-56.7	-56.7	50.9
8:12	-36.8	-44.4	-44.4	41.6	-41.6	-50.1	-50.1	44.8	-47.1	-56.7	-56.7	48.5
9:12	-36.9	-44.4	-44.4	39.4	-41.6	-50.2	-50.2	42.7	-47.1	-56.8	-56.8	46.4
10:12	-36.9	-44.5	-44.5	37.6	-41.7	-50.2	-50.2	41.3	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	36.9	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-24.5	-45.1	-70.8	59.4	-24.5	-45.1	-70.8	59.4	-30.0	-55.0	-86.2	59.4
2:12	-21.9	-42.5	-65.7	54.5	-21.9	-42.5	-65.7	54.5	-26.9	-51.9	-80.0	54.5
3:12	-21.9	-42.5	-65.7	49.1	-21.9	-42.5	-65.7	49.1	-26.9	-51.9	-80.0	49.5
4:12	-21.9	-42.5	-65.7	43.6	-21.9	-42.5	-65.7	43.6	-26.9	-51.9	-80.1	45.4
5:12	-22.0	-42.6	-65.7	39.3	-22.0	-42.6	-65.7	39.3	-26.9	-52.0	-80.1	41.4
6:12	-22.0	-42.6	-65.8	35.5	-22.0	-42.6	-65.8	35.5	-27.0	-52.0	-80.1	37.6
7:12	-24.6	-29.8	-29.8	39.9	-24.6	-29.8	-29.8	39.9	-30.1	-36.4	-36.4	43.6
8:12	-24.7	-29.8	-29.8	36.8	-24.7	-29.8	-29.8	36.8	-30.2	-36.4	-36.4	40.5
9:12	-24.7	-29.9	-29.9	34.2	-24.7	-29.9	-29.9	34.2	-30.2	-36.5	-36.5	37.9
10:12	-24.8	-29.9	-29.9	31.8	-24.8	-29.9	-29.9	31.8	-30.3	-36.5	-36.5	35.6
11:12	-24.8	-29.9	-29.9	29.9	-24.8	-29.9	-29.9	29.9	-30.3	-36.6	-36.6	33.6
12:12	-24.8	-30.0	-30.0	28.2	-24.8	-30.0	-30.0	28.2	-30.4	-36.6	-36.6	31.9
1:12	-30.0	-55.0	-86.2	59.4	-34.8	-63.6	-99.6	59.4	-40.3	-73.5	-115.1	59.4
2:12	-26.9	-51.9	-80.0	54.5	-31.2	-60.0	-92.4	55.4	-36.1	-69.4	-106.8	57.4
3:12	-26.9	-51.9	-80.0	49.5	-31.2	-60.0	-92.5	51.3	-36.2	-69.4	-106.8	53.3
4:12	-26.9	-51.9	-80.1	45.4	-31.2	-60.0	-92.5	47.2	-36.2	-69.4	-106.8	49.2
5:12	-26.9	-52.0	-80.1	41.4	-31.2	-60.1	-92.5	43.2	-36.2	-69.5	-106.9	45.2
6:12	-27.0	-52.0	-80.1	37.6	-31.3	-60.1	-92.6	39.4	-36.3	-69.5	-106.9	41.5
7:12	-30.1	-36.4	-36.4	43.6	-34.9	-42.1	-42.1	46.8	-40.4	-48.8	-48.8	50.5
8:12	-30.2	-36.4	-36.4	40.5	-35.0	-42.2	-42.2	43.8	-40.5	-48.8	-48.8	47.5
9:12	-30.2	-36.5	-36.5	37.9	-35.0	-42.2	-42.2	41.1	-40.5	-48.8	-48.8	44.8
10:12	-30.3	-36.5	-36.5	35.6	-35.1	-42.3	-42.3	38.8	-40.6	-48.9	-48.9	42.5
11:12	-30.3	-36.6	-36.6	33.6	-35.1	-42.3	-42.3	36.8	-40.6	-48.9	-48.9	40.5
12:12	-30.4	-36.6	-36.6	31.9	-35.1	-42.3	-42.3	35.2	-40.6	-49.0	-49.0	40.1
1:12	-36.6	-66.9	-104.8	53.9	-41.4	-75.5	-118.2	53.9	-46.9	-85.4	-133.6	53.9
2:12	-32.8	-63.1	-97.2	52.3	-37.1	-71.3	-109.6	54.0	-42.1	-80.6	-124.0	56.1
3:12	-32.8	-63.1	-97.2	48.6	-37.1	-71.3	-109.7	50.4	-42.1	-80.7	-124.0	52.4
4:12	-32.9	-63.2	-97.3	44.8	-37.2	-71.3	-109.7	46.6	-42.1	-80.7	-124.0	48.7
5:12	-32.9	-63.2	-97.3	41.2	-37.2	-71.3	-109.7	43.0	-42.2	-80.7	-124.1	45.1
6:12	-32.9	-63.2	-97.3	37.9	-37.2	-71.4	-109.8	39.6	-42.2	-80.7	-124.1	41.7
7:12	-36.8	-44.3	-44.3	46.1	-41.5	-50.1	-50.1	49.4	-47.1	-56.7	-56.7	53.1
8:12	-36.8	-44.4	-44.4	43.4	-41.6	-50.1	-50.1	46.6	-47.1	-56.7	-56.7	50.3
9:12	-36.9	-44.4	-44.4	41.0	-41.6	-50.2	-50.2	44.2	-47.1	-56.8	-56.8	47.9
10:12	-36.9	-44.5	-44.5	38.9	-41.7	-50.2	-50.2	42.1	-47.2	-56.8	-56.8	46.3
11:12	-36.9	-44.5	-44.5	37.1	-41.7	-50.2	-50.2	41.2	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1

Basic Wind Speed
130 mph

Ground Snow Load
80 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
130 mph

Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-24.5	-45.1	-70.8	66.4	-24.5	-45.1	-70.8	66.4	-30.0	-55.0	-86.2	66.4
2:12	-21.9	-42.5	-65.7	60.9	-21.9	-42.5	-65.7	60.9	-26.9	-51.9	-80.0	60.9
3:12	-21.9	-42.5	-65.7	54.8	-21.9	-42.5	-65.7	54.8	-26.9	-51.9	-80.0	54.8
4:12	-21.9	-42.5	-65.7	48.6	-21.9	-42.5	-65.7	48.6	-26.9	-51.9	-80.1	49.1
5:12	-22.0	-42.6	-65.7	42.7	-22.0	-42.6	-65.7	42.7	-26.9	-52.0	-80.1	44.6
6:12	-22.0	-42.6	-65.8	38.4	-22.0	-42.6	-65.8	38.4	-27.0	-52.0	-80.1	40.4
7:12	-24.6	-29.8	-29.8	42.3	-24.6	-29.8	-29.8	42.3	-30.1	-36.4	-36.4	46.0
8:12	-24.7	-29.8	-29.8	38.9	-24.7	-29.8	-29.8	38.9	-30.2	-36.4	-36.4	42.6
9:12	-24.7	-29.9	-29.9	35.9	-24.7	-29.9	-29.9	35.9	-30.2	-36.5	-36.5	39.6
10:12	-24.8	-29.9	-29.9	33.3	-24.8	-29.9	-29.9	33.3	-30.3	-36.5	-36.5	37.0
11:12	-24.8	-29.9	-29.9	31.1	-24.8	-29.9	-29.9	31.1	-30.3	-36.6	-36.6	34.8
12:12	-24.8	-30.0	-30.0	29.2	-24.8	-30.0	-30.0	29.2	-30.4	-36.6	-36.6	32.9
1:12	-30.0	-55.0	-86.2	66.4	-34.8	-63.6	-99.6	66.4	-40.3	-73.5	-115.1	66.4
2:12	-26.9	-51.9	-80.0	60.9	-31.2	-60.0	-92.4	60.9	-36.1	-69.4	-106.8	62.2
3:12	-26.9	-51.9	-80.0	54.8	-31.2	-60.0	-92.5	55.5	-36.2	-69.4	-106.8	57.6
4:12	-26.9	-51.9	-80.1	49.1	-31.2	-60.0	-92.5	50.9	-36.2	-69.4	-106.8	53.0
5:12	-26.9	-52.0	-80.1	44.6	-31.2	-60.1	-92.5	46.4	-36.2	-69.5	-106.9	48.5
6:12	-27.0	-52.0	-80.1	40.4	-31.3	-60.1	-92.6	42.2	-36.3	-69.5	-106.9	44.3
7:12	-30.1	-36.4	-36.4	46.0	-34.9	-42.1	-42.1	49.2	-40.4	-48.8	-48.8	52.9
8:12	-30.2	-36.4	-36.4	42.6	-35.0	-42.2	-42.2	45.8	-40.5	-48.8	-48.8	49.5
9:12	-30.2	-36.5	-36.5	39.6	-35.0	-42.2	-42.2	42.8	-40.5	-48.8	-48.8	46.5
10:12	-30.3	-36.5	-36.5	37.0	-35.1	-42.3	-42.3	40.2	-40.6	-48.9	-48.9	44.0
11:12	-30.3	-36.6	-36.6	34.8	-35.1	-42.3	-42.3	38.0	-40.6	-48.9	-48.9	41.7
12:12	-30.4	-36.6	-36.6	32.9	-35.1	-42.3	-42.3	36.1	-40.6	-49.0	-49.0	40.1
1:12	-36.6	-66.9	-104.8	60.1	-41.4	-75.5	-118.2	60.1	-46.9	-85.4	-133.6	60.1
2:12	-32.8	-63.1	-97.2	56.5	-37.1	-71.3	-109.6	58.3	-42.1	-80.6	-124.0	60.4
3:12	-32.8	-63.1	-97.2	52.4	-37.1	-71.3	-109.7	54.2	-42.1	-80.7	-124.0	56.3
4:12	-32.9	-63.2	-97.3	48.2	-37.2	-71.3	-109.7	50.0	-42.1	-80.7	-124.0	52.1
5:12	-32.9	-63.2	-97.3	44.2	-37.2	-71.3	-109.7	46.0	-42.2	-80.7	-124.1	48.0
6:12	-32.9	-63.2	-97.3	40.4	-37.2	-71.4	-109.8	42.2	-42.2	-80.7	-124.1	44.2
7:12	-36.8	-44.3	-44.3	48.3	-41.5	-50.1	-50.1	51.5	-47.1	-56.7	-56.7	55.2
8:12	-36.8	-44.4	-44.4	45.2	-41.6	-50.1	-50.1	48.4	-47.1	-56.7	-56.7	52.2
9:12	-36.9	-44.4	-44.4	42.5	-41.6	-50.2	-50.2	45.7	-47.1	-56.8	-56.8	49.5
10:12	-36.9	-44.5	-44.5	40.2	-41.7	-50.2	-50.2	43.4	-47.2	-56.8	-56.8	47.1
11:12	-36.9	-44.5	-44.5	38.2	-41.7	-50.2	-50.2	41.4	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	36.8	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-24.5	-45.1	-70.8	73.4	-24.5	-45.1	-70.8	73.4	-30.0	-55.0	-86.2	73.4
2:12	-21.9	-42.5	-65.7	67.2	-21.9	-42.5	-65.7	67.2	-26.9	-51.9	-80.0	67.2
3:12	-21.9	-42.5	-65.7	60.5	-21.9	-42.5	-65.7	60.5	-26.9	-51.9	-80.0	60.5
4:12	-21.9	-42.5	-65.7	53.6	-21.9	-42.5	-65.7	53.6	-26.9	-51.9	-80.1	53.6
5:12	-22.0	-42.6	-65.7	47.0	-22.0	-42.6	-65.7	47.0	-26.9	-52.0	-80.1	47.9
6:12	-22.0	-42.6	-65.8	41.2	-22.0	-42.6	-65.8	41.2	-27.0	-52.0	-80.1	43.2
7:12	-24.6	-29.8	-29.8	44.6	-24.6	-29.8	-29.8	44.6	-30.1	-36.4	-36.4	48.4
8:12	-24.7	-29.8	-29.8	40.9	-24.7	-29.8	-29.8	40.9	-30.2	-36.4	-36.4	44.6
9:12	-24.7	-29.9	-29.9	37.6	-24.7	-29.9	-29.9	37.6	-30.2	-36.5	-36.5	41.3
10:12	-24.8	-29.9	-29.9	34.7	-24.8	-29.9	-29.9	34.7	-30.3	-36.5	-36.5	38.4
11:12	-24.8	-29.9	-29.9	32.3	-24.8	-29.9	-29.9	32.3	-30.3	-36.6	-36.6	36.0
12:12	-24.8	-30.0	-30.0	30.2	-24.8	-30.0	-30.0	30.2	-30.4	-36.6	-36.6	33.9
Exposure Category C												
1:12	-30.0	-55.0	-86.2	73.4	-34.8	-63.6	-99.6	73.4	-40.3	-73.5	-115.1	73.4
2:12	-26.9	-51.9	-80.0	67.2	-31.2	-60.0	-92.4	67.2	-36.1	-69.4	-106.8	67.2
3:12	-26.9	-51.9	-80.0	60.5	-31.2	-60.0	-92.5	60.5	-36.2	-69.4	-106.8	61.9
4:12	-26.9	-51.9	-80.1	53.6	-31.2	-60.0	-92.5	54.6	-36.2	-69.4	-106.8	56.7
5:12	-26.9	-52.0	-80.1	47.9	-31.2	-60.1	-92.5	49.7	-36.2	-69.5	-106.9	51.7
6:12	-27.0	-52.0	-80.1	43.2	-31.3	-60.1	-92.6	45.0	-36.3	-69.5	-106.9	47.1
7:12	-30.1	-36.4	-36.4	48.4	-34.9	-42.1	-42.1	51.6	-40.4	-48.8	-48.8	55.3
8:12	-30.2	-36.4	-36.4	44.6	-35.0	-42.2	-42.2	47.8	-40.5	-48.8	-48.8	51.6
9:12	-30.2	-36.5	-36.5	41.3	-35.0	-42.2	-42.2	44.5	-40.5	-48.8	-48.8	48.3
10:12	-30.3	-36.5	-36.5	38.4	-35.1	-42.3	-42.3	41.7	-40.6	-48.9	-48.9	45.4
11:12	-30.3	-36.6	-36.6	36.0	-35.1	-42.3	-42.3	39.2	-40.6	-48.9	-48.9	43.0
12:12	-30.4	-36.6	-36.6	33.9	-35.1	-42.3	-42.3	37.1	-40.6	-49.0	-49.0	40.9
Exposure Category D												
1:12	-36.6	-66.9	-104.8	66.4	-41.4	-75.5	-118.2	66.4	-46.9	-85.4	-133.6	66.4
2:12	-32.8	-63.1	-97.2	60.9	-37.1	-71.3	-109.6	62.6	-42.1	-80.6	-124.0	64.7
3:12	-32.8	-63.1	-97.2	56.2	-37.1	-71.3	-109.7	58.0	-42.1	-80.7	-124.0	60.1
4:12	-32.9	-63.2	-97.3	51.6	-37.2	-71.3	-109.7	53.4	-42.1	-80.7	-124.0	55.5
5:12	-32.9	-63.2	-97.3	47.1	-37.2	-71.3	-109.7	48.9	-42.2	-80.7	-124.1	51.0
6:12	-32.9	-63.2	-97.3	42.9	-37.2	-71.4	-109.8	44.7	-42.2	-80.7	-124.1	46.8
7:12	-36.8	-44.3	-44.3	50.4	-41.5	-50.1	-50.1	53.7	-47.1	-56.7	-56.7	57.4
8:12	-36.8	-44.4	-44.4	47.0	-41.6	-50.1	-50.1	50.3	-47.1	-56.7	-56.7	54.0
9:12	-36.9	-44.4	-44.4	44.1	-41.6	-50.2	-50.2	47.3	-47.1	-56.8	-56.8	51.0
10:12	-36.9	-44.5	-44.5	41.5	-41.7	-50.2	-50.2	44.7	-47.2	-56.8	-56.8	48.4
11:12	-36.9	-44.5	-44.5	39.3	-41.7	-50.2	-50.2	42.5	-47.2	-56.9	-56.9	46.2
12:12	-37.0	-44.5	-44.5	37.4	-41.8	-50.3	-50.3	41.1	-47.3	-56.9	-56.9	46.1

Basic Wind Speed
130 mph

Ground Snow Load
100 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	13.8	-26.5	-48.7	-76.4	13.8	-32.4	-59.4	-93.1	13.9
2:12	-23.7	-45.9	-70.9	17.7	-23.7	-45.9	-70.9	17.7	-29.1	-56.0	-86.4	20.6
3:12	-23.7	-45.9	-70.9	17.6	-23.7	-45.9	-70.9	17.6	-29.1	-56.1	-86.4	20.6
4:12	-23.8	-46.0	-71.0	17.5	-23.8	-46.0	-71.0	17.5	-29.1	-56.1	-86.4	20.5
5:12	-23.8	-46.0	-71.0	17.4	-23.8	-46.0	-71.0	17.4	-29.2	-56.1	-86.5	20.4
6:12	-23.8	-46.0	-71.0	17.3	-23.8	-46.0	-71.0	17.3	-29.2	-56.2	-86.5	20.3
7:12	-26.7	-32.2	-32.2	28.3	-26.7	-32.2	-32.2	28.3	-32.6	-39.3	-39.3	33.7
8:12	-26.7	-32.2	-32.2	28.2	-26.7	-32.2	-32.2	28.2	-32.6	-39.4	-39.4	33.5
9:12	-26.7	-32.3	-32.3	28.1	-26.7	-32.3	-32.3	28.1	-32.7	-39.4	-39.4	33.4
10:12	-26.8	-32.3	-32.3	27.9	-26.8	-32.3	-32.3	27.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	13.9	-37.6	-68.7	-107.5	15.5	-43.5	-79.4	-124.2	17.3
2:12	-29.1	-56.0	-86.4	20.6	-33.7	-64.8	-99.8	23.2	-39.1	-74.9	-115.2	26.2
3:12	-29.1	-56.1	-86.4	20.6	-33.7	-64.8	-99.8	23.2	-39.1	-74.9	-115.3	26.1
4:12	-29.1	-56.1	-86.4	20.5	-33.8	-64.9	-99.8	23.1	-39.1	-75.0	-115.3	26.1
5:12	-29.2	-56.1	-86.5	20.4	-33.8	-64.9	-99.9	23.0	-39.1	-75.0	-115.3	26.0
6:12	-29.2	-56.2	-86.5	20.3	-33.8	-64.9	-99.9	22.9	-39.2	-75.0	-115.4	25.8
7:12	-32.6	-39.3	-39.3	33.7	-37.8	-45.5	-45.5	38.3	-43.7	-52.7	-52.7	43.7
8:12	-32.6	-39.4	-39.4	33.5	-37.8	-45.6	-45.6	38.2	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	16.1	-44.7	-81.5	-127.5	17.6	-50.7	-92.2	-144.2	19.4
2:12	-35.5	-68.2	-104.9	24.2	-40.1	-76.9	-118.3	26.8	-45.5	-87.1	-133.8	29.8
3:12	-35.5	-68.2	-105.0	24.2	-40.2	-77.0	-118.4	26.7	-45.5	-87.1	-133.8	29.7
4:12	-35.5	-68.2	-105.0	24.1	-40.2	-77.0	-118.4	26.7	-45.5	-87.1	-133.9	29.6
5:12	-35.6	-68.3	-105.0	24.0	-40.2	-77.0	-118.4	26.6	-45.6	-87.1	-133.9	29.5
6:12	-35.6	-68.3	-105.1	23.9	-40.3	-77.1	-118.5	26.4	-45.6	-87.2	-133.9	29.4
7:12	-39.7	-47.9	-47.9	40.1	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5

Basic Wind Speed **135 mph**
Ground Snow Load **0 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
135 mph

Ground Snow Load
5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	15.1	-26.5	-48.7	-76.4	15.1	-32.4	-59.4	-93.1	15.1
2:12	-23.7	-45.9	-70.9	17.7	-23.7	-45.9	-70.9	17.7	-29.1	-56.0	-86.4	20.6
3:12	-23.7	-45.9	-70.9	17.6	-23.7	-45.9	-70.9	17.6	-29.1	-56.1	-86.4	20.6
4:12	-23.8	-46.0	-71.0	17.5	-23.8	-46.0	-71.0	17.5	-29.1	-56.1	-86.4	20.5
5:12	-23.8	-46.0	-71.0	17.4	-23.8	-46.0	-71.0	17.4	-29.2	-56.1	-86.5	20.4
6:12	-23.8	-46.0	-71.0	17.3	-23.8	-46.0	-71.0	17.3	-29.2	-56.2	-86.5	20.3
7:12	-26.7	-32.2	-32.2	28.3	-26.7	-32.2	-32.2	28.3	-32.6	-39.3	-39.3	33.7
8:12	-26.7	-32.2	-32.2	28.2	-26.7	-32.2	-32.2	28.2	-32.6	-39.4	-39.4	33.5
9:12	-26.7	-32.3	-32.3	28.1	-26.7	-32.3	-32.3	28.1	-32.7	-39.4	-39.4	33.4
10:12	-26.8	-32.3	-32.3	27.9	-26.8	-32.3	-32.3	27.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	15.1	-37.6	-68.7	-107.5	16.3	-43.5	-79.4	-124.2	17.6
2:12	-29.1	-56.0	-86.4	20.6	-33.7	-64.8	-99.8	23.2	-39.1	-74.9	-115.2	26.2
3:12	-29.1	-56.1	-86.4	20.6	-33.7	-64.8	-99.8	23.2	-39.1	-74.9	-115.3	26.1
4:12	-29.1	-56.1	-86.4	20.5	-33.8	-64.9	-99.8	23.1	-39.1	-75.0	-115.3	26.1
5:12	-29.2	-56.1	-86.5	20.4	-33.8	-64.9	-99.9	23.0	-39.1	-75.0	-115.3	26.0
6:12	-29.2	-56.2	-86.5	20.3	-33.8	-64.9	-99.9	22.9	-39.2	-75.0	-115.4	25.8
7:12	-32.6	-39.3	-39.3	33.7	-37.8	-45.5	-45.5	38.3	-43.7	-52.7	-52.7	43.7
8:12	-32.6	-39.4	-39.4	33.5	-37.8	-45.6	-45.6	38.2	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	16.7	-44.7	-81.5	-127.5	17.9	-50.7	-92.2	-144.2	19.4
2:12	-35.5	-68.2	-104.9	24.2	-40.1	-76.9	-118.3	26.8	-45.5	-87.1	-133.8	29.8
3:12	-35.5	-68.2	-105.0	24.2	-40.2	-77.0	-118.4	26.7	-45.5	-87.1	-133.8	29.7
4:12	-35.5	-68.2	-105.0	24.1	-40.2	-77.0	-118.4	26.7	-45.5	-87.1	-133.9	29.6
5:12	-35.6	-68.3	-105.0	24.0	-40.2	-77.0	-118.4	26.6	-45.6	-87.1	-133.9	29.5
6:12	-35.6	-68.3	-105.1	23.9	-40.3	-77.1	-118.5	26.4	-45.6	-87.2	-133.9	29.4
7:12	-39.7	-47.9	-47.9	40.1	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	18.8	-26.5	-48.7	-76.4	18.8	-32.4	-59.4	-93.1	18.9
2:12	-23.7	-45.9	-70.9	21.0	-23.7	-45.9	-70.9	21.0	-29.1	-56.0	-86.4	23.2
3:12	-23.7	-45.9	-70.9	20.2	-23.7	-45.9	-70.9	20.2	-29.1	-56.1	-86.4	22.5
4:12	-23.8	-46.0	-71.0	17.8	-23.8	-46.0	-71.0	17.8	-29.1	-56.1	-86.4	20.5
5:12	-23.8	-46.0	-71.0	17.4	-23.8	-46.0	-71.0	17.4	-29.2	-56.1	-86.5	20.4
6:12	-23.8	-46.0	-71.0	17.3	-23.8	-46.0	-71.0	17.3	-29.2	-56.2	-86.5	20.3
7:12	-26.7	-32.2	-32.2	28.3	-26.7	-32.2	-32.2	28.3	-32.6	-39.3	-39.3	33.7
8:12	-26.7	-32.2	-32.2	28.2	-26.7	-32.2	-32.2	28.2	-32.6	-39.4	-39.4	33.5
9:12	-26.7	-32.3	-32.3	28.1	-26.7	-32.3	-32.3	28.1	-32.7	-39.4	-39.4	33.4
10:12	-26.8	-32.3	-32.3	27.9	-26.8	-32.3	-32.3	27.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	18.9	-37.6	-68.7	-107.5	20.0	-43.5	-79.4	-124.2	21.4
2:12	-29.1	-56.0	-86.4	23.2	-33.7	-64.8	-99.8	25.2	-39.1	-74.9	-115.2	27.4
3:12	-29.1	-56.1	-86.4	22.5	-33.7	-64.8	-99.8	24.4	-39.1	-74.9	-115.3	26.6
4:12	-29.1	-56.1	-86.4	20.5	-33.8	-64.9	-99.8	23.1	-39.1	-75.0	-115.3	26.1
5:12	-29.2	-56.1	-86.5	20.4	-33.8	-64.9	-99.9	23.0	-39.1	-75.0	-115.3	26.0
6:12	-29.2	-56.2	-86.5	20.3	-33.8	-64.9	-99.9	22.9	-39.2	-75.0	-115.4	25.8
7:12	-32.6	-39.3	-39.3	33.7	-37.8	-45.5	-45.5	38.3	-43.7	-52.7	-52.7	43.7
8:12	-32.6	-39.4	-39.4	33.5	-37.8	-45.6	-45.6	38.2	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	20.5	-44.7	-81.5	-127.5	21.6	-50.7	-92.2	-144.2	23.0
2:12	-35.5	-68.2	-104.9	25.9	-40.1	-76.9	-118.3	27.8	-45.5	-87.1	-133.8	30.1
3:12	-35.5	-68.2	-105.0	25.1	-40.2	-77.0	-118.4	27.1	-45.5	-87.1	-133.8	29.7
4:12	-35.5	-68.2	-105.0	24.1	-40.2	-77.0	-118.4	26.7	-45.5	-87.1	-133.9	29.6
5:12	-35.6	-68.3	-105.0	24.0	-40.2	-77.0	-118.4	26.6	-45.6	-87.1	-133.9	29.5
6:12	-35.6	-68.3	-105.1	23.9	-40.3	-77.1	-118.5	26.4	-45.6	-87.2	-133.9	29.4
7:12	-39.7	-47.9	-47.9	40.1	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5

Basic Wind Speed
135 mph

Ground Snow Load
10 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-26.5	-48.7	-76.4	22.5	-26.5	-48.7	-76.4	22.5	-32.4	-59.4	-93.1	22.6
2:12	-23.7	-45.9	-70.9	24.4	-23.7	-45.9	-70.9	24.4	-29.1	-56.0	-86.4	26.6
3:12	-23.7	-45.9	-70.9	23.3	-23.7	-45.9	-70.9	23.3	-29.1	-56.1	-86.4	25.5
4:12	-23.8	-46.0	-71.0	19.7	-23.8	-46.0	-71.0	19.7	-29.1	-56.1	-86.4	21.9
5:12	-23.8	-46.0	-71.0	18.9	-23.8	-46.0	-71.0	18.9	-29.2	-56.1	-86.5	21.1
6:12	-23.8	-46.0	-71.0	18.1	-23.8	-46.0	-71.0	18.1	-29.2	-56.2	-86.5	20.3
7:12	-26.7	-32.2	-32.2	28.3	-26.7	-32.2	-32.2	28.3	-32.6	-39.3	-39.3	33.7
8:12	-26.7	-32.2	-32.2	28.2	-26.7	-32.2	-32.2	28.2	-32.6	-39.4	-39.4	33.5
9:12	-26.7	-32.3	-32.3	28.1	-26.7	-32.3	-32.3	28.1	-32.7	-39.4	-39.4	33.4
10:12	-26.8	-32.3	-32.3	27.9	-26.8	-32.3	-32.3	27.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
Exposure Category C												
1:12	-32.4	-59.4	-93.1	22.6	-37.6	-68.7	-107.5	23.8	-43.5	-79.4	-124.2	25.1
2:12	-29.1	-56.0	-86.4	26.6	-33.7	-64.8	-99.8	28.6	-39.1	-74.9	-115.2	30.8
3:12	-29.1	-56.1	-86.4	25.5	-33.7	-64.8	-99.8	27.4	-39.1	-74.9	-115.3	29.7
4:12	-29.1	-56.1	-86.4	21.9	-33.8	-64.9	-99.8	23.8	-39.1	-75.0	-115.3	26.1
5:12	-29.2	-56.1	-86.5	21.1	-33.8	-64.9	-99.9	23.0	-39.1	-75.0	-115.3	26.0
6:12	-29.2	-56.2	-86.5	20.3	-33.8	-64.9	-99.9	22.9	-39.2	-75.0	-115.4	25.8
7:12	-32.6	-39.3	-39.3	33.7	-37.8	-45.5	-45.5	38.3	-43.7	-52.7	-52.7	43.7
8:12	-32.6	-39.4	-39.4	33.5	-37.8	-45.6	-45.6	38.2	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
Exposure Category D												
1:12	-39.6	-72.2	-113.1	24.2	-44.7	-81.5	-127.5	25.4	-50.7	-92.2	-144.2	26.7
2:12	-35.5	-68.2	-104.9	29.3	-40.1	-76.9	-118.3	31.2	-45.5	-87.1	-133.8	33.5
3:12	-35.5	-68.2	-105.0	28.2	-40.2	-77.0	-118.4	30.1	-45.5	-87.1	-133.8	32.3
4:12	-35.5	-68.2	-105.0	24.1	-40.2	-77.0	-118.4	26.7	-45.5	-87.1	-133.9	29.6
5:12	-35.6	-68.3	-105.0	24.0	-40.2	-77.0	-118.4	26.6	-45.6	-87.1	-133.9	29.5
6:12	-35.6	-68.3	-105.1	23.9	-40.3	-77.1	-118.5	26.4	-45.6	-87.2	-133.9	29.4
7:12	-39.7	-47.9	-47.9	40.1	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5

Basic Wind Speed **135 mph**
Ground Snow Load **15 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	26.2	-26.5	-48.7	-76.4	26.2	-32.4	-59.4	-93.1	26.3
2:12	-23.7	-45.9	-70.9	27.8	-23.7	-45.9	-70.9	27.8	-29.1	-56.0	-86.4	30.0
3:12	-23.7	-45.9	-70.9	26.3	-23.7	-45.9	-70.9	26.3	-29.1	-56.1	-86.4	28.5
4:12	-23.8	-46.0	-71.0	21.6	-23.8	-46.0	-71.0	21.6	-29.1	-56.1	-86.4	23.8
5:12	-23.8	-46.0	-71.0	20.5	-23.8	-46.0	-71.0	20.5	-29.2	-56.1	-86.5	22.7
6:12	-23.8	-46.0	-71.0	19.5	-23.8	-46.0	-71.0	19.5	-29.2	-56.2	-86.5	21.7
7:12	-26.7	-32.2	-32.2	28.3	-26.7	-32.2	-32.2	28.3	-32.6	-39.3	-39.3	33.7
8:12	-26.7	-32.2	-32.2	28.2	-26.7	-32.2	-32.2	28.2	-32.6	-39.4	-39.4	33.5
9:12	-26.7	-32.3	-32.3	28.1	-26.7	-32.3	-32.3	28.1	-32.7	-39.4	-39.4	33.4
10:12	-26.8	-32.3	-32.3	27.9	-26.8	-32.3	-32.3	27.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	26.3	-37.6	-68.7	-107.5	27.5	-43.5	-79.4	-124.2	28.8
2:12	-29.1	-56.0	-86.4	30.0	-33.7	-64.8	-99.8	32.0	-39.1	-74.9	-115.2	34.2
3:12	-29.1	-56.1	-86.4	28.5	-33.7	-64.8	-99.8	30.5	-39.1	-74.9	-115.3	32.7
4:12	-29.1	-56.1	-86.4	23.8	-33.8	-64.9	-99.8	25.7	-39.1	-75.0	-115.3	28.0
5:12	-29.2	-56.1	-86.5	22.7	-33.8	-64.9	-99.9	24.6	-39.1	-75.0	-115.3	26.9
6:12	-29.2	-56.2	-86.5	21.7	-33.8	-64.9	-99.9	23.6	-39.2	-75.0	-115.4	25.9
7:12	-32.6	-39.3	-39.3	33.7	-37.8	-45.5	-45.5	38.3	-43.7	-52.7	-52.7	43.7
8:12	-32.6	-39.4	-39.4	33.5	-37.8	-45.6	-45.6	38.2	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	27.9	-44.7	-81.5	-127.5	29.1	-50.7	-92.2	-144.2	30.4
2:12	-35.5	-68.2	-104.9	32.7	-40.1	-76.9	-118.3	34.6	-45.5	-87.1	-133.8	36.9
3:12	-35.5	-68.2	-105.0	31.2	-40.2	-77.0	-118.4	33.1	-45.5	-87.1	-133.8	35.4
4:12	-35.5	-68.2	-105.0	25.7	-40.2	-77.0	-118.4	27.6	-45.5	-87.1	-133.9	29.9
5:12	-35.6	-68.3	-105.0	24.7	-40.2	-77.0	-118.4	26.7	-45.6	-87.1	-133.9	29.5
6:12	-35.6	-68.3	-105.1	23.9	-40.3	-77.1	-118.5	26.4	-45.6	-87.2	-133.9	29.4
7:12	-39.7	-47.9	-47.9	40.1	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5

Basic Wind Speed
135 mph

Ground Snow Load
20 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-26.5	-48.7	-76.4	26.2	-26.5	-48.7	-76.4	26.2	-32.4	-59.4	-93.1	26.3
2:12	-23.7	-45.9	-70.9	27.8	-23.7	-45.9	-70.9	27.8	-29.1	-56.0	-86.4	30.0
3:12	-23.7	-45.9	-70.9	26.3	-23.7	-45.9	-70.9	26.3	-29.1	-56.1	-86.4	28.5
4:12	-23.8	-46.0	-71.0	23.4	-23.8	-46.0	-71.0	23.4	-29.1	-56.1	-86.4	25.7
5:12	-23.8	-46.0	-71.0	22.1	-23.8	-46.0	-71.0	22.1	-29.2	-56.1	-86.5	24.3
6:12	-23.8	-46.0	-71.0	20.9	-23.8	-46.0	-71.0	20.9	-29.2	-56.2	-86.5	23.1
7:12	-26.7	-32.2	-32.2	28.3	-26.7	-32.2	-32.2	28.3	-32.6	-39.3	-39.3	33.7
8:12	-26.7	-32.2	-32.2	28.2	-26.7	-32.2	-32.2	28.2	-32.6	-39.4	-39.4	33.5
9:12	-26.7	-32.3	-32.3	28.1	-26.7	-32.3	-32.3	28.1	-32.7	-39.4	-39.4	33.4
10:12	-26.8	-32.3	-32.3	27.9	-26.8	-32.3	-32.3	27.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
Exposure Category C												
1:12	-32.4	-59.4	-93.1	26.3	-37.6	-68.7	-107.5	27.5	-43.5	-79.4	-124.2	28.8
2:12	-29.1	-56.0	-86.4	30.0	-33.7	-64.8	-99.8	32.0	-39.1	-74.9	-115.2	34.2
3:12	-29.1	-56.1	-86.4	28.5	-33.7	-64.8	-99.8	30.5	-39.1	-74.9	-115.3	32.7
4:12	-29.1	-56.1	-86.4	25.7	-33.8	-64.9	-99.8	27.6	-39.1	-75.0	-115.3	29.8
5:12	-29.2	-56.1	-86.5	24.3	-33.8	-64.9	-99.9	26.3	-39.1	-75.0	-115.3	28.5
6:12	-29.2	-56.2	-86.5	23.1	-33.8	-64.9	-99.9	25.0	-39.2	-75.0	-115.4	27.3
7:12	-32.6	-39.3	-39.3	33.7	-37.8	-45.5	-45.5	38.3	-43.7	-52.7	-52.7	43.7
8:12	-32.6	-39.4	-39.4	33.5	-37.8	-45.6	-45.6	38.2	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
Exposure Category D												
1:12	-39.6	-72.2	-113.1	27.9	-44.7	-81.5	-127.5	29.1	-50.7	-92.2	-144.2	30.4
2:12	-35.5	-68.2	-104.9	32.7	-40.1	-76.9	-118.3	34.6	-45.5	-87.1	-133.8	36.9
3:12	-35.5	-68.2	-105.0	31.2	-40.2	-77.0	-118.4	33.1	-45.5	-87.1	-133.8	35.4
4:12	-35.5	-68.2	-105.0	27.4	-40.2	-77.0	-118.4	29.3	-45.5	-87.1	-133.9	31.6
5:12	-35.6	-68.3	-105.0	26.2	-40.2	-77.0	-118.4	28.1	-45.6	-87.1	-133.9	30.4
6:12	-35.6	-68.3	-105.1	25.1	-40.3	-77.1	-118.5	27.0	-45.6	-87.2	-133.9	29.4
7:12	-39.7	-47.9	-47.9	40.1	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5

Basic Wind Speed **135 mph**
Ground Snow Load **25 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	27.0	-26.5	-48.7	-76.4	27.0	-32.4	-59.4	-93.1	27.1
2:12	-23.7	-45.9	-70.9	28.5	-23.7	-45.9	-70.9	28.5	-29.1	-56.0	-86.4	30.7
3:12	-23.7	-45.9	-70.9	26.9	-23.7	-45.9	-70.9	26.9	-29.1	-56.1	-86.4	29.1
4:12	-23.8	-46.0	-71.0	25.3	-23.8	-46.0	-71.0	25.3	-29.1	-56.1	-86.4	27.5
5:12	-23.8	-46.0	-71.0	23.7	-23.8	-46.0	-71.0	23.7	-29.2	-56.1	-86.5	26.0
6:12	-23.8	-46.0	-71.0	22.3	-23.8	-46.0	-71.0	22.3	-29.2	-56.2	-86.5	24.5
7:12	-26.7	-32.2	-32.2	29.2	-26.7	-32.2	-32.2	29.2	-32.6	-39.3	-39.3	33.7
8:12	-26.7	-32.2	-32.2	28.2	-26.7	-32.2	-32.2	28.2	-32.6	-39.4	-39.4	33.5
9:12	-26.7	-32.3	-32.3	28.1	-26.7	-32.3	-32.3	28.1	-32.7	-39.4	-39.4	33.4
10:12	-26.8	-32.3	-32.3	27.9	-26.8	-32.3	-32.3	27.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	27.1	-37.6	-68.7	-107.5	28.2	-43.5	-79.4	-124.2	29.6
2:12	-29.1	-56.0	-86.4	30.7	-33.7	-64.8	-99.8	32.6	-39.1	-74.9	-115.2	34.9
3:12	-29.1	-56.1	-86.4	29.1	-33.7	-64.8	-99.8	31.1	-39.1	-74.9	-115.3	33.3
4:12	-29.1	-56.1	-86.4	27.5	-33.8	-64.9	-99.8	29.5	-39.1	-75.0	-115.3	31.7
5:12	-29.2	-56.1	-86.5	26.0	-33.8	-64.9	-99.9	27.9	-39.1	-75.0	-115.3	30.1
6:12	-29.2	-56.2	-86.5	24.5	-33.8	-64.9	-99.9	26.4	-39.2	-75.0	-115.4	28.7
7:12	-32.6	-39.3	-39.3	33.7	-37.8	-45.5	-45.5	38.3	-43.7	-52.7	-52.7	43.7
8:12	-32.6	-39.4	-39.4	33.5	-37.8	-45.6	-45.6	38.2	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	27.9	-44.7	-81.5	-127.5	29.1	-50.7	-92.2	-144.2	30.4
2:12	-35.5	-68.2	-104.9	32.7	-40.1	-76.9	-118.3	34.6	-45.5	-87.1	-133.8	36.9
3:12	-35.5	-68.2	-105.0	31.2	-40.2	-77.0	-118.4	33.1	-45.5	-87.1	-133.8	35.4
4:12	-35.5	-68.2	-105.0	29.1	-40.2	-77.0	-118.4	31.0	-45.5	-87.1	-133.9	33.3
5:12	-35.6	-68.3	-105.0	27.7	-40.2	-77.0	-118.4	29.6	-45.6	-87.1	-133.9	31.8
6:12	-35.6	-68.3	-105.1	26.3	-40.3	-77.1	-118.5	28.3	-45.6	-87.2	-133.9	30.5
7:12	-39.7	-47.9	-47.9	40.1	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
135 mph

Ground Snow Load
30 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	29.6	-26.5	-48.7	-76.4	29.6	-32.4	-59.4	-93.1	29.7
2:12	-23.7	-45.9	-70.9	30.9	-23.7	-45.9	-70.9	30.9	-29.1	-56.0	-86.4	33.1
3:12	-23.7	-45.9	-70.9	29.0	-23.7	-45.9	-70.9	29.0	-29.1	-56.1	-86.4	31.3
4:12	-23.8	-46.0	-71.0	27.2	-23.8	-46.0	-71.0	27.2	-29.1	-56.1	-86.4	29.4
5:12	-23.8	-46.0	-71.0	25.4	-23.8	-46.0	-71.0	25.4	-29.2	-56.1	-86.5	27.6
6:12	-23.8	-46.0	-71.0	23.7	-23.8	-46.0	-71.0	23.7	-29.2	-56.2	-86.5	25.9
7:12	-26.7	-32.2	-32.2	30.4	-26.7	-32.2	-32.2	30.4	-32.6	-39.3	-39.3	34.5
8:12	-26.7	-32.2	-32.2	29.0	-26.7	-32.2	-32.2	29.0	-32.6	-39.4	-39.4	33.5
9:12	-26.7	-32.3	-32.3	28.1	-26.7	-32.3	-32.3	28.1	-32.7	-39.4	-39.4	33.4
10:12	-26.8	-32.3	-32.3	27.9	-26.8	-32.3	-32.3	27.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	29.7	-37.6	-68.7	-107.5	30.8	-43.5	-79.4	-124.2	32.2
2:12	-29.1	-56.0	-86.4	33.1	-33.7	-64.8	-99.8	35.0	-39.1	-74.9	-115.2	37.3
3:12	-29.1	-56.1	-86.4	31.3	-33.7	-64.8	-99.8	33.2	-39.1	-74.9	-115.3	35.4
4:12	-29.1	-56.1	-86.4	29.4	-33.8	-64.9	-99.8	31.3	-39.1	-75.0	-115.3	33.6
5:12	-29.2	-56.1	-86.5	27.6	-33.8	-64.9	-99.9	29.5	-39.1	-75.0	-115.3	31.8
6:12	-29.2	-56.2	-86.5	25.9	-33.8	-64.9	-99.9	27.8	-39.2	-75.0	-115.4	30.1
7:12	-32.6	-39.3	-39.3	34.5	-37.8	-45.5	-45.5	38.3	-43.7	-52.7	-52.7	43.7
8:12	-32.6	-39.4	-39.4	33.5	-37.8	-45.6	-45.6	38.2	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	29.4	-44.7	-81.5	-127.5	30.6	-50.7	-92.2	-144.2	31.9
2:12	-35.5	-68.2	-104.9	34.1	-40.1	-76.9	-118.3	36.0	-45.5	-87.1	-133.8	38.3
3:12	-35.5	-68.2	-105.0	32.5	-40.2	-77.0	-118.4	34.4	-45.5	-87.1	-133.8	36.6
4:12	-35.5	-68.2	-105.0	30.8	-40.2	-77.0	-118.4	32.7	-45.5	-87.1	-133.9	34.9
5:12	-35.6	-68.3	-105.0	29.1	-40.2	-77.0	-118.4	31.1	-45.6	-87.1	-133.9	33.3
6:12	-35.6	-68.3	-105.1	27.6	-40.3	-77.1	-118.5	29.5	-45.6	-87.2	-133.9	31.8
7:12	-39.7	-47.9	-47.9	40.1	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5

Basic Wind Speed **135 mph**
Ground Snow Load **35 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
135 mph
Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	32.2	-26.5	-48.7	-76.4	32.2	-32.4	-59.4	-93.1	32.3
2:12	-23.7	-45.9	-70.9	33.2	-23.7	-45.9	-70.9	33.2	-29.1	-56.0	-86.4	35.5
3:12	-23.7	-45.9	-70.9	31.2	-23.7	-45.9	-70.9	31.2	-29.1	-56.1	-86.4	33.4
4:12	-23.8	-46.0	-71.0	29.1	-23.8	-46.0	-71.0	29.1	-29.1	-56.1	-86.4	31.3
5:12	-23.8	-46.0	-71.0	27.0	-23.8	-46.0	-71.0	27.0	-29.2	-56.1	-86.5	29.2
6:12	-23.8	-46.0	-71.0	25.1	-23.8	-46.0	-71.0	25.1	-29.2	-56.2	-86.5	27.3
7:12	-26.7	-32.2	-32.2	31.6	-26.7	-32.2	-32.2	31.6	-32.6	-39.3	-39.3	35.7
8:12	-26.7	-32.2	-32.2	30.1	-26.7	-32.2	-32.2	30.1	-32.6	-39.4	-39.4	34.1
9:12	-26.7	-32.3	-32.3	28.7	-26.7	-32.3	-32.3	28.7	-32.7	-39.4	-39.4	33.4
10:12	-26.8	-32.3	-32.3	27.9	-26.8	-32.3	-32.3	27.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	32.3	-37.6	-68.7	-107.5	33.4	-43.5	-79.4	-124.2	34.8
2:12	-29.1	-56.0	-86.4	35.5	-33.7	-64.8	-99.8	37.4	-39.1	-74.9	-115.2	39.6
3:12	-29.1	-56.1	-86.4	33.4	-33.7	-64.8	-99.8	35.3	-39.1	-74.9	-115.3	37.6
4:12	-29.1	-56.1	-86.4	31.3	-33.8	-64.9	-99.8	33.2	-39.1	-75.0	-115.3	35.4
5:12	-29.2	-56.1	-86.5	29.2	-33.8	-64.9	-99.9	31.2	-39.1	-75.0	-115.3	33.4
6:12	-29.2	-56.2	-86.5	27.3	-33.8	-64.9	-99.9	29.2	-39.2	-75.0	-115.4	31.5
7:12	-32.6	-39.3	-39.3	35.7	-37.8	-45.5	-45.5	39.1	-43.7	-52.7	-52.7	43.7
8:12	-32.6	-39.4	-39.4	34.1	-37.8	-45.6	-45.6	38.2	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	31.8	-44.7	-81.5	-127.5	33.0	-50.7	-92.2	-144.2	34.3
2:12	-35.5	-68.2	-104.9	36.2	-40.1	-76.9	-118.3	38.2	-45.5	-87.1	-133.8	40.4
3:12	-35.5	-68.2	-105.0	34.4	-40.2	-77.0	-118.4	36.3	-45.5	-87.1	-133.8	38.5
4:12	-35.5	-68.2	-105.0	32.5	-40.2	-77.0	-118.4	34.4	-45.5	-87.1	-133.9	36.6
5:12	-35.6	-68.3	-105.0	30.6	-40.2	-77.0	-118.4	32.5	-45.6	-87.1	-133.9	34.8
6:12	-35.6	-68.3	-105.1	28.9	-40.3	-77.1	-118.5	30.8	-45.6	-87.2	-133.9	33.0
7:12	-39.7	-47.9	-47.9	40.1	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-26.5	-48.7	-76.4	35.1	-26.5	-48.7	-76.4	35.1	-32.4	-59.4	-93.1	35.1
2:12	-23.7	-45.9	-70.9	35.6	-23.7	-45.9	-70.9	35.6	-29.1	-56.0	-86.4	37.8
3:12	-23.7	-45.9	-70.9	33.3	-23.7	-45.9	-70.9	33.3	-29.1	-56.1	-86.4	35.5
4:12	-23.8	-46.0	-71.0	30.9	-23.8	-46.0	-71.0	30.9	-29.1	-56.1	-86.4	33.2
5:12	-23.8	-46.0	-71.0	28.6	-23.8	-46.0	-71.0	28.6	-29.2	-56.1	-86.5	30.9
6:12	-23.8	-46.0	-71.0	26.5	-23.8	-46.0	-71.0	26.5	-29.2	-56.2	-86.5	28.7
7:12	-26.7	-32.2	-32.2	32.8	-26.7	-32.2	-32.2	32.8	-32.6	-39.3	-39.3	36.9
8:12	-26.7	-32.2	-32.2	31.1	-26.7	-32.2	-32.2	31.1	-32.6	-39.4	-39.4	35.1
9:12	-26.7	-32.3	-32.3	29.5	-26.7	-32.3	-32.3	29.5	-32.7	-39.4	-39.4	33.5
10:12	-26.8	-32.3	-32.3	28.2	-26.8	-32.3	-32.3	28.2	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
Exposure Category C												
1:12	-32.4	-59.4	-93.1	35.1	-37.6	-68.7	-107.5	36.0	-43.5	-79.4	-124.2	37.4
2:12	-29.1	-56.0	-86.4	37.8	-33.7	-64.8	-99.8	39.8	-39.1	-74.9	-115.2	42.0
3:12	-29.1	-56.1	-86.4	35.5	-33.7	-64.8	-99.8	37.5	-39.1	-74.9	-115.3	39.7
4:12	-29.1	-56.1	-86.4	33.2	-33.8	-64.9	-99.8	35.1	-39.1	-75.0	-115.3	37.3
5:12	-29.2	-56.1	-86.5	30.9	-33.8	-64.9	-99.9	32.8	-39.1	-75.0	-115.3	35.0
6:12	-29.2	-56.2	-86.5	28.7	-33.8	-64.9	-99.9	30.6	-39.2	-75.0	-115.4	32.9
7:12	-32.6	-39.3	-39.3	36.9	-37.8	-45.5	-45.5	40.3	-43.7	-52.7	-52.7	44.3
8:12	-32.6	-39.4	-39.4	35.1	-37.8	-45.6	-45.6	38.6	-43.7	-52.7	-52.7	43.5
9:12	-32.7	-39.4	-39.4	33.5	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
Exposure Category D												
1:12	-39.6	-72.2	-113.1	34.1	-44.7	-81.5	-127.5	35.3	-50.7	-92.2	-144.2	36.6
2:12	-35.5	-68.2	-104.9	38.4	-40.1	-76.9	-118.3	40.3	-45.5	-87.1	-133.8	42.5
3:12	-35.5	-68.2	-105.0	36.3	-40.2	-77.0	-118.4	38.2	-45.5	-87.1	-133.8	40.4
4:12	-35.5	-68.2	-105.0	34.1	-40.2	-77.0	-118.4	36.1	-45.5	-87.1	-133.9	38.3
5:12	-35.6	-68.3	-105.0	32.1	-40.2	-77.0	-118.4	34.0	-45.6	-87.1	-133.9	36.2
6:12	-35.6	-68.3	-105.1	30.1	-40.3	-77.1	-118.5	32.1	-45.6	-87.2	-133.9	34.3
7:12	-39.7	-47.9	-47.9	40.6	-44.9	-54.1	-54.1	44.7	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5

Basic Wind Speed **135 mph**
Ground Snow Load **45 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
135 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	38.6	-26.5	-48.7	-76.4	38.6	-32.4	-59.4	-93.1	38.6
2:12	-23.7	-45.9	-70.9	38.0	-23.7	-45.9	-70.9	38.0	-29.1	-56.0	-86.4	40.2
3:12	-23.7	-45.9	-70.9	35.4	-23.7	-45.9	-70.9	35.4	-29.1	-56.1	-86.4	37.6
4:12	-23.8	-46.0	-71.0	32.8	-23.8	-46.0	-71.0	32.8	-29.1	-56.1	-86.4	35.0
5:12	-23.8	-46.0	-71.0	30.3	-23.8	-46.0	-71.0	30.3	-29.2	-56.1	-86.5	32.5
6:12	-23.8	-46.0	-71.0	27.9	-23.8	-46.0	-71.0	27.9	-29.2	-56.2	-86.5	30.1
7:12	-26.7	-32.2	-32.2	34.0	-26.7	-32.2	-32.2	34.0	-32.6	-39.3	-39.3	38.1
8:12	-26.7	-32.2	-32.2	32.1	-26.7	-32.2	-32.2	32.1	-32.6	-39.4	-39.4	36.1
9:12	-26.7	-32.3	-32.3	30.4	-26.7	-32.3	-32.3	30.4	-32.7	-39.4	-39.4	34.4
10:12	-26.8	-32.3	-32.3	28.9	-26.8	-32.3	-32.3	28.9	-32.7	-39.5	-39.5	33.3
11:12	-26.8	-32.4	-32.4	27.8	-26.8	-32.4	-32.4	27.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	38.6	-37.6	-68.7	-107.5	38.6	-43.5	-79.4	-124.2	40.0
2:12	-29.1	-56.0	-86.4	40.2	-33.7	-64.8	-99.8	42.2	-39.1	-74.9	-115.2	44.4
3:12	-29.1	-56.1	-86.4	37.6	-33.7	-64.8	-99.8	39.6	-39.1	-74.9	-115.3	41.8
4:12	-29.1	-56.1	-86.4	35.0	-33.8	-64.9	-99.8	37.0	-39.1	-75.0	-115.3	39.2
5:12	-29.2	-56.1	-86.5	32.5	-33.8	-64.9	-99.9	34.4	-39.1	-75.0	-115.3	36.7
6:12	-29.2	-56.2	-86.5	30.1	-33.8	-64.9	-99.9	32.0	-39.2	-75.0	-115.4	34.3
7:12	-32.6	-39.3	-39.3	38.1	-37.8	-45.5	-45.5	41.5	-43.7	-52.7	-52.7	45.5
8:12	-32.6	-39.4	-39.4	36.1	-37.8	-45.6	-45.6	39.6	-43.7	-52.7	-52.7	43.6
9:12	-32.7	-39.4	-39.4	34.4	-37.8	-45.6	-45.6	38.1	-43.8	-52.7	-52.7	43.4
10:12	-32.7	-39.5	-39.5	33.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	36.5	-44.7	-81.5	-127.5	37.6	-50.7	-92.2	-144.2	39.0
2:12	-35.5	-68.2	-104.9	40.5	-40.1	-76.9	-118.3	42.5	-45.5	-87.1	-133.8	44.7
3:12	-35.5	-68.2	-105.0	38.2	-40.2	-77.0	-118.4	40.1	-45.5	-87.1	-133.8	42.4
4:12	-35.5	-68.2	-105.0	35.8	-40.2	-77.0	-118.4	37.8	-45.5	-87.1	-133.9	40.0
5:12	-35.6	-68.3	-105.0	33.5	-40.2	-77.0	-118.4	35.5	-45.6	-87.1	-133.9	37.7
6:12	-35.6	-68.3	-105.1	31.4	-40.3	-77.1	-118.5	33.3	-45.6	-87.2	-133.9	35.6
7:12	-39.7	-47.9	-47.9	41.7	-44.9	-54.1	-54.1	45.2	-50.8	-61.2	-61.2	50.1
8:12	-39.8	-47.9	-47.9	40.0	-44.9	-54.1	-54.1	44.6	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.8	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
135 mph
Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	45.5	-26.5	-48.7	-76.4	45.5	-32.4	-59.4	-93.1	45.5
2:12	-23.7	-45.9	-70.9	42.7	-23.7	-45.9	-70.9	42.7	-29.1	-56.0	-86.4	45.0
3:12	-23.7	-45.9	-70.9	39.7	-23.7	-45.9	-70.9	39.7	-29.1	-56.1	-86.4	41.9
4:12	-23.8	-46.0	-71.0	36.6	-23.8	-46.0	-71.0	36.6	-29.1	-56.1	-86.4	38.8
5:12	-23.8	-46.0	-71.0	33.5	-23.8	-46.0	-71.0	33.5	-29.2	-56.1	-86.5	35.8
6:12	-23.8	-46.0	-71.0	30.7	-23.8	-46.0	-71.0	30.7	-29.2	-56.2	-86.5	32.9
7:12	-26.7	-32.2	-32.2	36.4	-26.7	-32.2	-32.2	36.4	-32.6	-39.3	-39.3	40.4
8:12	-26.7	-32.2	-32.2	34.1	-26.7	-32.2	-32.2	34.1	-32.6	-39.4	-39.4	38.1
9:12	-26.7	-32.3	-32.3	32.1	-26.7	-32.3	-32.3	32.1	-32.7	-39.4	-39.4	36.1
10:12	-26.8	-32.3	-32.3	30.3	-26.8	-32.3	-32.3	30.3	-32.7	-39.5	-39.5	34.3
11:12	-26.8	-32.4	-32.4	28.8	-26.8	-32.4	-32.4	28.8	-32.8	-39.5	-39.5	33.2
12:12	-26.9	-32.4	-32.4	27.7	-26.9	-32.4	-32.4	27.7	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	45.5	-37.6	-68.7	-107.5	45.5	-43.5	-79.4	-124.2	45.5
2:12	-29.1	-56.0	-86.4	45.0	-33.7	-64.8	-99.8	46.9	-39.1	-74.9	-115.2	49.1
3:12	-29.1	-56.1	-86.4	41.9	-33.7	-64.8	-99.8	43.8	-39.1	-74.9	-115.3	46.1
4:12	-29.1	-56.1	-86.4	38.8	-33.8	-64.9	-99.8	40.7	-39.1	-75.0	-115.3	42.9
5:12	-29.2	-56.1	-86.5	35.8	-33.8	-64.9	-99.9	37.7	-39.1	-75.0	-115.3	39.9
6:12	-29.2	-56.2	-86.5	32.9	-33.8	-64.9	-99.9	34.9	-39.2	-75.0	-115.4	37.1
7:12	-32.6	-39.3	-39.3	40.4	-37.8	-45.5	-45.5	43.9	-43.7	-52.7	-52.7	47.9
8:12	-32.6	-39.4	-39.4	38.1	-37.8	-45.6	-45.6	41.6	-43.7	-52.7	-52.7	45.6
9:12	-32.7	-39.4	-39.4	36.1	-37.8	-45.6	-45.6	39.6	-43.8	-52.7	-52.7	43.6
10:12	-32.7	-39.5	-39.5	34.3	-37.9	-45.7	-45.7	37.9	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	33.2	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	41.4	-44.7	-81.5	-127.5	42.3	-50.7	-92.2	-144.2	43.7
2:12	-35.5	-68.2	-104.9	44.8	-40.1	-76.9	-118.3	46.7	-45.5	-87.1	-133.8	49.0
3:12	-35.5	-68.2	-105.0	42.0	-40.2	-77.0	-118.4	44.0	-45.5	-87.1	-133.8	46.2
4:12	-35.5	-68.2	-105.0	39.2	-40.2	-77.0	-118.4	41.1	-45.5	-87.1	-133.9	43.4
5:12	-35.6	-68.3	-105.0	36.5	-40.2	-77.0	-118.4	38.4	-45.6	-87.1	-133.9	40.6
6:12	-35.6	-68.3	-105.1	33.9	-40.3	-77.1	-118.5	35.8	-45.6	-87.2	-133.9	38.1
7:12	-39.7	-47.9	-47.9	43.8	-44.9	-54.1	-54.1	47.3	-50.8	-61.2	-61.2	51.3
8:12	-39.8	-47.9	-47.9	41.7	-44.9	-54.1	-54.1	45.2	-50.9	-61.3	-61.3	50.0
9:12	-39.8	-48.0	-48.0	39.9	-45.0	-54.2	-54.2	44.5	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
135 mph
Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	52.5	-26.5	-48.7	-76.4	52.5	-32.4	-59.4	-93.1	52.5
2:12	-23.7	-45.9	-70.9	48.2	-23.7	-45.9	-70.9	48.2	-29.1	-56.0	-86.4	49.7
3:12	-23.7	-45.9	-70.9	43.9	-23.7	-45.9	-70.9	43.9	-29.1	-56.1	-86.4	46.2
4:12	-23.8	-46.0	-71.0	40.3	-23.8	-46.0	-71.0	40.3	-29.1	-56.1	-86.4	42.5
5:12	-23.8	-46.0	-71.0	36.8	-23.8	-46.0	-71.0	36.8	-29.2	-56.1	-86.5	39.0
6:12	-23.8	-46.0	-71.0	33.5	-23.8	-46.0	-71.0	33.5	-29.2	-56.2	-86.5	35.7
7:12	-26.7	-32.2	-32.2	38.8	-26.7	-32.2	-32.2	38.8	-32.6	-39.3	-39.3	42.8
8:12	-26.7	-32.2	-32.2	36.2	-26.7	-32.2	-32.2	36.2	-32.6	-39.4	-39.4	40.2
9:12	-26.7	-32.3	-32.3	33.8	-26.7	-32.3	-32.3	33.8	-32.7	-39.4	-39.4	37.8
10:12	-26.8	-32.3	-32.3	31.8	-26.8	-32.3	-32.3	31.8	-32.7	-39.5	-39.5	35.8
11:12	-26.8	-32.4	-32.4	30.0	-26.8	-32.4	-32.4	30.0	-32.8	-39.5	-39.5	34.0
12:12	-26.9	-32.4	-32.4	28.5	-26.9	-32.4	-32.4	28.5	-32.8	-39.5	-39.5	33.1
1:12	-32.4	-59.4	-93.1	52.5	-37.6	-68.7	-107.5	52.5	-43.5	-79.4	-124.2	52.5
2:12	-29.1	-56.0	-86.4	49.7	-33.7	-64.8	-99.8	51.7	-39.1	-74.9	-115.2	53.9
3:12	-29.1	-56.1	-86.4	46.2	-33.7	-64.8	-99.8	48.1	-39.1	-74.9	-115.3	50.3
4:12	-29.1	-56.1	-86.4	42.5	-33.8	-64.9	-99.8	44.5	-39.1	-75.0	-115.3	46.7
5:12	-29.2	-56.1	-86.5	39.0	-33.8	-64.9	-99.9	41.0	-39.1	-75.0	-115.3	43.2
6:12	-29.2	-56.2	-86.5	35.7	-33.8	-64.9	-99.9	37.7	-39.2	-75.0	-115.4	39.9
7:12	-32.6	-39.3	-39.3	42.8	-37.8	-45.5	-45.5	46.3	-43.7	-52.7	-52.7	50.3
8:12	-32.6	-39.4	-39.4	40.2	-37.8	-45.6	-45.6	43.6	-43.7	-52.7	-52.7	47.7
9:12	-32.7	-39.4	-39.4	37.8	-37.8	-45.6	-45.6	41.3	-43.8	-52.7	-52.7	45.3
10:12	-32.7	-39.5	-39.5	35.8	-37.9	-45.7	-45.7	39.3	-43.8	-52.8	-52.8	43.3
11:12	-32.8	-39.5	-39.5	34.0	-37.9	-45.7	-45.7	37.8	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.1	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	47.6	-44.7	-81.5	-127.5	47.6	-50.7	-92.2	-144.2	48.4
2:12	-35.5	-68.2	-104.9	49.1	-40.1	-76.9	-118.3	51.0	-45.5	-87.1	-133.8	53.2
3:12	-35.5	-68.2	-105.0	45.9	-40.2	-77.0	-118.4	47.8	-45.5	-87.1	-133.8	50.0
4:12	-35.5	-68.2	-105.0	42.6	-40.2	-77.0	-118.4	44.5	-45.5	-87.1	-133.9	46.7
5:12	-35.6	-68.3	-105.0	39.4	-40.2	-77.0	-118.4	41.3	-45.6	-87.1	-133.9	43.6
6:12	-35.6	-68.3	-105.1	36.4	-40.3	-77.1	-118.5	38.4	-45.6	-87.2	-133.9	40.6
7:12	-39.7	-47.9	-47.9	46.0	-44.9	-54.1	-54.1	49.5	-50.8	-61.2	-61.2	53.5
8:12	-39.8	-47.9	-47.9	43.6	-44.9	-54.1	-54.1	47.0	-50.9	-61.3	-61.3	51.1
9:12	-39.8	-48.0	-48.0	41.4	-45.0	-54.2	-54.2	44.9	-50.9	-61.3	-61.3	49.8
10:12	-39.9	-48.0	-48.0	39.7	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	59.4	-26.5	-48.7	-76.4	59.4	-32.4	-59.4	-93.1	59.4
2:12	-23.7	-45.9	-70.9	54.5	-23.7	-45.9	-70.9	54.5	-29.1	-56.0	-86.4	54.5
3:12	-23.7	-45.9	-70.9	49.1	-23.7	-45.9	-70.9	49.1	-29.1	-56.1	-86.4	50.4
4:12	-23.8	-46.0	-71.0	44.0	-23.8	-46.0	-71.0	44.0	-29.1	-56.1	-86.4	46.3
5:12	-23.8	-46.0	-71.0	40.0	-23.8	-46.0	-71.0	40.0	-29.2	-56.1	-86.5	42.3
6:12	-23.8	-46.0	-71.0	36.3	-23.8	-46.0	-71.0	36.3	-29.2	-56.2	-86.5	38.5
7:12	-26.7	-32.2	-32.2	41.2	-26.7	-32.2	-32.2	41.2	-32.6	-39.3	-39.3	45.2
8:12	-26.7	-32.2	-32.2	38.2	-26.7	-32.2	-32.2	38.2	-32.6	-39.4	-39.4	42.2
9:12	-26.7	-32.3	-32.3	35.5	-26.7	-32.3	-32.3	35.5	-32.7	-39.4	-39.4	39.5
10:12	-26.8	-32.3	-32.3	33.2	-26.8	-32.3	-32.3	33.2	-32.7	-39.5	-39.5	37.2
11:12	-26.8	-32.4	-32.4	31.2	-26.8	-32.4	-32.4	31.2	-32.8	-39.5	-39.5	35.2
12:12	-26.9	-32.4	-32.4	29.5	-26.9	-32.4	-32.4	29.5	-32.8	-39.5	-39.5	33.6
1:12	-32.4	-59.4	-93.1	59.4	-37.6	-68.7	-107.5	59.4	-43.5	-79.4	-124.2	59.4
2:12	-29.1	-56.0	-86.4	54.5	-33.7	-64.8	-99.8	56.4	-39.1	-74.9	-115.2	58.7
3:12	-29.1	-56.1	-86.4	50.4	-33.7	-64.8	-99.8	52.3	-39.1	-74.9	-115.3	54.6
4:12	-29.1	-56.1	-86.4	46.3	-33.8	-64.9	-99.8	48.2	-39.1	-75.0	-115.3	50.4
5:12	-29.2	-56.1	-86.5	42.3	-33.8	-64.9	-99.9	44.2	-39.1	-75.0	-115.3	46.4
6:12	-29.2	-56.2	-86.5	38.5	-33.8	-64.9	-99.9	40.5	-39.2	-75.0	-115.4	42.7
7:12	-32.6	-39.3	-39.3	45.2	-37.8	-45.5	-45.5	48.7	-43.7	-52.7	-52.7	52.7
8:12	-32.6	-39.4	-39.4	42.2	-37.8	-45.6	-45.6	45.7	-43.7	-52.7	-52.7	49.7
9:12	-32.7	-39.4	-39.4	39.5	-37.8	-45.6	-45.6	43.0	-43.8	-52.7	-52.7	47.0
10:12	-32.7	-39.5	-39.5	37.2	-37.9	-45.7	-45.7	40.7	-43.8	-52.8	-52.8	44.7
11:12	-32.8	-39.5	-39.5	35.2	-37.9	-45.7	-45.7	38.7	-43.9	-52.8	-52.8	43.2
12:12	-32.8	-39.5	-39.5	33.6	-38.0	-45.7	-45.7	37.7	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	53.9	-44.7	-81.5	-127.5	53.9	-50.7	-92.2	-144.2	53.9
2:12	-35.5	-68.2	-104.9	53.4	-40.1	-76.9	-118.3	55.3	-45.5	-87.1	-133.8	57.5
3:12	-35.5	-68.2	-105.0	49.7	-40.2	-77.0	-118.4	51.6	-45.5	-87.1	-133.8	53.8
4:12	-35.5	-68.2	-105.0	46.0	-40.2	-77.0	-118.4	47.9	-45.5	-87.1	-133.9	50.1
5:12	-35.6	-68.3	-105.0	42.3	-40.2	-77.0	-118.4	44.3	-45.6	-87.1	-133.9	46.5
6:12	-35.6	-68.3	-105.1	39.0	-40.3	-77.1	-118.5	40.9	-45.6	-87.2	-133.9	43.1
7:12	-39.7	-47.9	-47.9	48.1	-44.9	-54.1	-54.1	51.6	-50.8	-61.2	-61.2	55.6
8:12	-39.8	-47.9	-47.9	45.4	-44.9	-54.1	-54.1	48.9	-50.9	-61.3	-61.3	52.9
9:12	-39.8	-48.0	-48.0	43.0	-45.0	-54.2	-54.2	46.5	-50.9	-61.3	-61.3	50.5
10:12	-39.9	-48.0	-48.0	40.9	-45.0	-54.2	-54.2	44.4	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	39.6	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5

Basic Wind Speed
135 mph

Ground Snow Load
80 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
135 mph
Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.5	-48.7	-76.4	66.4	-26.5	-48.7	-76.4	66.4	-32.4	-59.4	-93.1	66.4
2:12	-23.7	-45.9	-70.9	60.9	-23.7	-45.9	-70.9	60.9	-29.1	-56.0	-86.4	60.9
3:12	-23.7	-45.9	-70.9	54.8	-23.7	-45.9	-70.9	54.8	-29.1	-56.1	-86.4	54.8
4:12	-23.8	-46.0	-71.0	48.6	-23.8	-46.0	-71.0	48.6	-29.1	-56.1	-86.4	50.0
5:12	-23.8	-46.0	-71.0	43.3	-23.8	-46.0	-71.0	43.3	-29.2	-56.1	-86.5	45.5
6:12	-23.8	-46.0	-71.0	39.1	-23.8	-46.0	-71.0	39.1	-29.2	-56.2	-86.5	41.3
7:12	-26.7	-32.2	-32.2	43.6	-26.7	-32.2	-32.2	43.6	-32.6	-39.3	-39.3	47.6
8:12	-26.7	-32.2	-32.2	40.2	-26.7	-32.2	-32.2	40.2	-32.6	-39.4	-39.4	44.2
9:12	-26.7	-32.3	-32.3	37.2	-26.7	-32.3	-32.3	37.2	-32.7	-39.4	-39.4	41.2
10:12	-26.8	-32.3	-32.3	34.6	-26.8	-32.3	-32.3	34.6	-32.7	-39.5	-39.5	38.7
11:12	-26.8	-32.4	-32.4	32.4	-26.8	-32.4	-32.4	32.4	-32.8	-39.5	-39.5	36.4
12:12	-26.9	-32.4	-32.4	30.5	-26.9	-32.4	-32.4	30.5	-32.8	-39.5	-39.5	34.6
1:12	-32.4	-59.4	-93.1	66.4	-37.6	-68.7	-107.5	66.4	-43.5	-79.4	-124.2	66.4
2:12	-29.1	-56.0	-86.4	60.9	-33.7	-64.8	-99.8	61.2	-39.1	-74.9	-115.2	63.4
3:12	-29.1	-56.1	-86.4	54.8	-33.7	-64.8	-99.8	56.6	-39.1	-74.9	-115.3	58.8
4:12	-29.1	-56.1	-86.4	50.0	-33.8	-64.9	-99.8	52.0	-39.1	-75.0	-115.3	54.2
5:12	-29.2	-56.1	-86.5	45.5	-33.8	-64.9	-99.9	47.5	-39.1	-75.0	-115.3	49.7
6:12	-29.2	-56.2	-86.5	41.3	-33.8	-64.9	-99.9	43.3	-39.2	-75.0	-115.4	45.5
7:12	-32.6	-39.3	-39.3	47.6	-37.8	-45.5	-45.5	51.1	-43.7	-52.7	-52.7	55.1
8:12	-32.6	-39.4	-39.4	44.2	-37.8	-45.6	-45.6	47.7	-43.7	-52.7	-52.7	51.7
9:12	-32.7	-39.4	-39.4	41.2	-37.8	-45.6	-45.6	44.7	-43.8	-52.7	-52.7	48.7
10:12	-32.7	-39.5	-39.5	38.7	-37.9	-45.7	-45.7	42.1	-43.8	-52.8	-52.8	46.2
11:12	-32.8	-39.5	-39.5	36.4	-37.9	-45.7	-45.7	39.9	-43.9	-52.8	-52.8	43.9
12:12	-32.8	-39.5	-39.5	34.6	-38.0	-45.7	-45.7	38.0	-43.9	-52.9	-52.9	43.1
1:12	-39.6	-72.2	-113.1	60.1	-44.7	-81.5	-127.5	60.1	-50.7	-92.2	-144.2	60.1
2:12	-35.5	-68.2	-104.9	57.6	-40.1	-76.9	-118.3	59.6	-45.5	-87.1	-133.8	61.8
3:12	-35.5	-68.2	-105.0	53.5	-40.2	-77.0	-118.4	55.4	-45.5	-87.1	-133.8	57.7
4:12	-35.5	-68.2	-105.0	49.3	-40.2	-77.0	-118.4	51.3	-45.5	-87.1	-133.9	53.5
5:12	-35.6	-68.3	-105.0	45.3	-40.2	-77.0	-118.4	47.2	-45.6	-87.1	-133.9	49.4
6:12	-35.6	-68.3	-105.1	41.5	-40.3	-77.1	-118.5	43.4	-45.6	-87.2	-133.9	45.7
7:12	-39.7	-47.9	-47.9	50.3	-44.9	-54.1	-54.1	53.8	-50.8	-61.2	-61.2	57.8
8:12	-39.8	-47.9	-47.9	47.2	-44.9	-54.1	-54.1	50.7	-50.9	-61.3	-61.3	54.7
9:12	-39.8	-48.0	-48.0	44.5	-45.0	-54.2	-54.2	48.0	-50.9	-61.3	-61.3	52.0
10:12	-39.9	-48.0	-48.0	42.2	-45.0	-54.2	-54.2	45.7	-51.0	-61.4	-61.4	49.7
11:12	-39.9	-48.1	-48.1	40.2	-45.1	-54.3	-54.3	44.2	-51.0	-61.4	-61.4	49.6
12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-26.5	-48.7	-76.4	73.4	-26.5	-48.7	-76.4	73.4	-32.4	-59.4	-93.1	73.4
	2:12	-23.7	-45.9	-70.9	67.2	-23.7	-45.9	-70.9	67.2	-29.1	-56.0	-86.4	67.2
	3:12	-23.7	-45.9	-70.9	60.5	-23.7	-45.9	-70.9	60.5	-29.1	-56.1	-86.4	60.5
	4:12	-23.8	-46.0	-71.0	53.6	-23.8	-46.0	-71.0	53.6	-29.1	-56.1	-86.4	53.8
	5:12	-23.8	-46.0	-71.0	47.0	-23.8	-46.0	-71.0	47.0	-29.2	-56.1	-86.5	48.8
	6:12	-23.8	-46.0	-71.0	41.9	-23.8	-46.0	-71.0	41.9	-29.2	-56.2	-86.5	44.1
	7:12	-26.7	-32.2	-32.2	46.0	-26.7	-32.2	-32.2	46.0	-32.6	-39.3	-39.3	50.0
	8:12	-26.7	-32.2	-32.2	42.2	-26.7	-32.2	-32.2	42.2	-32.6	-39.4	-39.4	46.3
	9:12	-26.7	-32.3	-32.3	38.9	-26.7	-32.3	-32.3	38.9	-32.7	-39.4	-39.4	43.0
	10:12	-26.8	-32.3	-32.3	36.1	-26.8	-32.3	-32.3	36.1	-32.7	-39.5	-39.5	40.1
	11:12	-26.8	-32.4	-32.4	33.6	-26.8	-32.4	-32.4	33.6	-32.8	-39.5	-39.5	37.7
	12:12	-26.9	-32.4	-32.4	31.6	-26.9	-32.4	-32.4	31.6	-32.8	-39.5	-39.5	35.6
Exposure Category C	1:12	-32.4	-59.4	-93.1	73.4	-37.6	-68.7	-107.5	73.4	-43.5	-79.4	-124.2	73.4
	2:12	-29.1	-56.0	-86.4	67.2	-33.7	-64.8	-99.8	67.2	-39.1	-74.9	-115.2	68.2
	3:12	-29.1	-56.1	-86.4	60.5	-33.7	-64.8	-99.8	60.8	-39.1	-74.9	-115.3	63.1
	4:12	-29.1	-56.1	-86.4	53.8	-33.8	-64.9	-99.8	55.7	-39.1	-75.0	-115.3	57.9
	5:12	-29.2	-56.1	-86.5	48.8	-33.8	-64.9	-99.9	50.7	-39.1	-75.0	-115.3	53.0
	6:12	-29.2	-56.2	-86.5	44.1	-33.8	-64.9	-99.9	46.1	-39.2	-75.0	-115.4	48.3
	7:12	-32.6	-39.3	-39.3	50.0	-37.8	-45.5	-45.5	53.5	-43.7	-52.7	-52.7	57.5
	8:12	-32.6	-39.4	-39.4	46.3	-37.8	-45.6	-45.6	49.7	-43.7	-52.7	-52.7	53.8
	9:12	-32.7	-39.4	-39.4	43.0	-37.8	-45.6	-45.6	46.4	-43.8	-52.7	-52.7	50.5
	10:12	-32.7	-39.5	-39.5	40.1	-37.9	-45.7	-45.7	43.6	-43.8	-52.8	-52.8	47.6
	11:12	-32.8	-39.5	-39.5	37.7	-37.9	-45.7	-45.7	41.1	-43.9	-52.8	-52.8	45.2
	12:12	-32.8	-39.5	-39.5	35.6	-38.0	-45.7	-45.7	39.1	-43.9	-52.9	-52.9	43.1
Exposure Category D	1:12	-39.6	-72.2	-113.1	66.4	-44.7	-81.5	-127.5	66.4	-50.7	-92.2	-144.2	66.4
	2:12	-35.5	-68.2	-104.9	61.9	-40.1	-76.9	-118.3	63.9	-45.5	-87.1	-133.8	66.1
	3:12	-35.5	-68.2	-105.0	57.3	-40.2	-77.0	-118.4	59.3	-45.5	-87.1	-133.8	61.5
	4:12	-35.5	-68.2	-105.0	52.7	-40.2	-77.0	-118.4	54.6	-45.5	-87.1	-133.9	56.9
	5:12	-35.6	-68.3	-105.0	48.2	-40.2	-77.0	-118.4	50.1	-45.6	-87.1	-133.9	52.4
	6:12	-35.6	-68.3	-105.1	44.0	-40.3	-77.1	-118.5	46.0	-45.6	-87.2	-133.9	48.2
	7:12	-39.7	-47.9	-47.9	52.5	-44.9	-54.1	-54.1	55.9	-50.8	-61.2	-61.2	59.9
	8:12	-39.8	-47.9	-47.9	49.0	-44.9	-54.1	-54.1	52.5	-50.9	-61.3	-61.3	56.5
	9:12	-39.8	-48.0	-48.0	46.1	-45.0	-54.2	-54.2	49.5	-50.9	-61.3	-61.3	53.6
	10:12	-39.9	-48.0	-48.0	43.5	-45.0	-54.2	-54.2	47.0	-51.0	-61.4	-61.4	51.0
	11:12	-39.9	-48.1	-48.1	41.3	-45.1	-54.3	-54.3	44.7	-51.0	-61.4	-61.4	49.6
	12:12	-39.9	-48.1	-48.1	39.5	-45.1	-54.3	-54.3	44.1	-51.0	-61.4	-61.4	49.5
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
	2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
	3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
	4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
	5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
	6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
	7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
	8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
	9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
	10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
	11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **135 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
140 mph

Ground Snow Load
0 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	13.8	-28.6	-52.5	-82.3	13.8	-35.0	-64.0	-100.2	14.7
2:12	-25.6	-49.5	-76.4	18.7	-25.6	-49.5	-76.4	18.7	-31.4	-60.4	-93.0	21.9
3:12	-25.6	-49.5	-76.4	18.7	-25.6	-49.5	-76.4	18.7	-31.4	-60.4	-93.0	21.9
4:12	-25.7	-49.5	-76.4	18.6	-25.7	-49.5	-76.4	18.6	-31.4	-60.4	-93.0	21.8
5:12	-25.7	-49.6	-76.4	18.5	-25.7	-49.6	-76.4	18.5	-31.4	-60.4	-93.1	21.7
6:12	-25.7	-49.6	-76.5	18.4	-25.7	-49.6	-76.5	18.4	-31.5	-60.5	-93.1	21.6
7:12	-28.7	-34.7	-34.7	30.2	-28.7	-34.7	-34.7	30.2	-35.1	-42.4	-42.4	36.0
8:12	-28.8	-34.8	-34.8	30.1	-28.8	-34.8	-34.8	30.1	-35.2	-42.4	-42.4	35.8
9:12	-28.8	-34.8	-34.8	29.9	-28.8	-34.8	-34.8	29.9	-35.2	-42.5	-42.5	35.7
10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	14.7	-40.5	-74.0	-115.8	16.4	-46.9	-85.5	-133.7	18.3
2:12	-31.4	-60.4	-93.0	21.9	-36.4	-69.8	-107.4	24.7	-42.1	-80.7	-124.0	27.9
3:12	-31.4	-60.4	-93.0	21.9	-36.4	-69.8	-107.4	24.6	-42.1	-80.7	-124.1	27.8
4:12	-31.4	-60.4	-93.0	21.8	-36.4	-69.8	-107.5	24.5	-42.2	-80.7	-124.1	27.7
5:12	-31.4	-60.4	-93.1	21.7	-36.4	-69.9	-107.5	24.4	-42.2	-80.7	-124.1	27.6
6:12	-31.5	-60.5	-93.1	21.6	-36.5	-69.9	-107.5	24.3	-42.2	-80.8	-124.2	27.5
7:12	-35.1	-42.4	-42.4	36.0	-40.7	-49.0	-49.0	40.9	-47.1	-56.7	-56.7	46.7
8:12	-35.2	-42.4	-42.4	35.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	17.0	-48.2	-87.8	-137.2	18.7	-54.6	-99.3	-155.2	20.6
2:12	-38.3	-73.4	-112.9	25.8	-43.3	-82.8	-127.4	28.5	-49.0	-93.7	-144.0	31.7
3:12	-38.3	-73.4	-113.0	25.7	-43.3	-82.9	-127.4	28.5	-49.0	-93.7	-144.0	31.7
4:12	-38.3	-73.5	-113.0	25.6	-43.3	-82.9	-127.4	28.4	-49.1	-93.8	-144.0	31.6
5:12	-38.4	-73.5	-113.0	25.5	-43.3	-82.9	-127.4	28.3	-49.1	-93.8	-144.1	31.5
6:12	-38.4	-73.5	-113.1	25.4	-43.4	-83.0	-127.5	28.2	-49.1	-93.8	-144.1	31.4
7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
140 mph

Ground Snow Load
5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	15.1	-28.6	-52.5	-82.3	15.1	-35.0	-64.0	-100.2	15.7
2:12	-25.6	-49.5	-76.4	18.7	-25.6	-49.5	-76.4	18.7	-31.4	-60.4	-93.0	21.9
3:12	-25.6	-49.5	-76.4	18.7	-25.6	-49.5	-76.4	18.7	-31.4	-60.4	-93.0	21.9
4:12	-25.7	-49.5	-76.4	18.6	-25.7	-49.5	-76.4	18.6	-31.4	-60.4	-93.0	21.8
5:12	-25.7	-49.6	-76.4	18.5	-25.7	-49.6	-76.4	18.5	-31.4	-60.4	-93.1	21.7
6:12	-25.7	-49.6	-76.5	18.4	-25.7	-49.6	-76.5	18.4	-31.5	-60.5	-93.1	21.6
7:12	-28.7	-34.7	-34.7	30.2	-28.7	-34.7	-34.7	30.2	-35.1	-42.4	-42.4	36.0
8:12	-28.8	-34.8	-34.8	30.1	-28.8	-34.8	-34.8	30.1	-35.2	-42.4	-42.4	35.8
9:12	-28.8	-34.8	-34.8	29.9	-28.8	-34.8	-34.8	29.9	-35.2	-42.5	-42.5	35.7
10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	15.7	-40.5	-74.0	-115.8	17.0	-46.9	-85.5	-133.7	18.4
2:12	-31.4	-60.4	-93.0	21.9	-36.4	-69.8	-107.4	24.7	-42.1	-80.7	-124.0	27.9
3:12	-31.4	-60.4	-93.0	21.9	-36.4	-69.8	-107.4	24.6	-42.1	-80.7	-124.1	27.8
4:12	-31.4	-60.4	-93.0	21.8	-36.4	-69.8	-107.5	24.5	-42.2	-80.7	-124.1	27.7
5:12	-31.4	-60.4	-93.1	21.7	-36.4	-69.9	-107.5	24.4	-42.2	-80.7	-124.1	27.6
6:12	-31.5	-60.5	-93.1	21.6	-36.5	-69.9	-107.5	24.3	-42.2	-80.8	-124.2	27.5
7:12	-35.1	-42.4	-42.4	36.0	-40.7	-49.0	-49.0	40.9	-47.1	-56.7	-56.7	46.7
8:12	-35.2	-42.4	-42.4	35.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	17.4	-48.2	-87.8	-137.2	18.7	-54.6	-99.3	-155.2	20.6
2:12	-38.3	-73.4	-112.9	25.8	-43.3	-82.8	-127.4	28.5	-49.0	-93.7	-144.0	31.7
3:12	-38.3	-73.4	-113.0	25.7	-43.3	-82.9	-127.4	28.5	-49.0	-93.7	-144.0	31.7
4:12	-38.3	-73.5	-113.0	25.6	-43.3	-82.9	-127.4	28.4	-49.1	-93.8	-144.0	31.6
5:12	-38.4	-73.5	-113.0	25.5	-43.3	-82.9	-127.4	28.3	-49.1	-93.8	-144.1	31.5
6:12	-38.4	-73.5	-113.1	25.4	-43.4	-83.0	-127.5	28.2	-49.1	-93.8	-144.1	31.4
7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-28.6	-52.5	-82.3	18.8	-28.6	-52.5	-82.3	18.8	-35.0	-64.0	-100.2	19.4
	2:12	-25.6	-49.5	-76.4	21.8	-25.6	-49.5	-76.4	21.8	-31.4	-60.4	-93.0	24.2
	3:12	-25.6	-49.5	-76.4	21.0	-25.6	-49.5	-76.4	21.0	-31.4	-60.4	-93.0	23.4
	4:12	-25.7	-49.5	-76.4	18.6	-25.7	-49.5	-76.4	18.6	-31.4	-60.4	-93.0	21.8
	5:12	-25.7	-49.6	-76.4	18.5	-25.7	-49.6	-76.4	18.5	-31.4	-60.4	-93.1	21.7
	6:12	-25.7	-49.6	-76.5	18.4	-25.7	-49.6	-76.5	18.4	-31.5	-60.5	-93.1	21.6
	7:12	-28.7	-34.7	-34.7	30.2	-28.7	-34.7	-34.7	30.2	-35.1	-42.4	-42.4	36.0
	8:12	-28.8	-34.8	-34.8	30.1	-28.8	-34.8	-34.8	30.1	-35.2	-42.4	-42.4	35.8
	9:12	-28.8	-34.8	-34.8	29.9	-28.8	-34.8	-34.8	29.9	-35.2	-42.5	-42.5	35.7
	10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
	11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
	12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C	1:12	-35.0	-64.0	-100.2	19.4	-40.5	-74.0	-115.8	20.7	-46.9	-85.5	-133.7	22.1
	2:12	-31.4	-60.4	-93.0	24.2	-36.4	-69.8	-107.4	26.3	-42.1	-80.7	-124.0	28.7
	3:12	-31.4	-60.4	-93.0	23.4	-36.4	-69.8	-107.4	25.5	-42.1	-80.7	-124.1	27.9
	4:12	-31.4	-60.4	-93.0	21.8	-36.4	-69.8	-107.5	24.5	-42.2	-80.7	-124.1	27.7
	5:12	-31.4	-60.4	-93.1	21.7	-36.4	-69.9	-107.5	24.4	-42.2	-80.7	-124.1	27.6
	6:12	-31.5	-60.5	-93.1	21.6	-36.5	-69.9	-107.5	24.3	-42.2	-80.8	-124.2	27.5
	7:12	-35.1	-42.4	-42.4	36.0	-40.7	-49.0	-49.0	40.9	-47.1	-56.7	-56.7	46.7
	8:12	-35.2	-42.4	-42.4	35.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
	9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
	10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
	11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
	12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D	1:12	-42.6	-77.8	-121.7	21.2	-48.2	-87.8	-137.2	22.4	-54.6	-99.3	-155.2	23.9
	2:12	-38.3	-73.4	-112.9	27.1	-43.3	-82.8	-127.4	29.1	-49.0	-93.7	-144.0	31.7
	3:12	-38.3	-73.4	-113.0	26.3	-43.3	-82.9	-127.4	28.5	-49.0	-93.7	-144.0	31.7
	4:12	-38.3	-73.5	-113.0	25.6	-43.3	-82.9	-127.4	28.4	-49.1	-93.8	-144.0	31.6
	5:12	-38.4	-73.5	-113.0	25.5	-43.3	-82.9	-127.4	28.3	-49.1	-93.8	-144.1	31.5
	6:12	-38.4	-73.5	-113.1	25.4	-43.4	-83.0	-127.5	28.2	-49.1	-93.8	-144.1	31.4
	7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
	8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
	9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
	10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
	11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
	12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
	2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
	3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
	4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
	5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
	6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
	7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
	8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
	9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
	10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
	11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7	
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed

140 mph

Ground Snow Load

10 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	22.5	-28.6	-52.5	-82.3	22.5	-35.0	-64.0	-100.2	23.2
2:12	-25.6	-49.5	-76.4	25.2	-25.6	-49.5	-76.4	25.2	-31.4	-60.4	-93.0	27.6
3:12	-25.6	-49.5	-76.4	24.0	-25.6	-49.5	-76.4	24.0	-31.4	-60.4	-93.0	26.4
4:12	-25.7	-49.5	-76.4	20.5	-25.7	-49.5	-76.4	20.5	-31.4	-60.4	-93.0	22.9
5:12	-25.7	-49.6	-76.4	19.6	-25.7	-49.6	-76.4	19.6	-31.4	-60.4	-93.1	22.0
6:12	-25.7	-49.6	-76.5	18.8	-25.7	-49.6	-76.5	18.8	-31.5	-60.5	-93.1	21.6
7:12	-28.7	-34.7	-34.7	30.2	-28.7	-34.7	-34.7	30.2	-35.1	-42.4	-42.4	36.0
8:12	-28.8	-34.8	-34.8	30.1	-28.8	-34.8	-34.8	30.1	-35.2	-42.4	-42.4	35.8
9:12	-28.8	-34.8	-34.8	29.9	-28.8	-34.8	-34.8	29.9	-35.2	-42.5	-42.5	35.7
10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	23.2	-40.5	-74.0	-115.8	24.4	-46.9	-85.5	-133.7	25.9
2:12	-31.4	-60.4	-93.0	27.6	-36.4	-69.8	-107.4	29.7	-42.1	-80.7	-124.0	32.1
3:12	-31.4	-60.4	-93.0	26.4	-36.4	-69.8	-107.4	28.5	-42.1	-80.7	-124.1	30.9
4:12	-31.4	-60.4	-93.0	22.9	-36.4	-69.8	-107.5	24.9	-42.2	-80.7	-124.1	27.7
5:12	-31.4	-60.4	-93.1	22.0	-36.4	-69.9	-107.5	24.4	-42.2	-80.7	-124.1	27.6
6:12	-31.5	-60.5	-93.1	21.6	-36.5	-69.9	-107.5	24.3	-42.2	-80.8	-124.2	27.5
7:12	-35.1	-42.4	-42.4	36.0	-40.7	-49.0	-49.0	40.9	-47.1	-56.7	-56.7	46.7
8:12	-35.2	-42.4	-42.4	35.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	24.9	-48.2	-87.8	-137.2	26.1	-54.6	-99.3	-155.2	27.6
2:12	-38.3	-73.4	-112.9	30.5	-43.3	-82.8	-127.4	32.5	-49.0	-93.7	-144.0	34.9
3:12	-38.3	-73.4	-113.0	29.3	-43.3	-82.9	-127.4	31.4	-49.0	-93.7	-144.0	33.8
4:12	-38.3	-73.5	-113.0	25.6	-43.3	-82.9	-127.4	28.4	-49.1	-93.8	-144.0	31.6
5:12	-38.4	-73.5	-113.0	25.5	-43.3	-82.9	-127.4	28.3	-49.1	-93.8	-144.1	31.5
6:12	-38.4	-73.5	-113.1	25.4	-43.4	-83.0	-127.5	28.2	-49.1	-93.8	-144.1	31.4
7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
140 mph

Ground Snow Load
15 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	26.2	-28.6	-52.5	-82.3	26.2	-35.0	-64.0	-100.2	26.9
2:12	-25.6	-49.5	-76.4	28.6	-25.6	-49.5	-76.4	28.6	-31.4	-60.4	-93.0	31.0
3:12	-25.6	-49.5	-76.4	27.1	-25.6	-49.5	-76.4	27.1	-31.4	-60.4	-93.0	29.5
4:12	-25.7	-49.5	-76.4	22.3	-25.7	-49.5	-76.4	22.3	-31.4	-60.4	-93.0	24.7
5:12	-25.7	-49.6	-76.4	21.3	-25.7	-49.6	-76.4	21.3	-31.4	-60.4	-93.1	23.7
6:12	-25.7	-49.6	-76.5	20.2	-25.7	-49.6	-76.5	20.2	-31.5	-60.5	-93.1	22.6
7:12	-28.7	-34.7	-34.7	30.2	-28.7	-34.7	-34.7	30.2	-35.1	-42.4	-42.4	36.0
8:12	-28.8	-34.8	-34.8	30.1	-28.8	-34.8	-34.8	30.1	-35.2	-42.4	-42.4	35.8
9:12	-28.8	-34.8	-34.8	29.9	-28.8	-34.8	-34.8	29.9	-35.2	-42.5	-42.5	35.7
10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	26.9	-40.5	-74.0	-115.8	28.1	-46.9	-85.5	-133.7	29.6
2:12	-31.4	-60.4	-93.0	31.0	-36.4	-69.8	-107.4	33.1	-42.1	-80.7	-124.0	35.5
3:12	-31.4	-60.4	-93.0	29.5	-36.4	-69.8	-107.4	31.6	-42.1	-80.7	-124.1	34.0
4:12	-31.4	-60.4	-93.0	24.7	-36.4	-69.8	-107.5	26.8	-42.2	-80.7	-124.1	29.2
5:12	-31.4	-60.4	-93.1	23.7	-36.4	-69.9	-107.5	25.7	-42.2	-80.7	-124.1	28.1
6:12	-31.5	-60.5	-93.1	22.6	-36.5	-69.9	-107.5	24.7	-42.2	-80.8	-124.2	27.5
7:12	-35.1	-42.4	-42.4	36.0	-40.7	-49.0	-49.0	40.9	-47.1	-56.7	-56.7	46.7
8:12	-35.2	-42.4	-42.4	35.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	28.6	-48.2	-87.8	-137.2	29.9	-54.6	-99.3	-155.2	31.3
2:12	-38.3	-73.4	-112.9	33.9	-43.3	-82.8	-127.4	35.9	-49.0	-93.7	-144.0	38.3
3:12	-38.3	-73.4	-113.0	32.4	-43.3	-82.9	-127.4	34.4	-49.0	-93.7	-144.0	36.8
4:12	-38.3	-73.5	-113.0	26.9	-43.3	-82.9	-127.4	28.9	-49.1	-93.8	-144.0	31.6
5:12	-38.4	-73.5	-113.0	25.9	-43.3	-82.9	-127.4	28.3	-49.1	-93.8	-144.1	31.5
6:12	-38.4	-73.5	-113.1	25.4	-43.4	-83.0	-127.5	28.2	-49.1	-93.8	-144.1	31.4
7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

140 mph

Ground Snow Load

20 psf

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

140 mph

Ground Snow Load

25 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	26.2	-28.6	-52.5	-82.3	26.2	-35.0	-64.0	-100.2	26.9
2:12	-25.6	-49.5	-76.4	28.6	-25.6	-49.5	-76.4	28.6	-31.4	-60.4	-93.0	31.0
3:12	-25.6	-49.5	-76.4	27.1	-25.6	-49.5	-76.4	27.1	-31.4	-60.4	-93.0	29.5
4:12	-25.7	-49.5	-76.4	24.2	-25.7	-49.5	-76.4	24.2	-31.4	-60.4	-93.0	26.6
5:12	-25.7	-49.6	-76.4	22.9	-25.7	-49.6	-76.4	22.9	-31.4	-60.4	-93.1	25.3
6:12	-25.7	-49.6	-76.5	21.7	-25.7	-49.6	-76.5	21.7	-31.5	-60.5	-93.1	24.1
7:12	-28.7	-34.7	-34.7	30.2	-28.7	-34.7	-34.7	30.2	-35.1	-42.4	-42.4	36.0
8:12	-28.8	-34.8	-34.8	30.1	-28.8	-34.8	-34.8	30.1	-35.2	-42.4	-42.4	35.8
9:12	-28.8	-34.8	-34.8	29.9	-28.8	-34.8	-34.8	29.9	-35.2	-42.5	-42.5	35.7
10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	26.9	-40.5	-74.0	-115.8	28.1	-46.9	-85.5	-133.7	29.6
2:12	-31.4	-60.4	-93.0	31.0	-36.4	-69.8	-107.4	33.1	-42.1	-80.7	-124.0	35.5
3:12	-31.4	-60.4	-93.0	29.5	-36.4	-69.8	-107.4	31.6	-42.1	-80.7	-124.1	34.0
4:12	-31.4	-60.4	-93.0	26.6	-36.4	-69.8	-107.5	28.7	-42.2	-80.7	-124.1	31.1
5:12	-31.4	-60.4	-93.1	25.3	-36.4	-69.9	-107.5	27.4	-42.2	-80.7	-124.1	29.8
6:12	-31.5	-60.5	-93.1	24.1	-36.5	-69.9	-107.5	26.1	-42.2	-80.8	-124.2	28.5
7:12	-35.1	-42.4	-42.4	36.0	-40.7	-49.0	-49.0	40.9	-47.1	-56.7	-56.7	46.7
8:12	-35.2	-42.4	-42.4	35.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	28.6	-48.2	-87.8	-137.2	29.9	-54.6	-99.3	-155.2	31.3
2:12	-38.3	-73.4	-112.9	33.9	-43.3	-82.8	-127.4	35.9	-49.0	-93.7	-144.0	38.3
3:12	-38.3	-73.4	-113.0	32.4	-43.3	-82.9	-127.4	34.4	-49.0	-93.7	-144.0	36.8
4:12	-38.3	-73.5	-113.0	28.6	-43.3	-82.9	-127.4	30.6	-49.1	-93.8	-144.0	33.0
5:12	-38.4	-73.5	-113.0	27.4	-43.3	-82.9	-127.4	29.4	-49.1	-93.8	-144.1	31.8
6:12	-38.4	-73.5	-113.1	26.2	-43.4	-83.0	-127.5	28.3	-49.1	-93.8	-144.1	31.4
7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	27.0	-28.6	-52.5	-82.3	27.0	-35.0	-64.0	-100.2	27.6
2:12	-25.6	-49.5	-76.4	29.3	-25.6	-49.5	-76.4	29.3	-31.4	-60.4	-93.0	31.7
3:12	-25.6	-49.5	-76.4	27.7	-25.6	-49.5	-76.4	27.7	-31.4	-60.4	-93.0	30.1
4:12	-25.7	-49.5	-76.4	26.1	-25.7	-49.5	-76.4	26.1	-31.4	-60.4	-93.0	28.5
5:12	-25.7	-49.6	-76.4	24.5	-25.7	-49.6	-76.4	24.5	-31.4	-60.4	-93.1	26.9
6:12	-25.7	-49.6	-76.5	23.1	-25.7	-49.6	-76.5	23.1	-31.5	-60.5	-93.1	25.5
7:12	-28.7	-34.7	-34.7	30.7	-28.7	-34.7	-34.7	30.7	-35.1	-42.4	-42.4	36.0
8:12	-28.8	-34.8	-34.8	30.1	-28.8	-34.8	-34.8	30.1	-35.2	-42.4	-42.4	35.8
9:12	-28.8	-34.8	-34.8	29.9	-28.8	-34.8	-34.8	29.9	-35.2	-42.5	-42.5	35.7
10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	27.6	-40.5	-74.0	-115.8	28.9	-46.9	-85.5	-133.7	30.3
2:12	-31.4	-60.4	-93.0	31.7	-36.4	-69.8	-107.4	33.7	-42.1	-80.7	-124.0	36.1
3:12	-31.4	-60.4	-93.0	30.1	-36.4	-69.8	-107.4	32.2	-42.1	-80.7	-124.1	34.6
4:12	-31.4	-60.4	-93.0	28.5	-36.4	-69.8	-107.5	30.6	-42.2	-80.7	-124.1	33.0
5:12	-31.4	-60.4	-93.1	26.9	-36.4	-69.9	-107.5	29.0	-42.2	-80.7	-124.1	31.4
6:12	-31.5	-60.5	-93.1	25.5	-36.5	-69.9	-107.5	27.5	-42.2	-80.8	-124.2	29.9
7:12	-35.1	-42.4	-42.4	36.0	-40.7	-49.0	-49.0	40.9	-47.1	-56.7	-56.7	46.7
8:12	-35.2	-42.4	-42.4	35.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	28.6	-48.2	-87.8	-137.2	29.9	-54.6	-99.3	-155.2	31.3
2:12	-38.3	-73.4	-112.9	33.9	-43.3	-82.8	-127.4	35.9	-49.0	-93.7	-144.0	38.3
3:12	-38.3	-73.4	-113.0	32.4	-43.3	-82.9	-127.4	34.4	-49.0	-93.7	-144.0	36.8
4:12	-38.3	-73.5	-113.0	30.2	-43.3	-82.9	-127.4	32.3	-49.1	-93.8	-144.0	34.7
5:12	-38.4	-73.5	-113.0	28.8	-43.3	-82.9	-127.4	30.9	-49.1	-93.8	-144.1	33.3
6:12	-38.4	-73.5	-113.1	27.5	-43.4	-83.0	-127.5	29.6	-49.1	-93.8	-144.1	32.0
7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
140 mph

Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-28.6	-52.5	-82.3	29.6	-28.6	-52.5	-82.3	29.6	-35.0	-64.0	-100.2	30.2
2:12	-25.6	-49.5	-76.4	31.6	-25.6	-49.5	-76.4	31.6	-31.4	-60.4	-93.0	34.0
3:12	-25.6	-49.5	-76.4	29.8	-25.6	-49.5	-76.4	29.8	-31.4	-60.4	-93.0	32.2
4:12	-25.7	-49.5	-76.4	28.0	-25.7	-49.5	-76.4	28.0	-31.4	-60.4	-93.0	30.4
5:12	-25.7	-49.6	-76.4	26.2	-25.7	-49.6	-76.4	26.2	-31.4	-60.4	-93.1	28.6
6:12	-25.7	-49.6	-76.5	24.5	-25.7	-49.6	-76.5	24.5	-31.5	-60.5	-93.1	26.9
7:12	-28.7	-34.7	-34.7	31.9	-28.7	-34.7	-34.7	31.9	-35.1	-42.4	-42.4	36.2
8:12	-28.8	-34.8	-34.8	30.5	-28.8	-34.8	-34.8	30.5	-35.2	-42.4	-42.4	35.8
9:12	-28.8	-34.8	-34.8	29.9	-28.8	-34.8	-34.8	29.9	-35.2	-42.5	-42.5	35.7
10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
1:12	-35.0	-64.0	-100.2	30.2	-40.5	-74.0	-115.8	31.5	-46.9	-85.5	-133.7	32.9
2:12	-31.4	-60.4	-93.0	34.0	-36.4	-69.8	-107.4	36.1	-42.1	-80.7	-124.0	38.5
3:12	-31.4	-60.4	-93.0	32.2	-36.4	-69.8	-107.4	34.3	-42.1	-80.7	-124.1	36.7
4:12	-31.4	-60.4	-93.0	30.4	-36.4	-69.8	-107.5	32.4	-42.2	-80.7	-124.1	34.8
5:12	-31.4	-60.4	-93.1	28.6	-36.4	-69.9	-107.5	30.6	-42.2	-80.7	-124.1	33.0
6:12	-31.5	-60.5	-93.1	26.9	-36.5	-69.9	-107.5	28.9	-42.2	-80.8	-124.2	31.3
7:12	-35.1	-42.4	-42.4	36.2	-40.7	-49.0	-49.0	40.9	-47.1	-56.7	-56.7	46.7
8:12	-35.2	-42.4	-42.4	35.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
1:12	-42.6	-77.8	-121.7	30.1	-48.2	-87.8	-137.2	31.4	-54.6	-99.3	-155.2	32.8
2:12	-38.3	-73.4	-112.9	35.3	-43.3	-82.8	-127.4	37.3	-49.0	-93.7	-144.0	39.7
3:12	-38.3	-73.4	-113.0	33.6	-43.3	-82.9	-127.4	35.7	-49.0	-93.7	-144.0	38.1
4:12	-38.3	-73.5	-113.0	31.9	-43.3	-82.9	-127.4	34.0	-49.1	-93.8	-144.0	36.4
5:12	-38.4	-73.5	-113.0	30.3	-43.3	-82.9	-127.4	32.4	-49.1	-93.8	-144.1	34.8
6:12	-38.4	-73.5	-113.1	28.8	-43.4	-83.0	-127.5	30.8	-49.1	-93.8	-144.1	33.2
7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **140 mph**
Ground Snow Load **35 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

140 mph

Ground Snow Load

40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	32.2	-28.6	-52.5	-82.3	32.2	-35.0	-64.0	-100.2	32.8
2:12	-25.6	-49.5	-76.4	34.0	-25.6	-49.5	-76.4	34.0	-31.4	-60.4	-93.0	36.4
3:12	-25.6	-49.5	-76.4	31.9	-25.6	-49.5	-76.4	31.9	-31.4	-60.4	-93.0	34.3
4:12	-25.7	-49.5	-76.4	29.8	-25.7	-49.5	-76.4	29.8	-31.4	-60.4	-93.0	32.2
5:12	-25.7	-49.6	-76.4	27.8	-25.7	-49.6	-76.4	27.8	-31.4	-60.4	-93.1	30.2
6:12	-25.7	-49.6	-76.5	25.9	-25.7	-49.6	-76.5	25.9	-31.5	-60.5	-93.1	28.3
7:12	-28.7	-34.7	-34.7	33.1	-28.7	-34.7	-34.7	33.1	-35.1	-42.4	-42.4	37.4
8:12	-28.8	-34.8	-34.8	31.5	-28.8	-34.8	-34.8	31.5	-35.2	-42.4	-42.4	35.8
9:12	-28.8	-34.8	-34.8	30.1	-28.8	-34.8	-34.8	30.1	-35.2	-42.5	-42.5	35.7
10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	32.8	-40.5	-74.0	-115.8	34.1	-46.9	-85.5	-133.7	35.5
2:12	-31.4	-60.4	-93.0	36.4	-36.4	-69.8	-107.4	38.5	-42.1	-80.7	-124.0	40.9
3:12	-31.4	-60.4	-93.0	34.3	-36.4	-69.8	-107.4	36.4	-42.1	-80.7	-124.1	38.8
4:12	-31.4	-60.4	-93.0	32.2	-36.4	-69.8	-107.5	34.3	-42.2	-80.7	-124.1	36.7
5:12	-31.4	-60.4	-93.1	30.2	-36.4	-69.9	-107.5	32.3	-42.2	-80.7	-124.1	34.7
6:12	-31.5	-60.5	-93.1	28.3	-36.5	-69.9	-107.5	30.3	-42.2	-80.8	-124.2	32.7
7:12	-35.1	-42.4	-42.4	37.4	-40.7	-49.0	-49.0	41.1	-47.1	-56.7	-56.7	46.7
8:12	-35.2	-42.4	-42.4	35.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	32.5	-48.2	-87.8	-137.2	33.7	-54.6	-99.3	-155.2	35.2
2:12	-38.3	-73.4	-112.9	37.4	-43.3	-82.8	-127.4	39.5	-49.0	-93.7	-144.0	41.9
3:12	-38.3	-73.4	-113.0	35.5	-43.3	-82.9	-127.4	37.6	-49.0	-93.7	-144.0	40.0
4:12	-38.3	-73.5	-113.0	33.6	-43.3	-82.9	-127.4	35.7	-49.1	-93.8	-144.0	38.1
5:12	-38.4	-73.5	-113.0	31.8	-43.3	-82.9	-127.4	33.8	-49.1	-93.8	-144.1	36.2
6:12	-38.4	-73.5	-113.1	30.0	-43.4	-83.0	-127.5	32.1	-49.1	-93.8	-144.1	34.5
7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
140 mph

Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	35.1	-28.6	-52.5	-82.3	35.1	-35.0	-64.0	-100.2	35.5
2:12	-25.6	-49.5	-76.4	36.4	-25.6	-49.5	-76.4	36.4	-31.4	-60.4	-93.0	38.8
3:12	-25.6	-49.5	-76.4	34.1	-25.6	-49.5	-76.4	34.1	-31.4	-60.4	-93.0	36.5
4:12	-25.7	-49.5	-76.4	31.7	-25.7	-49.5	-76.4	31.7	-31.4	-60.4	-93.0	34.1
5:12	-25.7	-49.6	-76.4	29.4	-25.7	-49.6	-76.4	29.4	-31.4	-60.4	-93.1	31.8
6:12	-25.7	-49.6	-76.5	27.3	-25.7	-49.6	-76.5	27.3	-31.5	-60.5	-93.1	29.7
7:12	-28.7	-34.7	-34.7	34.3	-28.7	-34.7	-34.7	34.3	-35.1	-42.4	-42.4	38.6
8:12	-28.8	-34.8	-34.8	32.5	-28.8	-34.8	-34.8	32.5	-35.2	-42.4	-42.4	36.8
9:12	-28.8	-34.8	-34.8	30.9	-28.8	-34.8	-34.8	30.9	-35.2	-42.5	-42.5	35.7
10:12	-28.9	-34.8	-34.8	29.8	-28.9	-34.8	-34.8	29.8	-35.3	-42.5	-42.5	35.6
11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	35.5	-40.5	-74.0	-115.8	36.7	-46.9	-85.5	-133.7	38.1
2:12	-31.4	-60.4	-93.0	38.8	-36.4	-69.8	-107.4	40.9	-42.1	-80.7	-124.0	43.3
3:12	-31.4	-60.4	-93.0	36.5	-36.4	-69.8	-107.4	38.6	-42.1	-80.7	-124.1	40.9
4:12	-31.4	-60.4	-93.0	34.1	-36.4	-69.8	-107.5	36.2	-42.2	-80.7	-124.1	38.6
5:12	-31.4	-60.4	-93.1	31.8	-36.4	-69.9	-107.5	33.9	-42.2	-80.7	-124.1	36.3
6:12	-31.5	-60.5	-93.1	29.7	-36.5	-69.9	-107.5	31.7	-42.2	-80.8	-124.2	34.1
7:12	-35.1	-42.4	-42.4	38.6	-40.7	-49.0	-49.0	42.3	-47.1	-56.7	-56.7	46.7
8:12	-35.2	-42.4	-42.4	36.8	-40.7	-49.1	-49.1	40.8	-47.1	-56.8	-56.8	46.6
9:12	-35.2	-42.5	-42.5	35.7	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	34.8	-48.2	-87.8	-137.2	36.1	-54.6	-99.3	-155.2	37.5
2:12	-38.3	-73.4	-112.9	39.5	-43.3	-82.8	-127.4	41.6	-49.0	-93.7	-144.0	44.0
3:12	-38.3	-73.4	-113.0	37.4	-43.3	-82.9	-127.4	39.5	-49.0	-93.7	-144.0	41.9
4:12	-38.3	-73.5	-113.0	35.3	-43.3	-82.9	-127.4	37.4	-49.1	-93.8	-144.0	39.8
5:12	-38.4	-73.5	-113.0	33.2	-43.3	-82.9	-127.4	35.3	-49.1	-93.8	-144.1	37.7
6:12	-38.4	-73.5	-113.1	31.3	-43.4	-83.0	-127.5	33.4	-49.1	-93.8	-144.1	35.8
7:12	-42.8	-51.6	-51.6	42.9	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-28.6	-52.5	-82.3	38.6	-28.6	-52.5	-82.3	38.6	-35.0	-64.0	-100.2	38.6
	2:12	-25.6	-49.5	-76.4	38.8	-25.6	-49.5	-76.4	38.8	-31.4	-60.4	-93.0	41.2
	3:12	-25.6	-49.5	-76.4	36.2	-25.6	-49.5	-76.4	36.2	-31.4	-60.4	-93.0	38.6
	4:12	-25.7	-49.5	-76.4	33.6	-25.7	-49.5	-76.4	33.6	-31.4	-60.4	-93.0	36.0
	5:12	-25.7	-49.6	-76.4	31.1	-25.7	-49.6	-76.4	31.1	-31.4	-60.4	-93.1	33.4
	6:12	-25.7	-49.6	-76.5	28.7	-25.7	-49.6	-76.5	28.7	-31.5	-60.5	-93.1	31.1
	7:12	-28.7	-34.7	-34.7	35.5	-28.7	-34.7	-34.7	35.5	-35.1	-42.4	-42.4	39.8
	8:12	-28.8	-34.8	-34.8	33.5	-28.8	-34.8	-34.8	33.5	-35.2	-42.4	-42.4	37.8
	9:12	-28.8	-34.8	-34.8	31.8	-28.8	-34.8	-34.8	31.8	-35.2	-42.5	-42.5	36.1
	10:12	-28.9	-34.8	-34.8	30.3	-28.9	-34.8	-34.8	30.3	-35.3	-42.5	-42.5	35.6
	11:12	-28.9	-34.9	-34.9	29.7	-28.9	-34.9	-34.9	29.7	-35.3	-42.6	-42.6	35.5
	12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C	1:12	-35.0	-64.0	-100.2	38.6	-40.5	-74.0	-115.8	39.3	-46.9	-85.5	-133.7	40.7
	2:12	-31.4	-60.4	-93.0	41.2	-36.4	-69.8	-107.4	43.3	-42.1	-80.7	-124.0	45.7
	3:12	-31.4	-60.4	-93.0	38.6	-36.4	-69.8	-107.4	40.7	-42.1	-80.7	-124.1	43.1
	4:12	-31.4	-60.4	-93.0	36.0	-36.4	-69.8	-107.5	38.1	-42.2	-80.7	-124.1	40.5
	5:12	-31.4	-60.4	-93.1	33.4	-36.4	-69.9	-107.5	35.5	-42.2	-80.7	-124.1	37.9
	6:12	-31.5	-60.5	-93.1	31.1	-36.5	-69.9	-107.5	33.1	-42.2	-80.8	-124.2	35.5
	7:12	-35.1	-42.4	-42.4	39.8	-40.7	-49.0	-49.0	43.5	-47.1	-56.7	-56.7	47.8
	8:12	-35.2	-42.4	-42.4	37.8	-40.7	-49.1	-49.1	41.6	-47.1	-56.8	-56.8	46.6
	9:12	-35.2	-42.5	-42.5	36.1	-40.8	-49.1	-49.1	40.7	-47.2	-56.8	-56.8	46.5
	10:12	-35.3	-42.5	-42.5	35.6	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
	11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
	12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D	1:12	-42.6	-77.8	-121.7	37.2	-48.2	-87.8	-137.2	38.4	-54.6	-99.3	-155.2	39.9
	2:12	-38.3	-73.4	-112.9	41.7	-43.3	-82.8	-127.4	43.8	-49.0	-93.7	-144.0	46.2
	3:12	-38.3	-73.4	-113.0	39.4	-43.3	-82.9	-127.4	41.4	-49.0	-93.7	-144.0	43.8
	4:12	-38.3	-73.5	-113.0	37.0	-43.3	-82.9	-127.4	39.1	-49.1	-93.8	-144.0	41.5
	5:12	-38.4	-73.5	-113.0	34.7	-43.3	-82.9	-127.4	36.8	-49.1	-93.8	-144.1	39.2
	6:12	-38.4	-73.5	-113.1	32.5	-43.4	-83.0	-127.5	34.6	-49.1	-93.8	-144.1	37.0
	7:12	-42.8	-51.6	-51.6	43.8	-48.4	-58.3	-58.3	47.8	-54.8	-65.9	-65.9	53.6
	8:12	-42.9	-51.6	-51.6	42.7	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
	9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
	10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
	11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
	12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
	2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
	3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
	4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
	5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
	6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
	7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
	8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
	9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
	10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
	11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1	
		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

140 mph

Ground Snow Load

50 psf

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

140 mph

Ground Snow Load

60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	45.5	-28.6	-52.5	-82.3	45.5	-35.0	-64.0	-100.2	45.5
2:12	-25.6	-49.5	-76.4	43.5	-25.6	-49.5	-76.4	43.5	-31.4	-60.4	-93.0	45.9
3:12	-25.6	-49.5	-76.4	40.5	-25.6	-49.5	-76.4	40.5	-31.4	-60.4	-93.0	42.9
4:12	-25.7	-49.5	-76.4	37.3	-25.7	-49.5	-76.4	37.3	-31.4	-60.4	-93.0	39.7
5:12	-25.7	-49.6	-76.4	34.3	-25.7	-49.6	-76.4	34.3	-31.4	-60.4	-93.1	36.7
6:12	-25.7	-49.6	-76.5	31.5	-25.7	-49.6	-76.5	31.5	-31.5	-60.5	-93.1	33.9
7:12	-28.7	-34.7	-34.7	37.8	-28.7	-34.7	-34.7	37.8	-35.1	-42.4	-42.4	42.2
8:12	-28.8	-34.8	-34.8	35.5	-28.8	-34.8	-34.8	35.5	-35.2	-42.4	-42.4	39.9
9:12	-28.8	-34.8	-34.8	33.5	-28.8	-34.8	-34.8	33.5	-35.2	-42.5	-42.5	37.8
10:12	-28.9	-34.8	-34.8	31.7	-28.9	-34.8	-34.8	31.7	-35.3	-42.5	-42.5	36.1
11:12	-28.9	-34.9	-34.9	30.2	-28.9	-34.9	-34.9	30.2	-35.3	-42.6	-42.6	35.5
12:12	-28.9	-34.9	-34.9	29.6	-28.9	-34.9	-34.9	29.6	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	45.5	-40.5	-74.0	-115.8	45.5	-46.9	-85.5	-133.7	46.0
2:12	-31.4	-60.4	-93.0	45.9	-36.4	-69.8	-107.4	48.0	-42.1	-80.7	-124.0	50.4
3:12	-31.4	-60.4	-93.0	42.9	-36.4	-69.8	-107.4	44.9	-42.1	-80.7	-124.1	47.3
4:12	-31.4	-60.4	-93.0	39.7	-36.4	-69.8	-107.5	41.8	-42.2	-80.7	-124.1	44.2
5:12	-31.4	-60.4	-93.1	36.7	-36.4	-69.9	-107.5	38.8	-42.2	-80.7	-124.1	41.2
6:12	-31.5	-60.5	-93.1	33.9	-36.5	-69.9	-107.5	36.0	-42.2	-80.8	-124.2	38.4
7:12	-35.1	-42.4	-42.4	42.2	-40.7	-49.0	-49.0	45.9	-47.1	-56.7	-56.7	50.2
8:12	-35.2	-42.4	-42.4	39.9	-40.7	-49.1	-49.1	43.6	-47.1	-56.8	-56.8	47.9
9:12	-35.2	-42.5	-42.5	37.8	-40.8	-49.1	-49.1	41.6	-47.2	-56.8	-56.8	46.5
10:12	-35.3	-42.5	-42.5	36.1	-40.8	-49.2	-49.2	40.6	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.5	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	41.9	-48.2	-87.8	-137.2	43.1	-54.6	-99.3	-155.2	44.6
2:12	-38.3	-73.4	-112.9	46.0	-43.3	-82.8	-127.4	48.0	-49.0	-93.7	-144.0	50.4
3:12	-38.3	-73.4	-113.0	43.2	-43.3	-82.9	-127.4	45.3	-49.0	-93.7	-144.0	47.7
4:12	-38.3	-73.5	-113.0	40.4	-43.3	-82.9	-127.4	42.4	-49.1	-93.8	-144.0	44.8
5:12	-38.4	-73.5	-113.0	37.6	-43.3	-82.9	-127.4	39.7	-49.1	-93.8	-144.1	42.1
6:12	-38.4	-73.5	-113.1	35.1	-43.4	-83.0	-127.5	37.1	-49.1	-93.8	-144.1	39.5
7:12	-42.8	-51.6	-51.6	45.9	-48.4	-58.3	-58.3	49.7	-54.8	-65.9	-65.9	54.0
8:12	-42.9	-51.6	-51.6	43.8	-48.4	-58.3	-58.3	47.7	-54.8	-66.0	-66.0	53.5
9:12	-42.9	-51.7	-51.7	42.6	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

140 mph

Ground Snow Load

70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	52.5	-28.6	-52.5	-82.3	52.5	-35.0	-64.0	-100.2	52.5
2:12	-25.6	-49.5	-76.4	48.3	-25.6	-49.5	-76.4	48.3	-31.4	-60.4	-93.0	50.7
3:12	-25.6	-49.5	-76.4	44.7	-25.6	-49.5	-76.4	44.7	-31.4	-60.4	-93.0	47.1
4:12	-25.7	-49.5	-76.4	41.1	-25.7	-49.5	-76.4	41.1	-31.4	-60.4	-93.0	43.5
5:12	-25.7	-49.6	-76.4	37.6	-25.7	-49.6	-76.4	37.6	-31.4	-60.4	-93.1	40.0
6:12	-25.7	-49.6	-76.5	34.3	-25.7	-49.6	-76.5	34.3	-31.5	-60.5	-93.1	36.7
7:12	-28.7	-34.7	-34.7	40.2	-28.7	-34.7	-34.7	40.2	-35.1	-42.4	-42.4	44.6
8:12	-28.8	-34.8	-34.8	37.6	-28.8	-34.8	-34.8	37.6	-35.2	-42.4	-42.4	41.9
9:12	-28.8	-34.8	-34.8	35.2	-28.8	-34.8	-34.8	35.2	-35.2	-42.5	-42.5	39.5
10:12	-28.9	-34.8	-34.8	33.2	-28.9	-34.8	-34.8	33.2	-35.3	-42.5	-42.5	37.5
11:12	-28.9	-34.9	-34.9	31.4	-28.9	-34.9	-34.9	31.4	-35.3	-42.6	-42.6	35.8
12:12	-28.9	-34.9	-34.9	29.9	-28.9	-34.9	-34.9	29.9	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	52.5	-40.5	-74.0	-115.8	52.5	-46.9	-85.5	-133.7	52.5
2:12	-31.4	-60.4	-93.0	50.7	-36.4	-69.8	-107.4	52.8	-42.1	-80.7	-124.0	55.2
3:12	-31.4	-60.4	-93.0	47.1	-36.4	-69.8	-107.4	49.2	-42.1	-80.7	-124.1	51.6
4:12	-31.4	-60.4	-93.0	43.5	-36.4	-69.8	-107.5	45.6	-42.2	-80.7	-124.1	48.0
5:12	-31.4	-60.4	-93.1	40.0	-36.4	-69.9	-107.5	42.1	-42.2	-80.7	-124.1	44.4
6:12	-31.5	-60.5	-93.1	36.7	-36.5	-69.9	-107.5	38.8	-42.2	-80.8	-124.2	41.2
7:12	-35.1	-42.4	-42.4	44.6	-40.7	-49.0	-49.0	48.3	-47.1	-56.7	-56.7	52.6
8:12	-35.2	-42.4	-42.4	41.9	-40.7	-49.1	-49.1	45.6	-47.1	-56.8	-56.8	49.9
9:12	-35.2	-42.5	-42.5	39.5	-40.8	-49.1	-49.1	43.3	-47.2	-56.8	-56.8	47.6
10:12	-35.3	-42.5	-42.5	37.5	-40.8	-49.2	-49.2	41.2	-47.2	-56.8	-56.8	46.3
11:12	-35.3	-42.6	-42.6	35.8	-40.8	-49.2	-49.2	40.5	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	47.6	-48.2	-87.8	-137.2	47.8	-54.6	-99.3	-155.2	49.3
2:12	-38.3	-73.4	-112.9	50.2	-43.3	-82.8	-127.4	52.3	-49.0	-93.7	-144.0	54.7
3:12	-38.3	-73.4	-113.0	47.0	-43.3	-82.9	-127.4	49.1	-49.0	-93.7	-144.0	51.5
4:12	-38.3	-73.5	-113.0	43.7	-43.3	-82.9	-127.4	45.8	-49.1	-93.8	-144.0	48.2
5:12	-38.4	-73.5	-113.0	40.6	-43.3	-82.9	-127.4	42.6	-49.1	-93.8	-144.1	45.0
6:12	-38.4	-73.5	-113.1	37.6	-43.4	-83.0	-127.5	39.7	-49.1	-93.8	-144.1	42.1
7:12	-42.8	-51.6	-51.6	48.1	-48.4	-58.3	-58.3	51.8	-54.8	-65.9	-65.9	56.1
8:12	-42.9	-51.6	-51.6	45.6	-48.4	-58.3	-58.3	49.4	-54.8	-66.0	-66.0	53.7
9:12	-42.9	-51.7	-51.7	43.5	-48.4	-58.3	-58.3	47.6	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	42.5	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	59.4	-28.6	-52.5	-82.3	59.4	-35.0	-64.0	-100.2	59.4
2:12	-25.6	-49.5	-76.4	54.5	-25.6	-49.5	-76.4	54.5	-31.4	-60.4	-93.0	55.4
3:12	-25.6	-49.5	-76.4	49.1	-25.6	-49.5	-76.4	49.1	-31.4	-60.4	-93.0	51.4
4:12	-25.7	-49.5	-76.4	44.8	-25.7	-49.5	-76.4	44.8	-31.4	-60.4	-93.0	47.2
5:12	-25.7	-49.6	-76.4	40.8	-25.7	-49.6	-76.4	40.8	-31.4	-60.4	-93.1	43.2
6:12	-25.7	-49.6	-76.5	37.1	-25.7	-49.6	-76.5	37.1	-31.5	-60.5	-93.1	39.5
7:12	-28.7	-34.7	-34.7	42.6	-28.7	-34.7	-34.7	42.6	-35.1	-42.4	-42.4	47.0
8:12	-28.8	-34.8	-34.8	39.6	-28.8	-34.8	-34.8	39.6	-35.2	-42.4	-42.4	43.9
9:12	-28.8	-34.8	-34.8	36.9	-28.8	-34.8	-34.8	36.9	-35.2	-42.5	-42.5	41.2
10:12	-28.9	-34.8	-34.8	34.6	-28.9	-34.8	-34.8	34.6	-35.3	-42.5	-42.5	38.9
11:12	-28.9	-34.9	-34.9	32.6	-28.9	-34.9	-34.9	32.6	-35.3	-42.6	-42.6	37.0
12:12	-28.9	-34.9	-34.9	30.9	-28.9	-34.9	-34.9	30.9	-35.3	-42.6	-42.6	35.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	59.4	-40.5	-74.0	-115.8	59.4	-46.9	-85.5	-133.7	59.4
2:12	-31.4	-60.4	-93.0	55.4	-36.4	-69.8	-107.4	57.5	-42.1	-80.7	-124.0	59.9
3:12	-31.4	-60.4	-93.0	51.4	-36.4	-69.8	-107.4	53.4	-42.1	-80.7	-124.1	55.8
4:12	-31.4	-60.4	-93.0	47.2	-36.4	-69.8	-107.5	49.3	-42.2	-80.7	-124.1	51.7
5:12	-31.4	-60.4	-93.1	43.2	-36.4	-69.9	-107.5	45.3	-42.2	-80.7	-124.1	47.7
6:12	-31.5	-60.5	-93.1	39.5	-36.5	-69.9	-107.5	41.6	-42.2	-80.8	-124.2	44.0
7:12	-35.1	-42.4	-42.4	47.0	-40.7	-49.0	-49.0	50.7	-47.1	-56.7	-56.7	55.0
8:12	-35.2	-42.4	-42.4	43.9	-40.7	-49.1	-49.1	47.7	-47.1	-56.8	-56.8	52.0
9:12	-35.2	-42.5	-42.5	41.2	-40.8	-49.1	-49.1	45.0	-47.2	-56.8	-56.8	49.3
10:12	-35.3	-42.5	-42.5	38.9	-40.8	-49.2	-49.2	42.7	-47.2	-56.8	-56.8	47.0
11:12	-35.3	-42.6	-42.6	37.0	-40.8	-49.2	-49.2	40.7	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	35.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	53.9	-48.2	-87.8	-137.2	53.9	-54.6	-99.3	-155.2	53.9
2:12	-38.3	-73.4	-112.9	54.5	-43.3	-82.8	-127.4	56.6	-49.0	-93.7	-144.0	59.0
3:12	-38.3	-73.4	-113.0	50.8	-43.3	-82.9	-127.4	52.9	-49.0	-93.7	-144.0	55.3
4:12	-38.3	-73.5	-113.0	47.1	-43.3	-82.9	-127.4	49.2	-49.1	-93.8	-144.0	51.6
5:12	-38.4	-73.5	-113.0	43.5	-43.3	-82.9	-127.4	45.6	-49.1	-93.8	-144.1	48.0
6:12	-38.4	-73.5	-113.1	40.1	-43.4	-83.0	-127.5	42.2	-49.1	-93.8	-144.1	44.6
7:12	-42.8	-51.6	-51.6	50.2	-48.4	-58.3	-58.3	54.0	-54.8	-65.9	-65.9	58.3
8:12	-42.9	-51.6	-51.6	47.5	-48.4	-58.3	-58.3	51.2	-54.8	-66.0	-66.0	55.5
9:12	-42.9	-51.7	-51.7	45.1	-48.4	-58.3	-58.3	48.8	-54.8	-66.0	-66.0	53.4
10:12	-42.9	-51.7	-51.7	43.0	-48.5	-58.4	-58.4	47.5	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

140 mph

Ground Snow Load

80 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	66.4	-28.6	-52.5	-82.3	66.4	-35.0	-64.0	-100.2	66.4
2:12	-25.6	-49.5	-76.4	60.9	-25.6	-49.5	-76.4	60.9	-31.4	-60.4	-93.0	60.9
3:12	-25.6	-49.5	-76.4	54.8	-25.6	-49.5	-76.4	54.8	-31.4	-60.4	-93.0	55.6
4:12	-25.7	-49.5	-76.4	48.6	-25.7	-49.5	-76.4	48.6	-31.4	-60.4	-93.0	51.0
5:12	-25.7	-49.6	-76.4	44.1	-25.7	-49.6	-76.4	44.1	-31.4	-60.4	-93.1	46.5
6:12	-25.7	-49.6	-76.5	39.9	-25.7	-49.6	-76.5	39.9	-31.5	-60.5	-93.1	42.3
7:12	-28.7	-34.7	-34.7	45.0	-28.7	-34.7	-34.7	45.0	-35.1	-42.4	-42.4	49.3
8:12	-28.8	-34.8	-34.8	41.6	-28.8	-34.8	-34.8	41.6	-35.2	-42.4	-42.4	45.9
9:12	-28.8	-34.8	-34.8	38.6	-28.8	-34.8	-34.8	38.6	-35.2	-42.5	-42.5	43.0
10:12	-28.9	-34.8	-34.8	36.1	-28.9	-34.8	-34.8	36.1	-35.3	-42.5	-42.5	40.4
11:12	-28.9	-34.9	-34.9	33.8	-28.9	-34.9	-34.9	33.8	-35.3	-42.6	-42.6	38.2
12:12	-28.9	-34.9	-34.9	32.0	-28.9	-34.9	-34.9	32.0	-35.3	-42.6	-42.6	36.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	66.4	-40.5	-74.0	-115.8	66.4	-46.9	-85.5	-133.7	66.4
2:12	-31.4	-60.4	-93.0	60.9	-36.4	-69.8	-107.4	62.3	-42.1	-80.7	-124.0	64.7
3:12	-31.4	-60.4	-93.0	55.6	-36.4	-69.8	-107.4	57.7	-42.1	-80.7	-124.1	60.1
4:12	-31.4	-60.4	-93.0	51.0	-36.4	-69.8	-107.5	53.1	-42.2	-80.7	-124.1	55.5
5:12	-31.4	-60.4	-93.1	46.5	-36.4	-69.9	-107.5	48.6	-42.2	-80.7	-124.1	51.0
6:12	-31.5	-60.5	-93.1	42.3	-36.5	-69.9	-107.5	44.4	-42.2	-80.8	-124.2	46.8
7:12	-35.1	-42.4	-42.4	49.3	-40.7	-49.0	-49.0	53.1	-47.1	-56.7	-56.7	57.4
8:12	-35.2	-42.4	-42.4	45.9	-40.7	-49.1	-49.1	49.7	-47.1	-56.8	-56.8	54.0
9:12	-35.2	-42.5	-42.5	43.0	-40.8	-49.1	-49.1	46.7	-47.2	-56.8	-56.8	51.0
10:12	-35.3	-42.5	-42.5	40.4	-40.8	-49.2	-49.2	44.1	-47.2	-56.8	-56.8	48.4
11:12	-35.3	-42.6	-42.6	38.2	-40.8	-49.2	-49.2	41.9	-47.2	-56.9	-56.9	46.2
12:12	-35.3	-42.6	-42.6	36.3	-40.9	-49.2	-49.2	40.3	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	60.1	-48.2	-87.8	-137.2	60.1	-54.6	-99.3	-155.2	60.1
2:12	-38.3	-73.4	-112.9	58.8	-43.3	-82.8	-127.4	60.9	-49.0	-93.7	-144.0	63.3
3:12	-38.3	-73.4	-113.0	54.7	-43.3	-82.9	-127.4	56.7	-49.0	-93.7	-144.0	59.1
4:12	-38.3	-73.5	-113.0	50.5	-43.3	-82.9	-127.4	52.6	-49.1	-93.8	-144.0	55.0
5:12	-38.4	-73.5	-113.0	46.4	-43.3	-82.9	-127.4	48.5	-49.1	-93.8	-144.1	50.9
6:12	-38.4	-73.5	-113.1	42.6	-43.4	-83.0	-127.5	44.7	-49.1	-93.8	-144.1	47.1
7:12	-42.8	-51.6	-51.6	52.4	-48.4	-58.3	-58.3	56.1	-54.8	-65.9	-65.9	60.4
8:12	-42.9	-51.6	-51.6	49.3	-48.4	-58.3	-58.3	53.0	-54.8	-66.0	-66.0	57.4
9:12	-42.9	-51.7	-51.7	46.6	-48.4	-58.3	-58.3	50.3	-54.8	-66.0	-66.0	54.7
10:12	-42.9	-51.7	-51.7	44.3	-48.5	-58.4	-58.4	48.0	-54.9	-66.1	-66.1	53.2
11:12	-43.0	-51.8	-51.8	42.4	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
140 mph

Ground Snow Load
90 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.6	-52.5	-82.3	73.4	-28.6	-52.5	-82.3	73.4	-35.0	-64.0	-100.2	73.4
2:12	-25.6	-49.5	-76.4	67.2	-25.6	-49.5	-76.4	67.2	-31.4	-60.4	-93.0	67.2
3:12	-25.6	-49.5	-76.4	60.5	-25.6	-49.5	-76.4	60.5	-31.4	-60.4	-93.0	60.5
4:12	-25.7	-49.5	-76.4	53.6	-25.7	-49.5	-76.4	53.6	-31.4	-60.4	-93.0	54.7
5:12	-25.7	-49.6	-76.4	47.4	-25.7	-49.6	-76.4	47.4	-31.4	-60.4	-93.1	49.8
6:12	-25.7	-49.6	-76.5	42.7	-25.7	-49.6	-76.5	42.7	-31.5	-60.5	-93.1	45.1
7:12	-28.7	-34.7	-34.7	47.4	-28.7	-34.7	-34.7	47.4	-35.1	-42.4	-42.4	51.7
8:12	-28.8	-34.8	-34.8	43.7	-28.8	-34.8	-34.8	43.7	-35.2	-42.4	-42.4	48.0
9:12	-28.8	-34.8	-34.8	40.4	-28.8	-34.8	-34.8	40.4	-35.2	-42.5	-42.5	44.7
10:12	-28.9	-34.8	-34.8	37.5	-28.9	-34.8	-34.8	37.5	-35.3	-42.5	-42.5	41.8
11:12	-28.9	-34.9	-34.9	35.1	-28.9	-34.9	-34.9	35.1	-35.3	-42.6	-42.6	39.4
12:12	-28.9	-34.9	-34.9	33.0	-28.9	-34.9	-34.9	33.0	-35.3	-42.6	-42.6	37.3
Exposure Category C												
1:12	-35.0	-64.0	-100.2	73.4	-40.5	-74.0	-115.8	73.4	-46.9	-85.5	-133.7	73.4
2:12	-31.4	-60.4	-93.0	67.2	-36.4	-69.8	-107.4	67.2	-42.1	-80.7	-124.0	69.4
3:12	-31.4	-60.4	-93.0	60.5	-36.4	-69.8	-107.4	61.9	-42.1	-80.7	-124.1	64.3
4:12	-31.4	-60.4	-93.0	54.7	-36.4	-69.8	-107.5	56.8	-42.2	-80.7	-124.1	59.2
5:12	-31.4	-60.4	-93.1	49.8	-36.4	-69.9	-107.5	51.8	-42.2	-80.7	-124.1	54.2
6:12	-31.5	-60.5	-93.1	45.1	-36.5	-69.9	-107.5	47.2	-42.2	-80.8	-124.2	49.6
7:12	-35.1	-42.4	-42.4	51.7	-40.7	-49.0	-49.0	55.5	-47.1	-56.7	-56.7	59.8
8:12	-35.2	-42.4	-42.4	48.0	-40.7	-49.1	-49.1	51.7	-47.1	-56.8	-56.8	56.0
9:12	-35.2	-42.5	-42.5	44.7	-40.8	-49.1	-49.1	48.4	-47.2	-56.8	-56.8	52.7
10:12	-35.3	-42.5	-42.5	41.8	-40.8	-49.2	-49.2	45.6	-47.2	-56.8	-56.8	49.9
11:12	-35.3	-42.6	-42.6	39.4	-40.8	-49.2	-49.2	43.1	-47.2	-56.9	-56.9	47.4
12:12	-35.3	-42.6	-42.6	37.3	-40.9	-49.2	-49.2	41.0	-47.3	-56.9	-56.9	46.1
Exposure Category D												
1:12	-42.6	-77.8	-121.7	66.4	-48.2	-87.8	-137.2	66.4	-54.6	-99.3	-155.2	66.4
2:12	-38.3	-73.4	-112.9	63.1	-43.3	-82.8	-127.4	65.2	-49.0	-93.7	-144.0	67.6
3:12	-38.3	-73.4	-113.0	58.5	-43.3	-82.9	-127.4	60.6	-49.0	-93.7	-144.0	63.0
4:12	-38.3	-73.5	-113.0	53.9	-43.3	-82.9	-127.4	55.9	-49.1	-93.8	-144.0	58.3
5:12	-38.4	-73.5	-113.0	49.4	-43.3	-82.9	-127.4	51.5	-49.1	-93.8	-144.1	53.8
6:12	-38.4	-73.5	-113.1	45.2	-43.4	-83.0	-127.5	47.3	-49.1	-93.8	-144.1	49.7
7:12	-42.8	-51.6	-51.6	54.5	-48.4	-58.3	-58.3	58.3	-54.8	-65.9	-65.9	62.6
8:12	-42.9	-51.6	-51.6	51.1	-48.4	-58.3	-58.3	54.9	-54.8	-66.0	-66.0	59.2
9:12	-42.9	-51.7	-51.7	48.1	-48.4	-58.3	-58.3	51.9	-54.8	-66.0	-66.0	56.2
10:12	-42.9	-51.7	-51.7	45.6	-48.5	-58.4	-58.4	49.3	-54.9	-66.1	-66.1	53.6
11:12	-43.0	-51.8	-51.8	43.3	-48.5	-58.4	-58.4	47.4	-54.9	-66.1	-66.1	53.1
12:12	-43.0	-51.8	-51.8	42.3	-48.6	-58.5	-58.5	47.2	-55.0	-66.1	-66.1	53.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

140 mph

Ground Snow Load

100 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	13.8	-30.7	-56.4	-88.4	13.8	-37.6	-68.7	-107.6	15.5
2:12	-27.6	-53.2	-82.0	19.8	-27.6	-53.2	-82.0	19.8	-33.7	-64.8	-99.8	23.2
3:12	-27.6	-53.2	-82.0	19.7	-27.6	-53.2	-82.0	19.7	-33.8	-64.9	-99.9	23.2
4:12	-27.6	-53.2	-82.0	19.7	-27.6	-53.2	-82.0	19.7	-33.8	-64.9	-99.9	23.1
5:12	-27.6	-53.3	-82.1	19.6	-27.6	-53.3	-82.1	19.6	-33.8	-64.9	-99.9	23.0
6:12	-27.7	-53.3	-82.1	19.5	-27.7	-53.3	-82.1	19.5	-33.9	-65.0	-100.0	22.9
7:12	-30.9	-37.3	-37.3	32.1	-30.9	-37.3	-37.3	32.1	-37.8	-45.6	-45.6	38.3
8:12	-31.0	-37.4	-37.4	32.0	-31.0	-37.4	-37.4	32.0	-37.8	-45.6	-45.6	38.2
9:12	-31.0	-37.4	-37.4	31.9	-31.0	-37.4	-37.4	31.9	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	15.5	-43.6	-79.4	-124.3	17.3	-50.4	-91.8	-143.5	19.3
2:12	-33.7	-64.8	-99.8	23.2	-39.1	-75.0	-115.3	26.2	-45.3	-86.6	-133.1	29.6
3:12	-33.8	-64.9	-99.9	23.2	-39.1	-75.0	-115.3	26.2	-45.3	-86.6	-133.2	29.6
4:12	-33.8	-64.9	-99.9	23.1	-39.1	-75.0	-115.4	26.1	-45.3	-86.7	-133.2	29.5
5:12	-33.8	-64.9	-99.9	23.0	-39.2	-75.0	-115.4	26.0	-45.3	-86.7	-133.2	29.4
6:12	-33.9	-65.0	-100.0	22.9	-39.2	-75.1	-115.4	25.9	-45.4	-86.7	-133.3	29.3
7:12	-37.8	-45.6	-45.6	38.3	-43.7	-52.7	-52.7	43.7	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.2	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	18.0	-51.8	-94.2	-147.3	19.8	-58.7	-106.6	-166.5	21.8
2:12	-41.1	-78.8	-121.3	27.4	-46.5	-89.0	-136.7	30.3	-52.7	-100.6	-154.6	33.8
3:12	-41.2	-78.9	-121.3	27.3	-46.5	-89.0	-136.7	30.3	-52.7	-100.6	-154.6	33.7
4:12	-41.2	-78.9	-121.3	27.2	-46.5	-89.0	-136.8	30.2	-52.7	-100.7	-154.6	33.6
5:12	-41.2	-78.9	-121.3	27.1	-46.6	-89.0	-136.8	30.1	-52.8	-100.7	-154.6	33.5
6:12	-41.3	-79.0	-121.4	27.0	-46.6	-89.1	-136.8	30.0	-52.8	-100.7	-154.7	33.4
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **145 mph**

Ground Snow Load **0 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	15.1	-30.7	-56.4	-88.4	15.1	-37.6	-68.7	-107.6	16.3
2:12	-27.6	-53.2	-82.0	19.8	-27.6	-53.2	-82.0	19.8	-33.7	-64.8	-99.8	23.2
3:12	-27.6	-53.2	-82.0	19.7	-27.6	-53.2	-82.0	19.7	-33.8	-64.9	-99.9	23.2
4:12	-27.6	-53.2	-82.0	19.7	-27.6	-53.2	-82.0	19.7	-33.8	-64.9	-99.9	23.1
5:12	-27.6	-53.3	-82.1	19.6	-27.6	-53.3	-82.1	19.6	-33.8	-64.9	-99.9	23.0
6:12	-27.7	-53.3	-82.1	19.5	-27.7	-53.3	-82.1	19.5	-33.9	-65.0	-100.0	22.9
7:12	-30.9	-37.3	-37.3	32.1	-30.9	-37.3	-37.3	32.1	-37.8	-45.6	-45.6	38.3
8:12	-31.0	-37.4	-37.4	32.0	-31.0	-37.4	-37.4	32.0	-37.8	-45.6	-45.6	38.2
9:12	-31.0	-37.4	-37.4	31.9	-31.0	-37.4	-37.4	31.9	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	16.3	-43.6	-79.4	-124.3	17.6	-50.4	-91.8	-143.5	19.3
2:12	-33.7	-64.8	-99.8	23.2	-39.1	-75.0	-115.3	26.2	-45.3	-86.6	-133.1	29.6
3:12	-33.8	-64.9	-99.9	23.2	-39.1	-75.0	-115.3	26.2	-45.3	-86.6	-133.2	29.6
4:12	-33.8	-64.9	-99.9	23.1	-39.1	-75.0	-115.4	26.1	-45.3	-86.7	-133.2	29.5
5:12	-33.8	-64.9	-99.9	23.0	-39.2	-75.0	-115.4	26.0	-45.3	-86.7	-133.2	29.4
6:12	-33.9	-65.0	-100.0	22.9	-39.2	-75.1	-115.4	25.9	-45.4	-86.7	-133.3	29.3
7:12	-37.8	-45.6	-45.6	38.3	-43.7	-52.7	-52.7	43.7	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.2	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	18.2	-51.8	-94.2	-147.3	19.8	-58.7	-106.6	-166.5	21.8
2:12	-41.1	-78.8	-121.3	27.4	-46.5	-89.0	-136.7	30.3	-52.7	-100.6	-154.6	33.8
3:12	-41.2	-78.9	-121.3	27.3	-46.5	-89.0	-136.7	30.3	-52.7	-100.6	-154.6	33.7
4:12	-41.2	-78.9	-121.3	27.2	-46.5	-89.0	-136.8	30.2	-52.7	-100.7	-154.6	33.6
5:12	-41.2	-78.9	-121.3	27.1	-46.6	-89.0	-136.8	30.1	-52.8	-100.7	-154.6	33.5
6:12	-41.3	-79.0	-121.4	27.0	-46.6	-89.1	-136.8	30.0	-52.8	-100.7	-154.7	33.4
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed

145 mph

Ground Snow Load

5 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	18.8	-30.7	-56.4	-88.4	18.8	-37.6	-68.7	-107.6	20.0
2:12	-27.6	-53.2	-82.0	22.6	-27.6	-53.2	-82.0	22.6	-33.7	-64.8	-99.8	25.2
3:12	-27.6	-53.2	-82.0	21.8	-27.6	-53.2	-82.0	21.8	-33.8	-64.9	-99.9	24.4
4:12	-27.6	-53.2	-82.0	19.7	-27.6	-53.2	-82.0	19.7	-33.8	-64.9	-99.9	23.1
5:12	-27.6	-53.3	-82.1	19.6	-27.6	-53.3	-82.1	19.6	-33.8	-64.9	-99.9	23.0
6:12	-27.7	-53.3	-82.1	19.5	-27.7	-53.3	-82.1	19.5	-33.9	-65.0	-100.0	22.9
7:12	-30.9	-37.3	-37.3	32.1	-30.9	-37.3	-37.3	32.1	-37.8	-45.6	-45.6	38.3
8:12	-31.0	-37.4	-37.4	32.0	-31.0	-37.4	-37.4	32.0	-37.8	-45.6	-45.6	38.2
9:12	-31.0	-37.4	-37.4	31.9	-31.0	-37.4	-37.4	31.9	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	20.0	-43.6	-79.4	-124.3	21.4	-50.4	-91.8	-143.5	22.9
2:12	-33.7	-64.8	-99.8	25.2	-39.1	-75.0	-115.3	27.4	-45.3	-86.6	-133.1	30.0
3:12	-33.8	-64.9	-99.9	24.4	-39.1	-75.0	-115.3	26.6	-45.3	-86.6	-133.2	29.6
4:12	-33.8	-64.9	-99.9	23.1	-39.1	-75.0	-115.4	26.1	-45.3	-86.7	-133.2	29.5
5:12	-33.8	-64.9	-99.9	23.0	-39.2	-75.0	-115.4	26.0	-45.3	-86.7	-133.2	29.4
6:12	-33.9	-65.0	-100.0	22.9	-39.2	-75.1	-115.4	25.9	-45.4	-86.7	-133.3	29.3
7:12	-37.8	-45.6	-45.6	38.3	-43.7	-52.7	-52.7	43.7	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.2	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	21.9	-51.8	-94.2	-147.3	23.2	-58.7	-106.6	-166.5	24.8
2:12	-41.1	-78.8	-121.3	28.3	-46.5	-89.0	-136.7	30.5	-52.7	-100.6	-154.6	33.8
3:12	-41.2	-78.9	-121.3	27.5	-46.5	-89.0	-136.7	30.3	-52.7	-100.6	-154.6	33.7
4:12	-41.2	-78.9	-121.3	27.2	-46.5	-89.0	-136.8	30.2	-52.7	-100.7	-154.6	33.6
5:12	-41.2	-78.9	-121.3	27.1	-46.6	-89.0	-136.8	30.1	-52.8	-100.7	-154.6	33.5
6:12	-41.3	-79.0	-121.4	27.0	-46.6	-89.1	-136.8	30.0	-52.8	-100.7	-154.7	33.4
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

145 mph

Ground Snow Load

10 psf

Up and Down (psf)

Basic Wind Speed **145 mph**
Ground Snow Load **15 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	22.5	-30.7	-56.4	-88.4	22.5	-37.6	-68.7	-107.6	23.8
2:12	-27.6	-53.2	-82.0	26.0	-27.6	-53.2	-82.0	26.0	-33.7	-64.8	-99.8	28.6
3:12	-27.6	-53.2	-82.0	24.9	-27.6	-53.2	-82.0	24.9	-33.8	-64.9	-99.9	27.4
4:12	-27.6	-53.2	-82.0	21.3	-27.6	-53.2	-82.0	21.3	-33.8	-64.9	-99.9	23.9
5:12	-27.6	-53.3	-82.1	20.5	-27.6	-53.3	-82.1	20.5	-33.8	-64.9	-99.9	23.0
6:12	-27.7	-53.3	-82.1	19.7	-27.7	-53.3	-82.1	19.7	-33.9	-65.0	-100.0	22.9
7:12	-30.9	-37.3	-37.3	32.1	-30.9	-37.3	-37.3	32.1	-37.8	-45.6	-45.6	38.3
8:12	-31.0	-37.4	-37.4	32.0	-31.0	-37.4	-37.4	32.0	-37.8	-45.6	-45.6	38.2
9:12	-31.0	-37.4	-37.4	31.9	-31.0	-37.4	-37.4	31.9	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	23.8	-43.6	-79.4	-124.3	25.1	-50.4	-91.8	-143.5	26.6
2:12	-33.7	-64.8	-99.8	28.6	-39.1	-75.0	-115.3	30.8	-45.3	-86.6	-133.1	33.4
3:12	-33.8	-64.9	-99.9	27.4	-39.1	-75.0	-115.3	29.7	-45.3	-86.6	-133.2	32.2
4:12	-33.8	-64.9	-99.9	23.9	-39.1	-75.0	-115.4	26.1	-45.3	-86.7	-133.2	29.5
5:12	-33.8	-64.9	-99.9	23.0	-39.2	-75.0	-115.4	26.0	-45.3	-86.7	-133.2	29.4
6:12	-33.9	-65.0	-100.0	22.9	-39.2	-75.1	-115.4	25.9	-45.4	-86.7	-133.3	29.3
7:12	-37.8	-45.6	-45.6	38.3	-43.7	-52.7	-52.7	43.7	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.2	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	25.6	-51.8	-94.2	-147.3	26.9	-58.7	-106.6	-166.5	28.5
2:12	-41.1	-78.8	-121.3	31.7	-46.5	-89.0	-136.7	33.9	-52.7	-100.6	-154.6	36.5
3:12	-41.2	-78.9	-121.3	30.5	-46.5	-89.0	-136.7	32.8	-52.7	-100.6	-154.6	35.3
4:12	-41.2	-78.9	-121.3	27.2	-46.5	-89.0	-136.8	30.2	-52.7	-100.7	-154.6	33.6
5:12	-41.2	-78.9	-121.3	27.1	-46.6	-89.0	-136.8	30.1	-52.8	-100.7	-154.6	33.5
6:12	-41.3	-79.0	-121.4	27.0	-46.6	-89.1	-136.8	30.0	-52.8	-100.7	-154.7	33.4
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed **145 mph**
Ground Snow Load **20 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-30.7	-56.4	-88.4	26.2	-30.7	-56.4	-88.4	26.2	-37.6	-68.7	-107.6	27.5
2:12	-27.6	-53.2	-82.0	29.4	-27.6	-53.2	-82.0	29.4	-33.7	-64.8	-99.8	32.0
3:12	-27.6	-53.2	-82.0	27.9	-27.6	-53.2	-82.0	27.9	-33.8	-64.9	-99.9	30.5
4:12	-27.6	-53.2	-82.0	23.2	-27.6	-53.2	-82.0	23.2	-33.8	-64.9	-99.9	25.7
5:12	-27.6	-53.3	-82.1	22.1	-27.6	-53.3	-82.1	22.1	-33.8	-64.9	-99.9	24.7
6:12	-27.7	-53.3	-82.1	21.1	-27.7	-53.3	-82.1	21.1	-33.9	-65.0	-100.0	23.6
7:12	-30.9	-37.3	-37.3	32.1	-30.9	-37.3	-37.3	32.1	-37.8	-45.6	-45.6	38.3
8:12	-31.0	-37.4	-37.4	32.0	-31.0	-37.4	-37.4	32.0	-37.8	-45.6	-45.6	38.2
9:12	-31.0	-37.4	-37.4	31.9	-31.0	-37.4	-37.4	31.9	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
1:12	-37.6	-68.7	-107.6	27.5	-43.6	-79.4	-124.3	28.8	-50.4	-91.8	-143.5	30.4
2:12	-33.7	-64.8	-99.8	32.0	-39.1	-75.0	-115.3	34.2	-45.3	-86.6	-133.1	36.8
3:12	-33.8	-64.9	-99.9	30.5	-39.1	-75.0	-115.3	32.7	-45.3	-86.6	-133.2	35.3
4:12	-33.8	-64.9	-99.9	25.7	-39.1	-75.0	-115.4	28.0	-45.3	-86.7	-133.2	30.5
5:12	-33.8	-64.9	-99.9	24.7	-39.2	-75.0	-115.4	26.9	-45.3	-86.7	-133.2	29.5
6:12	-33.9	-65.0	-100.0	23.6	-39.2	-75.1	-115.4	25.9	-45.4	-86.7	-133.3	29.3
7:12	-37.8	-45.6	-45.6	38.3	-43.7	-52.7	-52.7	43.7	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.2	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
1:12	-45.8	-83.5	-130.7	29.3	-51.8	-94.2	-147.3	30.7	-58.7	-106.6	-166.5	32.2
2:12	-41.1	-78.8	-121.3	35.1	-46.5	-89.0	-136.7	37.3	-52.7	-100.6	-154.6	39.9
3:12	-41.2	-78.9	-121.3	33.6	-46.5	-89.0	-136.7	35.8	-52.7	-100.6	-154.6	38.4
4:12	-41.2	-78.9	-121.3	28.1	-46.5	-89.0	-136.8	30.3	-52.7	-100.7	-154.6	33.6
5:12	-41.2	-78.9	-121.3	27.1	-46.6	-89.0	-136.8	30.1	-52.8	-100.7	-154.6	33.5
6:12	-41.3	-79.0	-121.4	27.0	-46.6	-89.1	-136.8	30.0	-52.8	-100.7	-154.7	33.4
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	26.2	-30.7	-56.4	-88.4	26.2	-37.6	-68.7	-107.6	27.5
2:12	-27.6	-53.2	-82.0	29.4	-27.6	-53.2	-82.0	29.4	-33.7	-64.8	-99.8	32.0
3:12	-27.6	-53.2	-82.0	27.9	-27.6	-53.2	-82.0	27.9	-33.8	-64.9	-99.9	30.5
4:12	-27.6	-53.2	-82.0	25.0	-27.6	-53.2	-82.0	25.0	-33.8	-64.9	-99.9	27.6
5:12	-27.6	-53.3	-82.1	23.7	-27.6	-53.3	-82.1	23.7	-33.8	-64.9	-99.9	26.3
6:12	-27.7	-53.3	-82.1	22.5	-27.7	-53.3	-82.1	22.5	-33.9	-65.0	-100.0	25.0
7:12	-30.9	-37.3	-37.3	32.1	-30.9	-37.3	-37.3	32.1	-37.8	-45.6	-45.6	38.3
8:12	-31.0	-37.4	-37.4	32.0	-31.0	-37.4	-37.4	32.0	-37.8	-45.6	-45.6	38.2
9:12	-31.0	-37.4	-37.4	31.9	-31.0	-37.4	-37.4	31.9	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	27.5	-43.6	-79.4	-124.3	28.8	-50.4	-91.8	-143.5	30.4
2:12	-33.7	-64.8	-99.8	32.0	-39.1	-75.0	-115.3	34.2	-45.3	-86.6	-133.1	36.8
3:12	-33.8	-64.9	-99.9	30.5	-39.1	-75.0	-115.3	32.7	-45.3	-86.6	-133.2	35.3
4:12	-33.8	-64.9	-99.9	27.6	-39.1	-75.0	-115.4	29.8	-45.3	-86.7	-133.2	32.4
5:12	-33.8	-64.9	-99.9	26.3	-39.2	-75.0	-115.4	28.5	-45.3	-86.7	-133.2	31.1
6:12	-33.9	-65.0	-100.0	25.0	-39.2	-75.1	-115.4	27.3	-45.4	-86.7	-133.3	29.8
7:12	-37.8	-45.6	-45.6	38.3	-43.7	-52.7	-52.7	43.7	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.2	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	29.3	-51.8	-94.2	-147.3	30.7	-58.7	-106.6	-166.5	32.2
2:12	-41.1	-78.8	-121.3	35.1	-46.5	-89.0	-136.7	37.3	-52.7	-100.6	-154.6	39.9
3:12	-41.2	-78.9	-121.3	33.6	-46.5	-89.0	-136.7	35.8	-52.7	-100.6	-154.6	38.4
4:12	-41.2	-78.9	-121.3	29.8	-46.5	-89.0	-136.8	32.0	-52.7	-100.7	-154.6	34.6
5:12	-41.2	-78.9	-121.3	28.6	-46.6	-89.0	-136.8	30.8	-52.8	-100.7	-154.6	33.5
6:12	-41.3	-79.0	-121.4	27.4	-46.6	-89.1	-136.8	30.0	-52.8	-100.7	-154.7	33.4
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **145 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Basic Wind Speed
145 mph

Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	27.0	-30.7	-56.4	-88.4	27.0	-37.6	-68.7	-107.6	28.2
2:12	-27.6	-53.2	-82.0	30.1	-27.6	-53.2	-82.0	30.1	-33.7	-64.8	-99.8	32.7
3:12	-27.6	-53.2	-82.0	28.5	-27.6	-53.2	-82.0	28.5	-33.8	-64.9	-99.9	31.1
4:12	-27.6	-53.2	-82.0	26.9	-27.6	-53.2	-82.0	26.9	-33.8	-64.9	-99.9	29.5
5:12	-27.6	-53.3	-82.1	25.3	-27.6	-53.3	-82.1	25.3	-33.8	-64.9	-99.9	27.9
6:12	-27.7	-53.3	-82.1	23.9	-27.7	-53.3	-82.1	23.9	-33.9	-65.0	-100.0	26.4
7:12	-30.9	-37.3	-37.3	32.1	-30.9	-37.3	-37.3	32.1	-37.8	-45.6	-45.6	38.3
8:12	-31.0	-37.4	-37.4	32.0	-31.0	-37.4	-37.4	32.0	-37.8	-45.6	-45.6	38.2
9:12	-31.0	-37.4	-37.4	31.9	-31.0	-37.4	-37.4	31.9	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	28.2	-43.6	-79.4	-124.3	29.6	-50.4	-91.8	-143.5	31.1
2:12	-33.7	-64.8	-99.8	32.7	-39.1	-75.0	-115.3	34.9	-45.3	-86.6	-133.1	37.5
3:12	-33.8	-64.9	-99.9	31.1	-39.1	-75.0	-115.3	33.3	-45.3	-86.6	-133.2	35.9
4:12	-33.8	-64.9	-99.9	29.5	-39.1	-75.0	-115.4	31.7	-45.3	-86.7	-133.2	34.3
5:12	-33.8	-64.9	-99.9	27.9	-39.2	-75.0	-115.4	30.1	-45.3	-86.7	-133.2	32.7
6:12	-33.9	-65.0	-100.0	26.4	-39.2	-75.1	-115.4	28.7	-45.4	-86.7	-133.3	31.2
7:12	-37.8	-45.6	-45.6	38.3	-43.7	-52.7	-52.7	43.7	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.2	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	29.3	-51.8	-94.2	-147.3	30.7	-58.7	-106.6	-166.5	32.2
2:12	-41.1	-78.8	-121.3	35.1	-46.5	-89.0	-136.7	37.3	-52.7	-100.6	-154.6	39.9
3:12	-41.2	-78.9	-121.3	33.6	-46.5	-89.0	-136.7	35.8	-52.7	-100.6	-154.6	38.4
4:12	-41.2	-78.9	-121.3	31.4	-46.5	-89.0	-136.8	33.7	-52.7	-100.7	-154.6	36.2
5:12	-41.2	-78.9	-121.3	30.0	-46.6	-89.0	-136.8	32.3	-52.8	-100.7	-154.6	34.8
6:12	-41.3	-79.0	-121.4	28.7	-46.6	-89.1	-136.8	30.9	-52.8	-100.7	-154.7	33.5
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	29.6	-30.7	-56.4	-88.4	29.6	-37.6	-68.7	-107.6	30.8
2:12	-27.6	-53.2	-82.0	32.5	-27.6	-53.2	-82.0	32.5	-33.7	-64.8	-99.8	35.0
3:12	-27.6	-53.2	-82.0	30.6	-27.6	-53.2	-82.0	30.6	-33.8	-64.9	-99.9	33.2
4:12	-27.6	-53.2	-82.0	28.8	-27.6	-53.2	-82.0	28.8	-33.8	-64.9	-99.9	31.4
5:12	-27.6	-53.3	-82.1	27.0	-27.6	-53.3	-82.1	27.0	-33.8	-64.9	-99.9	29.5
6:12	-27.7	-53.3	-82.1	25.3	-27.7	-53.3	-82.1	25.3	-33.9	-65.0	-100.0	27.8
7:12	-30.9	-37.3	-37.3	33.3	-30.9	-37.3	-37.3	33.3	-37.8	-45.6	-45.6	38.3
8:12	-31.0	-37.4	-37.4	32.0	-31.0	-37.4	-37.4	32.0	-37.8	-45.6	-45.6	38.2
9:12	-31.0	-37.4	-37.4	31.9	-31.0	-37.4	-37.4	31.9	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	30.8	-43.6	-79.4	-124.3	32.2	-50.4	-91.8	-143.5	33.7
2:12	-33.7	-64.8	-99.8	35.0	-39.1	-75.0	-115.3	37.3	-45.3	-86.6	-133.1	39.8
3:12	-33.8	-64.9	-99.9	33.2	-39.1	-75.0	-115.3	35.4	-45.3	-86.6	-133.2	38.0
4:12	-33.8	-64.9	-99.9	31.4	-39.1	-75.0	-115.4	33.6	-45.3	-86.7	-133.2	36.2
5:12	-33.8	-64.9	-99.9	29.5	-39.2	-75.0	-115.4	31.8	-45.3	-86.7	-133.2	34.4
6:12	-33.9	-65.0	-100.0	27.8	-39.2	-75.1	-115.4	30.1	-45.4	-86.7	-133.3	32.7
7:12	-37.8	-45.6	-45.6	38.3	-43.7	-52.7	-52.7	43.7	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.2	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	30.9	-51.8	-94.2	-147.3	32.2	-58.7	-106.6	-166.5	33.7
2:12	-41.1	-78.8	-121.3	36.5	-46.5	-89.0	-136.7	38.7	-52.7	-100.6	-154.6	41.3
3:12	-41.2	-78.9	-121.3	34.8	-46.5	-89.0	-136.7	37.0	-52.7	-100.6	-154.6	39.6
4:12	-41.2	-78.9	-121.3	33.1	-46.5	-89.0	-136.8	35.4	-52.7	-100.7	-154.6	37.9
5:12	-41.2	-78.9	-121.3	31.5	-46.6	-89.0	-136.8	33.7	-52.8	-100.7	-154.6	36.3
6:12	-41.3	-79.0	-121.4	30.0	-46.6	-89.1	-136.8	32.2	-52.8	-100.7	-154.7	34.8
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **145 mph**
Ground Snow Load **35 psf**

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	32.2	-30.7	-56.4	-88.4	32.2	-37.6	-68.7	-107.6	33.4
2:12	-27.6	-53.2	-82.0	34.8	-27.6	-53.2	-82.0	34.8	-33.7	-64.8	-99.8	37.4
3:12	-27.6	-53.2	-82.0	32.8	-27.6	-53.2	-82.0	32.8	-33.8	-64.9	-99.9	35.3
4:12	-27.6	-53.2	-82.0	30.7	-27.6	-53.2	-82.0	30.7	-33.8	-64.9	-99.9	33.2
5:12	-27.6	-53.3	-82.1	28.6	-27.6	-53.3	-82.1	28.6	-33.8	-64.9	-99.9	31.2
6:12	-27.7	-53.3	-82.1	26.7	-27.7	-53.3	-82.1	26.7	-33.9	-65.0	-100.0	29.3
7:12	-30.9	-37.3	-37.3	34.5	-30.9	-37.3	-37.3	34.5	-37.8	-45.6	-45.6	39.2
8:12	-31.0	-37.4	-37.4	32.9	-31.0	-37.4	-37.4	32.9	-37.8	-45.6	-45.6	38.2
9:12	-31.0	-37.4	-37.4	31.9	-31.0	-37.4	-37.4	31.9	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	33.4	-43.6	-79.4	-124.3	34.8	-50.4	-91.8	-143.5	36.3
2:12	-33.7	-64.8	-99.8	37.4	-39.1	-75.0	-115.3	39.6	-45.3	-86.6	-133.1	42.2
3:12	-33.8	-64.9	-99.9	35.3	-39.1	-75.0	-115.3	37.6	-45.3	-86.6	-133.2	40.1
4:12	-33.8	-64.9	-99.9	33.2	-39.1	-75.0	-115.4	35.5	-45.3	-86.7	-133.2	38.0
5:12	-33.8	-64.9	-99.9	31.2	-39.2	-75.0	-115.4	33.4	-45.3	-86.7	-133.2	36.0
6:12	-33.9	-65.0	-100.0	29.3	-39.2	-75.1	-115.4	31.5	-45.4	-86.7	-133.3	34.1
7:12	-37.8	-45.6	-45.6	39.2	-43.7	-52.7	-52.7	43.7	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.2	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	33.2	-51.8	-94.2	-147.3	34.5	-58.7	-106.6	-166.5	36.1
2:12	-41.1	-78.8	-121.3	38.6	-46.5	-89.0	-136.7	40.8	-52.7	-100.6	-154.6	43.4
3:12	-41.2	-78.9	-121.3	36.7	-46.5	-89.0	-136.7	38.9	-52.7	-100.6	-154.6	41.5
4:12	-41.2	-78.9	-121.3	34.8	-46.5	-89.0	-136.8	37.0	-52.7	-100.7	-154.6	39.6
5:12	-41.2	-78.9	-121.3	33.0	-46.6	-89.0	-136.8	35.2	-52.8	-100.7	-154.6	37.8
6:12	-41.3	-79.0	-121.4	31.2	-46.6	-89.1	-136.8	33.4	-52.8	-100.7	-154.7	36.0
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7

Basic Wind Speed

145 mph

Ground Snow Load

40 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	Down Slope											
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed **145 mph**
Ground Snow Load **45 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-30.7	-56.4	-88.4	35.1	-30.7	-56.4	-88.4	35.1	-37.6	-68.7	-107.6	36.0
2:12	-27.6	-53.2	-82.0	37.2	-27.6	-53.2	-82.0	37.2	-33.7	-64.8	-99.8	39.8
3:12	-27.6	-53.2	-82.0	34.9	-27.6	-53.2	-82.0	34.9	-33.8	-64.9	-99.9	37.5
4:12	-27.6	-53.2	-82.0	32.5	-27.6	-53.2	-82.0	32.5	-33.8	-64.9	-99.9	35.1
5:12	-27.6	-53.3	-82.1	30.2	-27.6	-53.3	-82.1	30.2	-33.8	-64.9	-99.9	32.8
6:12	-27.7	-53.3	-82.1	28.1	-27.7	-53.3	-82.1	28.1	-33.9	-65.0	-100.0	30.7
7:12	-30.9	-37.3	-37.3	35.7	-30.9	-37.3	-37.3	35.7	-37.8	-45.6	-45.6	40.4
8:12	-31.0	-37.4	-37.4	34.0	-31.0	-37.4	-37.4	34.0	-37.8	-45.6	-45.6	38.6
9:12	-31.0	-37.4	-37.4	32.4	-31.0	-37.4	-37.4	32.4	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
1:12	-37.6	-68.7	-107.6	36.0	-43.6	-79.4	-124.3	37.4	-50.4	-91.8	-143.5	38.9
2:12	-33.7	-64.8	-99.8	39.8	-39.1	-75.0	-115.3	42.0	-45.3	-86.6	-133.1	44.6
3:12	-33.8	-64.9	-99.9	37.5	-39.1	-75.0	-115.3	39.7	-45.3	-86.6	-133.2	42.3
4:12	-33.8	-64.9	-99.9	35.1	-39.1	-75.0	-115.4	37.3	-45.3	-86.7	-133.2	39.9
5:12	-33.8	-64.9	-99.9	32.8	-39.2	-75.0	-115.4	35.0	-45.3	-86.7	-133.2	37.6
6:12	-33.9	-65.0	-100.0	30.7	-39.2	-75.1	-115.4	32.9	-45.4	-86.7	-133.3	35.5
7:12	-37.8	-45.6	-45.6	40.4	-43.7	-52.7	-52.7	44.4	-50.6	-60.9	-60.9	49.9
8:12	-37.8	-45.6	-45.6	38.6	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
1:12	-45.8	-83.5	-130.7	35.6	-51.8	-94.2	-147.3	36.9	-58.7	-106.6	-166.5	38.4
2:12	-41.1	-78.8	-121.3	40.7	-46.5	-89.0	-136.7	43.0	-52.7	-100.6	-154.6	45.5
3:12	-41.2	-78.9	-121.3	38.6	-46.5	-89.0	-136.7	40.9	-52.7	-100.6	-154.6	43.4
4:12	-41.2	-78.9	-121.3	36.5	-46.5	-89.0	-136.8	38.7	-52.7	-100.7	-154.6	41.3
5:12	-41.2	-78.9	-121.3	34.4	-46.6	-89.0	-136.8	36.7	-52.8	-100.7	-154.6	39.2
6:12	-41.3	-79.0	-121.4	32.5	-46.6	-89.1	-136.8	34.7	-52.8	-100.7	-154.7	37.3
7:12	-46.0	-55.4	-55.4	45.7	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

145 mph

Ground Snow Load

50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	38.6	-30.7	-56.4	-88.4	38.6	-37.6	-68.7	-107.6	38.7
2:12	-27.6	-53.2	-82.0	39.6	-27.6	-53.2	-82.0	39.6	-33.7	-64.8	-99.8	42.2
3:12	-27.6	-53.2	-82.0	37.0	-27.6	-53.2	-82.0	37.0	-33.8	-64.9	-99.9	39.6
4:12	-27.6	-53.2	-82.0	34.4	-27.6	-53.2	-82.0	34.4	-33.8	-64.9	-99.9	37.0
5:12	-27.6	-53.3	-82.1	31.9	-27.6	-53.3	-82.1	31.9	-33.8	-64.9	-99.9	34.4
6:12	-27.7	-53.3	-82.1	29.5	-27.7	-53.3	-82.1	29.5	-33.9	-65.0	-100.0	32.1
7:12	-30.9	-37.3	-37.3	36.9	-30.9	-37.3	-37.3	36.9	-37.8	-45.6	-45.6	41.5
8:12	-31.0	-37.4	-37.4	35.0	-31.0	-37.4	-37.4	35.0	-37.8	-45.6	-45.6	39.6
9:12	-31.0	-37.4	-37.4	33.3	-31.0	-37.4	-37.4	33.3	-37.9	-45.6	-45.6	38.1
10:12	-31.0	-37.4	-37.4	31.8	-31.0	-37.4	-37.4	31.8	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	38.7	-43.6	-79.4	-124.3	40.0	-50.4	-91.8	-143.5	41.5
2:12	-33.7	-64.8	-99.8	42.2	-39.1	-75.0	-115.3	44.4	-45.3	-86.6	-133.1	47.0
3:12	-33.8	-64.9	-99.9	39.6	-39.1	-75.0	-115.3	41.8	-45.3	-86.6	-133.2	44.4
4:12	-33.8	-64.9	-99.9	37.0	-39.1	-75.0	-115.4	39.2	-45.3	-86.7	-133.2	41.8
5:12	-33.8	-64.9	-99.9	34.4	-39.2	-75.0	-115.4	36.7	-45.3	-86.7	-133.2	39.2
6:12	-33.9	-65.0	-100.0	32.1	-39.2	-75.1	-115.4	34.3	-45.4	-86.7	-133.3	36.9
7:12	-37.8	-45.6	-45.6	41.5	-43.7	-52.7	-52.7	45.6	-50.6	-60.9	-60.9	50.2
8:12	-37.8	-45.6	-45.6	39.6	-43.8	-52.7	-52.7	43.6	-50.6	-61.0	-61.0	49.7
9:12	-37.9	-45.6	-45.6	38.1	-43.8	-52.8	-52.8	43.4	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	37.9	-51.8	-94.2	-147.3	39.2	-58.7	-106.6	-166.5	40.8
2:12	-41.1	-78.8	-121.3	42.9	-46.5	-89.0	-136.7	45.1	-52.7	-100.6	-154.6	47.7
3:12	-41.2	-78.9	-121.3	40.5	-46.5	-89.0	-136.7	42.8	-52.7	-100.6	-154.6	45.4
4:12	-41.2	-78.9	-121.3	38.2	-46.5	-89.0	-136.8	40.4	-52.7	-100.7	-154.6	43.0
5:12	-41.2	-78.9	-121.3	35.9	-46.6	-89.0	-136.8	38.1	-52.8	-100.7	-154.6	40.7
6:12	-41.3	-79.0	-121.4	33.7	-46.6	-89.1	-136.8	36.0	-52.8	-100.7	-154.7	38.5
7:12	-46.0	-55.4	-55.4	45.9	-52.0	-62.6	-62.6	51.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	45.6	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
145 mph
Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	45.5	-30.7	-56.4	-88.4	45.5	-37.6	-68.7	-107.6	45.5
2:12	-27.6	-53.2	-82.0	44.3	-27.6	-53.2	-82.0	44.3	-33.7	-64.8	-99.8	46.9
3:12	-27.6	-53.2	-82.0	41.3	-27.6	-53.2	-82.0	41.3	-33.8	-64.9	-99.9	43.8
4:12	-27.6	-53.2	-82.0	38.1	-27.6	-53.2	-82.0	38.1	-33.8	-64.9	-99.9	40.7
5:12	-27.6	-53.3	-82.1	35.1	-27.6	-53.3	-82.1	35.1	-33.8	-64.9	-99.9	37.7
6:12	-27.7	-53.3	-82.1	32.3	-27.7	-53.3	-82.1	32.3	-33.9	-65.0	-100.0	34.9
7:12	-30.9	-37.3	-37.3	39.3	-30.9	-37.3	-37.3	39.3	-37.8	-45.6	-45.6	43.9
8:12	-31.0	-37.4	-37.4	37.0	-31.0	-37.4	-37.4	37.0	-37.8	-45.6	-45.6	41.6
9:12	-31.0	-37.4	-37.4	35.0	-31.0	-37.4	-37.4	35.0	-37.9	-45.6	-45.6	39.6
10:12	-31.0	-37.4	-37.4	33.2	-31.0	-37.4	-37.4	33.2	-37.9	-45.7	-45.7	38.0
11:12	-31.1	-37.5	-37.5	31.7	-31.1	-37.5	-37.5	31.7	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	45.5	-43.6	-79.4	-124.3	45.5	-50.4	-91.8	-143.5	46.7
2:12	-33.7	-64.8	-99.8	46.9	-39.1	-75.0	-115.3	49.2	-45.3	-86.6	-133.1	51.7
3:12	-33.8	-64.9	-99.9	43.8	-39.1	-75.0	-115.3	46.1	-45.3	-86.6	-133.2	48.6
4:12	-33.8	-64.9	-99.9	40.7	-39.1	-75.0	-115.4	43.0	-45.3	-86.7	-133.2	45.5
5:12	-33.8	-64.9	-99.9	37.7	-39.2	-75.0	-115.4	39.9	-45.3	-86.7	-133.2	42.5
6:12	-33.9	-65.0	-100.0	34.9	-39.2	-75.1	-115.4	37.1	-45.4	-86.7	-133.3	39.7
7:12	-37.8	-45.6	-45.6	43.9	-43.7	-52.7	-52.7	48.0	-50.6	-60.9	-60.9	52.6
8:12	-37.8	-45.6	-45.6	41.6	-43.8	-52.7	-52.7	45.6	-50.6	-61.0	-61.0	50.3
9:12	-37.9	-45.6	-45.6	39.6	-43.8	-52.8	-52.8	43.6	-50.7	-61.0	-61.0	49.6
10:12	-37.9	-45.7	-45.7	38.0	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	42.6	-51.8	-94.2	-147.3	43.9	-58.7	-106.6	-166.5	45.5
2:12	-41.1	-78.8	-121.3	47.2	-46.5	-89.0	-136.7	49.4	-52.7	-100.6	-154.6	52.0
3:12	-41.2	-78.9	-121.3	44.4	-46.5	-89.0	-136.7	46.6	-52.7	-100.6	-154.6	49.2
4:12	-41.2	-78.9	-121.3	41.6	-46.5	-89.0	-136.8	43.8	-52.7	-100.7	-154.6	46.4
5:12	-41.2	-78.9	-121.3	38.8	-46.6	-89.0	-136.8	41.1	-52.8	-100.7	-154.6	43.6
6:12	-41.3	-79.0	-121.4	36.3	-46.6	-89.1	-136.8	38.5	-52.8	-100.7	-154.7	41.1
7:12	-46.0	-55.4	-55.4	48.1	-52.0	-62.6	-62.6	52.1	-58.8	-70.8	-70.8	57.3
8:12	-46.1	-55.5	-55.5	46.0	-52.0	-62.6	-62.6	51.0	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.5	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W145-S60

Up and Down (psf)

Basic Wind Speed
145 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	52.5	-30.7	-56.4	-88.4	52.5	-37.6	-68.7	-107.6	52.5
2:12	-27.6	-53.2	-82.0	49.1	-27.6	-53.2	-82.0	49.1	-33.7	-64.8	-99.8	51.7
3:12	-27.6	-53.2	-82.0	45.5	-27.6	-53.2	-82.0	45.5	-33.8	-64.9	-99.9	48.1
4:12	-27.6	-53.2	-82.0	41.9	-27.6	-53.2	-82.0	41.9	-33.8	-64.9	-99.9	44.5
5:12	-27.6	-53.3	-82.1	38.4	-27.6	-53.3	-82.1	38.4	-33.8	-64.9	-99.9	41.0
6:12	-27.7	-53.3	-82.1	35.1	-27.7	-53.3	-82.1	35.1	-33.9	-65.0	-100.0	37.7
7:12	-30.9	-37.3	-37.3	41.7	-30.9	-37.3	-37.3	41.7	-37.8	-45.6	-45.6	46.3
8:12	-31.0	-37.4	-37.4	39.0	-31.0	-37.4	-37.4	39.0	-37.8	-45.6	-45.6	43.7
9:12	-31.0	-37.4	-37.4	36.7	-31.0	-37.4	-37.4	36.7	-37.9	-45.6	-45.6	41.3
10:12	-31.0	-37.4	-37.4	34.6	-31.0	-37.4	-37.4	34.6	-37.9	-45.7	-45.7	39.3
11:12	-31.1	-37.5	-37.5	32.9	-31.1	-37.5	-37.5	32.9	-37.9	-45.7	-45.7	37.8
12:12	-31.1	-37.5	-37.5	31.5	-31.1	-37.5	-37.5	31.5	-38.0	-45.8	-45.8	37.7
Exposure Category C												
1:12	-37.6	-68.7	-107.6	52.5	-43.6	-79.4	-124.3	52.5	-50.4	-91.8	-143.5	52.5
2:12	-33.7	-64.8	-99.8	51.7	-39.1	-75.0	-115.3	53.9	-45.3	-86.6	-133.1	56.5
3:12	-33.8	-64.9	-99.9	48.1	-39.1	-75.0	-115.3	50.3	-45.3	-86.6	-133.2	52.9
4:12	-33.8	-64.9	-99.9	44.5	-39.1	-75.0	-115.4	46.7	-45.3	-86.7	-133.2	49.3
5:12	-33.8	-64.9	-99.9	41.0	-39.2	-75.0	-115.4	43.2	-45.3	-86.7	-133.2	45.8
6:12	-33.9	-65.0	-100.0	37.7	-39.2	-75.1	-115.4	39.9	-45.4	-86.7	-133.3	42.5
7:12	-37.8	-45.6	-45.6	46.3	-43.7	-52.7	-52.7	50.4	-50.6	-60.9	-60.9	55.0
8:12	-37.8	-45.6	-45.6	43.7	-43.8	-52.7	-52.7	47.7	-50.6	-61.0	-61.0	52.3
9:12	-37.9	-45.6	-45.6	41.3	-43.8	-52.8	-52.8	45.3	-50.7	-61.0	-61.0	50.0
10:12	-37.9	-45.7	-45.7	39.3	-43.8	-52.8	-52.8	43.3	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	37.8	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	47.6	-51.8	-94.2	-147.3	48.6	-58.7	-106.6	-166.5	50.2
2:12	-41.1	-78.8	-121.3	51.4	-46.5	-89.0	-136.7	53.7	-52.7	-100.6	-154.6	56.2
3:12	-41.2	-78.9	-121.3	48.2	-46.5	-89.0	-136.7	50.4	-52.7	-100.6	-154.6	53.0
4:12	-41.2	-78.9	-121.3	44.9	-46.5	-89.0	-136.8	47.2	-52.7	-100.7	-154.6	49.7
5:12	-41.2	-78.9	-121.3	41.8	-46.6	-89.0	-136.8	44.0	-52.8	-100.7	-154.6	46.6
6:12	-41.3	-79.0	-121.4	38.8	-46.6	-89.1	-136.8	41.0	-52.8	-100.7	-154.7	43.6
7:12	-46.0	-55.4	-55.4	50.2	-52.0	-62.6	-62.6	54.2	-58.8	-70.8	-70.8	58.9
8:12	-46.1	-55.5	-55.5	47.8	-52.0	-62.6	-62.6	51.8	-58.9	-70.9	-70.9	57.1
9:12	-46.1	-55.5	-55.5	45.7	-52.0	-62.7	-62.7	50.8	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-30.7	-56.4	-88.4	59.4	-30.7	-56.4	-88.4	59.4	-37.6	-68.7	-107.6	59.4
2:12	-27.6	-53.2	-82.0	54.5	-27.6	-53.2	-82.0	54.5	-33.7	-64.8	-99.8	56.4
3:12	-27.6	-53.2	-82.0	49.8	-27.6	-53.2	-82.0	49.8	-33.8	-64.9	-99.9	52.3
4:12	-27.6	-53.2	-82.0	45.6	-27.6	-53.2	-82.0	45.6	-33.8	-64.9	-99.9	48.2
5:12	-27.6	-53.3	-82.1	41.6	-27.6	-53.3	-82.1	41.6	-33.8	-64.9	-99.9	44.2
6:12	-27.7	-53.3	-82.1	37.9	-27.7	-53.3	-82.1	37.9	-33.9	-65.0	-100.0	40.5
7:12	-30.9	-37.3	-37.3	44.1	-30.9	-37.3	-37.3	44.1	-37.8	-45.6	-45.6	48.7
8:12	-31.0	-37.4	-37.4	41.1	-31.0	-37.4	-37.4	41.1	-37.8	-45.6	-45.6	45.7
9:12	-31.0	-37.4	-37.4	38.4	-31.0	-37.4	-37.4	38.4	-37.9	-45.6	-45.6	43.0
10:12	-31.0	-37.4	-37.4	36.1	-31.0	-37.4	-37.4	36.1	-37.9	-45.7	-45.7	40.7
11:12	-31.1	-37.5	-37.5	34.1	-31.1	-37.5	-37.5	34.1	-37.9	-45.7	-45.7	38.7
12:12	-31.1	-37.5	-37.5	32.4	-31.1	-37.5	-37.5	32.4	-38.0	-45.8	-45.8	37.7
1:12	-37.6	-68.7	-107.6	59.4	-43.6	-79.4	-124.3	59.4	-50.4	-91.8	-143.5	59.4
2:12	-33.7	-64.8	-99.8	56.4	-39.1	-75.0	-115.3	58.7	-45.3	-86.6	-133.1	61.2
3:12	-33.8	-64.9	-99.9	52.3	-39.1	-75.0	-115.3	54.6	-45.3	-86.6	-133.2	57.2
4:12	-33.8	-64.9	-99.9	48.2	-39.1	-75.0	-115.4	50.5	-45.3	-86.7	-133.2	53.0
5:12	-33.8	-64.9	-99.9	44.2	-39.2	-75.0	-115.4	46.5	-45.3	-86.7	-133.2	49.0
6:12	-33.9	-65.0	-100.0	40.5	-39.2	-75.1	-115.4	42.7	-45.4	-86.7	-133.3	45.3
7:12	-37.8	-45.6	-45.6	48.7	-43.7	-52.7	-52.7	52.7	-50.6	-60.9	-60.9	57.4
8:12	-37.8	-45.6	-45.6	45.7	-43.8	-52.7	-52.7	49.7	-50.6	-61.0	-61.0	54.3
9:12	-37.9	-45.6	-45.6	43.0	-43.8	-52.8	-52.8	47.0	-50.7	-61.0	-61.0	51.7
10:12	-37.9	-45.7	-45.7	40.7	-43.8	-52.8	-52.8	44.7	-50.7	-61.1	-61.1	49.5
11:12	-37.9	-45.7	-45.7	38.7	-43.9	-52.9	-52.9	43.2	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	37.7	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
1:12	-45.8	-83.5	-130.7	53.9	-51.8	-94.2	-147.3	53.9	-58.7	-106.6	-166.5	54.9
2:12	-41.1	-78.8	-121.3	55.7	-46.5	-89.0	-136.7	58.0	-52.7	-100.6	-154.6	60.5
3:12	-41.2	-78.9	-121.3	52.0	-46.5	-89.0	-136.7	54.3	-52.7	-100.6	-154.6	56.8
4:12	-41.2	-78.9	-121.3	48.3	-46.5	-89.0	-136.8	50.5	-52.7	-100.7	-154.6	53.1
5:12	-41.2	-78.9	-121.3	44.7	-46.6	-89.0	-136.8	46.9	-52.8	-100.7	-154.6	49.5
6:12	-41.3	-79.0	-121.4	41.3	-46.6	-89.1	-136.8	43.5	-52.8	-100.7	-154.7	46.1
7:12	-46.0	-55.4	-55.4	52.4	-52.0	-62.6	-62.6	56.4	-58.8	-70.8	-70.8	61.0
8:12	-46.1	-55.5	-55.5	49.6	-52.0	-62.6	-62.6	53.6	-58.9	-70.9	-70.9	58.3
9:12	-46.1	-55.5	-55.5	47.2	-52.0	-62.7	-62.7	51.2	-58.9	-70.9	-70.9	57.0
10:12	-46.1	-55.6	-55.6	45.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

145 mph

Ground Snow Load

80 psf

Up and Down (psf)

Basic Wind Speed
145 mph
Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-30.7	-56.4	-88.4	66.4	-30.7	-56.4	-88.4	66.4	-37.6	-68.7	-107.6	66.4
2:12	-27.6	-53.2	-82.0	60.9	-27.6	-53.2	-82.0	60.9	-33.7	-64.8	-99.8	61.2
3:12	-27.6	-53.2	-82.0	54.8	-27.6	-53.2	-82.0	54.8	-33.8	-64.9	-99.9	56.6
4:12	-27.6	-53.2	-82.0	49.4	-27.6	-53.2	-82.0	49.4	-33.8	-64.9	-99.9	52.0
5:12	-27.6	-53.3	-82.1	44.9	-27.6	-53.3	-82.1	44.9	-33.8	-64.9	-99.9	47.5
6:12	-27.7	-53.3	-82.1	40.7	-27.7	-53.3	-82.1	40.7	-33.9	-65.0	-100.0	43.3
7:12	-30.9	-37.3	-37.3	46.5	-30.9	-37.3	-37.3	46.5	-37.8	-45.6	-45.6	51.1
8:12	-31.0	-37.4	-37.4	43.1	-31.0	-37.4	-37.4	43.1	-37.8	-45.6	-45.6	47.7
9:12	-31.0	-37.4	-37.4	40.1	-31.0	-37.4	-37.4	40.1	-37.9	-45.6	-45.6	44.7
10:12	-31.0	-37.4	-37.4	37.5	-31.0	-37.4	-37.4	37.5	-37.9	-45.7	-45.7	42.2
11:12	-31.1	-37.5	-37.5	35.3	-31.1	-37.5	-37.5	35.3	-37.9	-45.7	-45.7	39.9
12:12	-31.1	-37.5	-37.5	33.4	-31.1	-37.5	-37.5	33.4	-38.0	-45.8	-45.8	38.1
1:12	-37.6	-68.7	-107.6	66.4	-43.6	-79.4	-124.3	66.4	-50.4	-91.8	-143.5	66.4
2:12	-33.7	-64.8	-99.8	61.2	-39.1	-75.0	-115.3	63.4	-45.3	-86.6	-133.1	66.0
3:12	-33.8	-64.9	-99.9	56.6	-39.1	-75.0	-115.3	58.8	-45.3	-86.6	-133.2	61.4
4:12	-33.8	-64.9	-99.9	52.0	-39.1	-75.0	-115.4	54.2	-45.3	-86.7	-133.2	56.8
5:12	-33.8	-64.9	-99.9	47.5	-39.2	-75.0	-115.4	49.7	-45.3	-86.7	-133.2	52.3
6:12	-33.9	-65.0	-100.0	43.3	-39.2	-75.1	-115.4	45.5	-45.4	-86.7	-133.3	48.1
7:12	-37.8	-45.6	-45.6	51.1	-43.7	-52.7	-52.7	55.1	-50.6	-60.9	-60.9	59.8
8:12	-37.8	-45.6	-45.6	47.7	-43.8	-52.7	-52.7	51.7	-50.6	-61.0	-61.0	56.4
9:12	-37.9	-45.6	-45.6	44.7	-43.8	-52.8	-52.8	48.8	-50.7	-61.0	-61.0	53.4
10:12	-37.9	-45.7	-45.7	42.2	-43.8	-52.8	-52.8	46.2	-50.7	-61.1	-61.1	50.8
11:12	-37.9	-45.7	-45.7	39.9	-43.9	-52.9	-52.9	44.0	-50.8	-61.1	-61.1	49.4
12:12	-38.0	-45.8	-45.8	38.1	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
1:12	-45.8	-83.5	-130.7	60.1	-51.8	-94.2	-147.3	60.1	-58.7	-106.6	-166.5	60.1
2:12	-41.1	-78.8	-121.3	60.0	-46.5	-89.0	-136.7	62.2	-52.7	-100.6	-154.6	64.8
3:12	-41.2	-78.9	-121.3	55.9	-46.5	-89.0	-136.7	58.1	-52.7	-100.6	-154.6	60.7
4:12	-41.2	-78.9	-121.3	51.7	-46.5	-89.0	-136.8	53.9	-52.7	-100.7	-154.6	56.5
5:12	-41.2	-78.9	-121.3	47.6	-46.6	-89.0	-136.8	49.9	-52.8	-100.7	-154.6	52.4
6:12	-41.3	-79.0	-121.4	43.8	-46.6	-89.1	-136.8	46.1	-52.8	-100.7	-154.7	48.6
7:12	-46.0	-55.4	-55.4	54.5	-52.0	-62.6	-62.6	58.5	-58.8	-70.8	-70.8	63.2
8:12	-46.1	-55.5	-55.5	51.5	-52.0	-62.6	-62.6	55.5	-58.9	-70.9	-70.9	60.1
9:12	-46.1	-55.5	-55.5	48.8	-52.0	-62.7	-62.7	52.8	-58.9	-70.9	-70.9	57.4
10:12	-46.1	-55.6	-55.6	46.4	-52.1	-62.7	-62.7	50.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.2	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
145 mph
Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-30.7	-56.4	-88.4	73.4	-30.7	-56.4	-88.4	73.4	-37.6	-68.7	-107.6	73.4
2:12	-27.6	-53.2	-82.0	67.2	-27.6	-53.2	-82.0	67.2	-33.7	-64.8	-99.8	67.2
3:12	-27.6	-53.2	-82.0	60.5	-27.6	-53.2	-82.0	60.5	-33.8	-64.9	-99.9	60.9
4:12	-27.6	-53.2	-82.0	53.6	-27.6	-53.2	-82.0	53.6	-33.8	-64.9	-99.9	55.7
5:12	-27.6	-53.3	-82.1	48.2	-27.6	-53.3	-82.1	48.2	-33.8	-64.9	-99.9	50.7
6:12	-27.7	-53.3	-82.1	43.5	-27.7	-53.3	-82.1	43.5	-33.9	-65.0	-100.0	46.1
7:12	-30.9	-37.3	-37.3	48.9	-30.9	-37.3	-37.3	48.9	-37.8	-45.6	-45.6	53.5
8:12	-31.0	-37.4	-37.4	45.1	-31.0	-37.4	-37.4	45.1	-37.8	-45.6	-45.6	49.8
9:12	-31.0	-37.4	-37.4	41.8	-31.0	-37.4	-37.4	41.8	-37.9	-45.6	-45.6	46.5
10:12	-31.0	-37.4	-37.4	39.0	-31.0	-37.4	-37.4	39.0	-37.9	-45.7	-45.7	43.6
11:12	-31.1	-37.5	-37.5	36.5	-31.1	-37.5	-37.5	36.5	-37.9	-45.7	-45.7	41.2
12:12	-31.1	-37.5	-37.5	34.4	-31.1	-37.5	-37.5	34.4	-38.0	-45.8	-45.8	39.1
Exposure Category C												
1:12	-37.6	-68.7	-107.6	73.4	-43.6	-79.4	-124.3	73.4	-50.4	-91.8	-143.5	73.4
2:12	-33.7	-64.8	-99.8	67.2	-39.1	-75.0	-115.3	68.2	-45.3	-86.6	-133.1	70.8
3:12	-33.8	-64.9	-99.9	60.9	-39.1	-75.0	-115.3	63.1	-45.3	-86.6	-133.2	65.7
4:12	-33.8	-64.9	-99.9	55.7	-39.1	-75.0	-115.4	57.9	-45.3	-86.7	-133.2	60.5
5:12	-33.8	-64.9	-99.9	50.7	-39.2	-75.0	-115.4	53.0	-45.3	-86.7	-133.2	55.5
6:12	-33.9	-65.0	-100.0	46.1	-39.2	-75.1	-115.4	48.3	-45.4	-86.7	-133.3	50.9
7:12	-37.8	-45.6	-45.6	53.5	-43.7	-52.7	-52.7	57.5	-50.6	-60.9	-60.9	62.2
8:12	-37.8	-45.6	-45.6	49.8	-43.8	-52.7	-52.7	53.8	-50.6	-61.0	-61.0	58.4
9:12	-37.9	-45.6	-45.6	46.5	-43.8	-52.8	-52.8	50.5	-50.7	-61.0	-61.0	55.1
10:12	-37.9	-45.7	-45.7	43.6	-43.8	-52.8	-52.8	47.6	-50.7	-61.1	-61.1	52.2
11:12	-37.9	-45.7	-45.7	41.2	-43.9	-52.9	-52.9	45.2	-50.8	-61.1	-61.1	49.8
12:12	-38.0	-45.8	-45.8	39.1	-43.9	-52.9	-52.9	43.1	-50.8	-61.1	-61.1	49.2
Exposure Category D												
1:12	-45.8	-83.5	-130.7	66.4	-51.8	-94.2	-147.3	66.4	-58.7	-106.6	-166.5	66.4
2:12	-41.1	-78.8	-121.3	64.3	-46.5	-89.0	-136.7	66.5	-52.7	-100.6	-154.6	69.1
3:12	-41.2	-78.9	-121.3	59.7	-46.5	-89.0	-136.7	61.9	-52.7	-100.6	-154.6	64.5
4:12	-41.2	-78.9	-121.3	55.1	-46.5	-89.0	-136.8	57.3	-52.7	-100.7	-154.6	59.9
5:12	-41.2	-78.9	-121.3	50.6	-46.6	-89.0	-136.8	52.8	-52.8	-100.7	-154.6	55.4
6:12	-41.3	-79.0	-121.4	46.4	-46.6	-89.1	-136.8	48.6	-52.8	-100.7	-154.7	51.2
7:12	-46.0	-55.4	-55.4	56.7	-52.0	-62.6	-62.6	60.7	-58.8	-70.8	-70.8	65.3
8:12	-46.1	-55.5	-55.5	53.3	-52.0	-62.6	-62.6	57.3	-58.9	-70.9	-70.9	61.9
9:12	-46.1	-55.5	-55.5	50.3	-52.0	-62.7	-62.7	54.3	-58.9	-70.9	-70.9	58.9
10:12	-46.1	-55.6	-55.6	47.7	-52.1	-62.7	-62.7	51.7	-58.9	-70.9	-70.9	56.9
11:12	-46.2	-55.6	-55.6	45.5	-52.1	-62.7	-62.7	50.6	-59.0	-71.0	-71.0	56.8
12:12	-46.2	-55.6	-55.6	45.1	-52.2	-62.8	-62.8	50.5	-59.0	-71.0	-71.0	56.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-33.0	-60.4	-94.7	14.1	-33.0	-60.4	-94.7	14.1	-40.3	-73.6	-115.2	16.3
2:12	-29.6	-57.0	-87.8	20.9	-29.6	-57.0	-87.8	20.9	-36.2	-69.5	-106.9	24.6
3:12	-29.6	-57.0	-87.9	20.9	-29.6	-57.0	-87.9	20.9	-36.2	-69.5	-107.0	24.5
4:12	-29.6	-57.0	-87.9	20.8	-29.6	-57.0	-87.9	20.8	-36.2	-69.5	-107.0	24.5
5:12	-29.7	-57.1	-87.9	20.7	-29.7	-57.1	-87.9	20.7	-36.3	-69.6	-107.0	24.4
6:12	-29.7	-57.1	-88.0	20.6	-29.7	-57.1	-88.0	20.6	-36.3	-69.6	-107.1	24.2
7:12	-33.2	-40.0	-40.0	34.2	-33.2	-40.0	-40.0	34.2	-40.5	-48.8	-48.8	40.8
8:12	-33.2	-40.1	-40.1	34.0	-33.2	-40.1	-40.1	34.0	-40.5	-48.9	-48.9	40.7
9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C												
1:12	-40.3	-73.6	-115.2	16.3	-46.7	-85.1	-133.1	18.2	-54.0	-98.3	-153.6	20.4
2:12	-36.2	-69.5	-106.9	24.6	-41.9	-80.3	-123.5	27.8	-48.5	-92.8	-142.6	31.5
3:12	-36.2	-69.5	-107.0	24.5	-41.9	-80.3	-123.5	27.7	-48.5	-92.8	-142.6	31.4
4:12	-36.2	-69.5	-107.0	24.5	-42.0	-80.3	-123.5	27.6	-48.6	-92.8	-142.6	31.3
5:12	-36.3	-69.6	-107.0	24.4	-42.0	-80.4	-123.6	27.5	-48.6	-92.9	-142.7	31.2
6:12	-36.3	-69.6	-107.1	24.2	-42.0	-80.4	-123.6	27.4	-48.6	-92.9	-142.7	31.1
7:12	-40.5	-48.8	-48.8	40.8	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D												
1:12	-49.1	-89.5	-139.9	19.0	-55.5	-100.9	-157.7	20.9	-62.9	-114.2	-178.3	23.1
2:12	-44.1	-84.5	-129.8	29.0	-49.8	-95.3	-146.4	32.2	-56.5	-107.8	-165.5	35.9
3:12	-44.1	-84.5	-129.9	28.9	-49.9	-95.3	-146.4	32.1	-56.5	-107.8	-165.5	35.8
4:12	-44.2	-84.5	-129.9	28.9	-49.9	-95.3	-146.4	32.0	-56.5	-107.8	-165.5	35.7
5:12	-44.2	-84.5	-129.9	28.8	-49.9	-95.4	-146.5	31.9	-56.5	-107.8	-165.6	35.6
6:12	-44.2	-84.6	-130.0	28.7	-50.0	-95.4	-146.5	31.8	-56.6	-107.9	-165.6	35.5
7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **150 mph**

Ground Snow Load **0 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
150 mph
Ground Snow Load
5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-33.0	-60.4	-94.7	15.3	-33.0	-60.4	-94.7	15.3	-40.3	-73.6	-115.2	16.9
2:12	-29.6	-57.0	-87.8	20.9	-29.6	-57.0	-87.8	20.9	-36.2	-69.5	-106.9	24.6
3:12	-29.6	-57.0	-87.9	20.9	-29.6	-57.0	-87.9	20.9	-36.2	-69.5	-107.0	24.5
4:12	-29.6	-57.0	-87.9	20.8	-29.6	-57.0	-87.9	20.8	-36.2	-69.5	-107.0	24.5
5:12	-29.7	-57.1	-87.9	20.7	-29.7	-57.1	-87.9	20.7	-36.3	-69.6	-107.0	24.4
6:12	-29.7	-57.1	-88.0	20.6	-29.7	-57.1	-88.0	20.6	-36.3	-69.6	-107.1	24.2
7:12	-33.2	-40.0	-40.0	34.2	-33.2	-40.0	-40.0	34.2	-40.5	-48.8	-48.8	40.8
8:12	-33.2	-40.1	-40.1	34.0	-33.2	-40.1	-40.1	34.0	-40.5	-48.9	-48.9	40.7
9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C												
1:12	-40.3	-73.6	-115.2	16.9	-46.7	-85.1	-133.1	18.4	-54.0	-98.3	-153.6	20.4
2:12	-36.2	-69.5	-106.9	24.6	-41.9	-80.3	-123.5	27.8	-48.5	-92.8	-142.6	31.5
3:12	-36.2	-69.5	-107.0	24.5	-41.9	-80.3	-123.5	27.7	-48.5	-92.8	-142.6	31.4
4:12	-36.2	-69.5	-107.0	24.5	-42.0	-80.3	-123.5	27.6	-48.6	-92.8	-142.6	31.3
5:12	-36.3	-69.6	-107.0	24.4	-42.0	-80.4	-123.6	27.5	-48.6	-92.9	-142.7	31.2
6:12	-36.3	-69.6	-107.1	24.2	-42.0	-80.4	-123.6	27.4	-48.6	-92.9	-142.7	31.1
7:12	-40.5	-48.8	-48.8	40.8	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D												
1:12	-49.1	-89.5	-139.9	19.0	-55.5	-100.9	-157.7	20.9	-62.9	-114.2	-178.3	23.1
2:12	-44.1	-84.5	-129.8	29.0	-49.8	-95.3	-146.4	32.2	-56.5	-107.8	-165.5	35.9
3:12	-44.1	-84.5	-129.9	28.9	-49.9	-95.3	-146.4	32.1	-56.5	-107.8	-165.5	35.8
4:12	-44.2	-84.5	-129.9	28.9	-49.9	-95.3	-146.4	32.0	-56.5	-107.8	-165.5	35.7
5:12	-44.2	-84.5	-129.9	28.8	-49.9	-95.4	-146.5	31.9	-56.5	-107.8	-165.6	35.6
6:12	-44.2	-84.6	-130.0	28.7	-50.0	-95.4	-146.5	31.8	-56.6	-107.9	-165.6	35.5
7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-33.0	-60.4	-94.7	19.0	-33.0	-60.4	-94.7	19.0	-40.3	-73.6	-115.2	20.6
2:12	-29.6	-57.0	-87.8	23.4	-29.6	-57.0	-87.8	23.4	-36.2	-69.5	-106.9	26.2
3:12	-29.6	-57.0	-87.9	22.7	-29.6	-57.0	-87.9	22.7	-36.2	-69.5	-107.0	25.4
4:12	-29.6	-57.0	-87.9	20.8	-29.6	-57.0	-87.9	20.8	-36.2	-69.5	-107.0	24.5
5:12	-29.7	-57.1	-87.9	20.7	-29.7	-57.1	-87.9	20.7	-36.3	-69.6	-107.0	24.4
6:12	-29.7	-57.1	-88.0	20.6	-29.7	-57.1	-88.0	20.6	-36.3	-69.6	-107.1	24.2
7:12	-33.2	-40.0	-40.0	34.2	-33.2	-40.0	-40.0	34.2	-40.5	-48.8	-48.8	40.8
8:12	-33.2	-40.1	-40.1	34.0	-33.2	-40.1	-40.1	34.0	-40.5	-48.9	-48.9	40.7
9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
1:12	-40.3	-73.6	-115.2	20.6	-46.7	-85.1	-133.1	22.1	-54.0	-98.3	-153.6	23.7
2:12	-36.2	-69.5	-106.9	26.2	-41.9	-80.3	-123.5	28.6	-48.5	-92.8	-142.6	31.5
3:12	-36.2	-69.5	-107.0	25.4	-41.9	-80.3	-123.5	27.8	-48.5	-92.8	-142.6	31.4
4:12	-36.2	-69.5	-107.0	24.5	-42.0	-80.3	-123.5	27.6	-48.6	-92.8	-142.6	31.3
5:12	-36.3	-69.6	-107.0	24.4	-42.0	-80.4	-123.6	27.5	-48.6	-92.9	-142.7	31.2
6:12	-36.3	-69.6	-107.1	24.2	-42.0	-80.4	-123.6	27.4	-48.6	-92.9	-142.7	31.1
7:12	-40.5	-48.8	-48.8	40.8	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
1:12	-49.1	-89.5	-139.9	22.6	-55.5	-100.9	-157.7	24.1	-62.9	-114.2	-178.3	25.7
2:12	-44.1	-84.5	-129.8	29.5	-49.8	-95.3	-146.4	32.2	-56.5	-107.8	-165.5	35.9
3:12	-44.1	-84.5	-129.9	28.9	-49.9	-95.3	-146.4	32.1	-56.5	-107.8	-165.5	35.8
4:12	-44.2	-84.5	-129.9	28.9	-49.9	-95.3	-146.4	32.0	-56.5	-107.8	-165.5	35.7
5:12	-44.2	-84.5	-129.9	28.8	-49.9	-95.4	-146.5	31.9	-56.5	-107.8	-165.6	35.6
6:12	-44.2	-84.6	-130.0	28.7	-50.0	-95.4	-146.5	31.8	-56.6	-107.9	-165.6	35.5
7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4

Basic Wind Speed
150 mph

Ground Snow Load
10 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-33.0	-60.4	-94.7	22.7	-33.0	-60.4	-94.7	22.7	-40.3	-73.6	-115.2	24.4
	2:12	-29.6	-57.0	-87.8	26.8	-29.6	-57.0	-87.8	26.8	-36.2	-69.5	-106.9	29.6
	3:12	-29.6	-57.0	-87.9	25.7	-29.6	-57.0	-87.9	25.7	-36.2	-69.5	-107.0	28.5
	4:12	-29.6	-57.0	-87.9	22.1	-29.6	-57.0	-87.9	22.1	-36.2	-69.5	-107.0	24.9
	5:12	-29.7	-57.1	-87.9	21.3	-29.7	-57.1	-87.9	21.3	-36.3	-69.6	-107.0	24.4
	6:12	-29.7	-57.1	-88.0	20.6	-29.7	-57.1	-88.0	20.6	-36.3	-69.6	-107.1	24.2
	7:12	-33.2	-40.0	-40.0	34.2	-33.2	-40.0	-40.0	34.2	-40.5	-48.8	-48.8	40.8
	8:12	-33.2	-40.1	-40.1	34.0	-33.2	-40.1	-40.1	34.0	-40.5	-48.9	-48.9	40.7
	9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
	10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
	11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
	12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C	1:12	-40.3	-73.6	-115.2	24.4	-46.7	-85.1	-133.1	25.8	-54.0	-98.3	-153.6	27.5
	2:12	-36.2	-69.5	-106.9	29.6	-41.9	-80.3	-123.5	32.0	-48.5	-92.8	-142.6	34.7
	3:12	-36.2	-69.5	-107.0	28.5	-41.9	-80.3	-123.5	30.8	-48.5	-92.8	-142.6	33.6
	4:12	-36.2	-69.5	-107.0	24.9	-42.0	-80.3	-123.5	27.6	-48.6	-92.8	-142.6	31.3
	5:12	-36.3	-69.6	-107.0	24.4	-42.0	-80.4	-123.6	27.5	-48.6	-92.9	-142.7	31.2
	6:12	-36.3	-69.6	-107.1	24.2	-42.0	-80.4	-123.6	27.4	-48.6	-92.9	-142.7	31.1
	7:12	-40.5	-48.8	-48.8	40.8	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
	8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
	9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
	10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
	11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
	12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D	1:12	-49.1	-89.5	-139.9	26.4	-55.5	-100.9	-157.7	27.8	-62.9	-114.2	-178.3	29.4
	2:12	-44.1	-84.5	-129.8	32.9	-49.8	-95.3	-146.4	35.3	-56.5	-107.8	-165.5	38.0
	3:12	-44.1	-84.5	-129.9	31.8	-49.9	-95.3	-146.4	34.1	-56.5	-107.8	-165.5	36.9
	4:12	-44.2	-84.5	-129.9	28.9	-49.9	-95.3	-146.4	32.0	-56.5	-107.8	-165.5	35.7
	5:12	-44.2	-84.5	-129.9	28.8	-49.9	-95.4	-146.5	31.9	-56.5	-107.8	-165.6	35.6
	6:12	-44.2	-84.6	-130.0	28.7	-50.0	-95.4	-146.5	31.8	-56.6	-107.9	-165.6	35.5
	7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
	8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
	9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
	10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
	11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
	12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
	2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
	4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
	5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
	6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
	7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
	8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
	9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **150 mph**

Ground Snow Load **15 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
150 mph

Ground Snow Load
20 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-33.0	-60.4	-94.7	26.4	-33.0	-60.4	-94.7	26.4	-40.3	-73.6	-115.2	28.1
2:12	-29.6	-57.0	-87.8	30.2	-29.6	-57.0	-87.8	30.2	-36.2	-69.5	-106.9	33.0
3:12	-29.6	-57.0	-87.9	28.7	-29.6	-57.0	-87.9	28.7	-36.2	-69.5	-107.0	31.5
4:12	-29.6	-57.0	-87.9	24.0	-29.6	-57.0	-87.9	24.0	-36.2	-69.5	-107.0	26.8
5:12	-29.7	-57.1	-87.9	22.9	-29.7	-57.1	-87.9	22.9	-36.3	-69.6	-107.0	25.7
6:12	-29.7	-57.1	-88.0	21.9	-29.7	-57.1	-88.0	21.9	-36.3	-69.6	-107.1	24.7
7:12	-33.2	-40.0	-40.0	34.2	-33.2	-40.0	-40.0	34.2	-40.5	-48.8	-48.8	40.8
8:12	-33.2	-40.1	-40.1	34.0	-33.2	-40.1	-40.1	34.0	-40.5	-48.9	-48.9	40.7
9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C												
1:12	-40.3	-73.6	-115.2	28.1	-46.7	-85.1	-133.1	29.5	-54.0	-98.3	-153.6	31.2
2:12	-36.2	-69.5	-106.9	33.0	-41.9	-80.3	-123.5	35.4	-48.5	-92.8	-142.6	38.1
3:12	-36.2	-69.5	-107.0	31.5	-41.9	-80.3	-123.5	33.9	-48.5	-92.8	-142.6	36.6
4:12	-36.2	-69.5	-107.0	26.8	-42.0	-80.3	-123.5	29.1	-48.6	-92.8	-142.6	31.9
5:12	-36.3	-69.6	-107.0	25.7	-42.0	-80.4	-123.6	28.1	-48.6	-92.9	-142.7	31.2
6:12	-36.3	-69.6	-107.1	24.7	-42.0	-80.4	-123.6	27.4	-48.6	-92.9	-142.7	31.1
7:12	-40.5	-48.8	-48.8	40.8	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D												
1:12	-49.1	-89.5	-139.9	30.1	-55.5	-100.9	-157.7	31.5	-62.9	-114.2	-178.3	33.2
2:12	-44.1	-84.5	-129.8	36.3	-49.8	-95.3	-146.4	38.7	-56.5	-107.8	-165.5	41.4
3:12	-44.1	-84.5	-129.9	34.8	-49.9	-95.3	-146.4	37.2	-56.5	-107.8	-165.5	39.9
4:12	-44.2	-84.5	-129.9	29.3	-49.9	-95.3	-146.4	32.0	-56.5	-107.8	-165.5	35.7
5:12	-44.2	-84.5	-129.9	28.8	-49.9	-95.4	-146.5	31.9	-56.5	-107.8	-165.6	35.6
6:12	-44.2	-84.6	-130.0	28.7	-50.0	-95.4	-146.5	31.8	-56.6	-107.9	-165.6	35.5
7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
150 mph

Ground Snow Load
25 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-33.0	-60.4	-94.7	26.4	-33.0	-60.4	-94.7	26.4	-40.3	-73.6	-115.2	28.1
2:12	-29.6	-57.0	-87.8	30.2	-29.6	-57.0	-87.8	30.2	-36.2	-69.5	-106.9	33.0
3:12	-29.6	-57.0	-87.9	28.7	-29.6	-57.0	-87.9	28.7	-36.2	-69.5	-107.0	31.5
4:12	-29.6	-57.0	-87.9	25.9	-29.6	-57.0	-87.9	25.9	-36.2	-69.5	-107.0	28.6
5:12	-29.7	-57.1	-87.9	24.6	-29.7	-57.1	-87.9	24.6	-36.3	-69.6	-107.0	27.3
6:12	-29.7	-57.1	-88.0	23.3	-29.7	-57.1	-88.0	23.3	-36.3	-69.6	-107.1	26.1
7:12	-33.2	-40.0	-40.0	34.2	-33.2	-40.0	-40.0	34.2	-40.5	-48.8	-48.8	40.8
8:12	-33.2	-40.1	-40.1	34.0	-33.2	-40.1	-40.1	34.0	-40.5	-48.9	-48.9	40.7
9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C												
1:12	-40.3	-73.6	-115.2	28.1	-46.7	-85.1	-133.1	29.5	-54.0	-98.3	-153.6	31.2
2:12	-36.2	-69.5	-106.9	33.0	-41.9	-80.3	-123.5	35.4	-48.5	-92.8	-142.6	38.1
3:12	-36.2	-69.5	-107.0	31.5	-41.9	-80.3	-123.5	33.9	-48.5	-92.8	-142.6	36.6
4:12	-36.2	-69.5	-107.0	28.6	-42.0	-80.3	-123.5	31.0	-48.6	-92.8	-142.6	33.8
5:12	-36.3	-69.6	-107.0	27.3	-42.0	-80.4	-123.6	29.7	-48.6	-92.9	-142.7	32.5
6:12	-36.3	-69.6	-107.1	26.1	-42.0	-80.4	-123.6	28.5	-48.6	-92.9	-142.7	31.2
7:12	-40.5	-48.8	-48.8	40.8	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D												
1:12	-49.1	-89.5	-139.9	30.1	-55.5	-100.9	-157.7	31.5	-62.9	-114.2	-178.3	33.2
2:12	-44.1	-84.5	-129.8	36.3	-49.8	-95.3	-146.4	38.7	-56.5	-107.8	-165.5	41.4
3:12	-44.1	-84.5	-129.9	34.8	-49.9	-95.3	-146.4	37.2	-56.5	-107.8	-165.5	39.9
4:12	-44.2	-84.5	-129.9	31.0	-49.9	-95.3	-146.4	33.4	-56.5	-107.8	-165.5	36.1
5:12	-44.2	-84.5	-129.9	29.8	-49.9	-95.4	-146.5	32.2	-56.5	-107.8	-165.6	35.6
6:12	-44.2	-84.6	-130.0	28.7	-50.0	-95.4	-146.5	31.8	-56.6	-107.9	-165.6	35.5
7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
150 mph

Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-33.0	-60.4	-94.7	27.2	-33.0	-60.4	-94.7	27.2	-40.3	-73.6	-115.2	28.8
2:12	-29.6	-57.0	-87.8	30.9	-29.6	-57.0	-87.8	30.9	-36.2	-69.5	-106.9	33.7
3:12	-29.6	-57.0	-87.9	29.3	-29.6	-57.0	-87.9	29.3	-36.2	-69.5	-107.0	32.1
4:12	-29.6	-57.0	-87.9	27.7	-29.6	-57.0	-87.9	27.7	-36.2	-69.5	-107.0	30.5
5:12	-29.7	-57.1	-87.9	26.2	-29.7	-57.1	-87.9	26.2	-36.3	-69.6	-107.0	28.9
6:12	-29.7	-57.1	-88.0	24.7	-29.7	-57.1	-88.0	24.7	-36.3	-69.6	-107.1	27.5
7:12	-33.2	-40.0	-40.0	34.2	-33.2	-40.0	-40.0	34.2	-40.5	-48.8	-48.8	40.8
8:12	-33.2	-40.1	-40.1	34.0	-33.2	-40.1	-40.1	34.0	-40.5	-48.9	-48.9	40.7
9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
1:12	-40.3	-73.6	-115.2	28.8	-46.7	-85.1	-133.1	30.3	-54.0	-98.3	-153.6	31.9
2:12	-36.2	-69.5	-106.9	33.7	-41.9	-80.3	-123.5	36.1	-48.5	-92.8	-142.6	38.8
3:12	-36.2	-69.5	-107.0	32.1	-41.9	-80.3	-123.5	34.5	-48.5	-92.8	-142.6	37.2
4:12	-36.2	-69.5	-107.0	30.5	-42.0	-80.3	-123.5	32.9	-48.6	-92.8	-142.6	35.6
5:12	-36.3	-69.6	-107.0	28.9	-42.0	-80.4	-123.6	31.3	-48.6	-92.9	-142.7	34.1
6:12	-36.3	-69.6	-107.1	27.5	-42.0	-80.4	-123.6	29.9	-48.6	-92.9	-142.7	32.6
7:12	-40.5	-48.8	-48.8	40.8	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
1:12	-49.1	-89.5	-139.9	30.1	-55.5	-100.9	-157.7	31.5	-62.9	-114.2	-178.3	33.2
2:12	-44.1	-84.5	-129.8	36.3	-49.8	-95.3	-146.4	38.7	-56.5	-107.8	-165.5	41.4
3:12	-44.1	-84.5	-129.9	34.8	-49.9	-95.3	-146.4	37.2	-56.5	-107.8	-165.5	39.9
4:12	-44.2	-84.5	-129.9	32.7	-49.9	-95.3	-146.4	35.1	-56.5	-107.8	-165.5	37.8
5:12	-44.2	-84.5	-129.9	31.3	-49.9	-95.4	-146.5	33.7	-56.5	-107.8	-165.6	36.4
6:12	-44.2	-84.6	-130.0	29.9	-50.0	-95.4	-146.5	32.3	-56.6	-107.9	-165.6	35.5
7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
150 mph
Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-33.0	-60.4	-94.7	29.8	-33.0	-60.4	-94.7	29.8	-40.3	-73.6	-115.2	31.4
2:12	-29.6	-57.0	-87.8	33.3	-29.6	-57.0	-87.8	33.3	-36.2	-69.5	-106.9	36.1
3:12	-29.6	-57.0	-87.9	31.5	-29.6	-57.0	-87.9	31.5	-36.2	-69.5	-107.0	34.2
4:12	-29.6	-57.0	-87.9	29.6	-29.6	-57.0	-87.9	29.6	-36.2	-69.5	-107.0	32.4
5:12	-29.7	-57.1	-87.9	27.8	-29.7	-57.1	-87.9	27.8	-36.3	-69.6	-107.0	30.6
6:12	-29.7	-57.1	-88.0	26.1	-29.7	-57.1	-88.0	26.1	-36.3	-69.6	-107.1	28.9
7:12	-33.2	-40.0	-40.0	34.8	-33.2	-40.0	-40.0	34.8	-40.5	-48.8	-48.8	40.8
8:12	-33.2	-40.1	-40.1	34.0	-33.2	-40.1	-40.1	34.0	-40.5	-48.9	-48.9	40.7
9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C												
1:12	-40.3	-73.6	-115.2	31.4	-46.7	-85.1	-133.1	32.9	-54.0	-98.3	-153.6	34.5
2:12	-36.2	-69.5	-106.9	36.1	-41.9	-80.3	-123.5	38.4	-48.5	-92.8	-142.6	41.2
3:12	-36.2	-69.5	-107.0	34.2	-41.9	-80.3	-123.5	36.6	-48.5	-92.8	-142.6	39.4
4:12	-36.2	-69.5	-107.0	32.4	-42.0	-80.3	-123.5	34.8	-48.6	-92.8	-142.6	37.5
5:12	-36.3	-69.6	-107.0	30.6	-42.0	-80.4	-123.6	33.0	-48.6	-92.9	-142.7	35.7
6:12	-36.3	-69.6	-107.1	28.9	-42.0	-80.4	-123.6	31.3	-48.6	-92.9	-142.7	34.0
7:12	-40.5	-48.8	-48.8	40.8	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D												
1:12	-49.1	-89.5	-139.9	31.6	-55.5	-100.9	-157.7	33.0	-62.9	-114.2	-178.3	34.7
2:12	-44.1	-84.5	-129.8	37.7	-49.8	-95.3	-146.4	40.1	-56.5	-107.8	-165.5	42.8
3:12	-44.1	-84.5	-129.9	36.0	-49.9	-95.3	-146.4	38.4	-56.5	-107.8	-165.5	41.2
4:12	-44.2	-84.5	-129.9	34.4	-49.9	-95.3	-146.4	36.8	-56.5	-107.8	-165.5	39.5
5:12	-44.2	-84.5	-129.9	32.7	-49.9	-95.4	-146.5	35.1	-56.5	-107.8	-165.6	37.9
6:12	-44.2	-84.6	-130.0	31.2	-50.0	-95.4	-146.5	33.6	-56.6	-107.9	-165.6	36.3
7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
150 mph

Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-33.0	-60.4	-94.7	32.4	-33.0	-60.4	-94.7	32.4	-40.3	-73.6	-115.2	34.1
2:12	-29.6	-57.0	-87.8	35.7	-29.6	-57.0	-87.8	35.7	-36.2	-69.5	-106.9	38.4
3:12	-29.6	-57.0	-87.9	33.6	-29.6	-57.0	-87.9	33.6	-36.2	-69.5	-107.0	36.4
4:12	-29.6	-57.0	-87.9	31.5	-29.6	-57.0	-87.9	31.5	-36.2	-69.5	-107.0	34.2
5:12	-29.7	-57.1	-87.9	29.4	-29.7	-57.1	-87.9	29.4	-36.3	-69.6	-107.0	32.2
6:12	-29.7	-57.1	-88.0	27.5	-29.7	-57.1	-88.0	27.5	-36.3	-69.6	-107.1	30.3
7:12	-33.2	-40.0	-40.0	36.0	-33.2	-40.0	-40.0	36.0	-40.5	-48.8	-48.8	41.0
8:12	-33.2	-40.1	-40.1	34.5	-33.2	-40.1	-40.1	34.5	-40.5	-48.9	-48.9	40.7
9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C												
1:12	-40.3	-73.6	-115.2	34.1	-46.7	-85.1	-133.1	35.5	-54.0	-98.3	-153.6	37.1
2:12	-36.2	-69.5	-106.9	38.4	-41.9	-80.3	-123.5	40.8	-48.5	-92.8	-142.6	43.6
3:12	-36.2	-69.5	-107.0	36.4	-41.9	-80.3	-123.5	38.7	-48.5	-92.8	-142.6	41.5
4:12	-36.2	-69.5	-107.0	34.2	-42.0	-80.3	-123.5	36.6	-48.6	-92.8	-142.6	39.4
5:12	-36.3	-69.6	-107.0	32.2	-42.0	-80.4	-123.6	34.6	-48.6	-92.9	-142.7	37.3
6:12	-36.3	-69.6	-107.1	30.3	-42.0	-80.4	-123.6	32.7	-48.6	-92.9	-142.7	35.4
7:12	-40.5	-48.8	-48.8	41.0	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D												
1:12	-49.1	-89.5	-139.9	34.0	-55.5	-100.9	-157.7	35.4	-62.9	-114.2	-178.3	37.0
2:12	-44.1	-84.5	-129.8	39.8	-49.8	-95.3	-146.4	42.2	-56.5	-107.8	-165.5	45.0
3:12	-44.1	-84.5	-129.9	38.0	-49.9	-95.3	-146.4	40.3	-56.5	-107.8	-165.5	43.1
4:12	-44.2	-84.5	-129.9	36.1	-49.9	-95.3	-146.4	38.4	-56.5	-107.8	-165.5	41.2
5:12	-44.2	-84.5	-129.9	34.2	-49.9	-95.4	-146.5	36.6	-56.5	-107.8	-165.6	39.3
6:12	-44.2	-84.6	-130.0	32.5	-50.0	-95.4	-146.5	34.8	-56.6	-107.9	-165.6	37.6
7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-33.0	-60.4	-94.7	35.1	-33.0	-60.4	-94.7	35.1	-40.3	-73.6	-115.2	36.7
	2:12	-29.6	-57.0	-87.8	38.1	-29.6	-57.0	-87.8	38.1	-36.2	-69.5	-106.9	40.8
	3:12	-29.6	-57.0	-87.9	35.7	-29.6	-57.0	-87.9	35.7	-36.2	-69.5	-107.0	38.5
	4:12	-29.6	-57.0	-87.9	33.4	-29.6	-57.0	-87.9	33.4	-36.2	-69.5	-107.0	36.1
	5:12	-29.7	-57.1	-87.9	31.1	-29.7	-57.1	-87.9	31.1	-36.3	-69.6	-107.0	33.8
	6:12	-29.7	-57.1	-88.0	28.9	-29.7	-57.1	-88.0	28.9	-36.3	-69.6	-107.1	31.7
	7:12	-33.2	-40.0	-40.0	37.2	-33.2	-40.0	-40.0	37.2	-40.5	-48.8	-48.8	42.2
	8:12	-33.2	-40.1	-40.1	35.5	-33.2	-40.1	-40.1	35.5	-40.5	-48.9	-48.9	40.7
	9:12	-33.2	-40.1	-40.1	33.9	-33.2	-40.1	-40.1	33.9	-40.6	-48.9	-48.9	40.5
	10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
	11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
	12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C	1:12	-40.3	-73.6	-115.2	36.7	-46.7	-85.1	-133.1	38.1	-54.0	-98.3	-153.6	39.7
	2:12	-36.2	-69.5	-106.9	40.8	-41.9	-80.3	-123.5	43.2	-48.5	-92.8	-142.6	46.0
	3:12	-36.2	-69.5	-107.0	38.5	-41.9	-80.3	-123.5	40.9	-48.5	-92.8	-142.6	43.6
	4:12	-36.2	-69.5	-107.0	36.1	-42.0	-80.3	-123.5	38.5	-48.6	-92.8	-142.6	41.3
	5:12	-36.3	-69.6	-107.0	33.8	-42.0	-80.4	-123.6	36.2	-48.6	-92.9	-142.7	39.0
	6:12	-36.3	-69.6	-107.1	31.7	-42.0	-80.4	-123.6	34.1	-48.6	-92.9	-142.7	36.8
	7:12	-40.5	-48.8	-48.8	42.2	-46.9	-56.5	-56.5	46.5	-54.2	-65.3	-65.3	53.1
	8:12	-40.5	-48.9	-48.9	40.7	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
	9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
	10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
	11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
	12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D	1:12	-49.1	-89.5	-139.9	36.3	-55.5	-100.9	-157.7	37.7	-62.9	-114.2	-178.3	39.4
	2:12	-44.1	-84.5	-129.8	42.0	-49.8	-95.3	-146.4	44.4	-56.5	-107.8	-165.5	47.1
	3:12	-44.1	-84.5	-129.9	39.9	-49.9	-95.3	-146.4	42.3	-56.5	-107.8	-165.5	45.0
	4:12	-44.2	-84.5	-129.9	37.7	-49.9	-95.3	-146.4	40.1	-56.5	-107.8	-165.5	42.9
	5:12	-44.2	-84.5	-129.9	35.7	-49.9	-95.4	-146.5	38.1	-56.5	-107.8	-165.6	40.8
	6:12	-44.2	-84.6	-130.0	33.7	-50.0	-95.4	-146.5	36.1	-56.6	-107.9	-165.6	38.9
	7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
	8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
	9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
	10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
	11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
	12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
	3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
	4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
	5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
	6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
	7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
	8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
	9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
	10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
	11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	9.4	9.9	10.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **150 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

		Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
Roof Pitch		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-33.0	-60.4	-94.7	38.6	-33.0	-60.4	-94.7	38.6	-40.3	-73.6	-115.2	39.3
	2:12	-29.6	-57.0	-87.8	40.4	-29.6	-57.0	-87.8	40.4	-36.2	-69.5	-106.9	43.2
	3:12	-29.6	-57.0	-87.9	37.9	-29.6	-57.0	-87.9	37.9	-36.2	-69.5	-107.0	40.6
	4:12	-29.6	-57.0	-87.9	35.2	-29.6	-57.0	-87.9	35.2	-36.2	-69.5	-107.0	38.0
	5:12	-29.7	-57.1	-87.9	32.7	-29.7	-57.1	-87.9	32.7	-36.3	-69.6	-107.0	35.5
	6:12	-29.7	-57.1	-88.0	30.3	-29.7	-57.1	-88.0	30.3	-36.3	-69.6	-107.1	33.1
	7:12	-33.2	-40.0	-40.0	38.4	-33.2	-40.0	-40.0	38.4	-40.5	-48.8	-48.8	43.4
	8:12	-33.2	-40.1	-40.1	36.5	-33.2	-40.1	-40.1	36.5	-40.5	-48.9	-48.9	41.4
	9:12	-33.2	-40.1	-40.1	34.8	-33.2	-40.1	-40.1	34.8	-40.6	-48.9	-48.9	40.5
	10:12	-33.3	-40.1	-40.1	33.8	-33.3	-40.1	-40.1	33.8	-40.6	-49.0	-49.0	40.4
	11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
	12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C	1:12	-40.3	-73.6	-115.2	39.3	-46.7	-85.1	-133.1	40.7	-54.0	-98.3	-153.6	42.4
	2:12	-36.2	-69.5	-106.9	43.2	-41.9	-80.3	-123.5	45.6	-48.5	-92.8	-142.6	48.3
	3:12	-36.2	-69.5	-107.0	40.6	-41.9	-80.3	-123.5	43.0	-48.5	-92.8	-142.6	45.8
	4:12	-36.2	-69.5	-107.0	38.0	-42.0	-80.3	-123.5	40.4	-48.6	-92.8	-142.6	43.1
	5:12	-36.3	-69.6	-107.0	35.5	-42.0	-80.4	-123.6	37.8	-48.6	-92.9	-142.7	40.6
	6:12	-36.3	-69.6	-107.1	33.1	-42.0	-80.4	-123.6	35.5	-48.6	-92.9	-142.7	38.2
	7:12	-40.5	-48.8	-48.8	43.4	-46.9	-56.5	-56.5	47.7	-54.2	-65.3	-65.3	53.1
	8:12	-40.5	-48.9	-48.9	41.4	-46.9	-56.5	-56.5	46.4	-54.3	-65.3	-65.3	53.0
	9:12	-40.6	-48.9	-48.9	40.5	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
	10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
	11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
	12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D	1:12	-49.1	-89.5	-139.9	38.6	-55.5	-100.9	-157.7	40.1	-62.9	-114.2	-178.3	41.7
	2:12	-44.1	-84.5	-129.8	44.1	-49.8	-95.3	-146.4	46.5	-56.5	-107.8	-165.5	49.3
	3:12	-44.1	-84.5	-129.9	41.8	-49.9	-95.3	-146.4	44.2	-56.5	-107.8	-165.5	46.9
	4:12	-44.2	-84.5	-129.9	39.4	-49.9	-95.3	-146.4	41.8	-56.5	-107.8	-165.5	44.6
	5:12	-44.2	-84.5	-129.9	37.1	-49.9	-95.4	-146.5	39.5	-56.5	-107.8	-165.6	42.3
	6:12	-44.2	-84.6	-130.0	35.0	-50.0	-95.4	-146.5	37.4	-56.6	-107.9	-165.6	40.1
	7:12	-49.3	-59.4	-59.4	48.7	-55.7	-67.0	-67.0	54.4	-63.0	-75.9	-75.9	61.0
	8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
	9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
	10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
	11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
	12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
	2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
	3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
	4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
	5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
	6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
	7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
	8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
	9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
	10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
	11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1	
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed

Ground Snow Load

150 mph

50 psf

Up and Down (psf)

Basic Wind Speed
150 mph

Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-33.0	-60.4	-94.7	45.5	-33.0	-60.4	-94.7	45.5	-40.3	-73.6	-115.2	45.5
2:12	-29.6	-57.0	-87.8	45.2	-29.6	-57.0	-87.8	45.2	-36.2	-69.5	-106.9	47.9
3:12	-29.6	-57.0	-87.9	42.1	-29.6	-57.0	-87.9	42.1	-36.2	-69.5	-107.0	44.9
4:12	-29.6	-57.0	-87.9	39.0	-29.6	-57.0	-87.9	39.0	-36.2	-69.5	-107.0	41.7
5:12	-29.7	-57.1	-87.9	36.0	-29.7	-57.1	-87.9	36.0	-36.3	-69.6	-107.0	38.7
6:12	-29.7	-57.1	-88.0	33.1	-29.7	-57.1	-88.0	33.1	-36.3	-69.6	-107.1	35.9
7:12	-33.2	-40.0	-40.0	40.8	-33.2	-40.0	-40.0	40.8	-40.5	-48.8	-48.8	45.8
8:12	-33.2	-40.1	-40.1	38.5	-33.2	-40.1	-40.1	38.5	-40.5	-48.9	-48.9	43.5
9:12	-33.2	-40.1	-40.1	36.5	-33.2	-40.1	-40.1	36.5	-40.6	-48.9	-48.9	41.4
10:12	-33.3	-40.1	-40.1	34.7	-33.3	-40.1	-40.1	34.7	-40.6	-49.0	-49.0	40.4
11:12	-33.3	-40.2	-40.2	33.7	-33.3	-40.2	-40.2	33.7	-40.7	-49.0	-49.0	40.3
12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C												
1:12	-40.3	-73.6	-115.2	45.5	-46.7	-85.1	-133.1	45.9	-54.0	-98.3	-153.6	47.6
2:12	-36.2	-69.5	-106.9	47.9	-41.9	-80.3	-123.5	50.3	-48.5	-92.8	-142.6	53.1
3:12	-36.2	-69.5	-107.0	44.9	-41.9	-80.3	-123.5	47.3	-48.5	-92.8	-142.6	50.0
4:12	-36.2	-69.5	-107.0	41.7	-42.0	-80.3	-123.5	44.1	-48.6	-92.8	-142.6	46.9
5:12	-36.3	-69.6	-107.0	38.7	-42.0	-80.4	-123.6	41.1	-48.6	-92.9	-142.7	43.9
6:12	-36.3	-69.6	-107.1	35.9	-42.0	-80.4	-123.6	38.3	-48.6	-92.9	-142.7	41.0
7:12	-40.5	-48.8	-48.8	45.8	-46.9	-56.5	-56.5	50.1	-54.2	-65.3	-65.3	55.0
8:12	-40.5	-48.9	-48.9	43.5	-46.9	-56.5	-56.5	47.8	-54.3	-65.3	-65.3	53.0
9:12	-40.6	-48.9	-48.9	41.4	-47.0	-56.5	-56.5	46.3	-54.3	-65.4	-65.4	52.9
10:12	-40.6	-49.0	-49.0	40.4	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D												
1:12	-49.1	-89.5	-139.9	43.3	-55.5	-100.9	-157.7	44.8	-62.9	-114.2	-178.3	46.4
2:12	-44.1	-84.5	-129.8	48.4	-49.8	-95.3	-146.4	50.8	-56.5	-107.8	-165.5	53.5
3:12	-44.1	-84.5	-129.9	45.6	-49.9	-95.3	-146.4	48.0	-56.5	-107.8	-165.5	50.8
4:12	-44.2	-84.5	-129.9	42.8	-49.9	-95.3	-146.4	45.2	-56.5	-107.8	-165.5	47.9
5:12	-44.2	-84.5	-129.9	40.1	-49.9	-95.4	-146.5	42.5	-56.5	-107.8	-165.6	45.2
6:12	-44.2	-84.6	-130.0	37.5	-50.0	-95.4	-146.5	39.9	-56.6	-107.9	-165.6	42.6
7:12	-49.3	-59.4	-59.4	50.3	-55.7	-67.0	-67.0	54.6	-63.0	-75.9	-75.9	61.0
8:12	-49.4	-59.4	-59.4	48.6	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-33.0	-60.4	-94.7	52.5	-33.0	-60.4	-94.7	52.5	-40.3	-73.6	-115.2	52.5
	2:12	-29.6	-57.0	-87.8	49.9	-29.6	-57.0	-87.8	49.9	-36.2	-69.5	-106.9	52.7
	3:12	-29.6	-57.0	-87.9	46.4	-29.6	-57.0	-87.9	46.4	-36.2	-69.5	-107.0	49.1
	4:12	-29.6	-57.0	-87.9	42.7	-29.6	-57.0	-87.9	42.7	-36.2	-69.5	-107.0	45.5
	5:12	-29.7	-57.1	-87.9	39.2	-29.7	-57.1	-87.9	39.2	-36.3	-69.6	-107.0	42.0
	6:12	-29.7	-57.1	-88.0	35.9	-29.7	-57.1	-88.0	35.9	-36.3	-69.6	-107.1	38.7
	7:12	-33.2	-40.0	-40.0	43.2	-33.2	-40.0	-40.0	43.2	-40.5	-48.8	-48.8	48.2
	8:12	-33.2	-40.1	-40.1	40.5	-33.2	-40.1	-40.1	40.5	-40.5	-48.9	-48.9	45.5
	9:12	-33.2	-40.1	-40.1	38.2	-33.2	-40.1	-40.1	38.2	-40.6	-48.9	-48.9	43.2
	10:12	-33.3	-40.1	-40.1	36.2	-33.3	-40.1	-40.1	36.2	-40.6	-49.0	-49.0	41.1
	11:12	-33.3	-40.2	-40.2	34.4	-33.3	-40.2	-40.2	34.4	-40.7	-49.0	-49.0	40.3
	12:12	-33.4	-40.2	-40.2	33.6	-33.4	-40.2	-40.2	33.6	-40.7	-49.0	-49.0	40.2
Exposure Category C	1:12	-40.3	-73.6	-115.2	52.5	-46.7	-85.1	-133.1	52.5	-54.0	-98.3	-153.6	52.8
	2:12	-36.2	-69.5	-106.9	52.7	-41.9	-80.3	-123.5	55.1	-48.5	-92.8	-142.6	57.8
	3:12	-36.2	-69.5	-107.0	49.1	-41.9	-80.3	-123.5	51.5	-48.5	-92.8	-142.6	54.3
	4:12	-36.2	-69.5	-107.0	45.5	-42.0	-80.3	-123.5	47.9	-48.6	-92.8	-142.6	50.6
	5:12	-36.3	-69.6	-107.0	42.0	-42.0	-80.4	-123.6	44.4	-48.6	-92.9	-142.7	47.1
	6:12	-36.3	-69.6	-107.1	38.7	-42.0	-80.4	-123.6	41.1	-48.6	-92.9	-142.7	43.8
	7:12	-40.5	-48.8	-48.8	48.2	-46.9	-56.5	-56.5	52.5	-54.2	-65.3	-65.3	57.4
	8:12	-40.5	-48.9	-48.9	45.5	-46.9	-56.5	-56.5	49.8	-54.3	-65.3	-65.3	54.8
	9:12	-40.6	-48.9	-48.9	43.2	-47.0	-56.5	-56.5	47.5	-54.3	-65.4	-65.4	52.9
	10:12	-40.6	-49.0	-49.0	41.1	-47.0	-56.6	-56.6	46.1	-54.3	-65.4	-65.4	52.7
	11:12	-40.7	-49.0	-49.0	40.3	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
	12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D	1:12	-49.1	-89.5	-139.9	48.0	-55.5	-100.9	-157.7	49.5	-62.9	-114.2	-178.3	51.1
	2:12	-44.1	-84.5	-129.8	52.7	-49.8	-95.3	-146.4	55.1	-56.5	-107.8	-165.5	57.8
	3:12	-44.1	-84.5	-129.9	49.4	-49.9	-95.3	-146.4	51.8	-56.5	-107.8	-165.5	54.6
	4:12	-44.2	-84.5	-129.9	46.2	-49.9	-95.3	-146.4	48.6	-56.5	-107.8	-165.5	51.3
	5:12	-44.2	-84.5	-129.9	43.0	-49.9	-95.4	-146.5	45.4	-56.5	-107.8	-165.6	48.1
	6:12	-44.2	-84.6	-130.0	40.0	-50.0	-95.4	-146.5	42.4	-56.6	-107.9	-165.6	45.2
	7:12	-49.3	-59.4	-59.4	52.5	-55.7	-67.0	-67.0	56.7	-63.0	-75.9	-75.9	61.7
	8:12	-49.4	-59.4	-59.4	50.0	-55.7	-67.1	-67.1	54.3	-63.1	-75.9	-75.9	60.9
	9:12	-49.4	-59.5	-59.5	48.5	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
	10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
	11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
	12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
	2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
	3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
	4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
	5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
	6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
	8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
	10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
	11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **150 mph**

Ground Snow Load **70 psf**

Up and Down (psf)

Side Load (psf)

Table W150-S70

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-33.0	-60.4	-94.7	59.4	-33.0	-60.4	-94.7	59.4	-40.3	-73.6	-115.2	59.4
2:12	-29.6	-57.0	-87.8	54.7	-29.6	-57.0	-87.8	54.7	-36.2	-69.5	-106.9	57.5
3:12	-29.6	-57.0	-87.9	50.6	-29.6	-57.0	-87.9	50.6	-36.2	-69.5	-107.0	53.4
4:12	-29.6	-57.0	-87.9	46.5	-29.6	-57.0	-87.9	46.5	-36.2	-69.5	-107.0	49.2
5:12	-29.7	-57.1	-87.9	42.5	-29.7	-57.1	-87.9	42.5	-36.3	-69.6	-107.0	45.2
6:12	-29.7	-57.1	-88.0	38.7	-29.7	-57.1	-88.0	38.7	-36.3	-69.6	-107.1	41.5
7:12	-33.2	-40.0	-40.0	45.6	-33.2	-40.0	-40.0	45.6	-40.5	-48.8	-48.8	50.6
8:12	-33.2	-40.1	-40.1	42.6	-33.2	-40.1	-40.1	42.6	-40.5	-48.9	-48.9	47.5
9:12	-33.2	-40.1	-40.1	39.9	-33.2	-40.1	-40.1	39.9	-40.6	-48.9	-48.9	44.9
10:12	-33.3	-40.1	-40.1	37.6	-33.3	-40.1	-40.1	37.6	-40.6	-49.0	-49.0	42.6
11:12	-33.3	-40.2	-40.2	35.6	-33.3	-40.2	-40.2	35.6	-40.7	-49.0	-49.0	40.6
12:12	-33.4	-40.2	-40.2	33.9	-33.4	-40.2	-40.2	33.9	-40.7	-49.0	-49.0	40.2
Exposure Category C												
1:12	-40.3	-73.6	-115.2	59.4	-46.7	-85.1	-133.1	59.4	-54.0	-98.3	-153.6	59.4
2:12	-36.2	-69.5	-106.9	57.5	-41.9	-80.3	-123.5	59.8	-48.5	-92.8	-142.6	62.6
3:12	-36.2	-69.5	-107.0	53.4	-41.9	-80.3	-123.5	55.8	-48.5	-92.8	-142.6	58.5
4:12	-36.2	-69.5	-107.0	49.2	-42.0	-80.3	-123.5	51.6	-48.6	-92.8	-142.6	54.4
5:12	-36.3	-69.6	-107.0	45.2	-42.0	-80.4	-123.6	47.6	-48.6	-92.9	-142.7	50.4
6:12	-36.3	-69.6	-107.1	41.5	-42.0	-80.4	-123.6	43.9	-48.6	-92.9	-142.7	46.6
7:12	-40.5	-48.8	-48.8	50.6	-46.9	-56.5	-56.5	54.9	-54.2	-65.3	-65.3	59.8
8:12	-40.5	-48.9	-48.9	47.5	-46.9	-56.5	-56.5	51.8	-54.3	-65.3	-65.3	56.8
9:12	-40.6	-48.9	-48.9	44.9	-47.0	-56.5	-56.5	49.2	-54.3	-65.4	-65.4	54.1
10:12	-40.6	-49.0	-49.0	42.6	-47.0	-56.6	-56.6	46.9	-54.3	-65.4	-65.4	52.7
11:12	-40.7	-49.0	-49.0	40.6	-47.0	-56.6	-56.6	46.0	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D												
1:12	-49.1	-89.5	-139.9	53.9	-55.5	-100.9	-157.7	54.2	-62.9	-114.2	-178.3	55.8
2:12	-44.1	-84.5	-129.8	57.0	-49.8	-95.3	-146.4	59.3	-56.5	-107.8	-165.5	62.1
3:12	-44.1	-84.5	-129.9	53.3	-49.9	-95.3	-146.4	55.7	-56.5	-107.8	-165.5	58.4
4:12	-44.2	-84.5	-129.9	49.5	-49.9	-95.3	-146.4	51.9	-56.5	-107.8	-165.5	54.7
5:12	-44.2	-84.5	-129.9	45.9	-49.9	-95.4	-146.5	48.3	-56.5	-107.8	-165.6	51.1
6:12	-44.2	-84.6	-130.0	42.6	-50.0	-95.4	-146.5	44.9	-56.6	-107.9	-165.6	47.7
7:12	-49.3	-59.4	-59.4	54.6	-55.7	-67.0	-67.0	58.9	-63.0	-75.9	-75.9	63.9
8:12	-49.4	-59.4	-59.4	51.9	-55.7	-67.1	-67.1	56.2	-63.1	-75.9	-75.9	61.1
9:12	-49.4	-59.5	-59.5	49.4	-55.8	-67.1	-67.1	54.2	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.3	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

150 mph

Ground Snow Load

80 psf

Up and Down (psf)

Basic Wind Speed
150 mph

Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-33.0	-60.4	-94.7	66.4	-33.0	-60.4	-94.7	66.4	-40.3	-73.6	-115.2	66.4
2:12	-29.6	-57.0	-87.8	60.9	-29.6	-57.0	-87.8	60.9	-36.2	-69.5	-106.9	62.2
3:12	-29.6	-57.0	-87.9	54.9	-29.6	-57.0	-87.9	54.9	-36.2	-69.5	-107.0	57.6
4:12	-29.6	-57.0	-87.9	50.2	-29.6	-57.0	-87.9	50.2	-36.2	-69.5	-107.0	53.0
5:12	-29.7	-57.1	-87.9	45.8	-29.7	-57.1	-87.9	45.8	-36.3	-69.6	-107.0	48.5
6:12	-29.7	-57.1	-88.0	41.6	-29.7	-57.1	-88.0	41.6	-36.3	-69.6	-107.1	44.3
7:12	-33.2	-40.0	-40.0	48.0	-33.2	-40.0	-40.0	48.0	-40.5	-48.8	-48.8	53.0
8:12	-33.2	-40.1	-40.1	44.6	-33.2	-40.1	-40.1	44.6	-40.5	-48.9	-48.9	49.6
9:12	-33.2	-40.1	-40.1	41.6	-33.2	-40.1	-40.1	41.6	-40.6	-48.9	-48.9	46.6
10:12	-33.3	-40.1	-40.1	39.0	-33.3	-40.1	-40.1	39.0	-40.6	-49.0	-49.0	44.0
11:12	-33.3	-40.2	-40.2	36.8	-33.3	-40.2	-40.2	36.8	-40.7	-49.0	-49.0	41.8
12:12	-33.4	-40.2	-40.2	34.9	-33.4	-40.2	-40.2	34.9	-40.7	-49.0	-49.0	40.2
Exposure Category C												
1:12	-40.3	-73.6	-115.2	66.4	-46.7	-85.1	-133.1	66.4	-54.0	-98.3	-153.6	66.4
2:12	-36.2	-69.5	-106.9	62.2	-41.9	-80.3	-123.5	64.6	-48.5	-92.8	-142.6	67.4
3:12	-36.2	-69.5	-107.0	57.6	-41.9	-80.3	-123.5	60.0	-48.5	-92.8	-142.6	62.8
4:12	-36.2	-69.5	-107.0	53.0	-42.0	-80.3	-123.5	55.4	-48.6	-92.8	-142.6	58.1
5:12	-36.3	-69.6	-107.0	48.5	-42.0	-80.4	-123.6	50.9	-48.6	-92.9	-142.7	53.6
6:12	-36.3	-69.6	-107.1	44.3	-42.0	-80.4	-123.6	46.7	-48.6	-92.9	-142.7	49.4
7:12	-40.5	-48.8	-48.8	53.0	-46.9	-56.5	-56.5	57.3	-54.2	-65.3	-65.3	62.2
8:12	-40.5	-48.9	-48.9	49.6	-46.9	-56.5	-56.5	53.9	-54.3	-65.3	-65.3	58.8
9:12	-40.6	-48.9	-48.9	46.6	-47.0	-56.5	-56.5	50.9	-54.3	-65.4	-65.4	55.8
10:12	-40.6	-49.0	-49.0	44.0	-47.0	-56.6	-56.6	48.3	-54.3	-65.4	-65.4	53.3
11:12	-40.7	-49.0	-49.0	41.8	-47.0	-56.6	-56.6	46.1	-54.4	-65.4	-65.4	52.6
12:12	-40.7	-49.0	-49.0	40.2	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D												
1:12	-49.1	-89.5	-139.9	60.1	-55.5	-100.9	-157.7	60.1	-62.9	-114.2	-178.3	60.5
2:12	-44.1	-84.5	-129.8	61.2	-49.8	-95.3	-146.4	63.6	-56.5	-107.8	-165.5	66.4
3:12	-44.1	-84.5	-129.9	57.1	-49.9	-95.3	-146.4	59.5	-56.5	-107.8	-165.5	62.2
4:12	-44.2	-84.5	-129.9	52.9	-49.9	-95.3	-146.4	55.3	-56.5	-107.8	-165.5	58.1
5:12	-44.2	-84.5	-129.9	48.9	-49.9	-95.4	-146.5	51.3	-56.5	-107.8	-165.6	54.0
6:12	-44.2	-84.6	-130.0	45.1	-50.0	-95.4	-146.5	47.5	-56.6	-107.9	-165.6	50.2
7:12	-49.3	-59.4	-59.4	56.8	-55.7	-67.0	-67.0	61.1	-63.0	-75.9	-75.9	66.0
8:12	-49.4	-59.4	-59.4	53.7	-55.7	-67.1	-67.1	58.0	-63.1	-75.9	-75.9	62.9
9:12	-49.4	-59.5	-59.5	51.0	-55.8	-67.1	-67.1	55.3	-63.1	-75.9	-75.9	60.8
10:12	-49.4	-59.5	-59.5	48.7	-55.8	-67.2	-67.2	54.1	-63.2	-76.0	-76.0	60.7
11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-33.0	-60.4	-94.7	73.4	-33.0	-60.4	-94.7	73.4	-40.3	-73.6	-115.2	73.4
	2:12	-29.6	-57.0	-87.8	67.2	-29.6	-57.0	-87.8	67.2	-36.2	-69.5	-106.9	67.2
	3:12	-29.6	-57.0	-87.9	60.5	-29.6	-57.0	-87.9	60.5	-36.2	-69.5	-107.0	61.9
	4:12	-29.6	-57.0	-87.9	54.0	-29.6	-57.0	-87.9	54.0	-36.2	-69.5	-107.0	56.7
	5:12	-29.7	-57.1	-87.9	49.0	-29.7	-57.1	-87.9	49.0	-36.3	-69.6	-107.0	51.8
	6:12	-29.7	-57.1	-88.0	44.4	-29.7	-57.1	-88.0	44.4	-36.3	-69.6	-107.1	47.1
	7:12	-33.2	-40.0	-40.0	50.4	-33.2	-40.0	-40.0	50.4	-40.5	-48.8	-48.8	55.4
	8:12	-33.2	-40.1	-40.1	46.6	-33.2	-40.1	-40.1	46.6	-40.5	-48.9	-48.9	51.6
	9:12	-33.2	-40.1	-40.1	43.3	-33.2	-40.1	-40.1	43.3	-40.6	-48.9	-48.9	48.3
	10:12	-33.3	-40.1	-40.1	40.5	-33.3	-40.1	-40.1	40.5	-40.6	-49.0	-49.0	45.4
	11:12	-33.3	-40.2	-40.2	38.0	-33.3	-40.2	-40.2	38.0	-40.7	-49.0	-49.0	43.0
	12:12	-33.4	-40.2	-40.2	36.0	-33.4	-40.2	-40.2	36.0	-40.7	-49.0	-49.0	40.9
Exposure Category C	1:12	-40.3	-73.6	-115.2	73.4	-46.7	-85.1	-133.1	73.4	-54.0	-98.3	-153.6	73.4
	2:12	-36.2	-69.5	-106.9	67.2	-41.9	-80.3	-123.5	69.4	-48.5	-92.8	-142.6	72.1
	3:12	-36.2	-69.5	-107.0	61.9	-41.9	-80.3	-123.5	64.3	-48.5	-92.8	-142.6	67.0
	4:12	-36.2	-69.5	-107.0	56.7	-42.0	-80.3	-123.5	59.1	-48.6	-92.8	-142.6	61.9
	5:12	-36.3	-69.6	-107.0	51.8	-42.0	-80.4	-123.6	54.2	-48.6	-92.9	-142.7	56.9
	6:12	-36.3	-69.6	-107.1	47.1	-42.0	-80.4	-123.6	49.5	-48.6	-92.9	-142.7	52.3
	7:12	-40.5	-48.8	-48.8	55.4	-46.9	-56.5	-56.5	59.7	-54.2	-65.3	-65.3	64.6
	8:12	-40.5	-48.9	-48.9	51.6	-46.9	-56.5	-56.5	55.9	-54.3	-65.3	-65.3	60.8
	9:12	-40.6	-48.9	-48.9	48.3	-47.0	-56.5	-56.5	52.6	-54.3	-65.4	-65.4	57.5
	10:12	-40.6	-49.0	-49.0	45.4	-47.0	-56.6	-56.6	49.7	-54.3	-65.4	-65.4	54.7
	11:12	-40.7	-49.0	-49.0	43.0	-47.0	-56.6	-56.6	47.3	-54.4	-65.4	-65.4	52.6
	12:12	-40.7	-49.0	-49.0	40.9	-47.1	-56.7	-56.7	45.9	-54.4	-65.5	-65.5	52.5
Exposure Category D	1:12	-49.1	-89.5	-139.9	66.4	-55.5	-100.9	-157.7	66.4	-62.9	-114.2	-178.3	66.4
	2:12	-44.1	-84.5	-129.8	65.5	-49.8	-95.3	-146.4	67.9	-56.5	-107.8	-165.5	70.7
	3:12	-44.1	-84.5	-129.9	60.9	-49.9	-95.3	-146.4	63.3	-56.5	-107.8	-165.5	66.1
	4:12	-44.2	-84.5	-129.9	56.3	-49.9	-95.3	-146.4	58.7	-56.5	-107.8	-165.5	61.4
	5:12	-44.2	-84.5	-129.9	51.8	-49.9	-95.4	-146.5	54.2	-56.5	-107.8	-165.6	56.9
	6:12	-44.2	-84.6	-130.0	47.6	-50.0	-95.4	-146.5	50.0	-56.6	-107.9	-165.6	52.8
	7:12	-49.3	-59.4	-59.4	58.9	-55.7	-67.0	-67.0	63.2	-63.0	-75.9	-75.9	68.2
	8:12	-49.4	-59.4	-59.4	55.5	-55.7	-67.1	-67.1	59.8	-63.1	-75.9	-75.9	64.8
	9:12	-49.4	-59.5	-59.5	52.5	-55.8	-67.1	-67.1	56.8	-63.1	-75.9	-75.9	61.8
	10:12	-49.4	-59.5	-59.5	49.9	-55.8	-67.2	-67.2	54.2	-63.2	-76.0	-76.0	60.7
	11:12	-49.5	-59.6	-59.6	48.2	-55.8	-67.2	-67.2	54.0	-63.2	-76.0	-76.0	60.6
	12:12	-49.5	-59.6	-59.6	48.1	-55.9	-67.2	-67.2	53.8	-63.2	-76.1	-76.1	60.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
	2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
	3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
	4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
	5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
	6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
	7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
	8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
	9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
	10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
	11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **150 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
155 mph

Ground Snow Load
0 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-35.3	-64.6	-101.2	14.8	-35.3	-64.6	-101.2	14.8	-43.2	-78.7	-123.1	17.2
2:12	-31.7	-60.9	-93.9	22.1	-31.7	-60.9	-93.9	22.1	-38.7	-74.3	-114.3	26.0
3:12	-31.7	-61.0	-93.9	22.0	-31.7	-61.0	-93.9	22.0	-38.7	-74.3	-114.3	26.0
4:12	-31.7	-61.0	-93.9	21.9	-31.7	-61.0	-93.9	21.9	-38.8	-74.3	-114.3	25.9
5:12	-31.7	-61.0	-94.0	21.8	-31.7	-61.0	-94.0	21.8	-38.8	-74.4	-114.3	25.8
6:12	-31.8	-61.1	-94.0	21.7	-31.8	-61.1	-94.0	21.7	-38.8	-74.4	-114.4	25.7
7:12	-35.5	-42.8	-42.8	36.3	-35.5	-42.8	-42.8	36.3	-43.3	-52.2	-52.2	43.3
8:12	-35.5	-42.8	-42.8	36.1	-35.5	-42.8	-42.8	36.1	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
1:12	-43.2	-78.7	-123.1	17.2	-50.0	-90.9	-142.2	19.2	-57.8	-105.1	-164.1	21.6
2:12	-38.7	-74.3	-114.3	26.0	-44.8	-85.8	-131.9	29.4	-51.9	-99.2	-152.3	33.3
3:12	-38.7	-74.3	-114.3	26.0	-44.9	-85.8	-132.0	29.3	-51.9	-99.2	-152.3	33.3
4:12	-38.8	-74.3	-114.3	25.9	-44.9	-85.9	-132.0	29.3	-51.9	-99.2	-152.4	33.2
5:12	-38.8	-74.4	-114.3	25.8	-44.9	-85.9	-132.0	29.2	-52.0	-99.2	-152.4	33.1
6:12	-38.8	-74.4	-114.4	25.7	-45.0	-85.9	-132.1	29.1	-52.0	-99.3	-152.4	33.0
7:12	-43.3	-52.2	-52.2	43.3	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
1:12	-52.6	-95.6	-149.5	20.0	-59.4	-107.9	-168.5	22.0	-67.2	-122.0	-190.5	24.4
2:12	-47.2	-90.3	-138.7	30.7	-53.3	-101.8	-156.4	34.1	-60.4	-115.2	-176.8	38.0
3:12	-47.2	-90.3	-138.8	30.7	-53.3	-101.8	-156.4	34.1	-60.4	-115.2	-176.8	38.0
4:12	-47.2	-90.3	-138.8	30.6	-53.4	-101.9	-156.5	34.0	-60.4	-115.2	-176.8	37.9
5:12	-47.3	-90.4	-138.8	30.5	-53.4	-101.9	-156.5	33.9	-60.5	-115.2	-176.9	37.8
6:12	-47.3	-90.4	-138.9	30.4	-53.4	-101.9	-156.5	33.8	-60.5	-115.3	-176.9	37.7
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-35.3	-64.6	-101.2	15.8	-35.3	-64.6	-101.2	15.8	-43.2	-78.7	-123.1	17.6
2:12	-31.7	-60.9	-93.9	22.1	-31.7	-60.9	-93.9	22.1	-38.7	-74.3	-114.3	26.0
3:12	-31.7	-61.0	-93.9	22.0	-31.7	-61.0	-93.9	22.0	-38.7	-74.3	-114.3	26.0
4:12	-31.7	-61.0	-93.9	21.9	-31.7	-61.0	-93.9	21.9	-38.8	-74.3	-114.3	25.9
5:12	-31.7	-61.0	-94.0	21.8	-31.7	-61.0	-94.0	21.8	-38.8	-74.4	-114.3	25.8
6:12	-31.8	-61.1	-94.0	21.7	-31.8	-61.1	-94.0	21.7	-38.8	-74.4	-114.4	25.7
7:12	-35.5	-42.8	-42.8	36.3	-35.5	-42.8	-42.8	36.3	-43.3	-52.2	-52.2	43.3
8:12	-35.5	-42.8	-42.8	36.1	-35.5	-42.8	-42.8	36.1	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
Exposure Category C												
1:12	-43.2	-78.7	-123.1	17.6	-50.0	-90.9	-142.2	19.2	-57.8	-105.1	-164.1	21.6
2:12	-38.7	-74.3	-114.3	26.0	-44.8	-85.8	-131.9	29.4	-51.9	-99.2	-152.3	33.3
3:12	-38.7	-74.3	-114.3	26.0	-44.9	-85.8	-132.0	29.3	-51.9	-99.2	-152.3	33.3
4:12	-38.8	-74.3	-114.3	25.9	-44.9	-85.9	-132.0	29.3	-51.9	-99.2	-152.4	33.2
5:12	-38.8	-74.4	-114.3	25.8	-44.9	-85.9	-132.0	29.2	-52.0	-99.2	-152.4	33.1
6:12	-38.8	-74.4	-114.4	25.7	-45.0	-85.9	-132.1	29.1	-52.0	-99.3	-152.4	33.0
7:12	-43.3	-52.2	-52.2	43.3	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D												
1:12	-52.6	-95.6	-149.5	20.0	-59.4	-107.9	-168.5	22.0	-67.2	-122.0	-190.5	24.4
2:12	-47.2	-90.3	-138.7	30.7	-53.3	-101.8	-156.4	34.1	-60.4	-115.2	-176.8	38.0
3:12	-47.2	-90.3	-138.8	30.7	-53.3	-101.8	-156.4	34.1	-60.4	-115.2	-176.8	38.0
4:12	-47.2	-90.3	-138.8	30.6	-53.4	-101.9	-156.5	34.0	-60.4	-115.2	-176.8	37.9
5:12	-47.3	-90.4	-138.8	30.5	-53.4	-101.9	-156.5	33.9	-60.5	-115.2	-176.9	37.8
6:12	-47.3	-90.4	-138.9	30.4	-53.4	-101.9	-156.5	33.8	-60.5	-115.3	-176.9	37.7
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4

Basic Wind Speed **155 mph**
Ground Snow Load **5 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
10 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-35.3	-64.6	-101.2	19.5	-35.3	-64.6	-101.2	19.5	-43.2	-78.7	-123.1	21.3
2:12	-31.7	-60.9	-93.9	24.3	-31.7	-60.9	-93.9	24.3	-38.7	-74.3	-114.3	27.3
3:12	-31.7	-61.0	-93.9	23.5	-31.7	-61.0	-93.9	23.5	-38.7	-74.3	-114.3	26.5
4:12	-31.7	-61.0	-93.9	21.9	-31.7	-61.0	-93.9	21.9	-38.8	-74.3	-114.3	25.9
5:12	-31.7	-61.0	-94.0	21.8	-31.7	-61.0	-94.0	21.8	-38.8	-74.4	-114.3	25.8
6:12	-31.8	-61.1	-94.0	21.7	-31.8	-61.1	-94.0	21.7	-38.8	-74.4	-114.4	25.7
7:12	-35.5	-42.8	-42.8	36.3	-35.5	-42.8	-42.8	36.3	-43.3	-52.2	-52.2	43.3
8:12	-35.5	-42.8	-42.8	36.1	-35.5	-42.8	-42.8	36.1	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
Exposure Category C												
1:12	-43.2	-78.7	-123.1	21.3	-50.0	-90.9	-142.2	22.8	-57.8	-105.1	-164.1	24.6
2:12	-38.7	-74.3	-114.3	27.3	-44.8	-85.8	-131.9	29.8	-51.9	-99.2	-152.3	33.3
3:12	-38.7	-74.3	-114.3	26.5	-44.9	-85.8	-132.0	29.3	-51.9	-99.2	-152.3	33.3
4:12	-38.8	-74.3	-114.3	25.9	-44.9	-85.9	-132.0	29.3	-51.9	-99.2	-152.4	33.2
5:12	-38.8	-74.4	-114.3	25.8	-44.9	-85.9	-132.0	29.2	-52.0	-99.2	-152.4	33.1
6:12	-38.8	-74.4	-114.4	25.7	-45.0	-85.9	-132.1	29.1	-52.0	-99.3	-152.4	33.0
7:12	-43.3	-52.2	-52.2	43.3	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D												
1:12	-52.6	-95.6	-149.5	23.4	-59.4	-107.9	-168.5	24.9	-67.2	-122.0	-190.5	26.7
2:12	-47.2	-90.3	-138.7	30.8	-53.3	-101.8	-156.4	34.1	-60.4	-115.2	-176.8	38.0
3:12	-47.2	-90.3	-138.8	30.7	-53.3	-101.8	-156.4	34.1	-60.4	-115.2	-176.8	38.0
4:12	-47.2	-90.3	-138.8	30.6	-53.4	-101.9	-156.5	34.0	-60.4	-115.2	-176.8	37.9
5:12	-47.3	-90.4	-138.8	30.5	-53.4	-101.9	-156.5	33.9	-60.5	-115.2	-176.9	37.8
6:12	-47.3	-90.4	-138.9	30.4	-53.4	-101.9	-156.5	33.8	-60.5	-115.3	-176.9	37.7
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W155-S10

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-35.3	-64.6	-101.2	23.2	-35.3	-64.6	-101.2	23.2	-43.2	-78.7	-123.1	25.0
2:12	-31.7	-60.9	-93.9	27.7	-31.7	-60.9	-93.9	27.7	-38.7	-74.3	-114.3	30.7
3:12	-31.7	-61.0	-93.9	26.6	-31.7	-61.0	-93.9	26.6	-38.7	-74.3	-114.3	29.5
4:12	-31.7	-61.0	-93.9	23.0	-31.7	-61.0	-93.9	23.0	-38.8	-74.3	-114.3	25.9
5:12	-31.7	-61.0	-94.0	22.2	-31.7	-61.0	-94.0	22.2	-38.8	-74.4	-114.3	25.8
6:12	-31.8	-61.1	-94.0	21.7	-31.8	-61.1	-94.0	21.7	-38.8	-74.4	-114.4	25.7
7:12	-35.5	-42.8	-42.8	36.3	-35.5	-42.8	-42.8	36.3	-43.3	-52.2	-52.2	43.3
8:12	-35.5	-42.8	-42.8	36.1	-35.5	-42.8	-42.8	36.1	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
Exposure Category C												
1:12	-43.2	-78.7	-123.1	25.0	-50.0	-90.9	-142.2	26.5	-57.8	-105.1	-164.1	28.3
2:12	-38.7	-74.3	-114.3	30.7	-44.8	-85.8	-131.9	33.2	-51.9	-99.2	-152.3	36.1
3:12	-38.7	-74.3	-114.3	29.5	-44.9	-85.8	-132.0	32.1	-51.9	-99.2	-152.3	35.0
4:12	-38.8	-74.3	-114.3	25.9	-44.9	-85.9	-132.0	29.3	-51.9	-99.2	-152.4	33.2
5:12	-38.8	-74.4	-114.3	25.8	-44.9	-85.9	-132.0	29.2	-52.0	-99.2	-152.4	33.1
6:12	-38.8	-74.4	-114.4	25.7	-45.0	-85.9	-132.1	29.1	-52.0	-99.3	-152.4	33.0
7:12	-43.3	-52.2	-52.2	43.3	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D												
1:12	-52.6	-95.6	-149.5	27.1	-59.4	-107.9	-168.5	28.7	-67.2	-122.0	-190.5	30.4
2:12	-47.2	-90.3	-138.7	34.2	-53.3	-101.8	-156.4	36.7	-60.4	-115.2	-176.8	39.7
3:12	-47.2	-90.3	-138.8	33.0	-53.3	-101.8	-156.4	35.6	-60.4	-115.2	-176.8	38.5
4:12	-47.2	-90.3	-138.8	30.6	-53.4	-101.9	-156.5	34.0	-60.4	-115.2	-176.8	37.9
5:12	-47.3	-90.4	-138.8	30.5	-53.4	-101.9	-156.5	33.9	-60.5	-115.2	-176.9	37.8
6:12	-47.3	-90.4	-138.9	30.4	-53.4	-101.9	-156.5	33.8	-60.5	-115.3	-176.9	37.7
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
20 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-35.3	-64.6	-101.2	27.0	-35.3	-64.6	-101.2	27.0	-43.2	-78.7	-123.1	28.7
2:12	-31.7	-60.9	-93.9	31.1	-31.7	-60.9	-93.9	31.1	-38.7	-74.3	-114.3	34.1
3:12	-31.7	-61.0	-93.9	29.6	-31.7	-61.0	-93.9	29.6	-38.7	-74.3	-114.3	32.6
4:12	-31.7	-61.0	-93.9	24.9	-31.7	-61.0	-93.9	24.9	-38.8	-74.3	-114.3	27.8
5:12	-31.7	-61.0	-94.0	23.8	-31.7	-61.0	-94.0	23.8	-38.8	-74.4	-114.3	26.7
6:12	-31.8	-61.1	-94.0	22.8	-31.8	-61.1	-94.0	22.8	-38.8	-74.4	-114.4	25.7
7:12	-35.5	-42.8	-42.8	36.3	-35.5	-42.8	-42.8	36.3	-43.3	-52.2	-52.2	43.3
8:12	-35.5	-42.8	-42.8	36.1	-35.5	-42.8	-42.8	36.1	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
Exposure Category C												
1:12	-43.2	-78.7	-123.1	28.7	-50.0	-90.9	-142.2	30.3	-57.8	-105.1	-164.1	32.0
2:12	-38.7	-74.3	-114.3	34.1	-44.8	-85.8	-131.9	36.6	-51.9	-99.2	-152.3	39.5
3:12	-38.7	-74.3	-114.3	32.6	-44.9	-85.8	-132.0	35.1	-51.9	-99.2	-152.3	38.0
4:12	-38.8	-74.3	-114.3	27.8	-44.9	-85.9	-132.0	30.4	-51.9	-99.2	-152.4	33.3
5:12	-38.8	-74.4	-114.3	26.7	-44.9	-85.9	-132.0	29.3	-52.0	-99.2	-152.4	33.1
6:12	-38.8	-74.4	-114.4	25.7	-45.0	-85.9	-132.1	29.1	-52.0	-99.3	-152.4	33.0
7:12	-43.3	-52.2	-52.2	43.3	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D												
1:12	-52.6	-95.6	-149.5	30.8	-59.4	-107.9	-168.5	32.4	-67.2	-122.0	-190.5	34.1
2:12	-47.2	-90.3	-138.7	37.6	-53.3	-101.8	-156.4	40.1	-60.4	-115.2	-176.8	43.1
3:12	-47.2	-90.3	-138.8	36.1	-53.3	-101.8	-156.4	38.6	-60.4	-115.2	-176.8	41.6
4:12	-47.2	-90.3	-138.8	30.6	-53.4	-101.9	-156.5	34.0	-60.4	-115.2	-176.8	37.9
5:12	-47.3	-90.4	-138.8	30.5	-53.4	-101.9	-156.5	33.9	-60.5	-115.2	-176.9	37.8
6:12	-47.3	-90.4	-138.9	30.4	-53.4	-101.9	-156.5	33.8	-60.5	-115.3	-176.9	37.7
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
25 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-35.3	-64.6	-101.2	27.0	-35.3	-64.6	-101.2	27.0	-43.2	-78.7	-123.1	28.7
2:12	-31.7	-60.9	-93.9	31.1	-31.7	-60.9	-93.9	31.1	-38.7	-74.3	-114.3	34.1
3:12	-31.7	-61.0	-93.9	29.6	-31.7	-61.0	-93.9	29.6	-38.7	-74.3	-114.3	32.6
4:12	-31.7	-61.0	-93.9	26.7	-31.7	-61.0	-93.9	26.7	-38.8	-74.3	-114.3	29.7
5:12	-31.7	-61.0	-94.0	25.4	-31.7	-61.0	-94.0	25.4	-38.8	-74.4	-114.3	28.4
6:12	-31.8	-61.1	-94.0	24.2	-31.8	-61.1	-94.0	24.2	-38.8	-74.4	-114.4	27.1
7:12	-35.5	-42.8	-42.8	36.3	-35.5	-42.8	-42.8	36.3	-43.3	-52.2	-52.2	43.3
8:12	-35.5	-42.8	-42.8	36.1	-35.5	-42.8	-42.8	36.1	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
Exposure Category C												
1:12	-43.2	-78.7	-123.1	28.7	-50.0	-90.9	-142.2	30.3	-57.8	-105.1	-164.1	32.0
2:12	-38.7	-74.3	-114.3	34.1	-44.8	-85.8	-131.9	36.6	-51.9	-99.2	-152.3	39.5
3:12	-38.7	-74.3	-114.3	32.6	-44.9	-85.8	-132.0	35.1	-51.9	-99.2	-152.3	38.0
4:12	-38.8	-74.3	-114.3	29.7	-44.9	-85.9	-132.0	32.2	-51.9	-99.2	-152.4	35.2
5:12	-38.8	-74.4	-114.3	28.4	-44.9	-85.9	-132.0	30.9	-52.0	-99.2	-152.4	33.9
6:12	-38.8	-74.4	-114.4	27.1	-45.0	-85.9	-132.1	29.7	-52.0	-99.3	-152.4	33.0
7:12	-43.3	-52.2	-52.2	43.3	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D												
1:12	-52.6	-95.6	-149.5	30.8	-59.4	-107.9	-168.5	32.4	-67.2	-122.0	-190.5	34.1
2:12	-47.2	-90.3	-138.7	37.6	-53.3	-101.8	-156.4	40.1	-60.4	-115.2	-176.8	43.1
3:12	-47.2	-90.3	-138.8	36.1	-53.3	-101.8	-156.4	38.6	-60.4	-115.2	-176.8	41.6
4:12	-47.2	-90.3	-138.8	32.3	-53.4	-101.9	-156.5	34.8	-60.4	-115.2	-176.8	37.9
5:12	-47.3	-90.4	-138.8	31.1	-53.4	-101.9	-156.5	33.9	-60.5	-115.2	-176.9	37.8
6:12	-47.3	-90.4	-138.9	30.4	-53.4	-101.9	-156.5	33.8	-60.5	-115.3	-176.9	37.7
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W155-S25

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-35.3	-64.6	-101.2	27.7	-35.3	-64.6	-101.2	27.7	-43.2	-78.7	-123.1	29.5
2:12	-31.7	-60.9	-93.9	31.8	-31.7	-60.9	-93.9	31.8	-38.7	-74.3	-114.3	34.7
3:12	-31.7	-61.0	-93.9	30.2	-31.7	-61.0	-93.9	30.2	-38.7	-74.3	-114.3	33.2
4:12	-31.7	-61.0	-93.9	28.6	-31.7	-61.0	-93.9	28.6	-38.8	-74.3	-114.3	31.6
5:12	-31.7	-61.0	-94.0	27.1	-31.7	-61.0	-94.0	27.1	-38.8	-74.4	-114.3	30.0
6:12	-31.8	-61.1	-94.0	25.6	-31.8	-61.1	-94.0	25.6	-38.8	-74.4	-114.4	28.5
7:12	-35.5	-42.8	-42.8	36.3	-35.5	-42.8	-42.8	36.3	-43.3	-52.2	-52.2	43.3
8:12	-35.5	-42.8	-42.8	36.1	-35.5	-42.8	-42.8	36.1	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
Exposure Category C												
1:12	-43.2	-78.7	-123.1	29.5	-50.0	-90.9	-142.2	31.0	-57.8	-105.1	-164.1	32.8
2:12	-38.7	-74.3	-114.3	34.7	-44.8	-85.8	-131.9	37.3	-51.9	-99.2	-152.3	40.2
3:12	-38.7	-74.3	-114.3	33.2	-44.9	-85.8	-132.0	35.7	-51.9	-99.2	-152.3	38.6
4:12	-38.8	-74.3	-114.3	31.6	-44.9	-85.9	-132.0	34.1	-51.9	-99.2	-152.4	37.0
5:12	-38.8	-74.4	-114.3	30.0	-44.9	-85.9	-132.0	32.5	-52.0	-99.2	-152.4	35.5
6:12	-38.8	-74.4	-114.4	28.5	-45.0	-85.9	-132.1	31.1	-52.0	-99.3	-152.4	34.0
7:12	-43.3	-52.2	-52.2	43.3	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D												
1:12	-52.6	-95.6	-149.5	30.8	-59.4	-107.9	-168.5	32.4	-67.2	-122.0	-190.5	34.1
2:12	-47.2	-90.3	-138.7	37.6	-53.3	-101.8	-156.4	40.1	-60.4	-115.2	-176.8	43.1
3:12	-47.2	-90.3	-138.8	36.1	-53.3	-101.8	-156.4	38.6	-60.4	-115.2	-176.8	41.6
4:12	-47.2	-90.3	-138.8	34.0	-53.4	-101.9	-156.5	36.5	-60.4	-115.2	-176.8	39.5
5:12	-47.3	-90.4	-138.8	32.5	-53.4	-101.9	-156.5	35.1	-60.5	-115.2	-176.9	38.0
6:12	-47.3	-90.4	-138.9	31.2	-53.4	-101.9	-156.5	33.8	-60.5	-115.3	-176.9	37.7
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-35.3	-64.6	-101.2	30.3	-35.3	-64.6	-101.2	30.3	-43.2	-78.7	-123.1	32.1
2:12	-31.7	-60.9	-93.9	34.2	-31.7	-60.9	-93.9	34.2	-38.7	-74.3	-114.3	37.1
3:12	-31.7	-61.0	-93.9	32.3	-31.7	-61.0	-93.9	32.3	-38.7	-74.3	-114.3	35.3
4:12	-31.7	-61.0	-93.9	30.5	-31.7	-61.0	-93.9	30.5	-38.8	-74.3	-114.3	33.4
5:12	-31.7	-61.0	-94.0	28.7	-31.7	-61.0	-94.0	28.7	-38.8	-74.4	-114.3	31.6
6:12	-31.8	-61.1	-94.0	27.0	-31.8	-61.1	-94.0	27.0	-38.8	-74.4	-114.4	29.9
7:12	-35.5	-42.8	-42.8	36.4	-35.5	-42.8	-42.8	36.4	-43.3	-52.2	-52.2	43.3
8:12	-35.5	-42.8	-42.8	36.1	-35.5	-42.8	-42.8	36.1	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
1:12	-43.2	-78.7	-123.1	32.1	-50.0	-90.9	-142.2	33.6	-57.8	-105.1	-164.1	35.4
2:12	-38.7	-74.3	-114.3	37.1	-44.8	-85.8	-131.9	39.7	-51.9	-99.2	-152.3	42.6
3:12	-38.7	-74.3	-114.3	35.3	-44.9	-85.8	-132.0	37.8	-51.9	-99.2	-152.3	40.8
4:12	-38.8	-74.3	-114.3	33.4	-44.9	-85.9	-132.0	36.0	-51.9	-99.2	-152.4	38.9
5:12	-38.8	-74.4	-114.3	31.6	-44.9	-85.9	-132.0	34.2	-52.0	-99.2	-152.4	37.1
6:12	-38.8	-74.4	-114.4	29.9	-45.0	-85.9	-132.1	32.5	-52.0	-99.3	-152.4	35.4
7:12	-43.3	-52.2	-52.2	43.3	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
1:12	-52.6	-95.6	-149.5	32.4	-59.4	-107.9	-168.5	33.9	-67.2	-122.0	-190.5	35.7
2:12	-47.2	-90.3	-138.7	39.0	-53.3	-101.8	-156.4	41.5	-60.4	-115.2	-176.8	44.5
3:12	-47.2	-90.3	-138.8	37.3	-53.3	-101.8	-156.4	39.9	-60.4	-115.2	-176.8	42.8
4:12	-47.2	-90.3	-138.8	35.6	-53.4	-101.9	-156.5	38.2	-60.4	-115.2	-176.8	41.1
5:12	-47.3	-90.4	-138.8	34.0	-53.4	-101.9	-156.5	36.6	-60.5	-115.2	-176.9	39.5
6:12	-47.3	-90.4	-138.9	32.5	-53.4	-101.9	-156.5	35.0	-60.5	-115.3	-176.9	38.0
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-35.3	-64.6	-101.2	32.9	-35.3	-64.6	-101.2	32.9	-43.2	-78.7	-123.1	34.7
2:12	-31.7	-60.9	-93.9	36.5	-31.7	-60.9	-93.9	36.5	-38.7	-74.3	-114.3	39.5
3:12	-31.7	-61.0	-93.9	34.5	-31.7	-61.0	-93.9	34.5	-38.7	-74.3	-114.3	37.4
4:12	-31.7	-61.0	-93.9	32.4	-31.7	-61.0	-93.9	32.4	-38.8	-74.3	-114.3	35.3
5:12	-31.7	-61.0	-94.0	30.3	-31.7	-61.0	-94.0	30.3	-38.8	-74.4	-114.3	33.3
6:12	-31.8	-61.1	-94.0	28.4	-31.8	-61.1	-94.0	28.4	-38.8	-74.4	-114.4	31.3
7:12	-35.5	-42.8	-42.8	37.6	-35.5	-42.8	-42.8	37.6	-43.3	-52.2	-52.2	43.3
8:12	-35.5	-42.8	-42.8	36.1	-35.5	-42.8	-42.8	36.1	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
1:12	-43.2	-78.7	-123.1	34.7	-50.0	-90.9	-142.2	36.2	-57.8	-105.1	-164.1	38.0
2:12	-38.7	-74.3	-114.3	39.5	-44.8	-85.8	-131.9	42.0	-51.9	-99.2	-152.3	45.0
3:12	-38.7	-74.3	-114.3	37.4	-44.9	-85.8	-132.0	40.0	-51.9	-99.2	-152.3	42.9
4:12	-38.8	-74.3	-114.3	35.3	-44.9	-85.9	-132.0	37.9	-51.9	-99.2	-152.4	40.8
5:12	-38.8	-74.4	-114.3	33.3	-44.9	-85.9	-132.0	35.8	-52.0	-99.2	-152.4	38.7
6:12	-38.8	-74.4	-114.4	31.3	-45.0	-85.9	-132.1	33.9	-52.0	-99.3	-152.4	36.8
7:12	-43.3	-52.2	-52.2	43.3	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
1:12	-52.6	-95.6	-149.5	34.7	-59.4	-107.9	-168.5	36.2	-67.2	-122.0	-190.5	38.0
2:12	-47.2	-90.3	-138.7	41.1	-53.3	-101.8	-156.4	43.7	-60.4	-115.2	-176.8	46.6
3:12	-47.2	-90.3	-138.8	39.2	-53.3	-101.8	-156.4	41.8	-60.4	-115.2	-176.8	44.7
4:12	-47.2	-90.3	-138.8	37.3	-53.4	-101.9	-156.5	39.9	-60.4	-115.2	-176.8	42.8
5:12	-47.3	-90.4	-138.8	35.5	-53.4	-101.9	-156.5	38.0	-60.5	-115.2	-176.9	41.0
6:12	-47.3	-90.4	-138.9	33.7	-53.4	-101.9	-156.5	36.3	-60.5	-115.3	-176.9	39.2
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-35.3	-64.6	-101.2	35.5	-35.3	-64.6	-101.2	35.5	-43.2	-78.7	-123.1	37.3
2:12	-31.7	-60.9	-93.9	38.9	-31.7	-60.9	-93.9	38.9	-38.7	-74.3	-114.3	41.9
3:12	-31.7	-61.0	-93.9	36.6	-31.7	-61.0	-93.9	36.6	-38.7	-74.3	-114.3	39.5
4:12	-31.7	-61.0	-93.9	34.2	-31.7	-61.0	-93.9	34.2	-38.8	-74.3	-114.3	37.2
5:12	-31.7	-61.0	-94.0	31.9	-31.7	-61.0	-94.0	31.9	-38.8	-74.4	-114.3	34.9
6:12	-31.8	-61.1	-94.0	29.8	-31.8	-61.1	-94.0	29.8	-38.8	-74.4	-114.4	32.7
7:12	-35.5	-42.8	-42.8	38.8	-35.5	-42.8	-42.8	38.8	-43.3	-52.2	-52.2	44.1
8:12	-35.5	-42.8	-42.8	37.0	-35.5	-42.8	-42.8	37.0	-43.4	-52.3	-52.3	43.2
9:12	-35.6	-42.9	-42.9	36.0	-35.6	-42.9	-42.9	36.0	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
Exposure Category C												
1:12	-43.2	-78.7	-123.1	37.3	-50.0	-90.9	-142.2	38.8	-57.8	-105.1	-164.1	40.6
2:12	-38.7	-74.3	-114.3	41.9	-44.8	-85.8	-131.9	44.4	-51.9	-99.2	-152.3	47.4
3:12	-38.7	-74.3	-114.3	39.5	-44.9	-85.8	-132.0	42.1	-51.9	-99.2	-152.3	45.0
4:12	-38.8	-74.3	-114.3	37.2	-44.9	-85.9	-132.0	39.7	-51.9	-99.2	-152.4	42.7
5:12	-38.8	-74.4	-114.3	34.9	-44.9	-85.9	-132.0	37.4	-52.0	-99.2	-152.4	40.4
6:12	-38.8	-74.4	-114.4	32.7	-45.0	-85.9	-132.1	35.3	-52.0	-99.3	-152.4	38.2
7:12	-43.3	-52.2	-52.2	44.1	-50.1	-60.4	-60.4	49.4	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.2	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D												
1:12	-52.6	-95.6	-149.5	37.1	-59.4	-107.9	-168.5	38.6	-67.2	-122.0	-190.5	40.4
2:12	-47.2	-90.3	-138.7	43.3	-53.3	-101.8	-156.4	45.8	-60.4	-115.2	-176.8	48.7
3:12	-47.2	-90.3	-138.8	41.2	-53.3	-101.8	-156.4	43.7	-60.4	-115.2	-176.8	46.6
4:12	-47.2	-90.3	-138.8	39.0	-53.4	-101.9	-156.5	41.6	-60.4	-115.2	-176.8	44.5
5:12	-47.3	-90.4	-138.8	37.0	-53.4	-101.9	-156.5	39.5	-60.5	-115.2	-176.9	42.4
6:12	-47.3	-90.4	-138.9	35.0	-53.4	-101.9	-156.5	37.5	-60.5	-115.3	-176.9	40.5
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-35.3	-64.6	-101.2	38.6	-35.3	-64.6	-101.2	38.6	-43.2	-78.7	-123.1	39.9
2:12	-31.7	-60.9	-93.9	41.3	-31.7	-60.9	-93.9	41.3	-38.7	-74.3	-114.3	44.2
3:12	-31.7	-61.0	-93.9	38.7	-31.7	-61.0	-93.9	38.7	-38.7	-74.3	-114.3	41.7
4:12	-31.7	-61.0	-93.9	36.1	-31.7	-61.0	-93.9	36.1	-38.8	-74.3	-114.3	39.1
5:12	-31.7	-61.0	-94.0	33.6	-31.7	-61.0	-94.0	33.6	-38.8	-74.4	-114.3	36.5
6:12	-31.8	-61.1	-94.0	31.2	-31.8	-61.1	-94.0	31.2	-38.8	-74.4	-114.4	34.1
7:12	-35.5	-42.8	-42.8	40.0	-35.5	-42.8	-42.8	40.0	-43.3	-52.2	-52.2	45.3
8:12	-35.5	-42.8	-42.8	38.1	-35.5	-42.8	-42.8	38.1	-43.4	-52.3	-52.3	43.3
9:12	-35.6	-42.9	-42.9	36.3	-35.6	-42.9	-42.9	36.3	-43.4	-52.3	-52.3	43.1
10:12	-35.6	-42.9	-42.9	35.9	-35.6	-42.9	-42.9	35.9	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
1:12	-43.2	-78.7	-123.1	39.9	-50.0	-90.9	-142.2	41.4	-57.8	-105.1	-164.1	43.2
2:12	-38.7	-74.3	-114.3	44.2	-44.8	-85.8	-131.9	46.8	-51.9	-99.2	-152.3	49.7
3:12	-38.7	-74.3	-114.3	41.7	-44.9	-85.8	-132.0	44.2	-51.9	-99.2	-152.3	47.2
4:12	-38.8	-74.3	-114.3	39.1	-44.9	-85.9	-132.0	41.6	-51.9	-99.2	-152.4	44.5
5:12	-38.8	-74.4	-114.3	36.5	-44.9	-85.9	-132.0	39.1	-52.0	-99.2	-152.4	42.0
6:12	-38.8	-74.4	-114.4	34.1	-45.0	-85.9	-132.1	36.7	-52.0	-99.3	-152.4	39.6
7:12	-43.3	-52.2	-52.2	45.3	-50.1	-60.4	-60.4	49.9	-58.0	-69.8	-69.8	56.5
8:12	-43.4	-52.3	-52.3	43.3	-50.2	-60.4	-60.4	49.3	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.1	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
1:12	-52.6	-95.6	-149.5	39.4	-59.4	-107.9	-168.5	40.9	-67.2	-122.0	-190.5	42.7
2:12	-47.2	-90.3	-138.7	45.4	-53.3	-101.8	-156.4	47.9	-60.4	-115.2	-176.8	50.9
3:12	-47.2	-90.3	-138.8	43.1	-53.3	-101.8	-156.4	45.6	-60.4	-115.2	-176.8	48.6
4:12	-47.2	-90.3	-138.8	40.7	-53.4	-101.9	-156.5	43.3	-60.4	-115.2	-176.8	46.2
5:12	-47.3	-90.4	-138.8	38.4	-53.4	-101.9	-156.5	41.0	-60.5	-115.2	-176.9	43.9
6:12	-47.3	-90.4	-138.9	36.3	-53.4	-101.9	-156.5	38.8	-60.5	-115.3	-176.9	41.8
7:12	-52.7	-63.5	-63.5	51.8	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-35.3	-64.6	-101.2	45.5	-35.3	-64.6	-101.2	45.5	-43.2	-78.7	-123.1	45.5
2:12	-31.7	-60.9	-93.9	46.1	-31.7	-60.9	-93.9	46.1	-38.7	-74.3	-114.3	49.0
3:12	-31.7	-61.0	-93.9	43.0	-31.7	-61.0	-93.9	43.0	-38.7	-74.3	-114.3	45.9
4:12	-31.7	-61.0	-93.9	39.9	-31.7	-61.0	-93.9	39.9	-38.8	-74.3	-114.3	42.8
5:12	-31.7	-61.0	-94.0	36.8	-31.7	-61.0	-94.0	36.8	-38.8	-74.4	-114.3	39.8
6:12	-31.8	-61.1	-94.0	34.0	-31.8	-61.1	-94.0	34.0	-38.8	-74.4	-114.4	36.9
7:12	-35.5	-42.8	-42.8	42.4	-35.5	-42.8	-42.8	42.4	-43.3	-52.2	-52.2	47.7
8:12	-35.5	-42.8	-42.8	40.1	-35.5	-42.8	-42.8	40.1	-43.4	-52.3	-52.3	45.4
9:12	-35.6	-42.9	-42.9	38.1	-35.6	-42.9	-42.9	38.1	-43.4	-52.3	-52.3	43.3
10:12	-35.6	-42.9	-42.9	36.3	-35.6	-42.9	-42.9	36.3	-43.5	-52.3	-52.3	42.9
11:12	-35.6	-43.0	-43.0	35.8	-35.6	-43.0	-43.0	35.8	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
1:12	-43.2	-78.7	-123.1	45.5	-50.0	-90.9	-142.2	46.6	-57.8	-105.1	-164.1	48.4
2:12	-38.7	-74.3	-114.3	49.0	-44.8	-85.8	-131.9	51.6	-51.9	-99.2	-152.3	54.5
3:12	-38.7	-74.3	-114.3	45.9	-44.9	-85.8	-132.0	48.5	-51.9	-99.2	-152.3	51.4
4:12	-38.8	-74.3	-114.3	42.8	-44.9	-85.9	-132.0	45.4	-51.9	-99.2	-152.4	48.3
5:12	-38.8	-74.4	-114.3	39.8	-44.9	-85.9	-132.0	42.3	-52.0	-99.2	-152.4	45.3
6:12	-38.8	-74.4	-114.4	36.9	-45.0	-85.9	-132.1	39.5	-52.0	-99.3	-152.4	42.4
7:12	-43.3	-52.2	-52.2	47.7	-50.1	-60.4	-60.4	52.3	-58.0	-69.8	-69.8	57.6
8:12	-43.4	-52.3	-52.3	45.4	-50.2	-60.4	-60.4	50.0	-58.0	-69.8	-69.8	56.4
9:12	-43.4	-52.3	-52.3	43.3	-50.2	-60.5	-60.5	49.2	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	42.9	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
1:12	-52.6	-95.6	-149.5	44.1	-59.4	-107.9	-168.5	45.6	-67.2	-122.0	-190.5	47.4
2:12	-47.2	-90.3	-138.7	49.7	-53.3	-101.8	-156.4	52.2	-60.4	-115.2	-176.8	55.2
3:12	-47.2	-90.3	-138.8	46.9	-53.3	-101.8	-156.4	49.4	-60.4	-115.2	-176.8	52.4
4:12	-47.2	-90.3	-138.8	44.1	-53.4	-101.9	-156.5	46.6	-60.4	-115.2	-176.8	49.6
5:12	-47.3	-90.4	-138.8	41.4	-53.4	-101.9	-156.5	43.9	-60.5	-115.2	-176.9	46.8
6:12	-47.3	-90.4	-138.9	38.8	-53.4	-101.9	-156.5	41.3	-60.5	-115.3	-176.9	44.3
7:12	-52.7	-63.5	-63.5	52.6	-59.5	-71.7	-71.7	57.9	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	51.7	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-35.3	-64.6	-101.2	52.5	-35.3	-64.6	-101.2	52.5	-43.2	-78.7	-123.1	52.5
2:12	-31.7	-60.9	-93.9	50.8	-31.7	-60.9	-93.9	50.8	-38.7	-74.3	-114.3	53.8
3:12	-31.7	-61.0	-93.9	47.2	-31.7	-61.0	-93.9	47.2	-38.7	-74.3	-114.3	50.2
4:12	-31.7	-61.0	-93.9	43.6	-31.7	-61.0	-93.9	43.6	-38.8	-74.3	-114.3	46.6
5:12	-31.7	-61.0	-94.0	40.1	-31.7	-61.0	-94.0	40.1	-38.8	-74.4	-114.3	43.0
6:12	-31.8	-61.1	-94.0	36.8	-31.8	-61.1	-94.0	36.8	-38.8	-74.4	-114.4	39.8
7:12	-35.5	-42.8	-42.8	44.8	-35.5	-42.8	-42.8	44.8	-43.3	-52.2	-52.2	50.1
8:12	-35.5	-42.8	-42.8	42.1	-35.5	-42.8	-42.8	42.1	-43.4	-52.3	-52.3	47.4
9:12	-35.6	-42.9	-42.9	39.8	-35.6	-42.9	-42.9	39.8	-43.4	-52.3	-52.3	45.1
10:12	-35.6	-42.9	-42.9	37.7	-35.6	-42.9	-42.9	37.7	-43.5	-52.3	-52.3	43.0
11:12	-35.6	-43.0	-43.0	36.0	-35.6	-43.0	-43.0	36.0	-43.5	-52.4	-52.4	42.8
12:12	-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7
Exposure Category C												
1:12	-43.2	-78.7	-123.1	52.5	-50.0	-90.9	-142.2	52.5	-57.8	-105.1	-164.1	53.6
2:12	-38.7	-74.3	-114.3	53.8	-44.8	-85.8	-131.9	56.3	-51.9	-99.2	-152.3	59.3
3:12	-38.7	-74.3	-114.3	50.2	-44.9	-85.8	-132.0	52.7	-51.9	-99.2	-152.3	55.7
4:12	-38.8	-74.3	-114.3	46.6	-44.9	-85.9	-132.0	49.1	-51.9	-99.2	-152.4	52.0
5:12	-38.8	-74.4	-114.3	43.0	-44.9	-85.9	-132.0	45.6	-52.0	-99.2	-152.4	48.5
6:12	-38.8	-74.4	-114.4	39.8	-45.0	-85.9	-132.1	42.3	-52.0	-99.3	-152.4	45.2
7:12	-43.3	-52.2	-52.2	50.1	-50.1	-60.4	-60.4	54.7	-58.0	-69.8	-69.8	60.0
8:12	-43.4	-52.3	-52.3	47.4	-50.2	-60.4	-60.4	52.0	-58.0	-69.8	-69.8	57.3
9:12	-43.4	-52.3	-52.3	45.1	-50.2	-60.5	-60.5	49.6	-58.0	-69.9	-69.9	56.2
10:12	-43.5	-52.3	-52.3	43.0	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D												
1:12	-52.6	-95.6	-149.5	48.8	-59.4	-107.9	-168.5	50.3	-67.2	-122.0	-190.5	52.1
2:12	-47.2	-90.3	-138.7	54.0	-53.3	-101.8	-156.4	56.5	-60.4	-115.2	-176.8	59.4
3:12	-47.2	-90.3	-138.8	50.7	-53.3	-101.8	-156.4	53.3	-60.4	-115.2	-176.8	56.2
4:12	-47.2	-90.3	-138.8	47.5	-53.4	-101.9	-156.5	50.0	-60.4	-115.2	-176.8	52.9
5:12	-47.3	-90.4	-138.8	44.3	-53.4	-101.9	-156.5	46.8	-60.5	-115.2	-176.9	49.8
6:12	-47.3	-90.4	-138.9	41.3	-53.4	-101.9	-156.5	43.9	-60.5	-115.3	-176.9	46.8
7:12	-52.7	-63.5	-63.5	54.8	-59.5	-71.7	-71.7	59.3	-67.4	-81.1	-81.1	65.0
8:12	-52.8	-63.5	-63.5	52.3	-59.6	-71.7	-71.7	57.8	-67.4	-81.1	-81.1	64.8
9:12	-52.8	-63.6	-63.6	51.5	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W155-S70

Up and Down (psf)		Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
		Roof Pitch	Zone 1	Zone 2	Zone 3	Zone 1	Zone 2	Zone 3	Zone 1	Zone 2	Zone 3	Zone 1	Zone 2	Zone 3
	Exposure Category B	1:12	-35.3	-64.6	-101.2	59.4	-35.3	-64.6	-101.2	59.4	-43.2	-78.7	-123.1	59.4
		2:12	-31.7	-60.9	-93.9	55.6	-31.7	-60.9	-93.9	55.6	-38.7	-74.3	-114.3	58.5
		3:12	-31.7	-61.0	-93.9	51.5	-31.7	-61.0	-93.9	51.5	-38.7	-74.3	-114.3	54.4
		4:12	-31.7	-61.0	-93.9	47.4	-31.7	-61.0	-93.9	47.4	-38.8	-74.3	-114.3	50.3
		5:12	-31.7	-61.0	-94.0	43.4	-31.7	-61.0	-94.0	43.4	-38.8	-74.4	-114.3	46.3
		6:12	-31.8	-61.1	-94.0	39.6	-31.8	-61.1	-94.0	39.6	-38.8	-74.4	-114.4	42.6
		7:12	-35.5	-42.8	-42.8	47.2	-35.5	-42.8	-42.8	47.2	-43.3	-52.2	-52.2	52.5
		8:12	-35.5	-42.8	-42.8	44.1	-35.5	-42.8	-42.8	44.1	-43.4	-52.3	-52.3	49.4
		9:12	-35.6	-42.9	-42.9	41.5	-35.6	-42.9	-42.9	41.5	-43.4	-52.3	-52.3	46.8
		10:12	-35.6	-42.9	-42.9	39.2	-35.6	-42.9	-42.9	39.2	-43.5	-52.3	-52.3	44.5
11:12		-35.6	-43.0	-43.0	37.2	-35.6	-43.0	-43.0	37.2	-43.5	-52.4	-52.4	42.8	
12:12		-35.7	-43.0	-43.0	35.7	-35.7	-43.0	-43.0	35.7	-43.5	-52.4	-52.4	42.7	
Exposure Category C	1:12	-43.2	-78.7	-123.1	59.4	-50.0	-90.9	-142.2	59.4	-57.8	-105.1	-164.1	59.4	
	2:12	-38.7	-74.3	-114.3	58.5	-44.8	-85.8	-131.9	61.1	-51.9	-99.2	-152.3	64.0	
	3:12	-38.7	-74.3	-114.3	54.4	-44.9	-85.8	-132.0	57.0	-51.9	-99.2	-152.3	59.9	
	4:12	-38.8	-74.3	-114.3	50.3	-44.9	-85.9	-132.0	52.8	-51.9	-99.2	-152.4	55.8	
	5:12	-38.8	-74.4	-114.3	46.3	-44.9	-85.9	-132.0	48.8	-52.0	-99.2	-152.4	51.8	
	6:12	-38.8	-74.4	-114.4	42.6	-45.0	-85.9	-132.1	45.1	-52.0	-99.3	-152.4	48.0	
	7:12	-43.3	-52.2	-52.2	52.5	-50.1	-60.4	-60.4	57.1	-58.0	-69.8	-69.8	62.4	
	8:12	-43.4	-52.3	-52.3	49.4	-50.2	-60.4	-60.4	54.0	-58.0	-69.8	-69.8	59.3	
	9:12	-43.4	-52.3	-52.3	46.8	-50.2	-60.5	-60.5	51.4	-58.0	-69.9	-69.9	56.7	
	10:12	-43.5	-52.3	-52.3	44.5	-50.2	-60.5	-60.5	49.1	-58.1	-69.9	-69.9	56.1	
	11:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0	
	12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9	
Exposure Category D	1:12	-52.6	-95.6	-149.5	53.9	-59.4	-107.9	-168.5	55.0	-67.2	-122.0	-190.5	56.8	
	2:12	-47.2	-90.3	-138.7	58.2	-53.3	-101.8	-156.4	60.8	-60.4	-115.2	-176.8	63.7	
	3:12	-47.2	-90.3	-138.8	54.6	-53.3	-101.8	-156.4	57.1	-60.4	-115.2	-176.8	60.0	
	4:12	-47.2	-90.3	-138.8	50.8	-53.4	-101.9	-156.5	53.4	-60.4	-115.2	-176.8	56.3	
	5:12	-47.3	-90.4	-138.8	47.2	-53.4	-101.9	-156.5	49.8	-60.5	-115.2	-176.9	52.7	
	6:12	-47.3	-90.4	-138.9	43.8	-53.4	-101.9	-156.5	46.4	-60.5	-115.3	-176.9	49.3	
	7:12	-52.7	-63.5	-63.5	56.9	-59.5	-71.7	-71.7	61.5	-67.4	-81.1	-81.1	66.8	
	8:12	-52.8	-63.5	-63.5	54.2	-59.6	-71.7	-71.7	58.8	-67.4	-81.1	-81.1	64.8	
	9:12	-52.8	-63.6	-63.6	51.8	-59.6	-71.7	-71.7	57.7	-67.5	-81.2	-81.2	64.7	
	10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6	
	11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5	
	12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4	
Side Load (psf)	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4	
	2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8	
	3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4	
	4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3	
	5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4	
	6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0	
	7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2	
	8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0	
	9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5	
	10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9	
	11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2	
	12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1		
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5		

Basic Wind Speed
155 mph

Ground Snow Load
80 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-35.3	-64.6	-101.2	66.4	-35.3	-64.6	-101.2	66.4	-43.2	-78.7	-123.1	66.4
2:12	-31.7	-60.9	-93.9	60.9	-31.7	-60.9	-93.9	60.9	-38.7	-74.3	-114.3	63.3
3:12	-31.7	-61.0	-93.9	55.7	-31.7	-61.0	-93.9	55.7	-38.7	-74.3	-114.3	58.7
4:12	-31.7	-61.0	-93.9	51.1	-31.7	-61.0	-93.9	51.1	-38.8	-74.3	-114.3	54.0
5:12	-31.7	-61.0	-94.0	46.6	-31.7	-61.0	-94.0	46.6	-38.8	-74.4	-114.3	49.6
6:12	-31.8	-61.1	-94.0	42.4	-31.8	-61.1	-94.0	42.4	-38.8	-74.4	-114.4	45.4
7:12	-35.5	-42.8	-42.8	49.6	-35.5	-42.8	-42.8	49.6	-43.3	-52.2	-52.2	54.9
8:12	-35.5	-42.8	-42.8	46.2	-35.5	-42.8	-42.8	46.2	-43.4	-52.3	-52.3	51.5
9:12	-35.6	-42.9	-42.9	43.2	-35.6	-42.9	-42.9	43.2	-43.4	-52.3	-52.3	48.5
10:12	-35.6	-42.9	-42.9	40.6	-35.6	-42.9	-42.9	40.6	-43.5	-52.3	-52.3	45.9
11:12	-35.6	-43.0	-43.0	38.4	-35.6	-43.0	-43.0	38.4	-43.5	-52.4	-52.4	43.7
12:12	-35.7	-43.0	-43.0	36.5	-35.7	-43.0	-43.0	36.5	-43.5	-52.4	-52.4	42.7
Exposure Category C												
1:12	-43.2	-78.7	-123.1	66.4	-50.0	-90.9	-142.2	66.4	-57.8	-105.1	-164.1	66.4
2:12	-38.7	-74.3	-114.3	63.3	-44.8	-85.8	-131.9	65.8	-51.9	-99.2	-152.3	68.8
3:12	-38.7	-74.3	-114.3	58.7	-44.9	-85.8	-132.0	61.2	-51.9	-99.2	-152.3	64.2
4:12	-38.8	-74.3	-114.3	54.0	-44.9	-85.9	-132.0	56.6	-51.9	-99.2	-152.4	59.5
5:12	-38.8	-74.4	-114.3	49.6	-44.9	-85.9	-132.0	52.1	-52.0	-99.2	-152.4	55.1
6:12	-38.8	-74.4	-114.4	45.4	-45.0	-85.9	-132.1	47.9	-52.0	-99.3	-152.4	50.9
7:12	-43.3	-52.2	-52.2	54.9	-50.1	-60.4	-60.4	59.5	-58.0	-69.8	-69.8	64.8
8:12	-43.4	-52.3	-52.3	51.5	-50.2	-60.4	-60.4	56.1	-58.0	-69.8	-69.8	61.3
9:12	-43.4	-52.3	-52.3	48.5	-50.2	-60.5	-60.5	53.1	-58.0	-69.9	-69.9	58.4
10:12	-43.5	-52.3	-52.3	45.9	-50.2	-60.5	-60.5	50.5	-58.1	-69.9	-69.9	56.1
11:12	-43.5	-52.4	-52.4	43.7	-50.3	-60.5	-60.5	48.9	-58.1	-69.9	-69.9	56.0
12:12	-43.5	-52.4	-52.4	42.7	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D												
1:12	-52.6	-95.6	-149.5	60.1	-59.4	-107.9	-168.5	60.1	-67.2	-122.0	-190.5	61.5
2:12	-47.2	-90.3	-138.7	62.5	-53.3	-101.8	-156.4	65.1	-60.4	-115.2	-176.8	68.0
3:12	-47.2	-90.3	-138.8	58.4	-53.3	-101.8	-156.4	60.9	-60.4	-115.2	-176.8	63.9
4:12	-47.2	-90.3	-138.8	54.2	-53.4	-101.9	-156.5	56.8	-60.4	-115.2	-176.8	59.7
5:12	-47.3	-90.4	-138.8	50.2	-53.4	-101.9	-156.5	52.7	-60.5	-115.2	-176.9	55.6
6:12	-47.3	-90.4	-138.9	46.4	-53.4	-101.9	-156.5	48.9	-60.5	-115.3	-176.9	51.9
7:12	-52.7	-63.5	-63.5	59.1	-59.5	-71.7	-71.7	63.7	-67.4	-81.1	-81.1	69.0
8:12	-52.8	-63.5	-63.5	56.0	-59.6	-71.7	-71.7	60.6	-67.4	-81.1	-81.1	65.9
9:12	-52.8	-63.6	-63.6	53.3	-59.6	-71.7	-71.7	57.9	-67.5	-81.2	-81.2	64.7
10:12	-52.9	-63.6	-63.6	51.4	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
155 mph

Ground Snow Load
90 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-35.3	-64.6	-101.2	73.4	-35.3	-64.6	-101.2	73.4	-43.2	-78.7	-123.1	73.4
	2:12	-31.7	-60.9	-93.9	67.2	-31.7	-60.9	-93.9	67.2	-38.7	-74.3	-114.3	68.0
	3:12	-31.7	-61.0	-93.9	60.5	-31.7	-61.0	-93.9	60.5	-38.7	-74.3	-114.3	62.9
	4:12	-31.7	-61.0	-93.9	54.9	-31.7	-61.0	-93.9	54.9	-38.8	-74.3	-114.3	57.8
	5:12	-31.7	-61.0	-94.0	49.9	-31.7	-61.0	-94.0	49.9	-38.8	-74.4	-114.3	52.8
	6:12	-31.8	-61.1	-94.0	45.2	-31.8	-61.1	-94.0	45.2	-38.8	-74.4	-114.4	48.2
	7:12	-35.5	-42.8	-42.8	52.0	-35.5	-42.8	-42.8	52.0	-43.3	-52.2	-52.2	57.3
	8:12	-35.5	-42.8	-42.8	48.2	-35.5	-42.8	-42.8	48.2	-43.4	-52.3	-52.3	53.5
	9:12	-35.6	-42.9	-42.9	44.9	-35.6	-42.9	-42.9	44.9	-43.4	-52.3	-52.3	50.2
	10:12	-35.6	-42.9	-42.9	42.1	-35.6	-42.9	-42.9	42.1	-43.5	-52.3	-52.3	47.3
	11:12	-35.6	-43.0	-43.0	39.6	-35.6	-43.0	-43.0	39.6	-43.5	-52.4	-52.4	44.9
	12:12	-35.7	-43.0	-43.0	37.5	-35.7	-43.0	-43.0	37.5	-43.5	-52.4	-52.4	42.8
Exposure Category C	1:12	-43.2	-78.7	-123.1	73.4	-50.0	-90.9	-142.2	73.4	-57.8	-105.1	-164.1	73.4
	2:12	-38.7	-74.3	-114.3	68.0	-44.8	-85.8	-131.9	70.6	-51.9	-99.2	-152.3	73.5
	3:12	-38.7	-74.3	-114.3	62.9	-44.9	-85.8	-132.0	65.5	-51.9	-99.2	-152.3	68.4
	4:12	-38.8	-74.3	-114.3	57.8	-44.9	-85.9	-132.0	60.3	-51.9	-99.2	-152.4	63.3
	5:12	-38.8	-74.4	-114.3	52.8	-44.9	-85.9	-132.0	55.4	-52.0	-99.2	-152.4	58.3
	6:12	-38.8	-74.4	-114.4	48.2	-45.0	-85.9	-132.1	50.7	-52.0	-99.3	-152.4	53.7
	7:12	-43.3	-52.2	-52.2	57.3	-50.1	-60.4	-60.4	61.9	-58.0	-69.8	-69.8	67.1
	8:12	-43.4	-52.3	-52.3	53.5	-50.2	-60.4	-60.4	58.1	-58.0	-69.8	-69.8	63.4
	9:12	-43.4	-52.3	-52.3	50.2	-50.2	-60.5	-60.5	54.8	-58.0	-69.9	-69.9	60.1
	10:12	-43.5	-52.3	-52.3	47.3	-50.2	-60.5	-60.5	51.9	-58.1	-69.9	-69.9	57.2
	11:12	-43.5	-52.4	-52.4	44.9	-50.3	-60.5	-60.5	49.5	-58.1	-69.9	-69.9	56.0
	12:12	-43.5	-52.4	-52.4	42.8	-50.3	-60.6	-60.6	48.8	-58.2	-70.0	-70.0	55.9
Exposure Category D	1:12	-52.6	-95.6	-149.5	66.4	-59.4	-107.9	-168.5	66.4	-67.2	-122.0	-190.5	66.4
	2:12	-47.2	-90.3	-138.7	66.8	-53.3	-101.8	-156.4	69.4	-60.4	-115.2	-176.8	72.3
	3:12	-47.2	-90.3	-138.8	62.2	-53.3	-101.8	-156.4	64.8	-60.4	-115.2	-176.8	67.7
	4:12	-47.2	-90.3	-138.8	57.6	-53.4	-101.9	-156.5	60.1	-60.4	-115.2	-176.8	63.1
	5:12	-47.3	-90.4	-138.8	53.1	-53.4	-101.9	-156.5	55.6	-60.5	-115.2	-176.9	58.6
	6:12	-47.3	-90.4	-138.9	48.9	-53.4	-101.9	-156.5	51.4	-60.5	-115.3	-176.9	54.4
	7:12	-52.7	-63.5	-63.5	61.2	-59.5	-71.7	-71.7	65.8	-67.4	-81.1	-81.1	71.1
	8:12	-52.8	-63.5	-63.5	57.8	-59.6	-71.7	-71.7	62.4	-67.4	-81.1	-81.1	67.7
	9:12	-52.8	-63.6	-63.6	54.8	-59.6	-71.7	-71.7	59.4	-67.5	-81.2	-81.2	64.7
	10:12	-52.9	-63.6	-63.6	52.3	-59.7	-71.8	-71.8	57.5	-67.5	-81.2	-81.2	64.6
	11:12	-52.9	-63.7	-63.7	51.3	-59.7	-71.8	-71.8	57.4	-67.5	-81.2	-81.2	64.5
	12:12	-52.9	-63.7	-63.7	51.2	-59.7	-71.9	-71.9	57.3	-67.6	-81.3	-81.3	64.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
	2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
	3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
	4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
	5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
	6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
	7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
	8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
	9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
	10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
	11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
155 mph

Ground Snow Load
100 psf

Up and Down (psf)

Basic Wind Speed **160 mph**
Ground Snow Load **0 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-37.7	-68.9	-107.9	15.5	-37.7	-68.9	-107.9	15.5	-46.1	-83.9	-131.3	18.0
	2:12	-33.8	-65.0	-100.1	23.3	-33.8	-65.0	-100.1	23.3	-41.3	-79.2	-121.8	27.5
	3:12	-33.8	-65.0	-100.1	23.2	-33.8	-65.0	-100.1	23.2	-41.4	-79.2	-121.9	27.4
	4:12	-33.9	-65.1	-100.2	23.1	-33.9	-65.1	-100.2	23.1	-41.4	-79.3	-121.9	27.3
	5:12	-33.9	-65.1	-100.2	23.0	-33.9	-65.1	-100.2	23.0	-41.4	-79.3	-121.9	27.2
	6:12	-33.9	-65.1	-100.2	22.9	-33.9	-65.1	-100.2	22.9	-41.5	-79.3	-122.0	27.1
	7:12	-37.9	-45.7	-45.7	38.4	-37.9	-45.7	-45.7	38.4	-46.2	-55.7	-55.7	45.9
	8:12	-37.9	-45.7	-45.7	38.3	-37.9	-45.7	-45.7	38.3	-46.3	-55.8	-55.8	45.8
	9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
	10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
	11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
	12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
Exposure Category C	1:12	-46.1	-83.9	-131.3	18.0	-53.3	-97.0	-151.6	20.2	-61.7	-112.0	-175.0	22.7
	2:12	-41.3	-79.2	-121.8	27.5	-47.9	-91.5	-140.7	31.1	-55.4	-105.7	-162.4	35.3
	3:12	-41.4	-79.2	-121.9	27.4	-47.9	-91.6	-140.7	31.0	-55.4	-105.8	-162.4	35.2
	4:12	-41.4	-79.3	-121.9	27.3	-47.9	-91.6	-140.7	30.9	-55.4	-105.8	-162.4	35.1
	5:12	-41.4	-79.3	-121.9	27.2	-47.9	-91.6	-140.8	30.8	-55.5	-105.8	-162.5	35.0
	6:12	-41.5	-79.3	-122.0	27.1	-48.0	-91.7	-140.8	30.7	-55.5	-105.9	-162.5	34.9
	7:12	-46.2	-55.7	-55.7	45.9	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
	8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
	9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
	10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
	11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
	12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D	1:12	-56.1	-102.0	-159.4	21.0	-63.3	-115.0	-179.7	23.2	-71.7	-130.1	-203.0	25.7
	2:12	-50.4	-96.3	-147.9	32.5	-56.9	-108.6	-166.7	36.1	-64.4	-122.8	-188.5	40.3
	3:12	-50.4	-96.3	-147.9	32.4	-56.9	-108.6	-166.8	36.0	-64.4	-122.8	-188.5	40.2
	4:12	-50.4	-96.3	-148.0	32.3	-56.9	-108.6	-166.8	36.0	-64.5	-122.8	-188.5	40.1
	5:12	-50.5	-96.4	-148.0	32.2	-57.0	-108.7	-166.8	35.9	-64.5	-122.9	-188.5	40.0
	6:12	-50.5	-96.4	-148.0	32.1	-57.0	-108.7	-166.9	35.8	-64.5	-122.9	-188.6	39.9
	7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
	8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
	9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
	10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
	11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
	12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
	2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
	3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
	4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
	5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
	6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
	7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
	8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
	9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
	10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
	11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-37.7	-68.9	-107.9	16.3	-37.7	-68.9	-107.9	16.3	-46.1	-83.9	-131.3	18.2
2:12	-33.8	-65.0	-100.1	23.3	-33.8	-65.0	-100.1	23.3	-41.3	-79.2	-121.8	27.5
3:12	-33.8	-65.0	-100.1	23.2	-33.8	-65.0	-100.1	23.2	-41.4	-79.2	-121.9	27.4
4:12	-33.9	-65.1	-100.2	23.1	-33.9	-65.1	-100.2	23.1	-41.4	-79.3	-121.9	27.3
5:12	-33.9	-65.1	-100.2	23.0	-33.9	-65.1	-100.2	23.0	-41.4	-79.3	-121.9	27.2
6:12	-33.9	-65.1	-100.2	22.9	-33.9	-65.1	-100.2	22.9	-41.5	-79.3	-122.0	27.1
7:12	-37.9	-45.7	-45.7	38.4	-37.9	-45.7	-45.7	38.4	-46.2	-55.7	-55.7	45.9
8:12	-37.9	-45.7	-45.7	38.3	-37.9	-45.7	-45.7	38.3	-46.3	-55.8	-55.8	45.8
9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
1:12	-46.1	-83.9	-131.3	18.2	-53.3	-97.0	-151.6	20.2	-61.7	-112.0	-175.0	22.7
2:12	-41.3	-79.2	-121.8	27.5	-47.9	-91.5	-140.7	31.1	-55.4	-105.7	-162.4	35.3
3:12	-41.4	-79.2	-121.9	27.4	-47.9	-91.6	-140.7	31.0	-55.4	-105.8	-162.4	35.2
4:12	-41.4	-79.3	-121.9	27.3	-47.9	-91.6	-140.7	30.9	-55.4	-105.8	-162.4	35.1
5:12	-41.4	-79.3	-121.9	27.2	-47.9	-91.6	-140.8	30.8	-55.5	-105.8	-162.5	35.0
6:12	-41.5	-79.3	-122.0	27.1	-48.0	-91.7	-140.8	30.7	-55.5	-105.9	-162.5	34.9
7:12	-46.2	-55.7	-55.7	45.9	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
1:12	-56.1	-102.0	-159.4	21.0	-63.3	-115.0	-179.7	23.2	-71.7	-130.1	-203.0	25.7
2:12	-50.4	-96.3	-147.9	32.5	-56.9	-108.6	-166.7	36.1	-64.4	-122.8	-188.5	40.3
3:12	-50.4	-96.3	-147.9	32.4	-56.9	-108.6	-166.8	36.0	-64.4	-122.8	-188.5	40.2
4:12	-50.4	-96.3	-148.0	32.3	-56.9	-108.6	-166.8	36.0	-64.5	-122.8	-188.5	40.1
5:12	-50.5	-96.4	-148.0	32.2	-57.0	-108.7	-166.8	35.9	-64.5	-122.9	-188.5	40.0
6:12	-50.5	-96.4	-148.0	32.1	-57.0	-108.7	-166.9	35.8	-64.5	-122.9	-188.6	39.9
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **160 mph**
Ground Snow Load **5 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-37.7	-68.9	-107.9	20.1	-37.7	-68.9	-107.9	20.1	-46.1	-83.9	-131.3	21.9
2:12	-33.8	-65.0	-100.1	25.2	-33.8	-65.0	-100.1	25.2	-41.3	-79.2	-121.8	28.3
3:12	-33.8	-65.0	-100.1	24.4	-33.8	-65.0	-100.1	24.4	-41.4	-79.2	-121.9	27.6
4:12	-33.9	-65.1	-100.2	23.1	-33.9	-65.1	-100.2	23.1	-41.4	-79.3	-121.9	27.3
5:12	-33.9	-65.1	-100.2	23.0	-33.9	-65.1	-100.2	23.0	-41.4	-79.3	-121.9	27.2
6:12	-33.9	-65.1	-100.2	22.9	-33.9	-65.1	-100.2	22.9	-41.5	-79.3	-122.0	27.1
7:12	-37.9	-45.7	-45.7	38.4	-37.9	-45.7	-45.7	38.4	-46.2	-55.7	-55.7	45.9
8:12	-37.9	-45.7	-45.7	38.3	-37.9	-45.7	-45.7	38.3	-46.3	-55.8	-55.8	45.8
9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
1:12	-46.1	-83.9	-131.3	21.9	-53.3	-97.0	-151.6	23.6	-61.7	-112.0	-175.0	25.4
2:12	-41.3	-79.2	-121.8	28.3	-47.9	-91.5	-140.7	31.1	-55.4	-105.7	-162.4	35.3
3:12	-41.4	-79.2	-121.9	27.6	-47.9	-91.6	-140.7	31.0	-55.4	-105.8	-162.4	35.2
4:12	-41.4	-79.3	-121.9	27.3	-47.9	-91.6	-140.7	30.9	-55.4	-105.8	-162.4	35.1
5:12	-41.4	-79.3	-121.9	27.2	-47.9	-91.6	-140.8	30.8	-55.5	-105.8	-162.5	35.0
6:12	-41.5	-79.3	-122.0	27.1	-48.0	-91.7	-140.8	30.7	-55.5	-105.9	-162.5	34.9
7:12	-46.2	-55.7	-55.7	45.9	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
1:12	-56.1	-102.0	-159.4	24.2	-63.3	-115.0	-179.7	25.8	-71.7	-130.1	-203.0	27.7
2:12	-50.4	-96.3	-147.9	32.5	-56.9	-108.6	-166.7	36.1	-64.4	-122.8	-188.5	40.3
3:12	-50.4	-96.3	-147.9	32.4	-56.9	-108.6	-166.8	36.0	-64.4	-122.8	-188.5	40.2
4:12	-50.4	-96.3	-148.0	32.3	-56.9	-108.6	-166.8	36.0	-64.5	-122.8	-188.5	40.1
5:12	-50.5	-96.4	-148.0	32.2	-57.0	-108.7	-166.8	35.9	-64.5	-122.9	-188.5	40.0
6:12	-50.5	-96.4	-148.0	32.1	-57.0	-108.7	-166.9	35.8	-64.5	-122.9	-188.6	39.9
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed: 160 mph

Ground Snow Load: 10 psf

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Basic Wind Speed
160 mph

Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-37.7	-68.9	-107.9	23.8	-37.7	-68.9	-107.9	23.8	-46.1	-83.9	-131.3	25.7
	2:12	-33.8	-65.0	-100.1	28.6	-33.8	-65.0	-100.1	28.6	-41.3	-79.2	-121.8	31.7
	3:12	-33.8	-65.0	-100.1	27.5	-33.8	-65.0	-100.1	27.5	-41.4	-79.2	-121.9	30.6
	4:12	-33.9	-65.1	-100.2	23.9	-33.9	-65.1	-100.2	23.9	-41.4	-79.3	-121.9	27.3
	5:12	-33.9	-65.1	-100.2	23.1	-33.9	-65.1	-100.2	23.1	-41.4	-79.3	-121.9	27.2
	6:12	-33.9	-65.1	-100.2	22.9	-33.9	-65.1	-100.2	22.9	-41.5	-79.3	-122.0	27.1
	7:12	-37.9	-45.7	-45.7	38.4	-37.9	-45.7	-45.7	38.4	-46.2	-55.7	-55.7	45.9
	8:12	-37.9	-45.7	-45.7	38.3	-37.9	-45.7	-45.7	38.3	-46.3	-55.8	-55.8	45.8
	9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
	10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
	11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
	12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
Exposure Category C	1:12	-46.1	-83.9	-131.3	25.7	-53.3	-97.0	-151.6	27.3	-61.7	-112.0	-175.0	29.2
	2:12	-41.3	-79.2	-121.8	31.7	-47.9	-91.5	-140.7	34.5	-55.4	-105.7	-162.4	37.6
	3:12	-41.4	-79.2	-121.9	30.6	-47.9	-91.6	-140.7	33.3	-55.4	-105.8	-162.4	36.5
	4:12	-41.4	-79.3	-121.9	27.3	-47.9	-91.6	-140.7	30.9	-55.4	-105.8	-162.4	35.1
	5:12	-41.4	-79.3	-121.9	27.2	-47.9	-91.6	-140.8	30.8	-55.5	-105.8	-162.5	35.0
	6:12	-41.5	-79.3	-122.0	27.1	-48.0	-91.7	-140.8	30.7	-55.5	-105.9	-162.5	34.9
	7:12	-46.2	-55.7	-55.7	45.9	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
	8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
	9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
	10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
	11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
	12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D	1:12	-56.1	-102.0	-159.4	27.9	-63.3	-115.0	-179.7	29.5	-71.7	-130.1	-203.0	31.4
	2:12	-50.4	-96.3	-147.9	35.5	-56.9	-108.6	-166.7	38.2	-64.4	-122.8	-188.5	41.4
	3:12	-50.4	-96.3	-147.9	34.4	-56.9	-108.6	-166.8	37.1	-64.4	-122.8	-188.5	40.2
	4:12	-50.4	-96.3	-148.0	32.3	-56.9	-108.6	-166.8	36.0	-64.5	-122.8	-188.5	40.1
	5:12	-50.5	-96.4	-148.0	32.2	-57.0	-108.7	-166.8	35.9	-64.5	-122.9	-188.5	40.0
	6:12	-50.5	-96.4	-148.0	32.1	-57.0	-108.7	-166.9	35.8	-64.5	-122.9	-188.6	39.9
	7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
	8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
	9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
	10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
	11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
	12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
	2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
	4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
	5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
	6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
	7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
	8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
	9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-37.7	-68.9	-107.9	27.5	-37.7	-68.9	-107.9	27.5	-46.1	-83.9	-131.3	29.4
2:12	-33.8	-65.0	-100.1	32.0	-33.8	-65.0	-100.1	32.0	-41.3	-79.2	-121.8	35.1
3:12	-33.8	-65.0	-100.1	30.5	-33.8	-65.0	-100.1	30.5	-41.4	-79.2	-121.9	33.6
4:12	-33.9	-65.1	-100.2	25.8	-33.9	-65.1	-100.2	25.8	-41.4	-79.3	-121.9	28.9
5:12	-33.9	-65.1	-100.2	24.7	-33.9	-65.1	-100.2	24.7	-41.4	-79.3	-121.9	27.8
6:12	-33.9	-65.1	-100.2	23.7	-33.9	-65.1	-100.2	23.7	-41.5	-79.3	-122.0	27.1
7:12	-37.9	-45.7	-45.7	38.4	-37.9	-45.7	-45.7	38.4	-46.2	-55.7	-55.7	45.9
8:12	-37.9	-45.7	-45.7	38.3	-37.9	-45.7	-45.7	38.3	-46.3	-55.8	-55.8	45.8
9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
Exposure Category C												
1:12	-46.1	-83.9	-131.3	29.4	-53.3	-97.0	-151.6	31.0	-61.7	-112.0	-175.0	32.9
2:12	-41.3	-79.2	-121.8	35.1	-47.9	-91.5	-140.7	37.9	-55.4	-105.7	-162.4	41.0
3:12	-41.4	-79.2	-121.9	33.6	-47.9	-91.6	-140.7	36.4	-55.4	-105.8	-162.4	39.5
4:12	-41.4	-79.3	-121.9	28.9	-47.9	-91.6	-140.7	31.6	-55.4	-105.8	-162.4	35.1
5:12	-41.4	-79.3	-121.9	27.8	-47.9	-91.6	-140.8	30.8	-55.5	-105.8	-162.5	35.0
6:12	-41.5	-79.3	-122.0	27.1	-48.0	-91.7	-140.8	30.7	-55.5	-105.9	-162.5	34.9
7:12	-46.2	-55.7	-55.7	45.9	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D												
1:12	-56.1	-102.0	-159.4	31.6	-63.3	-115.0	-179.7	33.3	-71.7	-130.1	-203.0	35.1
2:12	-50.4	-96.3	-147.9	38.9	-56.9	-108.6	-166.7	41.6	-64.4	-122.8	-188.5	44.8
3:12	-50.4	-96.3	-147.9	37.4	-56.9	-108.6	-166.8	40.1	-64.4	-122.8	-188.5	43.3
4:12	-50.4	-96.3	-148.0	32.3	-56.9	-108.6	-166.8	36.0	-64.5	-122.8	-188.5	40.1
5:12	-50.5	-96.4	-148.0	32.2	-57.0	-108.7	-166.8	35.9	-64.5	-122.9	-188.5	40.0
6:12	-50.5	-96.4	-148.0	32.1	-57.0	-108.7	-166.9	35.8	-64.5	-122.9	-188.6	39.9
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
160 mph

Ground Snow Load
20 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-37.7	-68.9	-107.9	27.5	-37.7	-68.9	-107.9	27.5	-46.1	-83.9	-131.3	29.4
2:12	-33.8	-65.0	-100.1	32.0	-33.8	-65.0	-100.1	32.0	-41.3	-79.2	-121.8	35.1
3:12	-33.8	-65.0	-100.1	30.5	-33.8	-65.0	-100.1	30.5	-41.4	-79.2	-121.9	33.6
4:12	-33.9	-65.1	-100.2	27.6	-33.9	-65.1	-100.2	27.6	-41.4	-79.3	-121.9	30.8
5:12	-33.9	-65.1	-100.2	26.3	-33.9	-65.1	-100.2	26.3	-41.4	-79.3	-121.9	29.5
6:12	-33.9	-65.1	-100.2	25.1	-33.9	-65.1	-100.2	25.1	-41.5	-79.3	-122.0	28.2
7:12	-37.9	-45.7	-45.7	38.4	-37.9	-45.7	-45.7	38.4	-46.2	-55.7	-55.7	45.9
8:12	-37.9	-45.7	-45.7	38.3	-37.9	-45.7	-45.7	38.3	-46.3	-55.8	-55.8	45.8
9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
1:12	-46.1	-83.9	-131.3	29.4	-53.3	-97.0	-151.6	31.0	-61.7	-112.0	-175.0	32.9
2:12	-41.3	-79.2	-121.8	35.1	-47.9	-91.5	-140.7	37.9	-55.4	-105.7	-162.4	41.0
3:12	-41.4	-79.2	-121.9	33.6	-47.9	-91.6	-140.7	36.4	-55.4	-105.8	-162.4	39.5
4:12	-41.4	-79.3	-121.9	30.8	-47.9	-91.6	-140.7	33.5	-55.4	-105.8	-162.4	36.6
5:12	-41.4	-79.3	-121.9	29.5	-47.9	-91.6	-140.8	32.2	-55.5	-105.8	-162.5	35.3
6:12	-41.5	-79.3	-122.0	28.2	-48.0	-91.7	-140.8	30.9	-55.5	-105.9	-162.5	34.9
7:12	-46.2	-55.7	-55.7	45.9	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
1:12	-56.1	-102.0	-159.4	31.6	-63.3	-115.0	-179.7	33.3	-71.7	-130.1	-203.0	35.1
2:12	-50.4	-96.3	-147.9	38.9	-56.9	-108.6	-166.7	41.6	-64.4	-122.8	-188.5	44.8
3:12	-50.4	-96.3	-147.9	37.4	-56.9	-108.6	-166.8	40.1	-64.4	-122.8	-188.5	43.3
4:12	-50.4	-96.3	-148.0	33.6	-56.9	-108.6	-166.8	36.3	-64.5	-122.8	-188.5	40.1
5:12	-50.5	-96.4	-148.0	32.4	-57.0	-108.7	-166.8	35.9	-64.5	-122.9	-188.5	40.0
6:12	-50.5	-96.4	-148.0	32.1	-57.0	-108.7	-166.9	35.8	-64.5	-122.9	-188.6	39.9
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4

Basic Wind Speed

160 mph

Ground Snow Load

25 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-37.7	-68.9	-107.9	28.2	-37.7	-68.9	-107.9	28.2	-46.1	-83.9	-131.3	30.1
2:12	-33.8	-65.0	-100.1	32.7	-33.8	-65.0	-100.1	32.7	-41.3	-79.2	-121.8	35.8
3:12	-33.8	-65.0	-100.1	31.1	-33.8	-65.0	-100.1	31.1	-41.4	-79.2	-121.9	34.3
4:12	-33.9	-65.1	-100.2	29.5	-33.9	-65.1	-100.2	29.5	-41.4	-79.3	-121.9	32.7
5:12	-33.9	-65.1	-100.2	28.0	-33.9	-65.1	-100.2	28.0	-41.4	-79.3	-121.9	31.1
6:12	-33.9	-65.1	-100.2	26.5	-33.9	-65.1	-100.2	26.5	-41.5	-79.3	-122.0	29.6
7:12	-37.9	-45.7	-45.7	38.4	-37.9	-45.7	-45.7	38.4	-46.2	-55.7	-55.7	45.9
8:12	-37.9	-45.7	-45.7	38.3	-37.9	-45.7	-45.7	38.3	-46.3	-55.8	-55.8	45.8
9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
Exposure Category C												
1:12	-46.1	-83.9	-131.3	30.1	-53.3	-97.0	-151.6	31.8	-61.7	-112.0	-175.0	33.6
2:12	-41.3	-79.2	-121.8	35.8	-47.9	-91.5	-140.7	38.5	-55.4	-105.7	-162.4	41.7
3:12	-41.4	-79.2	-121.9	34.3	-47.9	-91.6	-140.7	37.0	-55.4	-105.8	-162.4	40.1
4:12	-41.4	-79.3	-121.9	32.7	-47.9	-91.6	-140.7	35.4	-55.4	-105.8	-162.4	38.5
5:12	-41.4	-79.3	-121.9	31.1	-47.9	-91.6	-140.8	33.8	-55.5	-105.8	-162.5	36.9
6:12	-41.5	-79.3	-122.0	29.6	-48.0	-91.7	-140.8	32.3	-55.5	-105.9	-162.5	35.5
7:12	-46.2	-55.7	-55.7	45.9	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D												
1:12	-56.1	-102.0	-159.4	31.6	-63.3	-115.0	-179.7	33.3	-71.7	-130.1	-203.0	35.1
2:12	-50.4	-96.3	-147.9	38.9	-56.9	-108.6	-166.7	41.6	-64.4	-122.8	-188.5	44.8
3:12	-50.4	-96.3	-147.9	37.4	-56.9	-108.6	-166.8	40.1	-64.4	-122.8	-188.5	43.3
4:12	-50.4	-96.3	-148.0	35.3	-56.9	-108.6	-166.8	38.0	-64.5	-122.8	-188.5	41.1
5:12	-50.5	-96.4	-148.0	33.9	-57.0	-108.7	-166.8	36.6	-64.5	-122.9	-188.5	40.0
6:12	-50.5	-96.4	-148.0	32.5	-57.0	-108.7	-166.9	35.8	-64.5	-122.9	-188.6	39.9
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4

Basic Wind Speed **160 mph**
Ground Snow Load **30 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed **160 mph**
Ground Snow Load **35 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-37.7	-68.9	-107.9	30.9	-37.7	-68.9	-107.9	30.9	-46.1	-83.9	-131.3	32.7
2:12	-33.8	-65.0	-100.1	35.1	-33.8	-65.0	-100.1	35.1	-41.3	-79.2	-121.8	38.2
3:12	-33.8	-65.0	-100.1	33.2	-33.8	-65.0	-100.1	33.2	-41.4	-79.2	-121.9	36.4
4:12	-33.9	-65.1	-100.2	31.4	-33.9	-65.1	-100.2	31.4	-41.4	-79.3	-121.9	34.5
5:12	-33.9	-65.1	-100.2	29.6	-33.9	-65.1	-100.2	29.6	-41.4	-79.3	-121.9	32.7
6:12	-33.9	-65.1	-100.2	27.9	-33.9	-65.1	-100.2	27.9	-41.5	-79.3	-122.0	31.0
7:12	-37.9	-45.7	-45.7	38.4	-37.9	-45.7	-45.7	38.4	-46.2	-55.7	-55.7	45.9
8:12	-37.9	-45.7	-45.7	38.3	-37.9	-45.7	-45.7	38.3	-46.3	-55.8	-55.8	45.8
9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
Exposure Category C												
1:12	-46.1	-83.9	-131.3	32.7	-53.3	-97.0	-151.6	34.4	-61.7	-112.0	-175.0	36.2
2:12	-41.3	-79.2	-121.8	38.2	-47.9	-91.5	-140.7	40.9	-55.4	-105.7	-162.4	44.1
3:12	-41.4	-79.2	-121.9	36.4	-47.9	-91.6	-140.7	39.1	-55.4	-105.8	-162.4	42.2
4:12	-41.4	-79.3	-121.9	34.5	-47.9	-91.6	-140.7	37.2	-55.4	-105.8	-162.4	40.4
5:12	-41.4	-79.3	-121.9	32.7	-47.9	-91.6	-140.8	35.4	-55.5	-105.8	-162.5	38.6
6:12	-41.5	-79.3	-122.0	31.0	-48.0	-91.7	-140.8	33.7	-55.5	-105.9	-162.5	36.9
7:12	-46.2	-55.7	-55.7	45.9	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D												
1:12	-56.1	-102.0	-159.4	33.2	-63.3	-115.0	-179.7	34.8	-71.7	-130.1	-203.0	36.7
2:12	-50.4	-96.3	-147.9	40.3	-56.9	-108.6	-166.7	43.0	-64.4	-122.8	-188.5	46.1
3:12	-50.4	-96.3	-147.9	38.6	-56.9	-108.6	-166.8	41.4	-64.4	-122.8	-188.5	44.5
4:12	-50.4	-96.3	-148.0	37.0	-56.9	-108.6	-166.8	39.7	-64.5	-122.8	-188.5	42.8
5:12	-50.5	-96.4	-148.0	35.3	-57.0	-108.7	-166.8	38.1	-64.5	-122.9	-188.5	41.2
6:12	-50.5	-96.4	-148.0	33.8	-57.0	-108.7	-166.9	36.5	-64.5	-122.9	-188.6	39.9
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-37.7	-68.9	-107.9	33.5	-37.7	-68.9	-107.9	33.5	-46.1	-83.9	-131.3	35.3
2:12	-33.8	-65.0	-100.1	37.4	-33.8	-65.0	-100.1	37.4	-41.3	-79.2	-121.8	40.6
3:12	-33.8	-65.0	-100.1	35.4	-33.8	-65.0	-100.1	35.4	-41.4	-79.2	-121.9	38.5
4:12	-33.9	-65.1	-100.2	33.3	-33.9	-65.1	-100.2	33.3	-41.4	-79.3	-121.9	36.4
5:12	-33.9	-65.1	-100.2	31.2	-33.9	-65.1	-100.2	31.2	-41.4	-79.3	-121.9	34.4
6:12	-33.9	-65.1	-100.2	29.3	-33.9	-65.1	-100.2	29.3	-41.5	-79.3	-122.0	32.4
7:12	-37.9	-45.7	-45.7	39.2	-37.9	-45.7	-45.7	39.2	-46.2	-55.7	-55.7	45.9
8:12	-37.9	-45.7	-45.7	38.3	-37.9	-45.7	-45.7	38.3	-46.3	-55.8	-55.8	45.8
9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
Exposure Category C												
1:12	-46.1	-83.9	-131.3	35.3	-53.3	-97.0	-151.6	37.0	-61.7	-112.0	-175.0	38.9
2:12	-41.3	-79.2	-121.8	40.6	-47.9	-91.5	-140.7	43.3	-55.4	-105.7	-162.4	46.4
3:12	-41.4	-79.2	-121.9	38.5	-47.9	-91.6	-140.7	41.2	-55.4	-105.8	-162.4	44.4
4:12	-41.4	-79.3	-121.9	36.4	-47.9	-91.6	-140.7	39.1	-55.4	-105.8	-162.4	42.2
5:12	-41.4	-79.3	-121.9	34.4	-47.9	-91.6	-140.8	37.1	-55.5	-105.8	-162.5	40.2
6:12	-41.5	-79.3	-122.0	32.4	-48.0	-91.7	-140.8	35.1	-55.5	-105.9	-162.5	38.3
7:12	-46.2	-55.7	-55.7	45.9	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D												
1:12	-56.1	-102.0	-159.4	35.5	-63.3	-115.0	-179.7	37.1	-71.7	-130.1	-203.0	39.0
2:12	-50.4	-96.3	-147.9	42.4	-56.9	-108.6	-166.7	45.2	-64.4	-122.8	-188.5	48.3
3:12	-50.4	-96.3	-147.9	40.6	-56.9	-108.6	-166.8	43.3	-64.4	-122.8	-188.5	46.4
4:12	-50.4	-96.3	-148.0	38.7	-56.9	-108.6	-166.8	41.4	-64.5	-122.8	-188.5	44.5
5:12	-50.5	-96.4	-148.0	36.8	-57.0	-108.7	-166.8	39.5	-64.5	-122.9	-188.5	42.7
6:12	-50.5	-96.4	-148.0	35.1	-57.0	-108.7	-166.9	37.8	-64.5	-122.9	-188.6	40.9
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4

Basic Wind Speed **160 mph**
Ground Snow Load **40 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-37.7	-68.9	-107.9	36.1	-37.7	-68.9	-107.9	36.1	-46.1	-83.9	-131.3	37.9
2:12	-33.8	-65.0	-100.1	39.8	-33.8	-65.0	-100.1	39.8	-41.3	-79.2	-121.8	43.0
3:12	-33.8	-65.0	-100.1	37.5	-33.8	-65.0	-100.1	37.5	-41.4	-79.2	-121.9	40.6
4:12	-33.9	-65.1	-100.2	35.1	-33.9	-65.1	-100.2	35.1	-41.4	-79.3	-121.9	38.3
5:12	-33.9	-65.1	-100.2	32.8	-33.9	-65.1	-100.2	32.8	-41.4	-79.3	-121.9	36.0
6:12	-33.9	-65.1	-100.2	30.7	-33.9	-65.1	-100.2	30.7	-41.5	-79.3	-122.0	33.8
7:12	-37.9	-45.7	-45.7	40.4	-37.9	-45.7	-45.7	40.4	-46.2	-55.7	-55.7	46.1
8:12	-37.9	-45.7	-45.7	38.7	-37.9	-45.7	-45.7	38.7	-46.3	-55.8	-55.8	45.8
9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
Exposure Category C												
1:12	-46.1	-83.9	-131.3	37.9	-53.3	-97.0	-151.6	39.6	-61.7	-112.0	-175.0	41.5
2:12	-41.3	-79.2	-121.8	43.0	-47.9	-91.5	-140.7	45.7	-55.4	-105.7	-162.4	48.8
3:12	-41.4	-79.2	-121.9	40.6	-47.9	-91.6	-140.7	43.3	-55.4	-105.8	-162.4	46.5
4:12	-41.4	-79.3	-121.9	38.3	-47.9	-91.6	-140.7	41.0	-55.4	-105.8	-162.4	44.1
5:12	-41.4	-79.3	-121.9	36.0	-47.9	-91.6	-140.8	38.7	-55.5	-105.8	-162.5	41.8
6:12	-41.5	-79.3	-122.0	33.8	-48.0	-91.7	-140.8	36.5	-55.5	-105.9	-162.5	39.7
7:12	-46.2	-55.7	-55.7	46.1	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D												
1:12	-56.1	-102.0	-159.4	37.9	-63.3	-115.0	-179.7	39.5	-71.7	-130.1	-203.0	41.4
2:12	-50.4	-96.3	-147.9	44.6	-56.9	-108.6	-166.7	47.3	-64.4	-122.8	-188.5	50.4
3:12	-50.4	-96.3	-147.9	42.5	-56.9	-108.6	-166.8	45.2	-64.4	-122.8	-188.5	48.3
4:12	-50.4	-96.3	-148.0	40.3	-56.9	-108.6	-166.8	43.1	-64.5	-122.8	-188.5	46.2
5:12	-50.5	-96.4	-148.0	38.3	-57.0	-108.7	-166.8	41.0	-64.5	-122.9	-188.5	44.1
6:12	-50.5	-96.4	-148.0	36.3	-57.0	-108.7	-166.9	39.0	-64.5	-122.9	-188.6	42.2
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4

Basic Wind Speed
160 mph

Ground Snow Load
45 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	Down Slope											
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
160 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-37.7	-68.9	-107.9	38.7	-37.7	-68.9	-107.9	38.7	-46.1	-83.9	-131.3	40.6
2:12	-33.8	-65.0	-100.1	42.2	-33.8	-65.0	-100.1	42.2	-41.3	-79.2	-121.8	45.3
3:12	-33.8	-65.0	-100.1	39.6	-33.8	-65.0	-100.1	39.6	-41.4	-79.2	-121.9	42.8
4:12	-33.9	-65.1	-100.2	37.0	-33.9	-65.1	-100.2	37.0	-41.4	-79.3	-121.9	40.1
5:12	-33.9	-65.1	-100.2	34.5	-33.9	-65.1	-100.2	34.5	-41.4	-79.3	-121.9	37.6
6:12	-33.9	-65.1	-100.2	32.1	-33.9	-65.1	-100.2	32.1	-41.5	-79.3	-122.0	35.2
7:12	-37.9	-45.7	-45.7	41.6	-37.9	-45.7	-45.7	41.6	-46.2	-55.7	-55.7	47.3
8:12	-37.9	-45.7	-45.7	39.7	-37.9	-45.7	-45.7	39.7	-46.3	-55.8	-55.8	45.8
9:12	-38.0	-45.8	-45.8	38.2	-38.0	-45.8	-45.8	38.2	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
1:12	-46.1	-83.9	-131.3	40.6	-53.3	-97.0	-151.6	42.2	-61.7	-112.0	-175.0	44.1
2:12	-41.3	-79.2	-121.8	45.3	-47.9	-91.5	-140.7	48.1	-55.4	-105.7	-162.4	51.2
3:12	-41.4	-79.2	-121.9	42.8	-47.9	-91.6	-140.7	45.5	-55.4	-105.8	-162.4	48.6
4:12	-41.4	-79.3	-121.9	40.1	-47.9	-91.6	-140.7	42.9	-55.4	-105.8	-162.4	46.0
5:12	-41.4	-79.3	-121.9	37.6	-47.9	-91.6	-140.8	40.3	-55.5	-105.8	-162.5	43.5
6:12	-41.5	-79.3	-122.0	35.2	-48.0	-91.7	-140.8	37.9	-55.5	-105.9	-162.5	41.1
7:12	-46.2	-55.7	-55.7	47.3	-53.5	-64.4	-64.4	52.5	-61.8	-74.4	-74.4	60.0
8:12	-46.3	-55.8	-55.8	45.8	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
1:12	-56.1	-102.0	-159.4	40.2	-63.3	-115.0	-179.7	41.8	-71.7	-130.1	-203.0	43.7
2:12	-50.4	-96.3	-147.9	46.7	-56.9	-108.6	-166.7	49.4	-64.4	-122.8	-188.5	52.6
3:12	-50.4	-96.3	-147.9	44.4	-56.9	-108.6	-166.8	47.1	-64.4	-122.8	-188.5	50.2
4:12	-50.4	-96.3	-148.0	42.0	-56.9	-108.6	-166.8	44.7	-64.5	-122.8	-188.5	47.9
5:12	-50.5	-96.4	-148.0	39.7	-57.0	-108.7	-166.8	42.5	-64.5	-122.9	-188.5	45.6
6:12	-50.5	-96.4	-148.0	37.6	-57.0	-108.7	-166.9	40.3	-64.5	-122.9	-188.6	43.4
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-37.7	-68.9	-107.9	45.5	-37.7	-68.9	-107.9	45.5	-46.1	-83.9	-131.3	45.8
2:12	-33.8	-65.0	-100.1	47.0	-33.8	-65.0	-100.1	47.0	-41.3	-79.2	-121.8	50.1
3:12	-33.8	-65.0	-100.1	43.9	-33.8	-65.0	-100.1	43.9	-41.4	-79.2	-121.9	47.0
4:12	-33.9	-65.1	-100.2	40.8	-33.9	-65.1	-100.2	40.8	-41.4	-79.3	-121.9	43.9
5:12	-33.9	-65.1	-100.2	37.7	-33.9	-65.1	-100.2	37.7	-41.4	-79.3	-121.9	40.9
6:12	-33.9	-65.1	-100.2	34.9	-33.9	-65.1	-100.2	34.9	-41.5	-79.3	-122.0	38.0
7:12	-37.9	-45.7	-45.7	44.0	-37.9	-45.7	-45.7	44.0	-46.2	-55.7	-55.7	49.7
8:12	-37.9	-45.7	-45.7	41.7	-37.9	-45.7	-45.7	41.7	-46.3	-55.8	-55.8	47.3
9:12	-38.0	-45.8	-45.8	39.7	-38.0	-45.8	-45.8	39.7	-46.3	-55.8	-55.8	45.7
10:12	-38.0	-45.8	-45.8	38.1	-38.0	-45.8	-45.8	38.1	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
Exposure Category C												
1:12	-46.1	-83.9	-131.3	45.8	-53.3	-97.0	-151.6	47.4	-61.7	-112.0	-175.0	49.3
2:12	-41.3	-79.2	-121.8	50.1	-47.9	-91.5	-140.7	52.8	-55.4	-105.7	-162.4	55.9
3:12	-41.4	-79.2	-121.9	47.0	-47.9	-91.6	-140.7	49.7	-55.4	-105.8	-162.4	52.9
4:12	-41.4	-79.3	-121.9	43.9	-47.9	-91.6	-140.7	46.6	-55.4	-105.8	-162.4	49.7
5:12	-41.4	-79.3	-121.9	40.9	-47.9	-91.6	-140.8	43.6	-55.5	-105.8	-162.5	46.7
6:12	-41.5	-79.3	-122.0	38.0	-48.0	-91.7	-140.8	40.8	-55.5	-105.9	-162.5	43.9
7:12	-46.2	-55.7	-55.7	49.7	-53.5	-64.4	-64.4	54.5	-61.8	-74.4	-74.4	60.2
8:12	-46.3	-55.8	-55.8	47.3	-53.5	-64.4	-64.4	52.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	45.7	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D												
1:12	-56.1	-102.0	-159.4	44.9	-63.3	-115.0	-179.7	46.5	-71.7	-130.1	-203.0	48.4
2:12	-50.4	-96.3	-147.9	51.0	-56.9	-108.6	-166.7	53.7	-64.4	-122.8	-188.5	56.9
3:12	-50.4	-96.3	-147.9	48.2	-56.9	-108.6	-166.8	50.9	-64.4	-122.8	-188.5	54.1
4:12	-50.4	-96.3	-148.0	45.4	-56.9	-108.6	-166.8	48.1	-64.5	-122.8	-188.5	51.3
5:12	-50.5	-96.4	-148.0	42.7	-57.0	-108.7	-166.8	45.4	-64.5	-122.9	-188.5	48.5
6:12	-50.5	-96.4	-148.0	40.1	-57.0	-108.7	-166.9	42.8	-64.5	-122.9	-188.6	46.0
7:12	-56.3	-67.7	-67.7	55.0	-63.5	-76.4	-76.4	61.5	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4

Basic Wind Speed
160 mph

Ground Snow Load
60 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
160 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-37.7	-68.9	-107.9	52.5	-37.7	-68.9	-107.9	52.5	-46.1	-83.9	-131.3	52.5
2:12	-33.8	-65.0	-100.1	51.7	-33.8	-65.0	-100.1	51.7	-41.3	-79.2	-121.8	54.9
3:12	-33.8	-65.0	-100.1	48.1	-33.8	-65.0	-100.1	48.1	-41.4	-79.2	-121.9	51.3
4:12	-33.9	-65.1	-100.2	44.5	-33.9	-65.1	-100.2	44.5	-41.4	-79.3	-121.9	47.6
5:12	-33.9	-65.1	-100.2	41.0	-33.9	-65.1	-100.2	41.0	-41.4	-79.3	-121.9	44.1
6:12	-33.9	-65.1	-100.2	37.7	-33.9	-65.1	-100.2	37.7	-41.5	-79.3	-122.0	40.8
7:12	-37.9	-45.7	-45.7	46.4	-37.9	-45.7	-45.7	46.4	-46.2	-55.7	-55.7	52.0
8:12	-37.9	-45.7	-45.7	43.7	-37.9	-45.7	-45.7	43.7	-46.3	-55.8	-55.8	49.4
9:12	-38.0	-45.8	-45.8	41.4	-38.0	-45.8	-45.8	41.4	-46.3	-55.8	-55.8	47.0
10:12	-38.0	-45.8	-45.8	39.4	-38.0	-45.8	-45.8	39.4	-46.4	-55.8	-55.8	45.6
11:12	-38.0	-45.8	-45.8	37.9	-38.0	-45.8	-45.8	37.9	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
1:12	-46.1	-83.9	-131.3	52.5	-53.3	-97.0	-151.6	52.6	-61.7	-112.0	-175.0	54.5
2:12	-41.3	-79.2	-121.8	54.9	-47.9	-91.5	-140.7	57.6	-55.4	-105.7	-162.4	60.7
3:12	-41.4	-79.2	-121.9	51.3	-47.9	-91.6	-140.7	54.0	-55.4	-105.8	-162.4	57.1
4:12	-41.4	-79.3	-121.9	47.6	-47.9	-91.6	-140.7	50.4	-55.4	-105.8	-162.4	53.5
5:12	-41.4	-79.3	-121.9	44.1	-47.9	-91.6	-140.8	46.8	-55.5	-105.8	-162.5	50.0
6:12	-41.5	-79.3	-122.0	40.8	-48.0	-91.7	-140.8	43.6	-55.5	-105.9	-162.5	46.7
7:12	-46.2	-55.7	-55.7	52.0	-53.5	-64.4	-64.4	56.9	-61.8	-74.4	-74.4	62.6
8:12	-46.3	-55.8	-55.8	49.4	-53.5	-64.4	-64.4	54.3	-61.9	-74.5	-74.5	59.9
9:12	-46.3	-55.8	-55.8	47.0	-53.6	-64.5	-64.5	52.2	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	45.6	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
1:12	-56.1	-102.0	-159.4	49.6	-63.3	-115.0	-179.7	51.2	-71.7	-130.1	-203.0	53.1
2:12	-50.4	-96.3	-147.9	55.3	-56.9	-108.6	-166.7	58.0	-64.4	-122.8	-188.5	61.1
3:12	-50.4	-96.3	-147.9	52.1	-56.9	-108.6	-166.8	54.8	-64.4	-122.8	-188.5	57.9
4:12	-50.4	-96.3	-148.0	48.8	-56.9	-108.6	-166.8	51.5	-64.5	-122.8	-188.5	54.6
5:12	-50.5	-96.4	-148.0	45.6	-57.0	-108.7	-166.8	48.3	-64.5	-122.9	-188.5	51.5
6:12	-50.5	-96.4	-148.0	42.6	-57.0	-108.7	-166.9	45.4	-64.5	-122.9	-188.6	48.5
7:12	-56.3	-67.7	-67.7	57.1	-63.5	-76.4	-76.4	62.0	-71.9	-86.5	-86.5	69.0
8:12	-56.3	-67.8	-67.8	54.8	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-37.7	-68.9	-107.9	59.4	-37.7	-68.9	-107.9	59.4	-46.1	-83.9	-131.3	59.4
2:12	-33.8	-65.0	-100.1	56.5	-33.8	-65.0	-100.1	56.5	-41.3	-79.2	-121.8	59.6
3:12	-33.8	-65.0	-100.1	52.4	-33.8	-65.0	-100.1	52.4	-41.4	-79.2	-121.9	55.5
4:12	-33.9	-65.1	-100.2	48.3	-33.9	-65.1	-100.2	48.3	-41.4	-79.3	-121.9	51.4
5:12	-33.9	-65.1	-100.2	44.3	-33.9	-65.1	-100.2	44.3	-41.4	-79.3	-121.9	47.4
6:12	-33.9	-65.1	-100.2	40.5	-33.9	-65.1	-100.2	40.5	-41.5	-79.3	-122.0	43.6
7:12	-37.9	-45.7	-45.7	48.8	-37.9	-45.7	-45.7	48.8	-46.2	-55.7	-55.7	54.4
8:12	-37.9	-45.7	-45.7	45.8	-37.9	-45.7	-45.7	45.8	-46.3	-55.8	-55.8	51.4
9:12	-38.0	-45.8	-45.8	43.1	-38.0	-45.8	-45.8	43.1	-46.3	-55.8	-55.8	48.7
10:12	-38.0	-45.8	-45.8	40.8	-38.0	-45.8	-45.8	40.8	-46.4	-55.8	-55.8	46.4
11:12	-38.0	-45.8	-45.8	38.8	-38.0	-45.8	-45.8	38.8	-46.4	-55.9	-55.9	45.5
12:12	-38.1	-45.9	-45.9	37.8	-38.1	-45.9	-45.9	37.8	-46.4	-55.9	-55.9	45.3
Exposure Category C												
1:12	-46.1	-83.9	-131.3	59.4	-53.3	-97.0	-151.6	59.4	-61.7	-112.0	-175.0	59.7
2:12	-41.3	-79.2	-121.8	59.6	-47.9	-91.5	-140.7	62.3	-55.4	-105.7	-162.4	65.5
3:12	-41.4	-79.2	-121.9	55.5	-47.9	-91.6	-140.7	58.2	-55.4	-105.8	-162.4	61.4
4:12	-41.4	-79.3	-121.9	51.4	-47.9	-91.6	-140.7	54.1	-55.4	-105.8	-162.4	57.2
5:12	-41.4	-79.3	-121.9	47.4	-47.9	-91.6	-140.8	50.1	-55.5	-105.8	-162.5	53.2
6:12	-41.5	-79.3	-122.0	43.6	-48.0	-91.7	-140.8	46.4	-55.5	-105.9	-162.5	49.5
7:12	-46.2	-55.7	-55.7	54.4	-53.5	-64.4	-64.4	59.3	-61.8	-74.4	-74.4	65.0
8:12	-46.3	-55.8	-55.8	51.4	-53.5	-64.4	-64.4	56.3	-61.9	-74.5	-74.5	61.9
9:12	-46.3	-55.8	-55.8	48.7	-53.6	-64.5	-64.5	53.6	-61.9	-74.5	-74.5	59.7
10:12	-46.4	-55.8	-55.8	46.4	-53.6	-64.5	-64.5	52.1	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.5	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D												
1:12	-56.1	-102.0	-159.4	54.3	-63.3	-115.0	-179.7	55.9	-71.7	-130.1	-203.0	57.8
2:12	-50.4	-96.3	-147.9	59.6	-56.9	-108.6	-166.7	62.3	-64.4	-122.8	-188.5	65.4
3:12	-50.4	-96.3	-147.9	55.9	-56.9	-108.6	-166.8	58.6	-64.4	-122.8	-188.5	61.7
4:12	-50.4	-96.3	-148.0	52.2	-56.9	-108.6	-166.8	54.9	-64.5	-122.8	-188.5	58.0
5:12	-50.5	-96.4	-148.0	48.5	-57.0	-108.7	-166.8	51.3	-64.5	-122.9	-188.5	54.4
6:12	-50.5	-96.4	-148.0	45.2	-57.0	-108.7	-166.9	47.9	-64.5	-122.9	-188.6	51.0
7:12	-56.3	-67.7	-67.7	59.3	-63.5	-76.4	-76.4	64.2	-71.9	-86.5	-86.5	69.8
8:12	-56.3	-67.8	-67.8	56.5	-63.5	-76.5	-76.5	61.4	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	54.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4

Basic Wind Speed
160 mph

Ground Snow Load
80 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-37.7	-68.9	-107.9	66.4	-37.7	-68.9	-107.9	66.4	-46.1	-83.9	-131.3	66.4
2:12	-33.8	-65.0	-100.1	61.2	-33.8	-65.0	-100.1	61.2	-41.3	-79.2	-121.8	64.4
3:12	-33.8	-65.0	-100.1	56.6	-33.8	-65.0	-100.1	56.6	-41.4	-79.2	-121.9	59.8
4:12	-33.9	-65.1	-100.2	52.0	-33.9	-65.1	-100.2	52.0	-41.4	-79.3	-121.9	55.1
5:12	-33.9	-65.1	-100.2	47.5	-33.9	-65.1	-100.2	47.5	-41.4	-79.3	-121.9	50.7
6:12	-33.9	-65.1	-100.2	43.3	-33.9	-65.1	-100.2	43.3	-41.5	-79.3	-122.0	46.5
7:12	-37.9	-45.7	-45.7	51.2	-37.9	-45.7	-45.7	51.2	-46.2	-55.7	-55.7	56.8
8:12	-37.9	-45.7	-45.7	47.8	-37.9	-45.7	-45.7	47.8	-46.3	-55.8	-55.8	53.4
9:12	-38.0	-45.8	-45.8	44.8	-38.0	-45.8	-45.8	44.8	-46.3	-55.8	-55.8	50.5
10:12	-38.0	-45.8	-45.8	42.2	-38.0	-45.8	-45.8	42.2	-46.4	-55.8	-55.8	47.9
11:12	-38.0	-45.8	-45.8	40.0	-38.0	-45.8	-45.8	40.0	-46.4	-55.9	-55.9	45.7
12:12	-38.1	-45.9	-45.9	38.1	-38.1	-45.9	-45.9	38.1	-46.4	-55.9	-55.9	45.3
Exposure Category C												
1:12	-46.1	-83.9	-131.3	66.4	-53.3	-97.0	-151.6	66.4	-61.7	-112.0	-175.0	66.4
2:12	-41.3	-79.2	-121.8	64.4	-47.9	-91.5	-140.7	67.1	-55.4	-105.7	-162.4	70.2
3:12	-41.4	-79.2	-121.9	59.8	-47.9	-91.6	-140.7	62.5	-55.4	-105.8	-162.4	65.6
4:12	-41.4	-79.3	-121.9	55.1	-47.9	-91.6	-140.7	57.9	-55.4	-105.8	-162.4	61.0
5:12	-41.4	-79.3	-121.9	50.7	-47.9	-91.6	-140.8	53.4	-55.5	-105.8	-162.5	56.5
6:12	-41.5	-79.3	-122.0	46.5	-48.0	-91.7	-140.8	49.2	-55.5	-105.9	-162.5	52.3
7:12	-46.2	-55.7	-55.7	56.8	-53.5	-64.4	-64.4	61.7	-61.8	-74.4	-74.4	67.4
8:12	-46.3	-55.8	-55.8	53.4	-53.5	-64.4	-64.4	58.3	-61.9	-74.5	-74.5	64.0
9:12	-46.3	-55.8	-55.8	50.5	-53.6	-64.5	-64.5	55.3	-61.9	-74.5	-74.5	61.0
10:12	-46.4	-55.8	-55.8	47.9	-53.6	-64.5	-64.5	52.8	-62.0	-74.6	-74.6	59.6
11:12	-46.4	-55.9	-55.9	45.7	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D												
1:12	-56.1	-102.0	-159.4	60.1	-63.3	-115.0	-179.7	60.6	-71.7	-130.1	-203.0	62.5
2:12	-50.4	-96.3	-147.9	63.8	-56.9	-108.6	-166.7	66.6	-64.4	-122.8	-188.5	69.7
3:12	-50.4	-96.3	-147.9	59.7	-56.9	-108.6	-166.8	62.4	-64.4	-122.8	-188.5	65.6
4:12	-50.4	-96.3	-148.0	55.5	-56.9	-108.6	-166.8	58.2	-64.5	-122.8	-188.5	61.4
5:12	-50.5	-96.4	-148.0	51.5	-57.0	-108.7	-166.8	54.2	-64.5	-122.9	-188.5	57.3
6:12	-50.5	-96.4	-148.0	47.7	-57.0	-108.7	-166.9	50.4	-64.5	-122.9	-188.6	53.5
7:12	-56.3	-67.7	-67.7	61.5	-63.5	-76.4	-76.4	66.3	-71.9	-86.5	-86.5	72.0
8:12	-56.3	-67.8	-67.8	58.4	-63.5	-76.5	-76.5	63.3	-71.9	-86.5	-86.5	68.9
9:12	-56.3	-67.8	-67.8	55.7	-63.6	-76.5	-76.5	61.2	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
160 mph

Ground Snow Load
90 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-37.7	-68.9	-107.9	73.4	-37.7	-68.9	-107.9	73.4	-46.1	-83.9	-131.3	73.4
2:12	-33.8	-65.0	-100.1	67.2	-33.8	-65.0	-100.1	67.2	-41.3	-79.2	-121.8	69.1
3:12	-33.8	-65.0	-100.1	60.9	-33.8	-65.0	-100.1	60.9	-41.4	-79.2	-121.9	64.0
4:12	-33.9	-65.1	-100.2	55.8	-33.9	-65.1	-100.2	55.8	-41.4	-79.3	-121.9	58.9
5:12	-33.9	-65.1	-100.2	50.8	-33.9	-65.1	-100.2	50.8	-41.4	-79.3	-121.9	53.9
6:12	-33.9	-65.1	-100.2	46.1	-33.9	-65.1	-100.2	46.1	-41.5	-79.3	-122.0	49.3
7:12	-37.9	-45.7	-45.7	53.6	-37.9	-45.7	-45.7	53.6	-46.2	-55.7	-55.7	59.2
8:12	-37.9	-45.7	-45.7	49.8	-37.9	-45.7	-45.7	49.8	-46.3	-55.8	-55.8	55.5
9:12	-38.0	-45.8	-45.8	46.5	-38.0	-45.8	-45.8	46.5	-46.3	-55.8	-55.8	52.2
10:12	-38.0	-45.8	-45.8	43.7	-38.0	-45.8	-45.8	43.7	-46.4	-55.8	-55.8	49.3
11:12	-38.0	-45.8	-45.8	41.2	-38.0	-45.8	-45.8	41.2	-46.4	-55.9	-55.9	46.9
12:12	-38.1	-45.9	-45.9	39.1	-38.1	-45.9	-45.9	39.1	-46.4	-55.9	-55.9	45.3
Exposure Category C												
1:12	-46.1	-83.9	-131.3	73.4	-53.3	-97.0	-151.6	73.4	-61.7	-112.0	-175.0	73.4
2:12	-41.3	-79.2	-121.8	69.1	-47.9	-91.5	-140.7	71.8	-55.4	-105.7	-162.4	75.0
3:12	-41.4	-79.2	-121.9	64.0	-47.9	-91.6	-140.7	66.7	-55.4	-105.8	-162.4	69.9
4:12	-41.4	-79.3	-121.9	58.9	-47.9	-91.6	-140.7	61.6	-55.4	-105.8	-162.4	64.7
5:12	-41.4	-79.3	-121.9	53.9	-47.9	-91.6	-140.8	56.6	-55.5	-105.8	-162.5	59.8
6:12	-41.5	-79.3	-122.0	49.3	-48.0	-91.7	-140.8	52.0	-55.5	-105.9	-162.5	55.1
7:12	-46.2	-55.7	-55.7	59.2	-53.5	-64.4	-64.4	64.1	-61.8	-74.4	-74.4	69.8
8:12	-46.3	-55.8	-55.8	55.5	-53.5	-64.4	-64.4	60.4	-61.9	-74.5	-74.5	66.0
9:12	-46.3	-55.8	-55.8	52.2	-53.6	-64.5	-64.5	57.1	-61.9	-74.5	-74.5	62.7
10:12	-46.4	-55.8	-55.8	49.3	-53.6	-64.5	-64.5	54.2	-62.0	-74.6	-74.6	59.8
11:12	-46.4	-55.9	-55.9	46.9	-53.6	-64.6	-64.6	52.0	-62.0	-74.6	-74.6	59.5
12:12	-46.4	-55.9	-55.9	45.3	-53.7	-64.6	-64.6	51.9	-62.0	-74.6	-74.6	59.4
Exposure Category D												
1:12	-56.1	-102.0	-159.4	66.4	-63.3	-115.0	-179.7	66.4	-71.7	-130.1	-203.0	67.2
2:12	-50.4	-96.3	-147.9	68.1	-56.9	-108.6	-166.7	70.8	-64.4	-122.8	-188.5	74.0
3:12	-50.4	-96.3	-147.9	63.5	-56.9	-108.6	-166.8	66.3	-64.4	-122.8	-188.5	69.4
4:12	-50.4	-96.3	-148.0	58.9	-56.9	-108.6	-166.8	61.6	-64.5	-122.8	-188.5	64.8
5:12	-50.5	-96.4	-148.0	54.4	-57.0	-108.7	-166.8	57.1	-64.5	-122.9	-188.5	60.3
6:12	-50.5	-96.4	-148.0	50.2	-57.0	-108.7	-166.9	52.9	-64.5	-122.9	-188.6	56.1
7:12	-56.3	-67.7	-67.7	63.6	-63.5	-76.4	-76.4	68.5	-71.9	-86.5	-86.5	74.1
8:12	-56.3	-67.8	-67.8	60.2	-63.5	-76.5	-76.5	65.1	-71.9	-86.5	-86.5	70.7
9:12	-56.3	-67.8	-67.8	57.2	-63.6	-76.5	-76.5	62.1	-71.9	-86.5	-86.5	68.8
10:12	-56.4	-67.9	-67.9	54.6	-63.6	-76.6	-76.6	61.1	-72.0	-86.6	-86.6	68.6
11:12	-56.4	-67.9	-67.9	54.5	-63.7	-76.6	-76.6	61.0	-72.0	-86.6	-86.6	68.5
12:12	-56.5	-67.9	-67.9	54.4	-63.7	-76.6	-76.6	60.9	-72.1	-86.7	-86.7	68.4

Basic Wind Speed
160 mph

Ground Snow Load
100 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	16.3	-40.2	-73.4	-114.8	16.3	-49.1	-89.4	-139.7	18.9
2:12	-36.1	-69.2	-106.6	24.5	-36.1	-69.2	-106.6	24.5	-44.1	-84.3	-129.7	29.0
3:12	-36.1	-69.3	-106.6	24.5	-36.1	-69.3	-106.6	24.5	-44.1	-84.4	-129.7	28.9
4:12	-36.1	-69.3	-106.6	24.4	-36.1	-69.3	-106.6	24.4	-44.1	-84.4	-129.7	28.8
5:12	-36.1	-69.3	-106.6	24.3	-36.1	-69.3	-106.6	24.3	-44.1	-84.4	-129.7	28.7
6:12	-36.2	-69.3	-106.7	24.2	-36.2	-69.3	-106.7	24.2	-44.2	-84.5	-129.8	28.6
7:12	-40.4	-48.7	-48.7	40.6	-40.4	-48.7	-48.7	40.6	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	18.9	-56.8	-103.2	-161.3	21.3	-65.7	-119.2	-186.2	23.9
2:12	-44.1	-84.3	-129.7	29.0	-51.0	-97.4	-149.7	32.8	-59.0	-112.5	-172.8	37.3
3:12	-44.1	-84.4	-129.7	28.9	-51.0	-97.5	-149.7	32.8	-59.0	-112.6	-172.8	37.2
4:12	-44.1	-84.4	-129.7	28.8	-51.0	-97.5	-149.7	32.7	-59.0	-112.6	-172.8	37.1
5:12	-44.1	-84.4	-129.7	28.7	-51.1	-97.5	-149.8	32.6	-59.1	-112.6	-172.9	37.0
6:12	-44.2	-84.5	-129.8	28.6	-51.1	-97.5	-149.8	32.5	-59.1	-112.7	-172.9	36.9
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	22.1	-67.4	-122.4	-191.1	24.5	-76.3	-138.4	-216.0	27.1
2:12	-53.7	-102.5	-157.4	34.3	-60.6	-115.6	-177.4	38.2	-68.6	-130.7	-200.5	42.6
3:12	-53.7	-102.5	-157.4	34.2	-60.6	-115.6	-177.4	38.1	-68.6	-130.7	-200.5	42.5
4:12	-53.7	-102.5	-157.4	34.2	-60.6	-115.6	-177.5	38.0	-68.6	-130.7	-200.6	42.5
5:12	-53.7	-102.5	-157.5	34.1	-60.7	-115.6	-177.5	37.9	-68.7	-130.7	-200.6	42.4
6:12	-53.8	-102.6	-157.5	34.0	-60.7	-115.7	-177.5	37.8	-68.7	-130.8	-200.6	42.2
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6

Basic Wind Speed
165 mph

Ground Snow Load
0 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	16.9	-40.2	-73.4	-114.8	16.9	-49.1	-89.4	-139.7	18.9
2:12	-36.1	-69.2	-106.6	24.5	-36.1	-69.2	-106.6	24.5	-44.1	-84.3	-129.7	29.0
3:12	-36.1	-69.3	-106.6	24.5	-36.1	-69.3	-106.6	24.5	-44.1	-84.4	-129.7	28.9
4:12	-36.1	-69.3	-106.6	24.4	-36.1	-69.3	-106.6	24.4	-44.1	-84.4	-129.7	28.8
5:12	-36.1	-69.3	-106.6	24.3	-36.1	-69.3	-106.6	24.3	-44.1	-84.4	-129.7	28.7
6:12	-36.2	-69.3	-106.7	24.2	-36.2	-69.3	-106.7	24.2	-44.2	-84.5	-129.8	28.6
7:12	-40.4	-48.7	-48.7	40.6	-40.4	-48.7	-48.7	40.6	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	18.9	-56.8	-103.2	-161.3	21.3	-65.7	-119.2	-186.2	23.9
2:12	-44.1	-84.3	-129.7	29.0	-51.0	-97.4	-149.7	32.8	-59.0	-112.5	-172.8	37.3
3:12	-44.1	-84.4	-129.7	28.9	-51.0	-97.5	-149.7	32.8	-59.0	-112.6	-172.8	37.2
4:12	-44.1	-84.4	-129.7	28.8	-51.0	-97.5	-149.7	32.7	-59.0	-112.6	-172.8	37.1
5:12	-44.1	-84.4	-129.7	28.7	-51.1	-97.5	-149.8	32.6	-59.1	-112.6	-172.9	37.0
6:12	-44.2	-84.5	-129.8	28.6	-51.1	-97.5	-149.8	32.5	-59.1	-112.7	-172.9	36.9
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	22.1	-67.4	-122.4	-191.1	24.5	-76.3	-138.4	-216.0	27.1
2:12	-53.7	-102.5	-157.4	34.3	-60.6	-115.6	-177.4	38.2	-68.6	-130.7	-200.5	42.6
3:12	-53.7	-102.5	-157.4	34.2	-60.6	-115.6	-177.4	38.1	-68.6	-130.7	-200.5	42.5
4:12	-53.7	-102.5	-157.4	34.2	-60.6	-115.6	-177.5	38.0	-68.6	-130.7	-200.6	42.5
5:12	-53.7	-102.5	-157.5	34.1	-60.7	-115.6	-177.5	37.9	-68.7	-130.7	-200.6	42.4
6:12	-53.8	-102.6	-157.5	34.0	-60.7	-115.7	-177.5	37.8	-68.7	-130.8	-200.6	42.2
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6

Basic Wind Speed
165 mph

Ground Snow Load
5 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
165 mph
Ground Snow Load
10 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	20.6	-40.2	-73.4	-114.8	20.6	-49.1	-89.4	-139.7	22.6
2:12	-36.1	-69.2	-106.6	26.1	-36.1	-69.2	-106.6	26.1	-44.1	-84.3	-129.7	29.5
3:12	-36.1	-69.3	-106.6	25.4	-36.1	-69.3	-106.6	25.4	-44.1	-84.4	-129.7	28.9
4:12	-36.1	-69.3	-106.6	24.4	-36.1	-69.3	-106.6	24.4	-44.1	-84.4	-129.7	28.8
5:12	-36.1	-69.3	-106.6	24.3	-36.1	-69.3	-106.6	24.3	-44.1	-84.4	-129.7	28.7
6:12	-36.2	-69.3	-106.7	24.2	-36.2	-69.3	-106.7	24.2	-44.2	-84.5	-129.8	28.6
7:12	-40.4	-48.7	-48.7	40.6	-40.4	-48.7	-48.7	40.6	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	22.6	-56.8	-103.2	-161.3	24.3	-65.7	-119.2	-186.2	26.3
2:12	-44.1	-84.3	-129.7	29.5	-51.0	-97.4	-149.7	32.8	-59.0	-112.5	-172.8	37.3
3:12	-44.1	-84.4	-129.7	28.9	-51.0	-97.5	-149.7	32.8	-59.0	-112.6	-172.8	37.2
4:12	-44.1	-84.4	-129.7	28.8	-51.0	-97.5	-149.7	32.7	-59.0	-112.6	-172.8	37.1
5:12	-44.1	-84.4	-129.7	28.7	-51.1	-97.5	-149.8	32.6	-59.1	-112.6	-172.9	37.0
6:12	-44.2	-84.5	-129.8	28.6	-51.1	-97.5	-149.8	32.5	-59.1	-112.7	-172.9	36.9
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	25.0	-67.4	-122.4	-191.1	26.7	-76.3	-138.4	-216.0	28.7
2:12	-53.7	-102.5	-157.4	34.3	-60.6	-115.6	-177.4	38.2	-68.6	-130.7	-200.5	42.6
3:12	-53.7	-102.5	-157.4	34.2	-60.6	-115.6	-177.4	38.1	-68.6	-130.7	-200.5	42.5
4:12	-53.7	-102.5	-157.4	34.2	-60.6	-115.6	-177.5	38.0	-68.6	-130.7	-200.6	42.5
5:12	-53.7	-102.5	-157.5	34.1	-60.7	-115.6	-177.5	37.9	-68.7	-130.7	-200.6	42.4
6:12	-53.8	-102.6	-157.5	34.0	-60.7	-115.7	-177.5	37.8	-68.7	-130.8	-200.6	42.2
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
165 mph
Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-40.2	-73.4	-114.8	24.3	-40.2	-73.4	-114.8	24.3	-49.1	-89.4	-139.7	26.3
2:12	-36.1	-69.2	-106.6	29.5	-36.1	-69.2	-106.6	29.5	-44.1	-84.3	-129.7	32.9
3:12	-36.1	-69.3	-106.6	28.4	-36.1	-69.3	-106.6	28.4	-44.1	-84.4	-129.7	31.7
4:12	-36.1	-69.3	-106.6	24.8	-36.1	-69.3	-106.6	24.8	-44.1	-84.4	-129.7	28.8
5:12	-36.1	-69.3	-106.6	24.3	-36.1	-69.3	-106.6	24.3	-44.1	-84.4	-129.7	28.7
6:12	-36.2	-69.3	-106.7	24.2	-36.2	-69.3	-106.7	24.2	-44.2	-84.5	-129.8	28.6
7:12	-40.4	-48.7	-48.7	40.6	-40.4	-48.7	-48.7	40.6	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
Exposure Category C												
1:12	-49.1	-89.4	-139.7	26.3	-56.8	-103.2	-161.3	28.1	-65.7	-119.2	-186.2	30.1
2:12	-44.1	-84.3	-129.7	32.9	-51.0	-97.4	-149.7	35.8	-59.0	-112.5	-172.8	39.1
3:12	-44.1	-84.4	-129.7	31.7	-51.0	-97.5	-149.7	34.6	-59.0	-112.6	-172.8	38.0
4:12	-44.1	-84.4	-129.7	28.8	-51.0	-97.5	-149.7	32.7	-59.0	-112.6	-172.8	37.1
5:12	-44.1	-84.4	-129.7	28.7	-51.1	-97.5	-149.8	32.6	-59.1	-112.6	-172.9	37.0
6:12	-44.2	-84.5	-129.8	28.6	-51.1	-97.5	-149.8	32.5	-59.1	-112.7	-172.9	36.9
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
Exposure Category D												
1:12	-59.7	-108.6	-169.6	28.7	-67.4	-122.4	-191.1	30.5	-76.3	-138.4	-216.0	32.5
2:12	-53.7	-102.5	-157.4	36.9	-60.6	-115.6	-177.4	39.8	-68.6	-130.7	-200.5	43.1
3:12	-53.7	-102.5	-157.4	35.7	-60.6	-115.6	-177.4	38.6	-68.6	-130.7	-200.5	42.5
4:12	-53.7	-102.5	-157.4	34.2	-60.6	-115.6	-177.5	38.0	-68.6	-130.7	-200.6	42.5
5:12	-53.7	-102.5	-157.5	34.1	-60.7	-115.6	-177.5	37.9	-68.7	-130.7	-200.6	42.4
6:12	-53.8	-102.6	-157.5	34.0	-60.7	-115.7	-177.5	37.8	-68.7	-130.8	-200.6	42.2
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W165-S15

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-40.2	-73.4	-114.8	28.1	-40.2	-73.4	-114.8	28.1	-49.1	-89.4	-139.7	30.1
2:12	-36.1	-69.2	-106.6	32.9	-36.1	-69.2	-106.6	32.9	-44.1	-84.3	-129.7	36.3
3:12	-36.1	-69.3	-106.6	31.4	-36.1	-69.3	-106.6	31.4	-44.1	-84.4	-129.7	34.8
4:12	-36.1	-69.3	-106.6	26.7	-36.1	-69.3	-106.6	26.7	-44.1	-84.4	-129.7	30.0
5:12	-36.1	-69.3	-106.6	25.6	-36.1	-69.3	-106.6	25.6	-44.1	-84.4	-129.7	29.0
6:12	-36.2	-69.3	-106.7	24.6	-36.2	-69.3	-106.7	24.6	-44.2	-84.5	-129.8	28.6
7:12	-40.4	-48.7	-48.7	40.6	-40.4	-48.7	-48.7	40.6	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
Exposure Category C												
1:12	-49.1	-89.4	-139.7	30.1	-56.8	-103.2	-161.3	31.8	-65.7	-119.2	-186.2	33.8
2:12	-44.1	-84.3	-129.7	36.3	-51.0	-97.4	-149.7	39.2	-59.0	-112.5	-172.8	42.5
3:12	-44.1	-84.4	-129.7	34.8	-51.0	-97.5	-149.7	37.7	-59.0	-112.6	-172.8	41.0
4:12	-44.1	-84.4	-129.7	30.0	-51.0	-97.5	-149.7	32.9	-59.0	-112.6	-172.8	37.1
5:12	-44.1	-84.4	-129.7	29.0	-51.1	-97.5	-149.8	32.6	-59.1	-112.6	-172.9	37.0
6:12	-44.2	-84.5	-129.8	28.6	-51.1	-97.5	-149.8	32.5	-59.1	-112.7	-172.9	36.9
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
Exposure Category D												
1:12	-59.7	-108.6	-169.6	32.5	-67.4	-122.4	-191.1	34.2	-76.3	-138.4	-216.0	36.2
2:12	-53.7	-102.5	-157.4	40.3	-60.6	-115.6	-177.4	43.2	-68.6	-130.7	-200.5	46.5
3:12	-53.7	-102.5	-157.4	38.8	-60.6	-115.6	-177.4	41.7	-68.6	-130.7	-200.5	45.0
4:12	-53.7	-102.5	-157.4	34.2	-60.6	-115.6	-177.5	38.0	-68.6	-130.7	-200.6	42.5
5:12	-53.7	-102.5	-157.5	34.1	-60.7	-115.6	-177.5	37.9	-68.7	-130.7	-200.6	42.4
6:12	-53.8	-102.6	-157.5	34.0	-60.7	-115.7	-177.5	37.8	-68.7	-130.8	-200.6	42.2
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6

Basic Wind Speed
165 mph

Ground Snow Load
20 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-40.2	-73.4	-114.8	28.1	-40.2	-73.4	-114.8	28.1	-49.1	-89.4	-139.7	30.1
2:12	-36.1	-69.2	-106.6	32.9	-36.1	-69.2	-106.6	32.9	-44.1	-84.3	-129.7	36.3
3:12	-36.1	-69.3	-106.6	31.4	-36.1	-69.3	-106.6	31.4	-44.1	-84.4	-129.7	34.8
4:12	-36.1	-69.3	-106.6	28.6	-36.1	-69.3	-106.6	28.6	-44.1	-84.4	-129.7	31.9
5:12	-36.1	-69.3	-106.6	27.3	-36.1	-69.3	-106.6	27.3	-44.1	-84.4	-129.7	30.6
6:12	-36.2	-69.3	-106.7	26.0	-36.2	-69.3	-106.7	26.0	-44.2	-84.5	-129.8	29.3
7:12	-40.4	-48.7	-48.7	40.6	-40.4	-48.7	-48.7	40.6	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
Exposure Category C												
1:12	-49.1	-89.4	-139.7	30.1	-56.8	-103.2	-161.3	31.8	-65.7	-119.2	-186.2	33.8
2:12	-44.1	-84.3	-129.7	36.3	-51.0	-97.4	-149.7	39.2	-59.0	-112.5	-172.8	42.5
3:12	-44.1	-84.4	-129.7	34.8	-51.0	-97.5	-149.7	37.7	-59.0	-112.6	-172.8	41.0
4:12	-44.1	-84.4	-129.7	31.9	-51.0	-97.5	-149.7	34.8	-59.0	-112.6	-172.8	38.1
5:12	-44.1	-84.4	-129.7	30.6	-51.1	-97.5	-149.8	33.5	-59.1	-112.6	-172.9	37.0
6:12	-44.2	-84.5	-129.8	29.3	-51.1	-97.5	-149.8	32.5	-59.1	-112.7	-172.9	36.9
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
Exposure Category D												
1:12	-59.7	-108.6	-169.6	32.5	-67.4	-122.4	-191.1	34.2	-76.3	-138.4	-216.0	36.2
2:12	-53.7	-102.5	-157.4	40.3	-60.6	-115.6	-177.4	43.2	-68.6	-130.7	-200.5	46.5
3:12	-53.7	-102.5	-157.4	38.8	-60.6	-115.6	-177.4	41.7	-68.6	-130.7	-200.5	45.0
4:12	-53.7	-102.5	-157.4	35.0	-60.6	-115.6	-177.5	38.0	-68.6	-130.7	-200.6	42.5
5:12	-53.7	-102.5	-157.5	34.1	-60.7	-115.6	-177.5	37.9	-68.7	-130.7	-200.6	42.4
6:12	-53.8	-102.6	-157.5	34.0	-60.7	-115.7	-177.5	37.8	-68.7	-130.8	-200.6	42.2
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6

Basic Wind Speed **165 mph**
Ground Snow Load **25 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-40.2	-73.4	-114.8	28.8	-40.2	-73.4	-114.8	28.8	-49.1	-89.4	-139.7	30.8
2:12	-36.1	-69.2	-106.6	33.6	-36.1	-69.2	-106.6	33.6	-44.1	-84.3	-129.7	37.0
3:12	-36.1	-69.3	-106.6	32.0	-36.1	-69.3	-106.6	32.0	-44.1	-84.4	-129.7	35.4
4:12	-36.1	-69.3	-106.6	30.4	-36.1	-69.3	-106.6	30.4	-44.1	-84.4	-129.7	33.8
5:12	-36.1	-69.3	-106.6	28.9	-36.1	-69.3	-106.6	28.9	-44.1	-84.4	-129.7	32.2
6:12	-36.2	-69.3	-106.7	27.4	-36.2	-69.3	-106.7	27.4	-44.2	-84.5	-129.8	30.7
7:12	-40.4	-48.7	-48.7	40.6	-40.4	-48.7	-48.7	40.6	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
Exposure Category C												
1:12	-49.1	-89.4	-139.7	30.8	-56.8	-103.2	-161.3	32.5	-65.7	-119.2	-186.2	34.5
2:12	-44.1	-84.3	-129.7	37.0	-51.0	-97.4	-149.7	39.8	-59.0	-112.5	-172.8	43.2
3:12	-44.1	-84.4	-129.7	35.4	-51.0	-97.5	-149.7	38.3	-59.0	-112.6	-172.8	41.6
4:12	-44.1	-84.4	-129.7	33.8	-51.0	-97.5	-149.7	36.7	-59.0	-112.6	-172.8	40.0
5:12	-44.1	-84.4	-129.7	32.2	-51.1	-97.5	-149.8	35.1	-59.1	-112.6	-172.9	38.4
6:12	-44.2	-84.5	-129.8	30.7	-51.1	-97.5	-149.8	33.6	-59.1	-112.7	-172.9	37.0
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
Exposure Category D												
1:12	-59.7	-108.6	-169.6	32.5	-67.4	-122.4	-191.1	34.2	-76.3	-138.4	-216.0	36.2
2:12	-53.7	-102.5	-157.4	40.3	-60.6	-115.6	-177.4	43.2	-68.6	-130.7	-200.5	46.5
3:12	-53.7	-102.5	-157.4	38.8	-60.6	-115.6	-177.4	41.7	-68.6	-130.7	-200.5	45.0
4:12	-53.7	-102.5	-157.4	36.7	-60.6	-115.6	-177.5	39.5	-68.6	-130.7	-200.6	42.9
5:12	-53.7	-102.5	-157.5	35.2	-60.7	-115.6	-177.5	38.1	-68.7	-130.7	-200.6	42.4
6:12	-53.8	-102.6	-157.5	34.0	-60.7	-115.7	-177.5	37.8	-68.7	-130.8	-200.6	42.2
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6

Basic Wind Speed **165 mph**
Ground Snow Load **30 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
165 mph
Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	31.4	-40.2	-73.4	-114.8	31.4	-49.1	-89.4	-139.7	33.4
2:12	-36.1	-69.2	-106.6	36.0	-36.1	-69.2	-106.6	36.0	-44.1	-84.3	-129.7	39.3
3:12	-36.1	-69.3	-106.6	34.2	-36.1	-69.3	-106.6	34.2	-44.1	-84.4	-129.7	37.5
4:12	-36.1	-69.3	-106.6	32.3	-36.1	-69.3	-106.6	32.3	-44.1	-84.4	-129.7	35.7
5:12	-36.1	-69.3	-106.6	30.5	-36.1	-69.3	-106.6	30.5	-44.1	-84.4	-129.7	33.8
6:12	-36.2	-69.3	-106.7	28.8	-36.2	-69.3	-106.7	28.8	-44.2	-84.5	-129.8	32.1
7:12	-40.4	-48.7	-48.7	40.6	-40.4	-48.7	-48.7	40.6	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	33.4	-56.8	-103.2	-161.3	35.1	-65.7	-119.2	-186.2	37.1
2:12	-44.1	-84.3	-129.7	39.3	-51.0	-97.4	-149.7	42.2	-59.0	-112.5	-172.8	45.5
3:12	-44.1	-84.4	-129.7	37.5	-51.0	-97.5	-149.7	40.4	-59.0	-112.6	-172.8	43.7
4:12	-44.1	-84.4	-129.7	35.7	-51.0	-97.5	-149.7	38.5	-59.0	-112.6	-172.8	41.9
5:12	-44.1	-84.4	-129.7	33.8	-51.1	-97.5	-149.8	36.7	-59.1	-112.6	-172.9	40.1
6:12	-44.2	-84.5	-129.8	32.1	-51.1	-97.5	-149.8	35.0	-59.1	-112.7	-172.9	38.4
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	34.0	-67.4	-122.4	-191.1	35.7	-76.3	-138.4	-216.0	37.7
2:12	-53.7	-102.5	-157.4	41.7	-60.6	-115.6	-177.4	44.6	-68.6	-130.7	-200.5	47.9
3:12	-53.7	-102.5	-157.4	40.0	-60.6	-115.6	-177.4	42.9	-68.6	-130.7	-200.5	46.2
4:12	-53.7	-102.5	-157.4	38.3	-60.6	-115.6	-177.5	41.2	-68.6	-130.7	-200.6	44.6
5:12	-53.7	-102.5	-157.5	36.7	-60.7	-115.6	-177.5	39.6	-68.7	-130.7	-200.6	42.9
6:12	-53.8	-102.6	-157.5	35.2	-60.7	-115.7	-177.5	38.1	-68.7	-130.8	-200.6	42.2
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
165 mph

Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	34.0	-40.2	-73.4	-114.8	34.0	-49.1	-89.4	-139.7	36.0
2:12	-36.1	-69.2	-106.6	38.4	-36.1	-69.2	-106.6	38.4	-44.1	-84.3	-129.7	41.7
3:12	-36.1	-69.3	-106.6	36.3	-36.1	-69.3	-106.6	36.3	-44.1	-84.4	-129.7	39.6
4:12	-36.1	-69.3	-106.6	34.2	-36.1	-69.3	-106.6	34.2	-44.1	-84.4	-129.7	37.5
5:12	-36.1	-69.3	-106.6	32.1	-36.1	-69.3	-106.6	32.1	-44.1	-84.4	-129.7	35.5
6:12	-36.2	-69.3	-106.7	30.2	-36.2	-69.3	-106.7	30.2	-44.2	-84.5	-129.8	33.6
7:12	-40.4	-48.7	-48.7	40.9	-40.4	-48.7	-48.7	40.9	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	36.0	-56.8	-103.2	-161.3	37.8	-65.7	-119.2	-186.2	39.8
2:12	-44.1	-84.3	-129.7	41.7	-51.0	-97.4	-149.7	44.6	-59.0	-112.5	-172.8	47.9
3:12	-44.1	-84.4	-129.7	39.6	-51.0	-97.5	-149.7	42.5	-59.0	-112.6	-172.8	45.9
4:12	-44.1	-84.4	-129.7	37.5	-51.0	-97.5	-149.7	40.4	-59.0	-112.6	-172.8	43.7
5:12	-44.1	-84.4	-129.7	35.5	-51.1	-97.5	-149.8	38.4	-59.1	-112.6	-172.9	41.7
6:12	-44.2	-84.5	-129.8	33.6	-51.1	-97.5	-149.8	36.4	-59.1	-112.7	-172.9	39.8
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	36.3	-67.4	-122.4	-191.1	38.1	-76.3	-138.4	-216.0	40.1
2:12	-53.7	-102.5	-157.4	43.8	-60.6	-115.6	-177.4	46.7	-68.6	-130.7	-200.5	50.0
3:12	-53.7	-102.5	-157.4	41.9	-60.6	-115.6	-177.4	44.8	-68.6	-130.7	-200.5	48.2
4:12	-53.7	-102.5	-157.4	40.0	-60.6	-115.6	-177.5	42.9	-68.6	-130.7	-200.6	46.2
5:12	-53.7	-102.5	-157.5	38.2	-60.7	-115.6	-177.5	41.1	-68.7	-130.7	-200.6	44.4
6:12	-53.8	-102.6	-157.5	36.4	-60.7	-115.7	-177.5	39.3	-68.7	-130.8	-200.6	42.6
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
165 mph

Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-40.2	-73.4	-114.8	36.6	-40.2	-73.4	-114.8	36.6	-49.1	-89.4	-139.7	38.6
2:12	-36.1	-69.2	-106.6	40.8	-36.1	-69.2	-106.6	40.8	-44.1	-84.3	-129.7	44.1
3:12	-36.1	-69.3	-106.6	38.4	-36.1	-69.3	-106.6	38.4	-44.1	-84.4	-129.7	41.8
4:12	-36.1	-69.3	-106.6	36.1	-36.1	-69.3	-106.6	36.1	-44.1	-84.4	-129.7	39.4
5:12	-36.1	-69.3	-106.6	33.8	-36.1	-69.3	-106.6	33.8	-44.1	-84.4	-129.7	37.1
6:12	-36.2	-69.3	-106.7	31.6	-36.2	-69.3	-106.7	31.6	-44.2	-84.5	-129.8	35.0
7:12	-40.4	-48.7	-48.7	42.1	-40.4	-48.7	-48.7	42.1	-49.2	-59.3	-59.3	48.6
8:12	-40.4	-48.7	-48.7	40.5	-40.4	-48.7	-48.7	40.5	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
Exposure Category C												
1:12	-49.1	-89.4	-139.7	38.6	-56.8	-103.2	-161.3	40.4	-65.7	-119.2	-186.2	42.4
2:12	-44.1	-84.3	-129.7	44.1	-51.0	-97.4	-149.7	47.0	-59.0	-112.5	-172.8	50.3
3:12	-44.1	-84.4	-129.7	41.8	-51.0	-97.5	-149.7	44.6	-59.0	-112.6	-172.8	48.0
4:12	-44.1	-84.4	-129.7	39.4	-51.0	-97.5	-149.7	42.3	-59.0	-112.6	-172.8	45.6
5:12	-44.1	-84.4	-129.7	37.1	-51.1	-97.5	-149.8	40.0	-59.1	-112.6	-172.9	43.3
6:12	-44.2	-84.5	-129.8	35.0	-51.1	-97.5	-149.8	37.8	-59.1	-112.7	-172.9	41.2
7:12	-49.2	-59.3	-59.3	48.6	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
Exposure Category D												
1:12	-59.7	-108.6	-169.6	38.7	-67.4	-122.4	-191.1	40.4	-76.3	-138.4	-216.0	42.4
2:12	-53.7	-102.5	-157.4	45.9	-60.6	-115.6	-177.4	48.8	-68.6	-130.7	-200.5	52.2
3:12	-53.7	-102.5	-157.4	43.8	-60.6	-115.6	-177.4	46.7	-68.6	-130.7	-200.5	50.1
4:12	-53.7	-102.5	-157.4	41.7	-60.6	-115.6	-177.5	44.6	-68.6	-130.7	-200.6	47.9
5:12	-53.7	-102.5	-157.5	39.6	-60.7	-115.6	-177.5	42.5	-68.7	-130.7	-200.6	45.9
6:12	-53.8	-102.6	-157.5	37.7	-60.7	-115.7	-177.5	40.6	-68.7	-130.8	-200.6	43.9
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	39.2	-40.2	-73.4	-114.8	39.2	-49.1	-89.4	-139.7	41.2
2:12	-36.1	-69.2	-106.6	43.1	-36.1	-69.2	-106.6	43.1	-44.1	-84.3	-129.7	46.5
3:12	-36.1	-69.3	-106.6	40.6	-36.1	-69.3	-106.6	40.6	-44.1	-84.4	-129.7	43.9
4:12	-36.1	-69.3	-106.6	37.9	-36.1	-69.3	-106.6	37.9	-44.1	-84.4	-129.7	41.3
5:12	-36.1	-69.3	-106.6	35.4	-36.1	-69.3	-106.6	35.4	-44.1	-84.4	-129.7	38.7
6:12	-36.2	-69.3	-106.7	33.0	-36.2	-69.3	-106.7	33.0	-44.2	-84.5	-129.8	36.4
7:12	-40.4	-48.7	-48.7	43.3	-40.4	-48.7	-48.7	43.3	-49.2	-59.3	-59.3	49.3
8:12	-40.4	-48.7	-48.7	41.3	-40.4	-48.7	-48.7	41.3	-49.3	-59.4	-59.4	48.5
9:12	-40.4	-48.7	-48.7	40.4	-40.4	-48.7	-48.7	40.4	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	41.2	-56.8	-103.2	-161.3	43.0	-65.7	-119.2	-186.2	45.0
2:12	-44.1	-84.3	-129.7	46.5	-51.0	-97.4	-149.7	49.4	-59.0	-112.5	-172.8	52.7
3:12	-44.1	-84.4	-129.7	43.9	-51.0	-97.5	-149.7	46.8	-59.0	-112.6	-172.8	50.1
4:12	-44.1	-84.4	-129.7	41.3	-51.0	-97.5	-149.7	44.2	-59.0	-112.6	-172.8	47.5
5:12	-44.1	-84.4	-129.7	38.7	-51.1	-97.5	-149.8	41.6	-59.1	-112.6	-172.9	45.0
6:12	-44.2	-84.5	-129.8	36.4	-51.1	-97.5	-149.8	39.2	-59.1	-112.7	-172.9	42.6
7:12	-49.2	-59.3	-59.3	49.3	-56.9	-68.6	-68.6	55.6	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	48.5	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	41.0	-67.4	-122.4	-191.1	42.8	-76.3	-138.4	-216.0	44.8
2:12	-53.7	-102.5	-157.4	48.1	-60.6	-115.6	-177.4	51.0	-68.6	-130.7	-200.5	54.3
3:12	-53.7	-102.5	-157.4	45.8	-60.6	-115.6	-177.4	48.6	-68.6	-130.7	-200.5	52.0
4:12	-53.7	-102.5	-157.4	43.4	-60.6	-115.6	-177.5	46.3	-68.6	-130.7	-200.6	49.6
5:12	-53.7	-102.5	-157.5	41.1	-60.7	-115.6	-177.5	44.0	-68.7	-130.7	-200.6	47.3
6:12	-53.8	-102.6	-157.5	39.0	-60.7	-115.7	-177.5	41.8	-68.7	-130.8	-200.6	45.2
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6

Basic Wind Speed
165 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
165 mph
Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	45.5	-40.2	-73.4	-114.8	45.5	-49.1	-89.4	-139.7	46.4
2:12	-36.1	-69.2	-106.6	47.9	-36.1	-69.2	-106.6	47.9	-44.1	-84.3	-129.7	51.2
3:12	-36.1	-69.3	-106.6	44.8	-36.1	-69.3	-106.6	44.8	-44.1	-84.4	-129.7	48.1
4:12	-36.1	-69.3	-106.6	41.7	-36.1	-69.3	-106.6	41.7	-44.1	-84.4	-129.7	45.0
5:12	-36.1	-69.3	-106.6	38.7	-36.1	-69.3	-106.6	38.7	-44.1	-84.4	-129.7	42.0
6:12	-36.2	-69.3	-106.7	35.8	-36.2	-69.3	-106.7	35.8	-44.2	-84.5	-129.8	39.2
7:12	-40.4	-48.7	-48.7	45.7	-40.4	-48.7	-48.7	45.7	-49.2	-59.3	-59.3	51.7
8:12	-40.4	-48.7	-48.7	43.4	-40.4	-48.7	-48.7	43.4	-49.3	-59.4	-59.4	49.4
9:12	-40.4	-48.7	-48.7	41.3	-40.4	-48.7	-48.7	41.3	-49.3	-59.4	-59.4	48.4
10:12	-40.5	-48.8	-48.8	40.3	-40.5	-48.8	-48.8	40.3	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	46.4	-56.8	-103.2	-161.3	48.2	-65.7	-119.2	-186.2	50.2
2:12	-44.1	-84.3	-129.7	51.2	-51.0	-97.4	-149.7	54.1	-59.0	-112.5	-172.8	57.4
3:12	-44.1	-84.4	-129.7	48.1	-51.0	-97.5	-149.7	51.0	-59.0	-112.6	-172.8	54.4
4:12	-44.1	-84.4	-129.7	45.0	-51.0	-97.5	-149.7	47.9	-59.0	-112.6	-172.8	51.2
5:12	-44.1	-84.4	-129.7	42.0	-51.1	-97.5	-149.8	44.9	-59.1	-112.6	-172.9	48.2
6:12	-44.2	-84.5	-129.8	39.2	-51.1	-97.5	-149.8	42.1	-59.1	-112.7	-172.9	45.4
7:12	-49.2	-59.3	-59.3	51.7	-56.9	-68.6	-68.6	56.9	-65.8	-79.2	-79.2	63.6
8:12	-49.3	-59.4	-59.4	49.4	-57.0	-68.6	-68.6	55.5	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	48.4	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	45.7	-67.4	-122.4	-191.1	47.5	-76.3	-138.4	-216.0	49.5
2:12	-53.7	-102.5	-157.4	52.4	-60.6	-115.6	-177.4	55.3	-68.6	-130.7	-200.5	58.6
3:12	-53.7	-102.5	-157.4	49.6	-60.6	-115.6	-177.4	52.5	-68.6	-130.7	-200.5	55.8
4:12	-53.7	-102.5	-157.4	46.8	-60.6	-115.6	-177.5	49.7	-68.6	-130.7	-200.6	53.0
5:12	-53.7	-102.5	-157.5	44.0	-60.7	-115.6	-177.5	46.9	-68.7	-130.7	-200.6	50.3
6:12	-53.8	-102.6	-157.5	41.5	-60.7	-115.7	-177.5	44.4	-68.7	-130.8	-200.6	47.7
7:12	-59.9	-72.1	-72.1	58.2	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
165 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	52.5	-40.2	-73.4	-114.8	52.5	-49.1	-89.4	-139.7	52.5
2:12	-36.1	-69.2	-106.6	52.6	-36.1	-69.2	-106.6	52.6	-44.1	-84.3	-129.7	56.0
3:12	-36.1	-69.3	-106.6	49.1	-36.1	-69.3	-106.6	49.1	-44.1	-84.4	-129.7	52.4
4:12	-36.1	-69.3	-106.6	45.4	-36.1	-69.3	-106.6	45.4	-44.1	-84.4	-129.7	48.8
5:12	-36.1	-69.3	-106.6	41.9	-36.1	-69.3	-106.6	41.9	-44.1	-84.4	-129.7	45.3
6:12	-36.2	-69.3	-106.7	38.6	-36.2	-69.3	-106.7	38.6	-44.2	-84.5	-129.8	42.0
7:12	-40.4	-48.7	-48.7	48.1	-40.4	-48.7	-48.7	48.1	-49.2	-59.3	-59.3	54.1
8:12	-40.4	-48.7	-48.7	45.4	-40.4	-48.7	-48.7	45.4	-49.3	-59.4	-59.4	51.4
9:12	-40.4	-48.7	-48.7	43.1	-40.4	-48.7	-48.7	43.1	-49.3	-59.4	-59.4	49.1
10:12	-40.5	-48.8	-48.8	41.0	-40.5	-48.8	-48.8	41.0	-49.4	-59.4	-59.4	48.3
11:12	-40.5	-48.8	-48.8	40.2	-40.5	-48.8	-48.8	40.2	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	52.5	-56.8	-103.2	-161.3	53.4	-65.7	-119.2	-186.2	55.4
2:12	-44.1	-84.3	-129.7	56.0	-51.0	-97.4	-149.7	58.9	-59.0	-112.5	-172.8	62.2
3:12	-44.1	-84.4	-129.7	52.4	-51.0	-97.5	-149.7	55.3	-59.0	-112.6	-172.8	58.6
4:12	-44.1	-84.4	-129.7	48.8	-51.0	-97.5	-149.7	51.7	-59.0	-112.6	-172.8	55.0
5:12	-44.1	-84.4	-129.7	45.3	-51.1	-97.5	-149.8	48.1	-59.1	-112.6	-172.9	51.5
6:12	-44.2	-84.5	-129.8	42.0	-51.1	-97.5	-149.8	44.9	-59.1	-112.7	-172.9	48.2
7:12	-49.2	-59.3	-59.3	54.1	-56.9	-68.6	-68.6	59.3	-65.8	-79.2	-79.2	65.3
8:12	-49.3	-59.4	-59.4	51.4	-57.0	-68.6	-68.6	56.6	-65.9	-79.3	-79.3	63.4
9:12	-49.3	-59.4	-59.4	49.1	-57.0	-68.6	-68.6	55.3	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.3	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	50.4	-67.4	-122.4	-191.1	52.1	-76.3	-138.4	-216.0	54.1
2:12	-53.7	-102.5	-157.4	56.6	-60.6	-115.6	-177.4	59.5	-68.6	-130.7	-200.5	62.9
3:12	-53.7	-102.5	-157.4	53.4	-60.6	-115.6	-177.4	56.3	-68.6	-130.7	-200.5	59.6
4:12	-53.7	-102.5	-157.4	50.1	-60.6	-115.6	-177.5	53.0	-68.6	-130.7	-200.6	56.4
5:12	-53.7	-102.5	-157.5	47.0	-60.7	-115.6	-177.5	49.9	-68.7	-130.7	-200.6	53.2
6:12	-53.8	-102.6	-157.5	44.0	-60.7	-115.7	-177.5	46.9	-68.7	-130.8	-200.6	50.2
7:12	-59.9	-72.1	-72.1	59.6	-67.6	-81.4	-81.4	65.2	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
165 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	59.4	-40.2	-73.4	-114.8	59.4	-49.1	-89.4	-139.7	59.4
2:12	-36.1	-69.2	-106.6	57.4	-36.1	-69.2	-106.6	57.4	-44.1	-84.3	-129.7	60.7
3:12	-36.1	-69.3	-106.6	53.3	-36.1	-69.3	-106.6	53.3	-44.1	-84.4	-129.7	56.6
4:12	-36.1	-69.3	-106.6	49.2	-36.1	-69.3	-106.6	49.2	-44.1	-84.4	-129.7	52.5
5:12	-36.1	-69.3	-106.6	45.2	-36.1	-69.3	-106.6	45.2	-44.1	-84.4	-129.7	48.5
6:12	-36.2	-69.3	-106.7	41.4	-36.2	-69.3	-106.7	41.4	-44.2	-84.5	-129.8	44.8
7:12	-40.4	-48.7	-48.7	50.5	-40.4	-48.7	-48.7	50.5	-49.2	-59.3	-59.3	56.5
8:12	-40.4	-48.7	-48.7	47.4	-40.4	-48.7	-48.7	47.4	-49.3	-59.4	-59.4	53.4
9:12	-40.4	-48.7	-48.7	44.8	-40.4	-48.7	-48.7	44.8	-49.3	-59.4	-59.4	50.8
10:12	-40.5	-48.8	-48.8	42.5	-40.5	-48.8	-48.8	42.5	-49.4	-59.4	-59.4	48.5
11:12	-40.5	-48.8	-48.8	40.5	-40.5	-48.8	-48.8	40.5	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	59.4	-56.8	-103.2	-161.3	59.4	-65.7	-119.2	-186.2	60.6
2:12	-44.1	-84.3	-129.7	60.7	-51.0	-97.4	-149.7	63.6	-59.0	-112.5	-172.8	67.0
3:12	-44.1	-84.4	-129.7	56.6	-51.0	-97.5	-149.7	59.5	-59.0	-112.6	-172.8	62.9
4:12	-44.1	-84.4	-129.7	52.5	-51.0	-97.5	-149.7	55.4	-59.0	-112.6	-172.8	58.7
5:12	-44.1	-84.4	-129.7	48.5	-51.1	-97.5	-149.8	51.4	-59.1	-112.6	-172.9	54.7
6:12	-44.2	-84.5	-129.8	44.8	-51.1	-97.5	-149.8	47.7	-59.1	-112.7	-172.9	51.0
7:12	-49.2	-59.3	-59.3	56.5	-56.9	-68.6	-68.6	61.7	-65.8	-79.2	-79.2	67.7
8:12	-49.3	-59.4	-59.4	53.4	-57.0	-68.6	-68.6	58.6	-65.9	-79.3	-79.3	64.6
9:12	-49.3	-59.4	-59.4	50.8	-57.0	-68.6	-68.6	56.0	-65.9	-79.3	-79.3	63.3
10:12	-49.4	-59.4	-59.4	48.5	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	55.1	-67.4	-122.4	-191.1	56.8	-76.3	-138.4	-216.0	58.8
2:12	-53.7	-102.5	-157.4	60.9	-60.6	-115.6	-177.4	63.8	-68.6	-130.7	-200.5	67.2
3:12	-53.7	-102.5	-157.4	57.2	-60.6	-115.6	-177.4	60.1	-68.6	-130.7	-200.5	63.5
4:12	-53.7	-102.5	-157.4	53.5	-60.6	-115.6	-177.5	56.4	-68.6	-130.7	-200.6	59.7
5:12	-53.7	-102.5	-157.5	49.9	-60.7	-115.6	-177.5	52.8	-68.7	-130.7	-200.6	56.1
6:12	-53.8	-102.6	-157.5	46.5	-60.7	-115.7	-177.5	49.4	-68.7	-130.8	-200.6	52.8
7:12	-59.9	-72.1	-72.1	61.8	-67.6	-81.4	-81.4	67.0	-76.5	-92.0	-92.0	73.2
8:12	-60.0	-72.2	-72.2	59.0	-67.7	-81.4	-81.4	65.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.0	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
165 mph

Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-40.2	-73.4	-114.8	66.4	-40.2	-73.4	-114.8	66.4	-49.1	-89.4	-139.7	66.4
2:12	-36.1	-69.2	-106.6	62.2	-36.1	-69.2	-106.6	62.2	-44.1	-84.3	-129.7	65.5
3:12	-36.1	-69.3	-106.6	57.6	-36.1	-69.3	-106.6	57.6	-44.1	-84.4	-129.7	60.9
4:12	-36.1	-69.3	-106.6	52.9	-36.1	-69.3	-106.6	52.9	-44.1	-84.4	-129.7	56.3
5:12	-36.1	-69.3	-106.6	48.4	-36.1	-69.3	-106.6	48.4	-44.1	-84.4	-129.7	51.8
6:12	-36.2	-69.3	-106.7	44.3	-36.2	-69.3	-106.7	44.3	-44.2	-84.5	-129.8	47.6
7:12	-40.4	-48.7	-48.7	52.9	-40.4	-48.7	-48.7	52.9	-49.2	-59.3	-59.3	58.9
8:12	-40.4	-48.7	-48.7	49.5	-40.4	-48.7	-48.7	49.5	-49.3	-59.4	-59.4	55.5
9:12	-40.4	-48.7	-48.7	46.5	-40.4	-48.7	-48.7	46.5	-49.3	-59.4	-59.4	52.5
10:12	-40.5	-48.8	-48.8	43.9	-40.5	-48.8	-48.8	43.9	-49.4	-59.4	-59.4	49.9
11:12	-40.5	-48.8	-48.8	41.7	-40.5	-48.8	-48.8	41.7	-49.4	-59.5	-59.5	48.2
12:12	-40.6	-48.9	-48.9	40.0	-40.6	-48.9	-48.9	40.0	-49.4	-59.5	-59.5	48.0
Exposure Category C												
1:12	-49.1	-89.4	-139.7	66.4	-56.8	-103.2	-161.3	66.4	-65.7	-119.2	-186.2	66.4
2:12	-44.1	-84.3	-129.7	65.5	-51.0	-97.4	-149.7	68.4	-59.0	-112.5	-172.8	71.7
3:12	-44.1	-84.4	-129.7	60.9	-51.0	-97.5	-149.7	63.8	-59.0	-112.6	-172.8	67.1
4:12	-44.1	-84.4	-129.7	56.3	-51.0	-97.5	-149.7	59.2	-59.0	-112.6	-172.8	62.5
5:12	-44.1	-84.4	-129.7	51.8	-51.1	-97.5	-149.8	54.7	-59.1	-112.6	-172.9	58.0
6:12	-44.2	-84.5	-129.8	47.6	-51.1	-97.5	-149.8	50.5	-59.1	-112.7	-172.9	53.8
7:12	-49.2	-59.3	-59.3	58.9	-56.9	-68.6	-68.6	64.1	-65.8	-79.2	-79.2	70.1
8:12	-49.3	-59.4	-59.4	55.5	-57.0	-68.6	-68.6	60.7	-65.9	-79.3	-79.3	66.7
9:12	-49.3	-59.4	-59.4	52.5	-57.0	-68.6	-68.6	57.7	-65.9	-79.3	-79.3	63.7
10:12	-49.4	-59.4	-59.4	49.9	-57.1	-68.7	-68.7	55.2	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.2	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
Exposure Category D												
1:12	-59.7	-108.6	-169.6	60.1	-67.4	-122.4	-191.1	61.5	-76.3	-138.4	-216.0	63.5
2:12	-53.7	-102.5	-157.4	65.2	-60.6	-115.6	-177.4	68.1	-68.6	-130.7	-200.5	71.4
3:12	-53.7	-102.5	-157.4	61.1	-60.6	-115.6	-177.4	64.0	-68.6	-130.7	-200.5	67.3
4:12	-53.7	-102.5	-157.4	56.9	-60.6	-115.6	-177.5	59.8	-68.6	-130.7	-200.6	63.1
5:12	-53.7	-102.5	-157.5	52.8	-60.7	-115.6	-177.5	55.7	-68.7	-130.7	-200.6	59.1
6:12	-53.8	-102.6	-157.5	49.1	-60.7	-115.7	-177.5	51.9	-68.7	-130.8	-200.6	55.3
7:12	-59.9	-72.1	-72.1	63.9	-67.6	-81.4	-81.4	69.1	-76.5	-92.0	-92.0	75.1
8:12	-60.0	-72.2	-72.2	60.8	-67.7	-81.4	-81.4	66.0	-76.5	-92.1	-92.1	73.0
9:12	-60.0	-72.2	-72.2	58.1	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
165 mph

Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-40.2	-73.4	-114.8	73.4	-40.2	-73.4	-114.8	73.4	-49.1	-89.4	-139.7	73.4
2:12	-36.1	-69.2	-106.6	67.2	-36.1	-69.2	-106.6	67.2	-44.1	-84.3	-129.7	70.3
3:12	-36.1	-69.3	-106.6	61.8	-36.1	-69.3	-106.6	61.8	-44.1	-84.4	-129.7	65.2
4:12	-36.1	-69.3	-106.6	56.7	-36.1	-69.3	-106.6	56.7	-44.1	-84.4	-129.7	60.0
5:12	-36.1	-69.3	-106.6	51.7	-36.1	-69.3	-106.6	51.7	-44.1	-84.4	-129.7	55.0
6:12	-36.2	-69.3	-106.7	47.1	-36.2	-69.3	-106.7	47.1	-44.2	-84.5	-129.8	50.4
7:12	-40.4	-48.7	-48.7	55.3	-40.4	-48.7	-48.7	55.3	-49.2	-59.3	-59.3	61.3
8:12	-40.4	-48.7	-48.7	51.5	-40.4	-48.7	-48.7	51.5	-49.3	-59.4	-59.4	57.5
9:12	-40.4	-48.7	-48.7	48.2	-40.4	-48.7	-48.7	48.2	-49.3	-59.4	-59.4	54.2
10:12	-40.5	-48.8	-48.8	45.3	-40.5	-48.8	-48.8	45.3	-49.4	-59.4	-59.4	51.3
11:12	-40.5	-48.8	-48.8	42.9	-40.5	-48.8	-48.8	42.9	-49.4	-59.5	-59.5	48.9
12:12	-40.6	-48.9	-48.9	40.8	-40.6	-48.9	-48.9	40.8	-49.4	-59.5	-59.5	48.0
1:12	-49.1	-89.4	-139.7	73.4	-56.8	-103.2	-161.3	73.4	-65.7	-119.2	-186.2	73.4
2:12	-44.1	-84.3	-129.7	70.3	-51.0	-97.4	-149.7	73.1	-59.0	-112.5	-172.8	76.5
3:12	-44.1	-84.4	-129.7	65.2	-51.0	-97.5	-149.7	68.0	-59.0	-112.6	-172.8	71.4
4:12	-44.1	-84.4	-129.7	60.0	-51.0	-97.5	-149.7	62.9	-59.0	-112.6	-172.8	66.2
5:12	-44.1	-84.4	-129.7	55.0	-51.1	-97.5	-149.8	57.9	-59.1	-112.6	-172.9	61.3
6:12	-44.2	-84.5	-129.8	50.4	-51.1	-97.5	-149.8	53.3	-59.1	-112.7	-172.9	56.6
7:12	-49.2	-59.3	-59.3	61.3	-56.9	-68.6	-68.6	66.5	-65.8	-79.2	-79.2	72.5
8:12	-49.3	-59.4	-59.4	57.5	-57.0	-68.6	-68.6	62.7	-65.9	-79.3	-79.3	68.7
9:12	-49.3	-59.4	-59.4	54.2	-57.0	-68.6	-68.6	59.4	-65.9	-79.3	-79.3	65.4
10:12	-49.4	-59.4	-59.4	51.3	-57.1	-68.7	-68.7	56.5	-66.0	-79.3	-79.3	63.2
11:12	-49.4	-59.5	-59.5	48.9	-57.1	-68.7	-68.7	55.1	-66.0	-79.4	-79.4	63.1
12:12	-49.4	-59.5	-59.5	48.0	-57.1	-68.8	-68.8	55.0	-66.0	-79.4	-79.4	63.0
1:12	-59.7	-108.6	-169.6	66.4	-67.4	-122.4	-191.1	66.4	-76.3	-138.4	-216.0	68.2
2:12	-53.7	-102.5	-157.4	69.5	-60.6	-115.6	-177.4	72.4	-68.6	-130.7	-200.5	75.7
3:12	-53.7	-102.5	-157.4	64.9	-60.6	-115.6	-177.4	67.8	-68.6	-130.7	-200.5	71.1
4:12	-53.7	-102.5	-157.4	60.3	-60.6	-115.6	-177.5	63.2	-68.6	-130.7	-200.6	66.5
5:12	-53.7	-102.5	-157.5	55.8	-60.7	-115.6	-177.5	58.7	-68.7	-130.7	-200.6	62.0
6:12	-53.8	-102.6	-157.5	51.6	-60.7	-115.7	-177.5	54.5	-68.7	-130.8	-200.6	57.8
7:12	-59.9	-72.1	-72.1	66.1	-67.6	-81.4	-81.4	71.3	-76.5	-92.0	-92.0	77.3
8:12	-60.0	-72.2	-72.2	62.7	-67.7	-81.4	-81.4	67.9	-76.5	-92.1	-92.1	73.9
9:12	-60.0	-72.2	-72.2	59.7	-67.7	-81.4	-81.4	64.9	-76.6	-92.1	-92.1	72.9
10:12	-60.0	-72.2	-72.2	57.9	-67.7	-81.5	-81.5	64.8	-76.6	-92.1	-92.1	72.8
11:12	-60.1	-72.3	-72.3	57.8	-67.8	-81.5	-81.5	64.7	-76.7	-92.2	-92.2	72.7
12:12	-60.1	-72.3	-72.3	57.6	-67.8	-81.6	-81.6	64.6	-76.7	-92.2	-92.2	72.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	17.0	-42.7	-78.0	-122.0	17.0	-52.2	-94.9	-148.4	19.9
2:12	-38.4	-73.6	-113.2	25.8	-38.4	-73.6	-113.2	25.8	-46.8	-89.6	-137.7	30.5
3:12	-38.4	-73.6	-113.2	25.7	-38.4	-73.6	-113.2	25.7	-46.9	-89.6	-137.7	30.5
4:12	-38.4	-73.6	-113.2	25.7	-38.4	-73.6	-113.2	25.7	-46.9	-89.7	-137.8	30.4
5:12	-38.4	-73.6	-113.3	25.6	-38.4	-73.6	-113.3	25.6	-46.9	-89.7	-137.8	30.3
6:12	-38.5	-73.7	-113.3	25.5	-38.5	-73.7	-113.3	25.5	-47.0	-89.7	-137.8	30.2
7:12	-42.9	-51.7	-51.7	42.9	-42.9	-51.7	-51.7	42.9	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	19.9	-60.3	-109.7	-171.3	22.3	-69.8	-126.6	-197.7	25.2
2:12	-46.8	-89.6	-137.7	30.5	-54.2	-103.5	-159.0	34.6	-62.7	-119.5	-183.5	39.3
3:12	-46.9	-89.6	-137.7	30.5	-54.2	-103.5	-159.0	34.5	-62.7	-119.6	-183.5	39.3
4:12	-46.9	-89.7	-137.8	30.4	-54.2	-103.6	-159.0	34.5	-62.7	-119.6	-183.5	39.2
5:12	-46.9	-89.7	-137.8	30.3	-54.3	-103.6	-159.0	34.4	-62.8	-119.6	-183.6	39.1
6:12	-47.0	-89.7	-137.8	30.2	-54.3	-103.6	-159.1	34.3	-62.8	-119.7	-183.6	39.0
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	23.3	-71.7	-130.0	-203.0	25.7	-81.1	-147.0	-229.4	28.5
2:12	-57.0	-108.8	-167.1	36.2	-64.4	-122.7	-188.4	40.3	-72.9	-138.8	-212.9	45.0
3:12	-57.0	-108.9	-167.2	36.1	-64.4	-122.8	-188.4	40.2	-72.9	-138.8	-212.9	44.9
4:12	-57.1	-108.9	-167.2	36.0	-64.4	-122.8	-188.4	40.1	-72.9	-138.8	-213.0	44.8
5:12	-57.1	-108.9	-167.2	35.9	-64.5	-122.8	-188.5	40.0	-73.0	-138.9	-213.0	44.7
6:12	-57.1	-109.0	-167.3	35.8	-64.5	-122.9	-188.5	39.9	-73.0	-138.9	-213.0	44.6
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

170 mph

Ground Snow Load

0 psf

Up and Down (psf)

Basic Wind Speed
170 mph

Ground Snow Load
5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	17.5	-42.7	-78.0	-122.0	17.5	-52.2	-94.9	-148.4	19.9
2:12	-38.4	-73.6	-113.2	25.8	-38.4	-73.6	-113.2	25.8	-46.8	-89.6	-137.7	30.5
3:12	-38.4	-73.6	-113.2	25.7	-38.4	-73.6	-113.2	25.7	-46.9	-89.6	-137.7	30.5
4:12	-38.4	-73.6	-113.2	25.7	-38.4	-73.6	-113.2	25.7	-46.9	-89.7	-137.8	30.4
5:12	-38.4	-73.6	-113.3	25.6	-38.4	-73.6	-113.3	25.6	-46.9	-89.7	-137.8	30.3
6:12	-38.5	-73.7	-113.3	25.5	-38.5	-73.7	-113.3	25.5	-47.0	-89.7	-137.8	30.2
7:12	-42.9	-51.7	-51.7	42.9	-42.9	-51.7	-51.7	42.9	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	19.9	-60.3	-109.7	-171.3	22.3	-69.8	-126.6	-197.7	25.2
2:12	-46.8	-89.6	-137.7	30.5	-54.2	-103.5	-159.0	34.6	-62.7	-119.5	-183.5	39.3
3:12	-46.9	-89.6	-137.7	30.5	-54.2	-103.5	-159.0	34.5	-62.7	-119.6	-183.5	39.3
4:12	-46.9	-89.7	-137.8	30.4	-54.2	-103.6	-159.0	34.5	-62.7	-119.6	-183.5	39.2
5:12	-46.9	-89.7	-137.8	30.3	-54.3	-103.6	-159.0	34.4	-62.8	-119.6	-183.6	39.1
6:12	-47.0	-89.7	-137.8	30.2	-54.3	-103.6	-159.1	34.3	-62.8	-119.7	-183.6	39.0
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	23.3	-71.7	-130.0	-203.0	25.7	-81.1	-147.0	-229.4	28.5
2:12	-57.0	-108.8	-167.1	36.2	-64.4	-122.7	-188.4	40.3	-72.9	-138.8	-212.9	45.0
3:12	-57.0	-108.9	-167.2	36.1	-64.4	-122.8	-188.4	40.2	-72.9	-138.8	-212.9	44.9
4:12	-57.1	-108.9	-167.2	36.0	-64.4	-122.8	-188.4	40.1	-72.9	-138.8	-213.0	44.8
5:12	-57.1	-108.9	-167.2	35.9	-64.5	-122.8	-188.5	40.0	-73.0	-138.9	-213.0	44.7
6:12	-57.1	-109.0	-167.3	35.8	-64.5	-122.9	-188.5	39.9	-73.0	-138.9	-213.0	44.6
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	21.2	-42.7	-78.0	-122.0	21.2	-52.2	-94.9	-148.4	23.3
2:12	-38.4	-73.6	-113.2	27.1	-38.4	-73.6	-113.2	27.1	-46.8	-89.6	-137.7	30.6
3:12	-38.4	-73.6	-113.2	26.3	-38.4	-73.6	-113.2	26.3	-46.9	-89.6	-137.7	30.5
4:12	-38.4	-73.6	-113.2	25.7	-38.4	-73.6	-113.2	25.7	-46.9	-89.7	-137.8	30.4
5:12	-38.4	-73.6	-113.3	25.6	-38.4	-73.6	-113.3	25.6	-46.9	-89.7	-137.8	30.3
6:12	-38.5	-73.7	-113.3	25.5	-38.5	-73.7	-113.3	25.5	-47.0	-89.7	-137.8	30.2
7:12	-42.9	-51.7	-51.7	42.9	-42.9	-51.7	-51.7	42.9	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	23.3	-60.3	-109.7	-171.3	25.1	-69.8	-126.6	-197.7	27.3
2:12	-46.8	-89.6	-137.7	30.6	-54.2	-103.5	-159.0	34.6	-62.7	-119.5	-183.5	39.3
3:12	-46.9	-89.6	-137.7	30.5	-54.2	-103.5	-159.0	34.5	-62.7	-119.6	-183.5	39.3
4:12	-46.9	-89.7	-137.8	30.4	-54.2	-103.6	-159.0	34.5	-62.7	-119.6	-183.5	39.2
5:12	-46.9	-89.7	-137.8	30.3	-54.3	-103.6	-159.0	34.4	-62.8	-119.6	-183.6	39.1
6:12	-47.0	-89.7	-137.8	30.2	-54.3	-103.6	-159.1	34.3	-62.8	-119.7	-183.6	39.0
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	25.9	-71.7	-130.0	-203.0	27.7	-81.1	-147.0	-229.4	29.8
2:12	-57.0	-108.8	-167.1	36.2	-64.4	-122.7	-188.4	40.3	-72.9	-138.8	-212.9	45.0
3:12	-57.0	-108.9	-167.2	36.1	-64.4	-122.8	-188.4	40.2	-72.9	-138.8	-212.9	44.9
4:12	-57.1	-108.9	-167.2	36.0	-64.4	-122.8	-188.4	40.1	-72.9	-138.8	-213.0	44.8
5:12	-57.1	-108.9	-167.2	35.9	-64.5	-122.8	-188.5	40.0	-73.0	-138.9	-213.0	44.7
6:12	-57.1	-109.0	-167.3	35.8	-64.5	-122.9	-188.5	39.9	-73.0	-138.9	-213.0	44.6
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

170 mph

Ground Snow Load

10 psf

Up and Down (psf)

Basic Wind Speed
170 mph

Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	24.9	-42.7	-78.0	-122.0	24.9	-52.2	-94.9	-148.4	27.0
2:12	-38.4	-73.6	-113.2	30.5	-38.4	-73.6	-113.2	30.5	-46.8	-89.6	-137.7	34.0
3:12	-38.4	-73.6	-113.2	29.4	-38.4	-73.6	-113.2	29.4	-46.9	-89.6	-137.7	32.9
4:12	-38.4	-73.6	-113.2	25.8	-38.4	-73.6	-113.2	25.8	-46.9	-89.7	-137.8	30.4
5:12	-38.4	-73.6	-113.3	25.6	-38.4	-73.6	-113.3	25.6	-46.9	-89.7	-137.8	30.3
6:12	-38.5	-73.7	-113.3	25.5	-38.5	-73.7	-113.3	25.5	-47.0	-89.7	-137.8	30.2
7:12	-42.9	-51.7	-51.7	42.9	-42.9	-51.7	-51.7	42.9	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	27.0	-60.3	-109.7	-171.3	28.9	-69.8	-126.6	-197.7	31.0
2:12	-46.8	-89.6	-137.7	34.0	-54.2	-103.5	-159.0	37.1	-62.7	-119.5	-183.5	40.6
3:12	-46.9	-89.6	-137.7	32.9	-54.2	-103.5	-159.0	36.0	-62.7	-119.6	-183.5	39.5
4:12	-46.9	-89.7	-137.8	30.4	-54.2	-103.6	-159.0	34.5	-62.7	-119.6	-183.5	39.2
5:12	-46.9	-89.7	-137.8	30.3	-54.3	-103.6	-159.0	34.4	-62.8	-119.6	-183.6	39.1
6:12	-47.0	-89.7	-137.8	30.2	-54.3	-103.6	-159.1	34.3	-62.8	-119.7	-183.6	39.0
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	29.6	-71.7	-130.0	-203.0	31.4	-81.1	-147.0	-229.4	33.5
2:12	-57.0	-108.8	-167.1	38.3	-64.4	-122.7	-188.4	41.3	-72.9	-138.8	-212.9	45.0
3:12	-57.0	-108.9	-167.2	37.1	-64.4	-122.8	-188.4	40.2	-72.9	-138.8	-212.9	44.9
4:12	-57.1	-108.9	-167.2	36.0	-64.4	-122.8	-188.4	40.1	-72.9	-138.8	-213.0	44.8
5:12	-57.1	-108.9	-167.2	35.9	-64.5	-122.8	-188.5	40.0	-73.0	-138.9	-213.0	44.7
6:12	-57.1	-109.0	-167.3	35.8	-64.5	-122.9	-188.5	39.9	-73.0	-138.9	-213.0	44.6
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	28.6	-42.7	-78.0	-122.0	28.6	-52.2	-94.9	-148.4	30.8
2:12	-38.4	-73.6	-113.2	33.9	-38.4	-73.6	-113.2	33.9	-46.8	-89.6	-137.7	37.4
3:12	-38.4	-73.6	-113.2	32.4	-38.4	-73.6	-113.2	32.4	-46.9	-89.6	-137.7	35.9
4:12	-38.4	-73.6	-113.2	27.7	-38.4	-73.6	-113.2	27.7	-46.9	-89.7	-137.8	31.2
5:12	-38.4	-73.6	-113.3	26.6	-38.4	-73.6	-113.3	26.6	-46.9	-89.7	-137.8	30.3
6:12	-38.5	-73.7	-113.3	25.6	-38.5	-73.7	-113.3	25.6	-47.0	-89.7	-137.8	30.2
7:12	-42.9	-51.7	-51.7	42.9	-42.9	-51.7	-51.7	42.9	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	30.8	-60.3	-109.7	-171.3	32.6	-69.8	-126.6	-197.7	34.7
2:12	-46.8	-89.6	-137.7	37.4	-54.2	-103.5	-159.0	40.5	-62.7	-119.5	-183.5	44.0
3:12	-46.9	-89.6	-137.7	35.9	-54.2	-103.5	-159.0	39.0	-62.7	-119.6	-183.5	42.5
4:12	-46.9	-89.7	-137.8	31.2	-54.2	-103.6	-159.0	34.5	-62.7	-119.6	-183.5	39.2
5:12	-46.9	-89.7	-137.8	30.3	-54.3	-103.6	-159.0	34.4	-62.8	-119.6	-183.6	39.1
6:12	-47.0	-89.7	-137.8	30.2	-54.3	-103.6	-159.1	34.3	-62.8	-119.7	-183.6	39.0
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	33.3	-71.7	-130.0	-203.0	35.1	-81.1	-147.0	-229.4	37.3
2:12	-57.0	-108.8	-167.1	41.7	-64.4	-122.7	-188.4	44.7	-72.9	-138.8	-212.9	48.3
3:12	-57.0	-108.9	-167.2	40.2	-64.4	-122.8	-188.4	43.2	-72.9	-138.8	-212.9	46.8
4:12	-57.1	-108.9	-167.2	36.0	-64.4	-122.8	-188.4	40.1	-72.9	-138.8	-213.0	44.8
5:12	-57.1	-108.9	-167.2	35.9	-64.5	-122.8	-188.5	40.0	-73.0	-138.9	-213.0	44.7
6:12	-57.1	-109.0	-167.3	35.8	-64.5	-122.9	-188.5	39.9	-73.0	-138.9	-213.0	44.6
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

170 mph

Ground Snow Load

20 psf

Up and Down (psf)

Basic Wind Speed
170 mph

Ground Snow Load
25 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	28.6	-42.7	-78.0	-122.0	28.6	-52.2	-94.9	-148.4	30.8
2:12	-38.4	-73.6	-113.2	33.9	-38.4	-73.6	-113.2	33.9	-46.8	-89.6	-137.7	37.4
3:12	-38.4	-73.6	-113.2	32.4	-38.4	-73.6	-113.2	32.4	-46.9	-89.6	-137.7	35.9
4:12	-38.4	-73.6	-113.2	29.5	-38.4	-73.6	-113.2	29.5	-46.9	-89.7	-137.8	33.1
5:12	-38.4	-73.6	-113.3	28.2	-38.4	-73.6	-113.3	28.2	-46.9	-89.7	-137.8	31.7
6:12	-38.5	-73.7	-113.3	27.0	-38.5	-73.7	-113.3	27.0	-47.0	-89.7	-137.8	30.5
7:12	-42.9	-51.7	-51.7	42.9	-42.9	-51.7	-51.7	42.9	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	30.8	-60.3	-109.7	-171.3	32.6	-69.8	-126.6	-197.7	34.7
2:12	-46.8	-89.6	-137.7	37.4	-54.2	-103.5	-159.0	40.5	-62.7	-119.5	-183.5	44.0
3:12	-46.9	-89.6	-137.7	35.9	-54.2	-103.5	-159.0	39.0	-62.7	-119.6	-183.5	42.5
4:12	-46.9	-89.7	-137.8	33.1	-54.2	-103.6	-159.0	36.1	-62.7	-119.6	-183.5	39.7
5:12	-46.9	-89.7	-137.8	31.7	-54.3	-103.6	-159.0	34.8	-62.8	-119.6	-183.6	39.1
6:12	-47.0	-89.7	-137.8	30.5	-54.3	-103.6	-159.1	34.3	-62.8	-119.7	-183.6	39.0
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	33.3	-71.7	-130.0	-203.0	35.1	-81.1	-147.0	-229.4	37.3
2:12	-57.0	-108.8	-167.1	41.7	-64.4	-122.7	-188.4	44.7	-72.9	-138.8	-212.9	48.3
3:12	-57.0	-108.9	-167.2	40.2	-64.4	-122.8	-188.4	43.2	-72.9	-138.8	-212.9	46.8
4:12	-57.1	-108.9	-167.2	36.4	-64.4	-122.8	-188.4	40.1	-72.9	-138.8	-213.0	44.8
5:12	-57.1	-108.9	-167.2	35.9	-64.5	-122.8	-188.5	40.0	-73.0	-138.9	-213.0	44.7
6:12	-57.1	-109.0	-167.3	35.8	-64.5	-122.9	-188.5	39.9	-73.0	-138.9	-213.0	44.6
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
170 mph
Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-42.7	-78.0	-122.0	29.4	-42.7	-78.0	-122.0	29.4	-52.2	-94.9	-148.4	31.5
2:12	-38.4	-73.6	-113.2	34.6	-38.4	-73.6	-113.2	34.6	-46.8	-89.6	-137.7	38.1
3:12	-38.4	-73.6	-113.2	33.0	-38.4	-73.6	-113.2	33.0	-46.9	-89.6	-137.7	36.5
4:12	-38.4	-73.6	-113.2	31.4	-38.4	-73.6	-113.2	31.4	-46.9	-89.7	-137.8	34.9
5:12	-38.4	-73.6	-113.3	29.8	-38.4	-73.6	-113.3	29.8	-46.9	-89.7	-137.8	33.4
6:12	-38.5	-73.7	-113.3	28.4	-38.5	-73.7	-113.3	28.4	-47.0	-89.7	-137.8	31.9
7:12	-42.9	-51.7	-51.7	42.9	-42.9	-51.7	-51.7	42.9	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
1:12	-52.2	-94.9	-148.4	31.5	-60.3	-109.7	-171.3	33.3	-69.8	-126.6	-197.7	35.5
2:12	-46.8	-89.6	-137.7	38.1	-54.2	-103.5	-159.0	41.2	-62.7	-119.5	-183.5	44.7
3:12	-46.9	-89.6	-137.7	36.5	-54.2	-103.5	-159.0	39.6	-62.7	-119.6	-183.5	43.1
4:12	-46.9	-89.7	-137.8	34.9	-54.2	-103.6	-159.0	38.0	-62.7	-119.6	-183.5	41.5
5:12	-46.9	-89.7	-137.8	33.4	-54.3	-103.6	-159.0	36.4	-62.8	-119.6	-183.6	40.0
6:12	-47.0	-89.7	-137.8	31.9	-54.3	-103.6	-159.1	35.0	-62.8	-119.7	-183.6	39.0
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
1:12	-63.5	-115.3	-180.1	33.3	-71.7	-130.0	-203.0	35.1	-81.1	-147.0	-229.4	37.3
2:12	-57.0	-108.8	-167.1	41.7	-64.4	-122.7	-188.4	44.7	-72.9	-138.8	-212.9	48.3
3:12	-57.0	-108.9	-167.2	40.2	-64.4	-122.8	-188.4	43.2	-72.9	-138.8	-212.9	46.8
4:12	-57.1	-108.9	-167.2	38.1	-64.4	-122.8	-188.4	41.1	-72.9	-138.8	-213.0	44.8
5:12	-57.1	-108.9	-167.2	36.6	-64.5	-122.8	-188.5	40.0	-73.0	-138.9	-213.0	44.7
6:12	-57.1	-109.0	-167.3	35.8	-64.5	-122.9	-188.5	39.9	-73.0	-138.9	-213.0	44.6
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
170 mph

Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-42.7	-78.0	-122.0	32.0	-42.7	-78.0	-122.0	32.0	-52.2	-94.9	-148.4	34.1
2:12	-38.4	-73.6	-113.2	37.0	-38.4	-73.6	-113.2	37.0	-46.8	-89.6	-137.7	40.5
3:12	-38.4	-73.6	-113.2	35.1	-38.4	-73.6	-113.2	35.1	-46.9	-89.6	-137.7	38.7
4:12	-38.4	-73.6	-113.2	33.3	-38.4	-73.6	-113.2	33.3	-46.9	-89.7	-137.8	36.8
5:12	-38.4	-73.6	-113.3	31.5	-38.4	-73.6	-113.3	31.5	-46.9	-89.7	-137.8	35.0
6:12	-38.5	-73.7	-113.3	29.8	-38.5	-73.7	-113.3	29.8	-47.0	-89.7	-137.8	33.3
7:12	-42.9	-51.7	-51.7	42.9	-42.9	-51.7	-51.7	42.9	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
1:12	-52.2	-94.9	-148.4	34.1	-60.3	-109.7	-171.3	35.9	-69.8	-126.6	-197.7	38.1
2:12	-46.8	-89.6	-137.7	40.5	-54.2	-103.5	-159.0	43.6	-62.7	-119.5	-183.5	47.1
3:12	-46.9	-89.6	-137.7	38.7	-54.2	-103.5	-159.0	41.7	-62.7	-119.6	-183.5	45.3
4:12	-46.9	-89.7	-137.8	36.8	-54.2	-103.6	-159.0	39.9	-62.7	-119.6	-183.5	43.4
5:12	-46.9	-89.7	-137.8	35.0	-54.3	-103.6	-159.0	38.1	-62.8	-119.6	-183.6	41.6
6:12	-47.0	-89.7	-137.8	33.3	-54.3	-103.6	-159.1	36.4	-62.8	-119.7	-183.6	39.9
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
1:12	-63.5	-115.3	-180.1	34.8	-71.7	-130.0	-203.0	36.7	-81.1	-147.0	-229.4	38.8
2:12	-57.0	-108.8	-167.1	43.1	-64.4	-122.7	-188.4	46.1	-72.9	-138.8	-212.9	49.7
3:12	-57.0	-108.9	-167.2	41.4	-64.4	-122.8	-188.4	44.5	-72.9	-138.8	-212.9	48.0
4:12	-57.1	-108.9	-167.2	39.7	-64.4	-122.8	-188.4	42.8	-72.9	-138.8	-213.0	46.4
5:12	-57.1	-108.9	-167.2	38.1	-64.5	-122.8	-188.5	41.2	-73.0	-138.9	-213.0	44.7
6:12	-57.1	-109.0	-167.3	36.6	-64.5	-122.9	-188.5	39.9	-73.0	-138.9	-213.0	44.6
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
170 mph
Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	34.6	-42.7	-78.0	-122.0	34.6	-52.2	-94.9	-148.4	36.7
2:12	-38.4	-73.6	-113.2	39.3	-38.4	-73.6	-113.2	39.3	-46.8	-89.6	-137.7	42.9
3:12	-38.4	-73.6	-113.2	37.3	-38.4	-73.6	-113.2	37.3	-46.9	-89.6	-137.7	40.8
4:12	-38.4	-73.6	-113.2	35.2	-38.4	-73.6	-113.2	35.2	-46.9	-89.7	-137.8	38.7
5:12	-38.4	-73.6	-113.3	33.1	-38.4	-73.6	-113.3	33.1	-46.9	-89.7	-137.8	36.6
6:12	-38.5	-73.7	-113.3	31.2	-38.5	-73.7	-113.3	31.2	-47.0	-89.7	-137.8	34.7
7:12	-42.9	-51.7	-51.7	42.9	-42.9	-51.7	-51.7	42.9	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	36.7	-60.3	-109.7	-171.3	38.6	-69.8	-126.6	-197.7	40.7
2:12	-46.8	-89.6	-137.7	42.9	-54.2	-103.5	-159.0	45.9	-62.7	-119.5	-183.5	49.5
3:12	-46.9	-89.6	-137.7	40.8	-54.2	-103.5	-159.0	43.9	-62.7	-119.6	-183.5	47.4
4:12	-46.9	-89.7	-137.8	38.7	-54.2	-103.6	-159.0	41.8	-62.7	-119.6	-183.5	45.3
5:12	-46.9	-89.7	-137.8	36.6	-54.3	-103.6	-159.0	39.7	-62.8	-119.6	-183.6	43.2
6:12	-47.0	-89.7	-137.8	34.7	-54.3	-103.6	-159.1	37.8	-62.8	-119.7	-183.6	41.3
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	37.2	-71.7	-130.0	-203.0	39.0	-81.1	-147.0	-229.4	41.1
2:12	-57.0	-108.8	-167.1	45.2	-64.4	-122.7	-188.4	48.3	-72.9	-138.8	-212.9	51.8
3:12	-57.0	-108.9	-167.2	43.3	-64.4	-122.8	-188.4	46.4	-72.9	-138.8	-212.9	49.9
4:12	-57.1	-108.9	-167.2	41.4	-64.4	-122.8	-188.4	44.5	-72.9	-138.8	-213.0	48.0
5:12	-57.1	-108.9	-167.2	39.6	-64.5	-122.8	-188.5	42.6	-73.0	-138.9	-213.0	46.2
6:12	-57.1	-109.0	-167.3	37.8	-64.5	-122.9	-188.5	40.9	-73.0	-138.9	-213.0	44.6
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
170 mph
Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-42.7	-78.0	-122.0	37.2	-42.7	-78.0	-122.0	37.2	-52.2	-94.9	-148.4	39.3
2:12	-38.4	-73.6	-113.2	41.7	-38.4	-73.6	-113.2	41.7	-46.8	-89.6	-137.7	45.2
3:12	-38.4	-73.6	-113.2	39.4	-38.4	-73.6	-113.2	39.4	-46.9	-89.6	-137.7	42.9
4:12	-38.4	-73.6	-113.2	37.0	-38.4	-73.6	-113.2	37.0	-46.9	-89.7	-137.8	40.6
5:12	-38.4	-73.6	-113.3	34.7	-38.4	-73.6	-113.3	34.7	-46.9	-89.7	-137.8	38.3
6:12	-38.5	-73.7	-113.3	32.6	-38.5	-73.7	-113.3	32.6	-47.0	-89.7	-137.8	36.1
7:12	-42.9	-51.7	-51.7	43.8	-42.9	-51.7	-51.7	43.8	-52.3	-63.0	-63.0	51.4
8:12	-43.0	-51.8	-51.8	42.8	-43.0	-51.8	-51.8	42.8	-52.4	-63.1	-63.1	51.3
9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
1:12	-52.2	-94.9	-148.4	39.3	-60.3	-109.7	-171.3	41.2	-69.8	-126.6	-197.7	43.3
2:12	-46.8	-89.6	-137.7	45.2	-54.2	-103.5	-159.0	48.3	-62.7	-119.5	-183.5	51.9
3:12	-46.9	-89.6	-137.7	42.9	-54.2	-103.5	-159.0	46.0	-62.7	-119.6	-183.5	49.5
4:12	-46.9	-89.7	-137.8	40.6	-54.2	-103.6	-159.0	43.6	-62.7	-119.6	-183.5	47.2
5:12	-46.9	-89.7	-137.8	38.3	-54.3	-103.6	-159.0	41.3	-62.8	-119.6	-183.6	44.9
6:12	-47.0	-89.7	-137.8	36.1	-54.3	-103.6	-159.1	39.2	-62.8	-119.7	-183.6	42.7
7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
1:12	-63.5	-115.3	-180.1	39.5	-71.7	-130.0	-203.0	41.4	-81.1	-147.0	-229.4	43.5
2:12	-57.0	-108.8	-167.1	47.4	-64.4	-122.7	-188.4	50.4	-72.9	-138.8	-212.9	54.0
3:12	-57.0	-108.9	-167.2	45.3	-64.4	-122.8	-188.4	48.3	-72.9	-138.8	-212.9	51.9
4:12	-57.1	-108.9	-167.2	43.1	-64.4	-122.8	-188.4	46.2	-72.9	-138.8	-213.0	49.7
5:12	-57.1	-108.9	-167.2	41.0	-64.5	-122.8	-188.5	44.1	-73.0	-138.9	-213.0	47.7
6:12	-57.1	-109.0	-167.3	39.1	-64.5	-122.9	-188.5	42.2	-73.0	-138.9	-213.0	45.7
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
170 mph

Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-42.7	-78.0	-122.0	39.8	-42.7	-78.0	-122.0	39.8	-52.2	-94.9	-148.4	41.9
	2:12	-38.4	-73.6	-113.2	44.1	-38.4	-73.6	-113.2	44.1	-46.8	-89.6	-137.7	47.6
	3:12	-38.4	-73.6	-113.2	41.5	-38.4	-73.6	-113.2	41.5	-46.9	-89.6	-137.7	45.0
	4:12	-38.4	-73.6	-113.2	38.9	-38.4	-73.6	-113.2	38.9	-46.9	-89.7	-137.8	42.4
	5:12	-38.4	-73.6	-113.3	36.4	-38.4	-73.6	-113.3	36.4	-46.9	-89.7	-137.8	39.9
	6:12	-38.5	-73.7	-113.3	34.0	-38.5	-73.7	-113.3	34.0	-47.0	-89.7	-137.8	37.5
	7:12	-42.9	-51.7	-51.7	45.0	-42.9	-51.7	-51.7	45.0	-52.3	-63.0	-63.0	51.4
	8:12	-43.0	-51.8	-51.8	43.1	-43.0	-51.8	-51.8	43.1	-52.4	-63.1	-63.1	51.3
	9:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.4	-63.1	-63.1	51.2
	10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
	11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
	12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C	1:12	-52.2	-94.9	-148.4	41.9	-60.3	-109.7	-171.3	43.8	-69.8	-126.6	-197.7	45.9
	2:12	-46.8	-89.6	-137.7	47.6	-54.2	-103.5	-159.0	50.7	-62.7	-119.5	-183.5	54.2
	3:12	-46.9	-89.6	-137.7	45.0	-54.2	-103.5	-159.0	48.1	-62.7	-119.6	-183.5	51.7
	4:12	-46.9	-89.7	-137.8	42.4	-54.2	-103.6	-159.0	45.5	-62.7	-119.6	-183.5	49.0
	5:12	-46.9	-89.7	-137.8	39.9	-54.3	-103.6	-159.0	43.0	-62.8	-119.6	-183.6	46.5
	6:12	-47.0	-89.7	-137.8	37.5	-54.3	-103.6	-159.1	40.6	-62.8	-119.7	-183.6	44.1
	7:12	-52.3	-63.0	-63.0	51.4	-60.5	-72.8	-72.8	58.8	-70.0	-84.2	-84.2	67.3
	8:12	-52.4	-63.1	-63.1	51.3	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
	9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
	10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
	11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
	12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D	1:12	-63.5	-115.3	-180.1	41.9	-71.7	-130.0	-203.0	43.7	-81.1	-147.0	-229.4	45.8
	2:12	-57.0	-108.8	-167.1	49.5	-64.4	-122.7	-188.4	52.6	-72.9	-138.8	-212.9	56.1
	3:12	-57.0	-108.9	-167.2	47.2	-64.4	-122.8	-188.4	50.2	-72.9	-138.8	-212.9	53.8
	4:12	-57.1	-108.9	-167.2	44.8	-64.4	-122.8	-188.4	47.9	-72.9	-138.8	-213.0	51.4
	5:12	-57.1	-108.9	-167.2	42.5	-64.5	-122.8	-188.5	45.6	-73.0	-138.9	-213.0	49.1
	6:12	-57.1	-109.0	-167.3	40.4	-64.5	-122.9	-188.5	43.4	-73.0	-138.9	-213.0	47.0
	7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
	8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
	9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
	10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
	11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
	12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
	2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
	3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
	4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
	5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
	6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
	7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
	8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
	9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
	10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
	11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Table W170-S50

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	45.5	-42.7	-78.0	-122.0	45.5	-52.2	-94.9	-148.4	47.1
2:12	-38.4	-73.6	-113.2	48.8	-38.4	-73.6	-113.2	48.8	-46.8	-89.6	-137.7	52.4
3:12	-38.4	-73.6	-113.2	45.8	-38.4	-73.6	-113.2	45.8	-46.9	-89.6	-137.7	49.3
4:12	-38.4	-73.6	-113.2	42.6	-38.4	-73.6	-113.2	42.6	-46.9	-89.7	-137.8	46.2
5:12	-38.4	-73.6	-113.3	39.6	-38.4	-73.6	-113.3	39.6	-46.9	-89.7	-137.8	43.2
6:12	-38.5	-73.7	-113.3	36.8	-38.5	-73.7	-113.3	36.8	-47.0	-89.7	-137.8	40.3
7:12	-42.9	-51.7	-51.7	47.4	-42.9	-51.7	-51.7	47.4	-52.3	-63.0	-63.0	53.8
8:12	-43.0	-51.8	-51.8	45.1	-43.0	-51.8	-51.8	45.1	-52.4	-63.1	-63.1	51.5
9:12	-43.0	-51.8	-51.8	43.1	-43.0	-51.8	-51.8	43.1	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.6	-43.0	-51.8	-51.8	42.6	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	47.1	-60.3	-109.7	-171.3	49.0	-69.8	-126.6	-197.7	51.1
2:12	-46.8	-89.6	-137.7	52.4	-54.2	-103.5	-159.0	55.5	-62.7	-119.5	-183.5	59.0
3:12	-46.9	-89.6	-137.7	49.3	-54.2	-103.5	-159.0	52.4	-62.7	-119.6	-183.5	55.9
4:12	-46.9	-89.7	-137.8	46.2	-54.2	-103.6	-159.0	49.3	-62.7	-119.6	-183.5	52.8
5:12	-46.9	-89.7	-137.8	43.2	-54.3	-103.6	-159.0	46.2	-62.8	-119.6	-183.6	49.8
6:12	-47.0	-89.7	-137.8	40.3	-54.3	-103.6	-159.1	43.4	-62.8	-119.7	-183.6	46.9
7:12	-52.3	-63.0	-63.0	53.8	-60.5	-72.8	-72.8	59.3	-70.0	-84.2	-84.2	67.3
8:12	-52.4	-63.1	-63.1	51.5	-60.6	-72.9	-72.9	58.7	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	46.6	-71.7	-130.0	-203.0	48.4	-81.1	-147.0	-229.4	50.5
2:12	-57.0	-108.8	-167.1	53.8	-64.4	-122.7	-188.4	56.8	-72.9	-138.8	-212.9	60.4
3:12	-57.0	-108.9	-167.2	51.0	-64.4	-122.8	-188.4	54.1	-72.9	-138.8	-212.9	57.6
4:12	-57.1	-108.9	-167.2	48.2	-64.4	-122.8	-188.4	51.2	-72.9	-138.8	-213.0	54.8
5:12	-57.1	-108.9	-167.2	45.4	-64.5	-122.8	-188.5	48.5	-73.0	-138.9	-213.0	52.1
6:12	-57.1	-109.0	-167.3	42.9	-64.5	-122.9	-188.5	46.0	-73.0	-138.9	-213.0	49.5
7:12	-63.7	-76.6	-76.6	61.6	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
170 mph

Ground Snow Load
60 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-42.7	-78.0	-122.0	52.5	-42.7	-78.0	-122.0	52.5	-52.2	-94.9	-148.4	52.5
2:12	-38.4	-73.6	-113.2	53.6	-38.4	-73.6	-113.2	53.6	-46.8	-89.6	-137.7	57.1
3:12	-38.4	-73.6	-113.2	50.0	-38.4	-73.6	-113.2	50.0	-46.9	-89.6	-137.7	53.6
4:12	-38.4	-73.6	-113.2	46.4	-38.4	-73.6	-113.2	46.4	-46.9	-89.7	-137.8	49.9
5:12	-38.4	-73.6	-113.3	42.9	-38.4	-73.6	-113.3	42.9	-46.9	-89.7	-137.8	46.4
6:12	-38.5	-73.7	-113.3	39.6	-38.5	-73.7	-113.3	39.6	-47.0	-89.7	-137.8	43.1
7:12	-42.9	-51.7	-51.7	49.8	-42.9	-51.7	-51.7	49.8	-52.3	-63.0	-63.0	56.2
8:12	-43.0	-51.8	-51.8	47.1	-43.0	-51.8	-51.8	47.1	-52.4	-63.1	-63.1	53.5
9:12	-43.0	-51.8	-51.8	44.8	-43.0	-51.8	-51.8	44.8	-52.4	-63.1	-63.1	51.2
10:12	-43.0	-51.8	-51.8	42.7	-43.0	-51.8	-51.8	42.7	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
1:12	-52.2	-94.9	-148.4	52.5	-60.3	-109.7	-171.3	54.2	-69.8	-126.6	-197.7	56.3
2:12	-46.8	-89.6	-137.7	57.1	-54.2	-103.5	-159.0	60.2	-62.7	-119.5	-183.5	63.7
3:12	-46.9	-89.6	-137.7	53.6	-54.2	-103.5	-159.0	56.6	-62.7	-119.6	-183.5	60.2
4:12	-46.9	-89.7	-137.8	49.9	-54.2	-103.6	-159.0	53.0	-62.7	-119.6	-183.5	56.5
5:12	-46.9	-89.7	-137.8	46.4	-54.3	-103.6	-159.0	49.5	-62.8	-119.6	-183.6	53.0
6:12	-47.0	-89.7	-137.8	43.1	-54.3	-103.6	-159.1	46.2	-62.8	-119.7	-183.6	49.7
7:12	-52.3	-63.0	-63.0	56.2	-60.5	-72.8	-72.8	61.7	-70.0	-84.2	-84.2	68.1
8:12	-52.4	-63.1	-63.1	53.5	-60.6	-72.9	-72.9	59.0	-70.0	-84.2	-84.2	67.2
9:12	-52.4	-63.1	-63.1	51.2	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
1:12	-63.5	-115.3	-180.1	51.3	-71.7	-130.0	-203.0	53.1	-81.1	-147.0	-229.4	55.2
2:12	-57.0	-108.8	-167.1	58.1	-64.4	-122.7	-188.4	61.1	-72.9	-138.8	-212.9	64.7
3:12	-57.0	-108.9	-167.2	54.8	-64.4	-122.8	-188.4	57.9	-72.9	-138.8	-212.9	61.4
4:12	-57.1	-108.9	-167.2	51.6	-64.4	-122.8	-188.4	54.6	-72.9	-138.8	-213.0	58.2
5:12	-57.1	-108.9	-167.2	48.4	-64.5	-122.8	-188.5	51.4	-73.0	-138.9	-213.0	55.0
6:12	-57.1	-109.0	-167.3	45.4	-64.5	-122.9	-188.5	48.5	-73.0	-138.9	-213.0	52.0
7:12	-63.7	-76.6	-76.6	62.1	-71.8	-86.4	-86.4	69.0	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9

Basic Wind Speed **170 mph**
Ground Snow Load **70 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
170 mph
Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-42.7	-78.0	-122.0	59.4	-42.7	-78.0	-122.0	59.4	-52.2	-94.9	-148.4	59.4
2:12	-38.4	-73.6	-113.2	58.4	-38.4	-73.6	-113.2	58.4	-46.8	-89.6	-137.7	61.9
3:12	-38.4	-73.6	-113.2	54.3	-38.4	-73.6	-113.2	54.3	-46.9	-89.6	-137.7	57.8
4:12	-38.4	-73.6	-113.2	50.1	-38.4	-73.6	-113.2	50.1	-46.9	-89.7	-137.8	53.7
5:12	-38.4	-73.6	-113.3	46.1	-38.4	-73.6	-113.3	46.1	-46.9	-89.7	-137.8	49.7
6:12	-38.5	-73.7	-113.3	42.4	-38.5	-73.7	-113.3	42.4	-47.0	-89.7	-137.8	45.9
7:12	-42.9	-51.7	-51.7	52.2	-42.9	-51.7	-51.7	52.2	-52.3	-63.0	-63.0	58.6
8:12	-43.0	-51.8	-51.8	49.2	-43.0	-51.8	-51.8	49.2	-52.4	-63.1	-63.1	55.5
9:12	-43.0	-51.8	-51.8	46.5	-43.0	-51.8	-51.8	46.5	-52.4	-63.1	-63.1	52.9
10:12	-43.0	-51.8	-51.8	44.2	-43.0	-51.8	-51.8	44.2	-52.5	-63.2	-63.2	51.1
11:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
1:12	-52.2	-94.9	-148.4	59.4	-60.3	-109.7	-171.3	59.4	-69.8	-126.6	-197.7	61.5
2:12	-46.8	-89.6	-137.7	61.9	-54.2	-103.5	-159.0	65.0	-62.7	-119.5	-183.5	68.5
3:12	-46.9	-89.6	-137.7	57.8	-54.2	-103.5	-159.0	60.9	-62.7	-119.6	-183.5	64.4
4:12	-46.9	-89.7	-137.8	53.7	-54.2	-103.6	-159.0	56.7	-62.7	-119.6	-183.5	60.3
5:12	-46.9	-89.7	-137.8	49.7	-54.3	-103.6	-159.0	52.7	-62.8	-119.6	-183.6	56.3
6:12	-47.0	-89.7	-137.8	45.9	-54.3	-103.6	-159.1	49.0	-62.8	-119.7	-183.6	52.5
7:12	-52.3	-63.0	-63.0	58.6	-60.5	-72.8	-72.8	64.1	-70.0	-84.2	-84.2	70.5
8:12	-52.4	-63.1	-63.1	55.5	-60.6	-72.9	-72.9	61.0	-70.0	-84.2	-84.2	67.4
9:12	-52.4	-63.1	-63.1	52.9	-60.6	-72.9	-72.9	58.5	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	51.1	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
1:12	-63.5	-115.3	-180.1	55.9	-71.7	-130.0	-203.0	57.8	-81.1	-147.0	-229.4	59.9
2:12	-57.0	-108.8	-167.1	62.3	-64.4	-122.7	-188.4	65.4	-72.9	-138.8	-212.9	68.9
3:12	-57.0	-108.9	-167.2	58.7	-64.4	-122.8	-188.4	61.7	-72.9	-138.8	-212.9	65.3
4:12	-57.1	-108.9	-167.2	54.9	-64.4	-122.8	-188.4	58.0	-72.9	-138.8	-213.0	61.5
5:12	-57.1	-108.9	-167.2	51.3	-64.5	-122.8	-188.5	54.4	-73.0	-138.9	-213.0	57.9
6:12	-57.1	-109.0	-167.3	47.9	-64.5	-122.9	-188.5	51.0	-73.0	-138.9	-213.0	54.5
7:12	-63.7	-76.6	-76.6	64.3	-71.8	-86.4	-86.4	69.8	-81.3	-97.7	-97.7	77.5
8:12	-63.7	-76.7	-76.7	61.5	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
170 mph
Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	66.4	-42.7	-78.0	-122.0	66.4	-52.2	-94.9	-148.4	66.4
2:12	-38.4	-73.6	-113.2	63.1	-38.4	-73.6	-113.2	63.1	-46.8	-89.6	-137.7	66.7
3:12	-38.4	-73.6	-113.2	58.5	-38.4	-73.6	-113.2	58.5	-46.9	-89.6	-137.7	62.1
4:12	-38.4	-73.6	-113.2	53.9	-38.4	-73.6	-113.2	53.9	-46.9	-89.7	-137.8	57.4
5:12	-38.4	-73.6	-113.3	49.4	-38.4	-73.6	-113.3	49.4	-46.9	-89.7	-137.8	52.9
6:12	-38.5	-73.7	-113.3	45.2	-38.5	-73.7	-113.3	45.2	-47.0	-89.7	-137.8	48.7
7:12	-42.9	-51.7	-51.7	54.6	-42.9	-51.7	-51.7	54.6	-52.3	-63.0	-63.0	61.0
8:12	-43.0	-51.8	-51.8	51.2	-43.0	-51.8	-51.8	51.2	-52.4	-63.1	-63.1	57.6
9:12	-43.0	-51.8	-51.8	48.2	-43.0	-51.8	-51.8	48.2	-52.4	-63.1	-63.1	54.6
10:12	-43.0	-51.8	-51.8	45.6	-43.0	-51.8	-51.8	45.6	-52.5	-63.2	-63.2	52.0
11:12	-43.1	-51.9	-51.9	43.4	-43.1	-51.9	-51.9	43.4	-52.5	-63.2	-63.2	50.9
12:12	-43.1	-51.9	-51.9	42.3	-43.1	-51.9	-51.9	42.3	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	66.4	-60.3	-109.7	-171.3	66.4	-69.8	-126.6	-197.7	66.7
2:12	-46.8	-89.6	-137.7	66.7	-54.2	-103.5	-159.0	69.7	-62.7	-119.5	-183.5	73.3
3:12	-46.9	-89.6	-137.7	62.1	-54.2	-103.5	-159.0	65.1	-62.7	-119.6	-183.5	68.7
4:12	-46.9	-89.7	-137.8	57.4	-54.2	-103.6	-159.0	60.5	-62.7	-119.6	-183.5	64.0
5:12	-46.9	-89.7	-137.8	52.9	-54.3	-103.6	-159.0	56.0	-62.8	-119.6	-183.6	59.5
6:12	-47.0	-89.7	-137.8	48.7	-54.3	-103.6	-159.1	51.8	-62.8	-119.7	-183.6	55.3
7:12	-52.3	-63.0	-63.0	61.0	-60.5	-72.8	-72.8	66.5	-70.0	-84.2	-84.2	72.8
8:12	-52.4	-63.1	-63.1	57.6	-60.6	-72.9	-72.9	63.1	-70.0	-84.2	-84.2	69.4
9:12	-52.4	-63.1	-63.1	54.6	-60.6	-72.9	-72.9	60.1	-70.0	-84.2	-84.2	67.0
10:12	-52.5	-63.2	-63.2	52.0	-60.6	-73.0	-73.0	58.4	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	50.9	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	60.6	-71.7	-130.0	-203.0	62.5	-81.1	-147.0	-229.4	64.6
2:12	-57.0	-108.8	-167.1	66.6	-64.4	-122.7	-188.4	69.7	-72.9	-138.8	-212.9	73.2
3:12	-57.0	-108.9	-167.2	62.5	-64.4	-122.8	-188.4	65.5	-72.9	-138.8	-212.9	69.1
4:12	-57.1	-108.9	-167.2	58.3	-64.4	-122.8	-188.4	61.4	-72.9	-138.8	-213.0	64.9
5:12	-57.1	-108.9	-167.2	54.3	-64.5	-122.8	-188.5	57.3	-73.0	-138.9	-213.0	60.9
6:12	-57.1	-109.0	-167.3	50.5	-64.5	-122.9	-188.5	53.5	-73.0	-138.9	-213.0	57.1
7:12	-63.7	-76.6	-76.6	66.4	-71.8	-86.4	-86.4	72.0	-81.3	-97.7	-97.7	78.3
8:12	-63.7	-76.7	-76.7	63.4	-71.9	-86.5	-86.5	68.9	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	61.4	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W170-S90

Up and Down (psf)

Basic Wind Speed
170 mph
Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-42.7	-78.0	-122.0	73.4	-42.7	-78.0	-122.0	73.4	-52.2	-94.9	-148.4	73.4
2:12	-38.4	-73.6	-113.2	67.9	-38.4	-73.6	-113.2	67.9	-46.8	-89.6	-137.7	71.4
3:12	-38.4	-73.6	-113.2	62.8	-38.4	-73.6	-113.2	62.8	-46.9	-89.6	-137.7	66.3
4:12	-38.4	-73.6	-113.2	57.6	-38.4	-73.6	-113.2	57.6	-46.9	-89.7	-137.8	61.2
5:12	-38.4	-73.6	-113.3	52.7	-38.4	-73.6	-113.3	52.7	-46.9	-89.7	-137.8	56.2
6:12	-38.5	-73.7	-113.3	48.0	-38.5	-73.7	-113.3	48.0	-47.0	-89.7	-137.8	51.6
7:12	-42.9	-51.7	-51.7	57.0	-42.9	-51.7	-51.7	57.0	-52.3	-63.0	-63.0	63.4
8:12	-43.0	-51.8	-51.8	53.2	-43.0	-51.8	-51.8	53.2	-52.4	-63.1	-63.1	59.6
9:12	-43.0	-51.8	-51.8	49.9	-43.0	-51.8	-51.8	49.9	-52.4	-63.1	-63.1	56.3
10:12	-43.0	-51.8	-51.8	47.1	-43.0	-51.8	-51.8	47.1	-52.5	-63.2	-63.2	53.4
11:12	-43.1	-51.9	-51.9	44.6	-43.1	-51.9	-51.9	44.6	-52.5	-63.2	-63.2	51.0
12:12	-43.1	-51.9	-51.9	42.5	-43.1	-51.9	-51.9	42.5	-52.5	-63.2	-63.2	50.8
Exposure Category C												
1:12	-52.2	-94.9	-148.4	73.4	-60.3	-109.7	-171.3	73.4	-69.8	-126.6	-197.7	73.4
2:12	-46.8	-89.6	-137.7	71.4	-54.2	-103.5	-159.0	74.5	-62.7	-119.5	-183.5	78.0
3:12	-46.9	-89.6	-137.7	66.3	-54.2	-103.5	-159.0	69.4	-62.7	-119.6	-183.5	72.9
4:12	-46.9	-89.7	-137.8	61.2	-54.2	-103.6	-159.0	64.2	-62.7	-119.6	-183.5	67.8
5:12	-46.9	-89.7	-137.8	56.2	-54.3	-103.6	-159.0	59.3	-62.8	-119.6	-183.6	62.8
6:12	-47.0	-89.7	-137.8	51.6	-54.3	-103.6	-159.1	54.6	-62.8	-119.7	-183.6	58.2
7:12	-52.3	-63.0	-63.0	63.4	-60.5	-72.8	-72.8	68.9	-70.0	-84.2	-84.2	75.2
8:12	-52.4	-63.1	-63.1	59.6	-60.6	-72.9	-72.9	65.1	-70.0	-84.2	-84.2	71.5
9:12	-52.4	-63.1	-63.1	56.3	-60.6	-72.9	-72.9	61.8	-70.0	-84.2	-84.2	68.2
10:12	-52.5	-63.2	-63.2	53.4	-60.6	-73.0	-73.0	58.9	-70.1	-84.3	-84.3	66.9
11:12	-52.5	-63.2	-63.2	51.0	-60.7	-73.0	-73.0	58.3	-70.1	-84.3	-84.3	66.8
12:12	-52.5	-63.2	-63.2	50.8	-60.7	-73.0	-73.0	58.2	-70.2	-84.4	-84.4	66.7
Exposure Category D												
1:12	-63.5	-115.3	-180.1	66.4	-71.7	-130.0	-203.0	67.2	-81.1	-147.0	-229.4	69.3
2:12	-57.0	-108.8	-167.1	70.9	-64.4	-122.7	-188.4	74.0	-72.9	-138.8	-212.9	77.5
3:12	-57.0	-108.9	-167.2	66.3	-64.4	-122.8	-188.4	69.4	-72.9	-138.8	-212.9	72.9
4:12	-57.1	-108.9	-167.2	61.7	-64.4	-122.8	-188.4	64.7	-72.9	-138.8	-213.0	68.3
5:12	-57.1	-108.9	-167.2	57.2	-64.5	-122.8	-188.5	60.3	-73.0	-138.9	-213.0	63.8
6:12	-57.1	-109.0	-167.3	53.0	-64.5	-122.9	-188.5	56.1	-73.0	-138.9	-213.0	59.6
7:12	-63.7	-76.6	-76.6	68.6	-71.8	-86.4	-86.4	74.1	-81.3	-97.7	-97.7	80.5
8:12	-63.7	-76.7	-76.7	65.2	-71.9	-86.5	-86.5	70.7	-81.3	-97.8	-97.8	77.3
9:12	-63.7	-76.7	-76.7	62.2	-71.9	-86.5	-86.5	68.7	-81.4	-97.8	-97.8	77.2
10:12	-63.8	-76.7	-76.7	61.3	-72.0	-86.6	-86.6	68.6	-81.4	-97.9	-97.9	77.1
11:12	-63.8	-76.8	-76.8	61.1	-72.0	-86.6	-86.6	68.5	-81.4	-97.9	-97.9	77.0
12:12	-63.9	-76.8	-76.8	61.0	-72.0	-86.6	-86.6	68.4	-81.5	-97.9	-97.9	76.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	13.4	-8.3	-13.6	-21.8	13.4	-8.7	-16.7	-26.8	13.4
2:12	-8.3	-12.8	-20.2	13.4	-8.3	-12.8	-20.2	13.4	-8.3	-15.8	-24.8	13.4
3:12	-8.4	-12.8	-20.2	13.3	-8.4	-12.8	-20.2	13.3	-8.4	-15.8	-24.8	13.3
4:12	-8.4	-12.8	-20.2	13.2	-8.4	-12.8	-20.2	13.2	-8.4	-15.8	-24.8	13.2
5:12	-8.4	-12.8	-20.3	13.2	-8.4	-12.8	-20.3	13.2	-8.4	-15.8	-24.9	13.2
6:12	-8.5	-12.9	-20.3	13.0	-8.5	-12.9	-20.3	13.0	-8.5	-15.9	-24.9	13.0
7:12	-8.5	-8.8	-8.8	12.9	-8.5	-8.8	-8.8	12.9	-8.9	-10.9	-10.9	12.9
8:12	-8.5	-8.8	-8.8	12.8	-8.5	-8.8	-8.8	12.8	-8.9	-11.0	-11.0	12.8
9:12	-8.6	-8.9	-8.9	12.7	-8.6	-8.9	-8.9	12.7	-9.0	-11.0	-11.0	12.7
10:12	-8.6	-8.9	-8.9	12.6	-8.6	-8.9	-8.9	12.6	-9.0	-11.0	-11.0	12.6
11:12	-8.7	-9.0	-9.0	12.4	-8.7	-9.0	-9.0	12.4	-9.1	-11.1	-11.1	12.4
12:12	-8.7	-9.0	-9.0	12.3	-8.7	-9.0	-9.0	12.3	-9.1	-11.1	-11.1	12.3
Exposure Category C												
1:12	-8.7	-16.7	-26.8	13.4	-10.3	-19.5	-31.1	13.4	-12.0	-22.7	-36.0	13.4
2:12	-8.3	-15.8	-24.8	13.4	-9.1	-18.4	-28.8	13.4	-10.7	-21.4	-33.4	13.4
3:12	-8.4	-15.8	-24.8	13.3	-9.1	-18.4	-28.8	13.3	-10.7	-21.4	-33.4	13.3
4:12	-8.4	-15.8	-24.8	13.2	-9.2	-18.4	-28.8	13.2	-10.8	-21.4	-33.4	13.2
5:12	-8.4	-15.8	-24.9	13.2	-9.2	-18.4	-28.8	13.2	-10.8	-21.4	-33.4	13.2
6:12	-8.5	-15.9	-24.9	13.0	-9.2	-18.5	-28.9	13.0	-10.8	-21.5	-33.5	13.0
7:12	-8.9	-10.9	-10.9	12.9	-10.4	-12.7	-12.7	13.7	-12.2	-14.9	-14.9	15.3
8:12	-8.9	-11.0	-11.0	12.8	-10.5	-12.8	-12.8	13.6	-12.2	-14.9	-14.9	15.2
9:12	-9.0	-11.0	-11.0	12.7	-10.5	-12.8	-12.8	13.5	-12.3	-15.0	-15.0	15.1
10:12	-9.0	-11.0	-11.0	12.6	-10.6	-12.9	-12.9	13.3	-12.3	-15.0	-15.0	14.9
11:12	-9.1	-11.1	-11.1	12.4	-10.6	-12.9	-12.9	13.2	-12.4	-15.0	-15.0	14.8
12:12	-9.1	-11.1	-11.1	12.3	-10.6	-12.9	-12.9	13.1	-12.4	-15.1	-15.1	14.7
Exposure Category D												
1:12	-10.9	-20.6	-32.7	13.4	-12.4	-23.3	-37.0	13.4	-14.2	-26.5	-41.9	13.4
2:12	-9.7	-19.4	-30.3	13.4	-11.0	-22.0	-34.3	13.4	-12.6	-25.0	-38.9	13.4
3:12	-9.7	-19.4	-30.3	13.3	-11.1	-22.0	-34.3	13.3	-12.6	-25.0	-38.9	13.3
4:12	-9.7	-19.4	-30.3	13.2	-11.1	-22.0	-34.3	13.2	-12.7	-25.0	-38.9	13.2
5:12	-9.7	-19.4	-30.4	13.2	-11.1	-22.1	-34.4	13.2	-12.7	-25.1	-38.9	13.2
6:12	-9.8	-19.5	-30.4	13.0	-11.2	-22.1	-34.4	13.0	-12.7	-25.1	-39.0	13.0
7:12	-11.0	-13.5	-13.5	14.2	-12.6	-15.3	-15.3	15.6	-14.3	-17.4	-17.4	17.2
8:12	-11.1	-13.5	-13.5	14.1	-12.6	-15.3	-15.3	15.5	-14.4	-17.5	-17.5	17.1
9:12	-11.1	-13.5	-13.5	14.0	-12.6	-15.4	-15.4	15.4	-14.4	-17.5	-17.5	17.0
10:12	-11.1	-13.6	-13.6	13.9	-12.7	-15.4	-15.4	15.3	-14.4	-17.5	-17.5	16.8
11:12	-11.2	-13.6	-13.6	13.8	-12.7	-15.5	-15.5	15.1	-14.5	-17.6	-17.6	16.7
12:12	-11.2	-13.7	-13.7	13.6	-12.8	-15.5	-15.5	15.0	-14.5	-17.6	-17.6	16.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
95 mph

Ground Snow Load
0 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	14.8	-8.3	-13.6	-21.8	14.8	-8.7	-16.7	-26.8	14.8
2:12	-8.3	-12.8	-20.2	14.4	-8.3	-12.8	-20.2	14.4	-8.3	-15.8	-24.8	14.4
3:12	-8.4	-12.8	-20.2	14.0	-8.4	-12.8	-20.2	14.0	-8.4	-15.8	-24.8	14.0
4:12	-8.4	-12.8	-20.2	13.2	-8.4	-12.8	-20.2	13.2	-8.4	-15.8	-24.8	13.2
5:12	-8.4	-12.8	-20.3	13.2	-8.4	-12.8	-20.3	13.2	-8.4	-15.8	-24.9	13.2
6:12	-8.5	-12.9	-20.3	13.0	-8.5	-12.9	-20.3	13.0	-8.5	-15.9	-24.9	13.0
7:12	-8.5	-8.8	-8.8	12.9	-8.5	-8.8	-8.8	12.9	-8.9	-10.9	-10.9	12.9
8:12	-8.5	-8.8	-8.8	12.8	-8.5	-8.8	-8.8	12.8	-8.9	-11.0	-11.0	12.8
9:12	-8.6	-8.9	-8.9	12.7	-8.6	-8.9	-8.9	12.7	-9.0	-11.0	-11.0	12.7
10:12	-8.6	-8.9	-8.9	12.6	-8.6	-8.9	-8.9	12.6	-9.0	-11.0	-11.0	12.6
11:12	-8.7	-9.0	-9.0	12.4	-8.7	-9.0	-9.0	12.4	-9.1	-11.1	-11.1	12.4
12:12	-8.7	-9.0	-9.0	12.3	-8.7	-9.0	-9.0	12.3	-9.1	-11.1	-11.1	12.3
Exposure Category C												
1:12	-8.7	-16.7	-26.8	14.8	-10.3	-19.5	-31.1	14.8	-12.0	-22.7	-36.0	14.8
2:12	-8.3	-15.8	-24.8	14.4	-9.1	-18.4	-28.8	14.4	-10.7	-21.4	-33.4	14.4
3:12	-8.4	-15.8	-24.8	14.0	-9.1	-18.4	-28.8	14.0	-10.7	-21.4	-33.4	14.0
4:12	-8.4	-15.8	-24.8	13.2	-9.2	-18.4	-28.8	13.2	-10.8	-21.4	-33.4	13.2
5:12	-8.4	-15.8	-24.9	13.2	-9.2	-18.4	-28.8	13.2	-10.8	-21.4	-33.4	13.2
6:12	-8.5	-15.9	-24.9	13.0	-9.2	-18.5	-28.9	13.0	-10.8	-21.5	-33.5	13.0
7:12	-8.9	-10.9	-10.9	12.9	-10.4	-12.7	-12.7	13.7	-12.2	-14.9	-14.9	15.3
8:12	-8.9	-11.0	-11.0	12.8	-10.5	-12.8	-12.8	13.6	-12.2	-14.9	-14.9	15.2
9:12	-9.0	-11.0	-11.0	12.7	-10.5	-12.8	-12.8	13.5	-12.3	-15.0	-15.0	15.1
10:12	-9.0	-11.0	-11.0	12.6	-10.6	-12.9	-12.9	13.3	-12.3	-15.0	-15.0	14.9
11:12	-9.1	-11.1	-11.1	12.4	-10.6	-12.9	-12.9	13.2	-12.4	-15.0	-15.0	14.8
12:12	-9.1	-11.1	-11.1	12.3	-10.6	-12.9	-12.9	13.1	-12.4	-15.1	-15.1	14.7
Exposure Category D												
1:12	-10.9	-20.6	-32.7	14.8	-12.4	-23.3	-37.0	14.8	-14.2	-26.5	-41.9	14.8
2:12	-9.7	-19.4	-30.3	14.4	-11.0	-22.0	-34.3	14.4	-12.6	-25.0	-38.9	14.4
3:12	-9.7	-19.4	-30.3	14.0	-11.1	-22.0	-34.3	14.0	-12.6	-25.0	-38.9	14.0
4:12	-9.7	-19.4	-30.3	13.2	-11.1	-22.0	-34.3	13.2	-12.7	-25.0	-38.9	13.2
5:12	-9.7	-19.4	-30.4	13.2	-11.1	-22.1	-34.4	13.2	-12.7	-25.1	-38.9	13.2
6:12	-9.8	-19.5	-30.4	13.0	-11.2	-22.1	-34.4	13.0	-12.7	-25.1	-39.0	13.0
7:12	-11.0	-13.5	-13.5	14.2	-12.6	-15.3	-15.3	15.6	-14.3	-17.4	-17.4	17.2
8:12	-11.1	-13.5	-13.5	14.1	-12.6	-15.3	-15.3	15.5	-14.4	-17.5	-17.5	17.1
9:12	-11.1	-13.5	-13.5	14.0	-12.6	-15.4	-15.4	15.4	-14.4	-17.5	-17.5	17.0
10:12	-11.1	-13.6	-13.6	13.9	-12.7	-15.4	-15.4	15.3	-14.4	-17.5	-17.5	16.8
11:12	-11.2	-13.6	-13.6	13.8	-12.7	-15.5	-15.5	15.1	-14.5	-17.6	-17.6	16.7
12:12	-11.2	-13.7	-13.7	13.6	-12.8	-15.5	-15.5	15.0	-14.5	-17.6	-17.6	16.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
95 mph

Ground Snow Load
5 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	18.5	-8.3	-13.6	-21.8	18.5	-8.7	-16.7	-26.8	18.5
2:12	-8.3	-12.8	-20.2	17.8	-8.3	-12.8	-20.2	17.8	-8.3	-15.8	-24.8	17.8
3:12	-8.4	-12.8	-20.2	17.0	-8.4	-12.8	-20.2	17.0	-8.4	-15.8	-24.8	17.0
4:12	-8.4	-12.8	-20.2	14.6	-8.4	-12.8	-20.2	14.6	-8.4	-15.8	-24.8	14.6
5:12	-8.4	-12.8	-20.3	14.0	-8.4	-12.8	-20.3	14.0	-8.4	-15.8	-24.9	14.0
6:12	-8.5	-12.9	-20.3	13.4	-8.5	-12.9	-20.3	13.4	-8.5	-15.9	-24.9	13.4
7:12	-8.5	-8.8	-8.8	12.9	-8.5	-8.8	-8.8	12.9	-8.9	-10.9	-10.9	12.9
8:12	-8.5	-8.8	-8.8	12.8	-8.5	-8.8	-8.8	12.8	-8.9	-11.0	-11.0	12.8
9:12	-8.6	-8.9	-8.9	12.7	-8.6	-8.9	-8.9	12.7	-9.0	-11.0	-11.0	12.7
10:12	-8.6	-8.9	-8.9	12.6	-8.6	-8.9	-8.9	12.6	-9.0	-11.0	-11.0	12.6
11:12	-8.7	-9.0	-9.0	12.4	-8.7	-9.0	-9.0	12.4	-9.1	-11.1	-11.1	12.4
12:12	-8.7	-9.0	-9.0	12.3	-8.7	-9.0	-9.0	12.3	-9.1	-11.1	-11.1	12.3
Exposure Category C												
1:12	-8.7	-16.7	-26.8	18.5	-10.3	-19.5	-31.1	18.5	-12.0	-22.7	-36.0	18.5
2:12	-8.3	-15.8	-24.8	17.8	-9.1	-18.4	-28.8	17.8	-10.7	-21.4	-33.4	17.8
3:12	-8.4	-15.8	-24.8	17.0	-9.1	-18.4	-28.8	17.0	-10.7	-21.4	-33.4	17.0
4:12	-8.4	-15.8	-24.8	14.6	-9.2	-18.4	-28.8	14.6	-10.8	-21.4	-33.4	14.6
5:12	-8.4	-15.8	-24.9	14.0	-9.2	-18.4	-28.8	14.0	-10.8	-21.4	-33.4	14.0
6:12	-8.5	-15.9	-24.9	13.4	-9.2	-18.5	-28.9	13.4	-10.8	-21.5	-33.5	13.4
7:12	-8.9	-10.9	-10.9	12.9	-10.4	-12.7	-12.7	13.7	-12.2	-14.9	-14.9	15.3
8:12	-8.9	-11.0	-11.0	12.8	-10.5	-12.8	-12.8	13.6	-12.2	-14.9	-14.9	15.2
9:12	-9.0	-11.0	-11.0	12.7	-10.5	-12.8	-12.8	13.5	-12.3	-15.0	-15.0	15.1
10:12	-9.0	-11.0	-11.0	12.6	-10.6	-12.9	-12.9	13.3	-12.3	-15.0	-15.0	14.9
11:12	-9.1	-11.1	-11.1	12.4	-10.6	-12.9	-12.9	13.2	-12.4	-15.0	-15.0	14.8
12:12	-9.1	-11.1	-11.1	12.3	-10.6	-12.9	-12.9	13.1	-12.4	-15.1	-15.1	14.7
Exposure Category D												
1:12	-10.9	-20.6	-32.7	18.5	-12.4	-23.3	-37.0	18.5	-14.2	-26.5	-41.9	18.5
2:12	-9.7	-19.4	-30.3	17.8	-11.0	-22.0	-34.3	17.8	-12.6	-25.0	-38.9	17.8
3:12	-9.7	-19.4	-30.3	17.0	-11.1	-22.0	-34.3	17.0	-12.6	-25.0	-38.9	17.0
4:12	-9.7	-19.4	-30.3	14.2	-11.1	-22.0	-34.3	14.2	-12.7	-25.0	-38.9	14.2
5:12	-9.7	-19.4	-30.4	13.7	-11.1	-22.1	-34.4	13.7	-12.7	-25.1	-38.9	13.7
6:12	-9.8	-19.5	-30.4	13.2	-11.2	-22.1	-34.4	13.2	-12.7	-25.1	-39.0	13.2
7:12	-11.0	-13.5	-13.5	14.2	-12.6	-15.3	-15.3	15.6	-14.3	-17.4	-17.4	17.2
8:12	-11.1	-13.5	-13.5	14.1	-12.6	-15.3	-15.3	15.5	-14.4	-17.5	-17.5	17.1
9:12	-11.1	-13.5	-13.5	14.0	-12.6	-15.4	-15.4	15.4	-14.4	-17.5	-17.5	17.0
10:12	-11.1	-13.6	-13.6	13.9	-12.7	-15.4	-15.4	15.3	-14.4	-17.5	-17.5	16.8
11:12	-11.2	-13.6	-13.6	13.8	-12.7	-15.5	-15.5	15.1	-14.5	-17.6	-17.6	16.7
12:12	-11.2	-13.7	-13.7	13.6	-12.8	-15.5	-15.5	15.0	-14.5	-17.6	-17.6	16.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **95 mph**

Ground Snow Load **10 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	22.2	-8.3	-13.6	-21.8	22.2	-8.7	-16.7	-26.8	22.2
2:12	-8.3	-12.8	-20.2	21.2	-8.3	-12.8	-20.2	21.2	-8.3	-15.8	-24.8	21.2
3:12	-8.4	-12.8	-20.2	20.0	-8.4	-12.8	-20.2	20.0	-8.4	-15.8	-24.8	20.0
4:12	-8.4	-12.8	-20.2	16.5	-8.4	-12.8	-20.2	16.5	-8.4	-15.8	-24.8	16.5
5:12	-8.4	-12.8	-20.3	15.6	-8.4	-12.8	-20.3	15.6	-8.4	-15.8	-24.9	15.6
6:12	-8.5	-12.9	-20.3	14.9	-8.5	-12.9	-20.3	14.9	-8.5	-15.9	-24.9	14.9
7:12	-8.5	-8.8	-8.8	14.1	-8.5	-8.8	-8.8	14.1	-8.9	-10.9	-10.9	14.1
8:12	-8.5	-8.8	-8.8	13.4	-8.5	-8.8	-8.8	13.4	-8.9	-11.0	-11.0	13.4
9:12	-8.6	-8.9	-8.9	12.8	-8.6	-8.9	-8.9	12.8	-9.0	-11.0	-11.0	12.8
10:12	-8.6	-8.9	-8.9	12.6	-8.6	-8.9	-8.9	12.6	-9.0	-11.0	-11.0	12.6
11:12	-8.7	-9.0	-9.0	12.4	-8.7	-9.0	-9.0	12.4	-9.1	-11.1	-11.1	12.4
12:12	-8.7	-9.0	-9.0	12.3	-8.7	-9.0	-9.0	12.3	-9.1	-11.1	-11.1	12.3
Exposure Category C												
1:12	-8.7	-16.7	-26.8	22.2	-10.3	-19.5	-31.1	22.2	-12.0	-22.7	-36.0	22.2
2:12	-8.3	-15.8	-24.8	21.2	-9.1	-18.4	-28.8	21.2	-10.7	-21.4	-33.4	21.2
3:12	-8.4	-15.8	-24.8	20.0	-9.1	-18.4	-28.8	20.0	-10.7	-21.4	-33.4	20.0
4:12	-8.4	-15.8	-24.8	16.5	-9.2	-18.4	-28.8	16.5	-10.8	-21.4	-33.4	16.5
5:12	-8.4	-15.8	-24.9	15.6	-9.2	-18.4	-28.8	15.6	-10.8	-21.4	-33.4	15.6
6:12	-8.5	-15.9	-24.9	14.9	-9.2	-18.5	-28.9	14.9	-10.8	-21.5	-33.5	14.9
7:12	-8.9	-10.9	-10.9	14.1	-10.4	-12.7	-12.7	14.7	-12.2	-14.9	-14.9	15.9
8:12	-8.9	-11.0	-11.0	13.4	-10.5	-12.8	-12.8	14.0	-12.2	-14.9	-14.9	15.2
9:12	-9.0	-11.0	-11.0	12.8	-10.5	-12.8	-12.8	13.5	-12.3	-15.0	-15.0	15.1
10:12	-9.0	-11.0	-11.0	12.6	-10.6	-12.9	-12.9	13.3	-12.3	-15.0	-15.0	14.9
11:12	-9.1	-11.1	-11.1	12.4	-10.6	-12.9	-12.9	13.2	-12.4	-15.0	-15.0	14.8
12:12	-9.1	-11.1	-11.1	12.3	-10.6	-12.9	-12.9	13.1	-12.4	-15.1	-15.1	14.7
Exposure Category D												
1:12	-10.9	-20.6	-32.7	22.2	-12.4	-23.3	-37.0	22.2	-14.2	-26.5	-41.9	22.2
2:12	-9.7	-19.4	-30.3	21.2	-11.0	-22.0	-34.3	21.2	-12.6	-25.0	-38.9	21.2
3:12	-9.7	-19.4	-30.3	20.0	-11.1	-22.0	-34.3	20.0	-12.6	-25.0	-38.9	20.0
4:12	-9.7	-19.4	-30.3	15.9	-11.1	-22.0	-34.3	15.9	-12.7	-25.0	-38.9	15.9
5:12	-9.7	-19.4	-30.4	15.2	-11.1	-22.1	-34.4	15.2	-12.7	-25.1	-38.9	15.2
6:12	-9.8	-19.5	-30.4	14.4	-11.2	-22.1	-34.4	14.4	-12.7	-25.1	-39.0	14.4
7:12	-11.0	-13.5	-13.5	14.7	-12.6	-15.3	-15.3	15.8	-14.3	-17.4	-17.4	17.2
8:12	-11.1	-13.5	-13.5	14.1	-12.6	-15.3	-15.3	15.5	-14.4	-17.5	-17.5	17.1
9:12	-11.1	-13.5	-13.5	14.0	-12.6	-15.4	-15.4	15.4	-14.4	-17.5	-17.5	17.0
10:12	-11.1	-13.6	-13.6	13.9	-12.7	-15.4	-15.4	15.3	-14.4	-17.5	-17.5	16.8
11:12	-11.2	-13.6	-13.6	13.8	-12.7	-15.5	-15.5	15.1	-14.5	-17.6	-17.6	16.7
12:12	-11.2	-13.7	-13.7	13.6	-12.8	-15.5	-15.5	15.0	-14.5	-17.6	-17.6	16.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
95 mph

Ground Snow Load
15 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	25.9	-8.3	-13.6	-21.8	25.9	-8.7	-16.7	-26.8	25.9
2:12	-8.3	-12.8	-20.2	24.6	-8.3	-12.8	-20.2	24.6	-8.3	-15.8	-24.8	24.6
3:12	-8.4	-12.8	-20.2	23.1	-8.4	-12.8	-20.2	23.1	-8.4	-15.8	-24.8	23.1
4:12	-8.4	-12.8	-20.2	18.3	-8.4	-12.8	-20.2	18.3	-8.4	-15.8	-24.8	18.3
5:12	-8.4	-12.8	-20.3	17.3	-8.4	-12.8	-20.3	17.3	-8.4	-15.8	-24.9	17.3
6:12	-8.5	-12.9	-20.3	16.3	-8.5	-12.9	-20.3	16.3	-8.5	-15.9	-24.9	16.3
7:12	-8.5	-8.8	-8.8	15.3	-8.5	-8.8	-8.8	15.3	-8.9	-10.9	-10.9	15.3
8:12	-8.5	-8.8	-8.8	14.5	-8.5	-8.8	-8.8	14.5	-8.9	-11.0	-11.0	14.5
9:12	-8.6	-8.9	-8.9	13.7	-8.6	-8.9	-8.9	13.7	-9.0	-11.0	-11.0	13.7
10:12	-8.6	-8.9	-8.9	13.0	-8.6	-8.9	-8.9	13.0	-9.0	-11.0	-11.0	13.0
11:12	-8.7	-9.0	-9.0	12.4	-8.7	-9.0	-9.0	12.4	-9.1	-11.1	-11.1	12.4
12:12	-8.7	-9.0	-9.0	12.3	-8.7	-9.0	-9.0	12.3	-9.1	-11.1	-11.1	12.3
Exposure Category C												
1:12	-8.7	-16.7	-26.8	25.9	-10.3	-19.5	-31.1	25.9	-12.0	-22.7	-36.0	25.9
2:12	-8.3	-15.8	-24.8	24.6	-9.1	-18.4	-28.8	24.6	-10.7	-21.4	-33.4	24.6
3:12	-8.4	-15.8	-24.8	23.1	-9.1	-18.4	-28.8	23.1	-10.7	-21.4	-33.4	23.1
4:12	-8.4	-15.8	-24.8	18.3	-9.2	-18.4	-28.8	18.3	-10.8	-21.4	-33.4	18.3
5:12	-8.4	-15.8	-24.9	17.3	-9.2	-18.4	-28.8	17.3	-10.8	-21.4	-33.4	17.3
6:12	-8.5	-15.9	-24.9	16.3	-9.2	-18.5	-28.9	16.3	-10.8	-21.5	-33.5	16.3
7:12	-8.9	-10.9	-10.9	15.3	-10.4	-12.7	-12.7	15.9	-12.2	-14.9	-14.9	17.1
8:12	-8.9	-11.0	-11.0	14.5	-10.5	-12.8	-12.8	15.1	-12.2	-14.9	-14.9	16.2
9:12	-9.0	-11.0	-11.0	13.7	-10.5	-12.8	-12.8	14.3	-12.3	-15.0	-15.0	15.5
10:12	-9.0	-11.0	-11.0	13.0	-10.6	-12.9	-12.9	13.6	-12.3	-15.0	-15.0	14.9
11:12	-9.1	-11.1	-11.1	12.4	-10.6	-12.9	-12.9	13.2	-12.4	-15.0	-15.0	14.8
12:12	-9.1	-11.1	-11.1	12.3	-10.6	-12.9	-12.9	13.1	-12.4	-15.1	-15.1	14.7
Exposure Category D												
1:12	-10.9	-20.6	-32.7	25.9	-12.4	-23.3	-37.0	25.9	-14.2	-26.5	-41.9	25.9
2:12	-9.7	-19.4	-30.3	24.6	-11.0	-22.0	-34.3	24.6	-12.6	-25.0	-38.9	24.6
3:12	-9.7	-19.4	-30.3	23.1	-11.1	-22.0	-34.3	23.1	-12.6	-25.0	-38.9	23.1
4:12	-9.7	-19.4	-30.3	17.6	-11.1	-22.0	-34.3	17.6	-12.7	-25.0	-38.9	17.6
5:12	-9.7	-19.4	-30.4	16.6	-11.1	-22.1	-34.4	16.6	-12.7	-25.1	-38.9	16.6
6:12	-9.8	-19.5	-30.4	15.7	-11.2	-22.1	-34.4	15.7	-12.7	-25.1	-39.0	15.7
7:12	-11.0	-13.5	-13.5	15.8	-12.6	-15.3	-15.3	16.9	-14.3	-17.4	-17.4	18.1
8:12	-11.1	-13.5	-13.5	15.0	-12.6	-15.3	-15.3	16.1	-14.4	-17.5	-17.5	17.3
9:12	-11.1	-13.5	-13.5	14.4	-12.6	-15.4	-15.4	15.4	-14.4	-17.5	-17.5	17.0
10:12	-11.1	-13.6	-13.6	13.9	-12.7	-15.4	-15.4	15.3	-14.4	-17.5	-17.5	16.8
11:12	-11.2	-13.6	-13.6	13.8	-12.7	-15.5	-15.5	15.1	-14.5	-17.6	-17.6	16.7
12:12	-11.2	-13.7	-13.7	13.6	-12.8	-15.5	-15.5	15.0	-14.5	-17.6	-17.6	16.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

95 mph

Ground Snow Load

20 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	25.9	-8.3	-13.6	-21.8	25.9	-8.7	-16.7	-26.8	25.9
2:12	-8.3	-12.8	-20.2	24.6	-8.3	-12.8	-20.2	24.6	-8.3	-15.8	-24.8	24.6
3:12	-8.4	-12.8	-20.2	23.1	-8.4	-12.8	-20.2	23.1	-8.4	-15.8	-24.8	23.1
4:12	-8.4	-12.8	-20.2	20.2	-8.4	-12.8	-20.2	20.2	-8.4	-15.8	-24.8	20.2
5:12	-8.4	-12.8	-20.3	18.9	-8.4	-12.8	-20.3	18.9	-8.4	-15.8	-24.9	18.9
6:12	-8.5	-12.9	-20.3	17.7	-8.5	-12.9	-20.3	17.7	-8.5	-15.9	-24.9	17.7
7:12	-8.5	-8.8	-8.8	16.5	-8.5	-8.8	-8.8	16.5	-8.9	-10.9	-10.9	16.5
8:12	-8.5	-8.8	-8.8	15.5	-8.5	-8.8	-8.8	15.5	-8.9	-11.0	-11.0	15.5
9:12	-8.6	-8.9	-8.9	14.6	-8.6	-8.9	-8.9	14.6	-9.0	-11.0	-11.0	14.6
10:12	-8.6	-8.9	-8.9	13.8	-8.6	-8.9	-8.9	13.8	-9.0	-11.0	-11.0	13.8
11:12	-8.7	-9.0	-9.0	13.1	-8.7	-9.0	-9.0	13.1	-9.1	-11.1	-11.1	13.1
12:12	-8.7	-9.0	-9.0	12.4	-8.7	-9.0	-9.0	12.4	-9.1	-11.1	-11.1	12.4
Exposure Category C												
1:12	-8.7	-16.7	-26.8	25.9	-10.3	-19.5	-31.1	25.9	-12.0	-22.7	-36.0	25.9
2:12	-8.3	-15.8	-24.8	24.6	-9.1	-18.4	-28.8	24.6	-10.7	-21.4	-33.4	24.6
3:12	-8.4	-15.8	-24.8	23.1	-9.1	-18.4	-28.8	23.1	-10.7	-21.4	-33.4	23.1
4:12	-8.4	-15.8	-24.8	20.2	-9.2	-18.4	-28.8	20.2	-10.8	-21.4	-33.4	20.2
5:12	-8.4	-15.8	-24.9	18.9	-9.2	-18.4	-28.8	18.9	-10.8	-21.4	-33.4	18.9
6:12	-8.5	-15.9	-24.9	17.7	-9.2	-18.5	-28.9	17.7	-10.8	-21.5	-33.5	17.7
7:12	-8.9	-10.9	-10.9	16.5	-10.4	-12.7	-12.7	17.1	-12.2	-14.9	-14.9	18.3
8:12	-8.9	-11.0	-11.0	15.5	-10.5	-12.8	-12.8	16.1	-12.2	-14.9	-14.9	17.3
9:12	-9.0	-11.0	-11.0	14.6	-10.5	-12.8	-12.8	15.2	-12.3	-15.0	-15.0	16.3
10:12	-9.0	-11.0	-11.0	13.8	-10.6	-12.9	-12.9	14.3	-12.3	-15.0	-15.0	15.5
11:12	-9.1	-11.1	-11.1	13.1	-10.6	-12.9	-12.9	13.6	-12.4	-15.0	-15.0	14.8
12:12	-9.1	-11.1	-11.1	12.4	-10.6	-12.9	-12.9	13.1	-12.4	-15.1	-15.1	14.7
Exposure Category D												
1:12	-10.9	-20.6	-32.7	25.9	-12.4	-23.3	-37.0	25.9	-14.2	-26.5	-41.9	25.9
2:12	-9.7	-19.4	-30.3	24.6	-11.0	-22.0	-34.3	24.6	-12.6	-25.0	-38.9	24.6
3:12	-9.7	-19.4	-30.3	23.1	-11.1	-22.0	-34.3	23.1	-12.6	-25.0	-38.9	23.1
4:12	-9.7	-19.4	-30.3	19.3	-11.1	-22.0	-34.3	19.3	-12.7	-25.0	-38.9	19.3
5:12	-9.7	-19.4	-30.4	18.1	-11.1	-22.1	-34.4	18.1	-12.7	-25.1	-38.9	18.1
6:12	-9.8	-19.5	-30.4	17.0	-11.2	-22.1	-34.4	17.0	-12.7	-25.1	-39.0	17.0
7:12	-11.0	-13.5	-13.5	16.9	-12.6	-15.3	-15.3	17.9	-14.3	-17.4	-17.4	19.1
8:12	-11.1	-13.5	-13.5	16.0	-12.6	-15.3	-15.3	17.0	-14.4	-17.5	-17.5	18.2
9:12	-11.1	-13.5	-13.5	15.1	-12.6	-15.4	-15.4	16.2	-14.4	-17.5	-17.5	17.4
10:12	-11.1	-13.6	-13.6	14.4	-12.7	-15.4	-15.4	15.4	-14.4	-17.5	-17.5	16.8
11:12	-11.2	-13.6	-13.6	13.8	-12.7	-15.5	-15.5	15.1	-14.5	-17.6	-17.6	16.7
12:12	-11.2	-13.7	-13.7	13.6	-12.8	-15.5	-15.5	15.0	-14.5	-17.6	-17.6	16.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
95 mph

Ground Snow Load
25 psf

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

Ground Snow Load

95 mph

30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	26.7	-8.3	-13.6	-21.8	26.7	-8.7	-16.7	-26.8	26.7
2:12	-8.3	-12.8	-20.2	25.3	-8.3	-12.8	-20.2	25.3	-8.3	-15.8	-24.8	25.3
3:12	-8.4	-12.8	-20.2	23.7	-8.4	-12.8	-20.2	23.7	-8.4	-15.8	-24.8	23.7
4:12	-8.4	-12.8	-20.2	22.1	-8.4	-12.8	-20.2	22.1	-8.4	-15.8	-24.8	22.1
5:12	-8.4	-12.8	-20.3	20.5	-8.4	-12.8	-20.3	20.5	-8.4	-15.8	-24.9	20.5
6:12	-8.5	-12.9	-20.3	19.1	-8.5	-12.9	-20.3	19.1	-8.5	-15.9	-24.9	19.1
7:12	-8.5	-8.8	-8.8	17.7	-8.5	-8.8	-8.8	17.7	-8.9	-10.9	-10.9	17.7
8:12	-8.5	-8.8	-8.8	16.5	-8.5	-8.8	-8.8	16.5	-8.9	-11.0	-11.0	16.5
9:12	-8.6	-8.9	-8.9	15.4	-8.6	-8.9	-8.9	15.4	-9.0	-11.0	-11.0	15.4
10:12	-8.6	-8.9	-8.9	14.5	-8.6	-8.9	-8.9	14.5	-9.0	-11.0	-11.0	14.5
11:12	-8.7	-9.0	-9.0	13.7	-8.7	-9.0	-9.0	13.7	-9.1	-11.1	-11.1	13.7
12:12	-8.7	-9.0	-9.0	12.9	-8.7	-9.0	-9.0	12.9	-9.1	-11.1	-11.1	12.9
Exposure Category C												
1:12	-8.7	-16.7	-26.8	26.7	-10.3	-19.5	-31.1	26.7	-12.0	-22.7	-36.0	26.7
2:12	-8.3	-15.8	-24.8	25.3	-9.1	-18.4	-28.8	25.3	-10.7	-21.4	-33.4	25.3
3:12	-8.4	-15.8	-24.8	23.7	-9.1	-18.4	-28.8	23.7	-10.7	-21.4	-33.4	23.7
4:12	-8.4	-15.8	-24.8	22.1	-9.2	-18.4	-28.8	22.1	-10.8	-21.4	-33.4	22.1
5:12	-8.4	-15.8	-24.9	20.5	-9.2	-18.4	-28.8	20.5	-10.8	-21.4	-33.4	20.5
6:12	-8.5	-15.9	-24.9	19.1	-9.2	-18.5	-28.9	19.1	-10.8	-21.5	-33.5	19.1
7:12	-8.9	-10.9	-10.9	17.7	-10.4	-12.7	-12.7	18.3	-12.2	-14.9	-14.9	19.5
8:12	-8.9	-11.0	-11.0	16.5	-10.5	-12.8	-12.8	17.1	-12.2	-14.9	-14.9	18.3
9:12	-9.0	-11.0	-11.0	15.4	-10.5	-12.8	-12.8	16.0	-12.3	-15.0	-15.0	17.2
10:12	-9.0	-11.0	-11.0	14.5	-10.6	-12.9	-12.9	15.1	-12.3	-15.0	-15.0	16.3
11:12	-9.1	-11.1	-11.1	13.7	-10.6	-12.9	-12.9	14.3	-12.4	-15.0	-15.0	15.4
12:12	-9.1	-11.1	-11.1	12.9	-10.6	-12.9	-12.9	13.5	-12.4	-15.1	-15.1	14.7
Exposure Category D												
1:12	-10.9	-20.6	-32.7	25.9	-12.4	-23.3	-37.0	25.9	-14.2	-26.5	-41.9	25.9
2:12	-9.7	-19.4	-30.3	24.6	-11.0	-22.0	-34.3	24.6	-12.6	-25.0	-38.9	24.6
3:12	-9.7	-19.4	-30.3	23.1	-11.1	-22.0	-34.3	23.1	-12.6	-25.0	-38.9	23.1
4:12	-9.7	-19.4	-30.3	21.0	-11.1	-22.0	-34.3	21.0	-12.7	-25.0	-38.9	21.0
5:12	-9.7	-19.4	-30.4	19.6	-11.1	-22.1	-34.4	19.6	-12.7	-25.1	-38.9	19.6
6:12	-9.8	-19.5	-30.4	18.2	-11.2	-22.1	-34.4	18.2	-12.7	-25.1	-39.0	18.2
7:12	-11.0	-13.5	-13.5	18.0	-12.6	-15.3	-15.3	19.0	-14.3	-17.4	-17.4	20.2
8:12	-11.1	-13.5	-13.5	16.9	-12.6	-15.3	-15.3	17.9	-14.4	-17.5	-17.5	19.1
9:12	-11.1	-13.5	-13.5	15.9	-12.6	-15.4	-15.4	16.9	-14.4	-17.5	-17.5	18.1
10:12	-11.1	-13.6	-13.6	15.0	-12.7	-15.4	-15.4	16.1	-14.4	-17.5	-17.5	17.3
11:12	-11.2	-13.6	-13.6	14.3	-12.7	-15.5	-15.5	15.3	-14.5	-17.6	-17.6	16.7
12:12	-11.2	-13.7	-13.7	13.6	-12.8	-15.5	-15.5	15.0	-14.5	-17.6	-17.6	16.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	29.3	-8.3	-13.6	-21.8	29.3	-8.7	-16.7	-26.8	29.3
2:12	-8.3	-12.8	-20.2	27.6	-8.3	-12.8	-20.2	27.6	-8.3	-15.8	-24.8	27.6
3:12	-8.4	-12.8	-20.2	25.8	-8.4	-12.8	-20.2	25.8	-8.4	-15.8	-24.8	25.8
4:12	-8.4	-12.8	-20.2	24.0	-8.4	-12.8	-20.2	24.0	-8.4	-15.8	-24.8	24.0
5:12	-8.4	-12.8	-20.3	22.2	-8.4	-12.8	-20.3	22.2	-8.4	-15.8	-24.9	22.2
6:12	-8.5	-12.9	-20.3	20.5	-8.5	-12.9	-20.3	20.5	-8.5	-15.9	-24.9	20.5
7:12	-8.5	-8.8	-8.8	18.9	-8.5	-8.8	-8.8	18.9	-8.9	-10.9	-10.9	18.9
8:12	-8.5	-8.8	-8.8	17.5	-8.5	-8.8	-8.8	17.5	-8.9	-11.0	-11.0	17.5
9:12	-8.6	-8.9	-8.9	16.3	-8.6	-8.9	-8.9	16.3	-9.0	-11.0	-11.0	16.3
10:12	-8.6	-8.9	-8.9	15.2	-8.6	-8.9	-8.9	15.2	-9.0	-11.0	-11.0	15.2
11:12	-8.7	-9.0	-9.0	14.3	-8.7	-9.0	-9.0	14.3	-9.1	-11.1	-11.1	14.3
12:12	-8.7	-9.0	-9.0	13.5	-8.7	-9.0	-9.0	13.5	-9.1	-11.1	-11.1	13.5
Exposure Category C												
1:12	-8.7	-16.7	-26.8	29.3	-10.3	-19.5	-31.1	29.3	-12.0	-22.7	-36.0	29.3
2:12	-8.3	-15.8	-24.8	27.6	-9.1	-18.4	-28.8	27.6	-10.7	-21.4	-33.4	27.6
3:12	-8.4	-15.8	-24.8	25.8	-9.1	-18.4	-28.8	25.8	-10.7	-21.4	-33.4	25.8
4:12	-8.4	-15.8	-24.8	24.0	-9.2	-18.4	-28.8	24.0	-10.8	-21.4	-33.4	24.0
5:12	-8.4	-15.8	-24.9	22.2	-9.2	-18.4	-28.8	22.2	-10.8	-21.4	-33.4	22.2
6:12	-8.5	-15.9	-24.9	20.5	-9.2	-18.5	-28.9	20.5	-10.8	-21.5	-33.5	20.5
7:12	-8.9	-10.9	-10.9	18.9	-10.4	-12.7	-12.7	19.5	-12.2	-14.9	-14.9	20.7
8:12	-8.9	-11.0	-11.0	17.5	-10.5	-12.8	-12.8	18.1	-12.2	-14.9	-14.9	19.3
9:12	-9.0	-11.0	-11.0	16.3	-10.5	-12.8	-12.8	16.9	-12.3	-15.0	-15.0	18.1
10:12	-9.0	-11.0	-11.0	15.2	-10.6	-12.9	-12.9	15.8	-12.3	-15.0	-15.0	17.0
11:12	-9.1	-11.1	-11.1	14.3	-10.6	-12.9	-12.9	14.9	-12.4	-15.0	-15.0	16.0
12:12	-9.1	-11.1	-11.1	13.5	-10.6	-12.9	-12.9	14.0	-12.4	-15.1	-15.1	15.2
Exposure Category D												
1:12	-10.9	-20.6	-32.7	27.5	-12.4	-23.3	-37.0	27.5	-14.2	-26.5	-41.9	27.5
2:12	-9.7	-19.4	-30.3	26.0	-11.0	-22.0	-34.3	26.0	-12.6	-25.0	-38.9	26.0
3:12	-9.7	-19.4	-30.3	24.3	-11.1	-22.0	-34.3	24.3	-12.6	-25.0	-38.9	24.3
4:12	-9.7	-19.4	-30.3	22.7	-11.1	-22.0	-34.3	22.7	-12.7	-25.0	-38.9	22.7
5:12	-9.7	-19.4	-30.4	21.0	-11.1	-22.1	-34.4	21.0	-12.7	-25.1	-38.9	21.0
6:12	-9.8	-19.5	-30.4	19.5	-11.2	-22.1	-34.4	19.5	-12.7	-25.1	-39.0	19.5
7:12	-11.0	-13.5	-13.5	19.1	-12.6	-15.3	-15.3	20.1	-14.3	-17.4	-17.4	21.3
8:12	-11.1	-13.5	-13.5	17.8	-12.6	-15.3	-15.3	18.8	-14.4	-17.5	-17.5	20.0
9:12	-11.1	-13.5	-13.5	16.7	-12.6	-15.4	-15.4	17.7	-14.4	-17.5	-17.5	18.9
10:12	-11.1	-13.6	-13.6	15.7	-12.7	-15.4	-15.4	16.7	-14.4	-17.5	-17.5	17.9
11:12	-11.2	-13.6	-13.6	14.8	-12.7	-15.5	-15.5	15.9	-14.5	-17.6	-17.6	17.1
12:12	-11.2	-13.7	-13.7	14.1	-12.8	-15.5	-15.5	15.1	-14.5	-17.6	-17.6	16.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
95 mph

Ground Snow Load
35 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	31.9	-8.3	-13.6	-21.8	31.9	-8.7	-16.7	-26.8	31.9
2:12	-8.3	-12.8	-20.2	30.0	-8.3	-12.8	-20.2	30.0	-8.3	-15.8	-24.8	30.0
3:12	-8.4	-12.8	-20.2	27.9	-8.4	-12.8	-20.2	27.9	-8.4	-15.8	-24.8	27.9
4:12	-8.4	-12.8	-20.2	25.8	-8.4	-12.8	-20.2	25.8	-8.4	-15.8	-24.8	25.8
5:12	-8.4	-12.8	-20.3	23.8	-8.4	-12.8	-20.3	23.8	-8.4	-15.8	-24.9	23.8
6:12	-8.5	-12.9	-20.3	21.9	-8.5	-12.9	-20.3	21.9	-8.5	-15.9	-24.9	21.9
7:12	-8.5	-8.8	-8.8	20.1	-8.5	-8.8	-8.8	20.1	-8.9	-10.9	-10.9	20.1
8:12	-8.5	-8.8	-8.8	18.5	-8.5	-8.8	-8.8	18.5	-8.9	-11.0	-11.0	18.5
9:12	-8.6	-8.9	-8.9	17.1	-8.6	-8.9	-8.9	17.1	-9.0	-11.0	-11.0	17.1
10:12	-8.6	-8.9	-8.9	15.9	-8.6	-8.9	-8.9	15.9	-9.0	-11.0	-11.0	15.9
11:12	-8.7	-9.0	-9.0	14.9	-8.7	-9.0	-9.0	14.9	-9.1	-11.1	-11.1	14.9
12:12	-8.7	-9.0	-9.0	14.0	-8.7	-9.0	-9.0	14.0	-9.1	-11.1	-11.1	14.0
Exposure Category C												
1:12	-8.7	-16.7	-26.8	31.9	-10.3	-19.5	-31.1	31.9	-12.0	-22.7	-36.0	31.9
2:12	-8.3	-15.8	-24.8	30.0	-9.1	-18.4	-28.8	30.0	-10.7	-21.4	-33.4	30.0
3:12	-8.4	-15.8	-24.8	27.9	-9.1	-18.4	-28.8	27.9	-10.7	-21.4	-33.4	27.9
4:12	-8.4	-15.8	-24.8	25.8	-9.2	-18.4	-28.8	25.8	-10.8	-21.4	-33.4	25.8
5:12	-8.4	-15.8	-24.9	23.8	-9.2	-18.4	-28.8	23.8	-10.8	-21.4	-33.4	23.8
6:12	-8.5	-15.9	-24.9	21.9	-9.2	-18.5	-28.9	21.9	-10.8	-21.5	-33.5	21.9
7:12	-8.9	-10.9	-10.9	20.1	-10.4	-12.7	-12.7	20.7	-12.2	-14.9	-14.9	21.9
8:12	-8.9	-11.0	-11.0	18.5	-10.5	-12.8	-12.8	19.1	-12.2	-14.9	-14.9	20.3
9:12	-9.0	-11.0	-11.0	17.1	-10.5	-12.8	-12.8	17.7	-12.3	-15.0	-15.0	18.9
10:12	-9.0	-11.0	-11.0	15.9	-10.6	-12.9	-12.9	16.5	-12.3	-15.0	-15.0	17.7
11:12	-9.1	-11.1	-11.1	14.9	-10.6	-12.9	-12.9	15.5	-12.4	-15.0	-15.0	16.6
12:12	-9.1	-11.1	-11.1	14.0	-10.6	-12.9	-12.9	14.6	-12.4	-15.1	-15.1	15.7
Exposure Category D												
1:12	-10.9	-20.6	-32.7	29.8	-12.4	-23.3	-37.0	29.8	-14.2	-26.5	-41.9	29.8
2:12	-9.7	-19.4	-30.3	28.1	-11.0	-22.0	-34.3	28.1	-12.6	-25.0	-38.9	28.1
3:12	-9.7	-19.4	-30.3	26.2	-11.1	-22.0	-34.3	26.2	-12.6	-25.0	-38.9	26.2
4:12	-9.7	-19.4	-30.3	24.3	-11.1	-22.0	-34.3	24.3	-12.7	-25.0	-38.9	24.3
5:12	-9.7	-19.4	-30.4	22.5	-11.1	-22.1	-34.4	22.5	-12.7	-25.1	-38.9	22.5
6:12	-9.8	-19.5	-30.4	20.7	-11.2	-22.1	-34.4	20.7	-12.7	-25.1	-39.0	20.7
7:12	-11.0	-13.5	-13.5	20.1	-12.6	-15.3	-15.3	21.2	-14.3	-17.4	-17.4	22.4
8:12	-11.1	-13.5	-13.5	18.7	-12.6	-15.3	-15.3	19.7	-14.4	-17.5	-17.5	20.9
9:12	-11.1	-13.5	-13.5	17.4	-12.6	-15.4	-15.4	18.5	-14.4	-17.5	-17.5	19.7
10:12	-11.1	-13.6	-13.6	16.3	-12.7	-15.4	-15.4	17.4	-14.4	-17.5	-17.5	18.6
11:12	-11.2	-13.6	-13.6	15.4	-12.7	-15.5	-15.5	16.4	-14.5	-17.6	-17.6	17.6
12:12	-11.2	-13.7	-13.7	14.5	-12.8	-15.5	-15.5	15.6	-14.5	-17.6	-17.6	16.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
95 mph

Ground Snow Load
40 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	35.1	-8.3	-13.6	-21.8	35.1	-8.7	-16.7	-26.8	35.1
2:12	-8.3	-12.8	-20.2	32.4	-8.3	-12.8	-20.2	32.4	-8.3	-15.8	-24.8	32.4
3:12	-8.4	-12.8	-20.2	30.1	-8.4	-12.8	-20.2	30.1	-8.4	-15.8	-24.8	30.1
4:12	-8.4	-12.8	-20.2	27.7	-8.4	-12.8	-20.2	27.7	-8.4	-15.8	-24.8	27.7
5:12	-8.4	-12.8	-20.3	25.4	-8.4	-12.8	-20.3	25.4	-8.4	-15.8	-24.9	25.4
6:12	-8.5	-12.9	-20.3	23.3	-8.5	-12.9	-20.3	23.3	-8.5	-15.9	-24.9	23.3
7:12	-8.5	-8.8	-8.8	21.3	-8.5	-8.8	-8.8	21.3	-8.9	-10.9	-10.9	21.3
8:12	-8.5	-8.8	-8.8	19.5	-8.5	-8.8	-8.8	19.5	-8.9	-11.0	-11.0	19.5
9:12	-8.6	-8.9	-8.9	18.0	-8.6	-8.9	-8.9	18.0	-9.0	-11.0	-11.0	18.0
10:12	-8.6	-8.9	-8.9	16.6	-8.6	-8.9	-8.9	16.6	-9.0	-11.0	-11.0	16.6
11:12	-8.7	-9.0	-9.0	15.5	-8.7	-9.0	-9.0	15.5	-9.1	-11.1	-11.1	15.5
12:12	-8.7	-9.0	-9.0	14.5	-8.7	-9.0	-9.0	14.5	-9.1	-11.1	-11.1	14.5
Exposure Category C												
1:12	-8.7	-16.7	-26.8	35.1	-10.3	-19.5	-31.1	35.1	-12.0	-22.7	-36.0	35.1
2:12	-8.3	-15.8	-24.8	32.4	-9.1	-18.4	-28.8	32.4	-10.7	-21.4	-33.4	32.4
3:12	-8.4	-15.8	-24.8	30.1	-9.1	-18.4	-28.8	30.1	-10.7	-21.4	-33.4	30.1
4:12	-8.4	-15.8	-24.8	27.7	-9.2	-18.4	-28.8	27.7	-10.8	-21.4	-33.4	27.7
5:12	-8.4	-15.8	-24.9	25.4	-9.2	-18.4	-28.8	25.4	-10.8	-21.4	-33.4	25.4
6:12	-8.5	-15.9	-24.9	23.3	-9.2	-18.5	-28.9	23.3	-10.8	-21.5	-33.5	23.3
7:12	-8.9	-10.9	-10.9	21.3	-10.4	-12.7	-12.7	21.9	-12.2	-14.9	-14.9	23.1
8:12	-8.9	-11.0	-11.0	19.5	-10.5	-12.8	-12.8	20.1	-12.2	-14.9	-14.9	21.3
9:12	-9.0	-11.0	-11.0	18.0	-10.5	-12.8	-12.8	18.6	-12.3	-15.0	-15.0	19.8
10:12	-9.0	-11.0	-11.0	16.6	-10.6	-12.9	-12.9	17.2	-12.3	-15.0	-15.0	18.4
11:12	-9.1	-11.1	-11.1	15.5	-10.6	-12.9	-12.9	16.1	-12.4	-15.0	-15.0	17.3
12:12	-9.1	-11.1	-11.1	14.5	-10.6	-12.9	-12.9	15.1	-12.4	-15.1	-15.1	16.3
Exposure Category D												
1:12	-10.9	-20.6	-32.7	32.1	-12.4	-23.3	-37.0	32.1	-14.2	-26.5	-41.9	32.1
2:12	-9.7	-19.4	-30.3	30.3	-11.0	-22.0	-34.3	30.3	-12.6	-25.0	-38.9	30.3
3:12	-9.7	-19.4	-30.3	28.2	-11.1	-22.0	-34.3	28.2	-12.6	-25.0	-38.9	28.2
4:12	-9.7	-19.4	-30.3	26.0	-11.1	-22.0	-34.3	26.0	-12.7	-25.0	-38.9	26.0
5:12	-9.7	-19.4	-30.4	24.0	-11.1	-22.1	-34.4	24.0	-12.7	-25.1	-38.9	24.0
6:12	-9.8	-19.5	-30.4	22.0	-11.2	-22.1	-34.4	22.0	-12.7	-25.1	-39.0	22.0
7:12	-11.0	-13.5	-13.5	21.2	-12.6	-15.3	-15.3	22.2	-14.3	-17.4	-17.4	23.4
8:12	-11.1	-13.5	-13.5	19.6	-12.6	-15.3	-15.3	20.7	-14.4	-17.5	-17.5	21.8
9:12	-11.1	-13.5	-13.5	18.2	-12.6	-15.4	-15.4	19.2	-14.4	-17.5	-17.5	20.4
10:12	-11.1	-13.6	-13.6	17.0	-12.7	-15.4	-15.4	18.0	-14.4	-17.5	-17.5	19.2
11:12	-11.2	-13.6	-13.6	15.9	-12.7	-15.5	-15.5	16.9	-14.5	-17.6	-17.6	18.1
12:12	-11.2	-13.7	-13.7	15.0	-12.8	-15.5	-15.5	16.0	-14.5	-17.6	-17.6	17.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
95 mph

Ground Snow Load
45 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	38.6	-8.3	-13.6	-21.8	38.6	-8.7	-16.7	-26.8	38.6
2:12	-8.3	-12.8	-20.2	35.5	-8.3	-12.8	-20.2	35.5	-8.3	-15.8	-24.8	35.5
3:12	-8.4	-12.8	-20.2	32.2	-8.4	-12.8	-20.2	32.2	-8.4	-15.8	-24.8	32.2
4:12	-8.4	-12.8	-20.2	29.6	-8.4	-12.8	-20.2	29.6	-8.4	-15.8	-24.8	29.6
5:12	-8.4	-12.8	-20.3	27.1	-8.4	-12.8	-20.3	27.1	-8.4	-15.8	-24.9	27.1
6:12	-8.5	-12.9	-20.3	24.7	-8.5	-12.9	-20.3	24.7	-8.5	-15.9	-24.9	24.7
7:12	-8.5	-8.8	-8.8	22.5	-8.5	-8.8	-8.8	22.5	-8.9	-10.9	-10.9	22.5
8:12	-8.5	-8.8	-8.8	20.6	-8.5	-8.8	-8.8	20.6	-8.9	-11.0	-11.0	20.6
9:12	-8.6	-8.9	-8.9	18.8	-8.6	-8.9	-8.9	18.8	-9.0	-11.0	-11.0	18.8
10:12	-8.6	-8.9	-8.9	17.4	-8.6	-8.9	-8.9	17.4	-9.0	-11.0	-11.0	17.4
11:12	-8.7	-9.0	-9.0	16.1	-8.7	-9.0	-9.0	16.1	-9.1	-11.1	-11.1	16.1
12:12	-8.7	-9.0	-9.0	15.0	-8.7	-9.0	-9.0	15.0	-9.1	-11.1	-11.1	15.0
Exposure Category C												
1:12	-8.7	-16.7	-26.8	38.6	-10.3	-19.5	-31.1	38.6	-12.0	-22.7	-36.0	38.6
2:12	-8.3	-15.8	-24.8	35.5	-9.1	-18.4	-28.8	35.5	-10.7	-21.4	-33.4	35.5
3:12	-8.4	-15.8	-24.8	32.2	-9.1	-18.4	-28.8	32.2	-10.7	-21.4	-33.4	32.2
4:12	-8.4	-15.8	-24.8	29.6	-9.2	-18.4	-28.8	29.6	-10.8	-21.4	-33.4	29.6
5:12	-8.4	-15.8	-24.9	27.1	-9.2	-18.4	-28.8	27.1	-10.8	-21.4	-33.4	27.1
6:12	-8.5	-15.9	-24.9	24.7	-9.2	-18.5	-28.9	24.7	-10.8	-21.5	-33.5	24.7
7:12	-8.9	-10.9	-10.9	22.5	-10.4	-12.7	-12.7	23.1	-12.2	-14.9	-14.9	24.3
8:12	-8.9	-11.0	-11.0	20.6	-10.5	-12.8	-12.8	21.1	-12.2	-14.9	-14.9	22.3
9:12	-9.0	-11.0	-11.0	18.8	-10.5	-12.8	-12.8	19.4	-12.3	-15.0	-15.0	20.6
10:12	-9.0	-11.0	-11.0	17.4	-10.6	-12.9	-12.9	17.9	-12.3	-15.0	-15.0	19.1
11:12	-9.1	-11.1	-11.1	16.1	-10.6	-12.9	-12.9	16.7	-12.4	-15.0	-15.0	17.9
12:12	-9.1	-11.1	-11.1	15.0	-10.6	-12.9	-12.9	15.6	-12.4	-15.1	-15.1	16.8
Exposure Category D												
1:12	-10.9	-20.6	-32.7	35.1	-12.4	-23.3	-37.0	35.1	-14.2	-26.5	-41.9	35.1
2:12	-9.7	-19.4	-30.3	32.4	-11.0	-22.0	-34.3	32.4	-12.6	-25.0	-38.9	32.4
3:12	-9.7	-19.4	-30.3	30.1	-11.1	-22.0	-34.3	30.1	-12.6	-25.0	-38.9	30.1
4:12	-9.7	-19.4	-30.3	27.7	-11.1	-22.0	-34.3	27.7	-12.7	-25.0	-38.9	27.7
5:12	-9.7	-19.4	-30.4	25.4	-11.1	-22.1	-34.4	25.4	-12.7	-25.1	-38.9	25.4
6:12	-9.8	-19.5	-30.4	23.3	-11.2	-22.1	-34.4	23.3	-12.7	-25.1	-39.0	23.3
7:12	-11.0	-13.5	-13.5	22.3	-12.6	-15.3	-15.3	23.3	-14.3	-17.4	-17.4	24.5
8:12	-11.1	-13.5	-13.5	20.5	-12.6	-15.3	-15.3	21.6	-14.4	-17.5	-17.5	22.8
9:12	-11.1	-13.5	-13.5	19.0	-12.6	-15.4	-15.4	20.0	-14.4	-17.5	-17.5	21.2
10:12	-11.1	-13.6	-13.6	17.6	-12.7	-15.4	-15.4	18.7	-14.4	-17.5	-17.5	19.9
11:12	-11.2	-13.6	-13.6	16.5	-12.7	-15.5	-15.5	17.5	-14.5	-17.6	-17.6	18.7
12:12	-11.2	-13.7	-13.7	15.5	-12.8	-15.5	-15.5	16.5	-14.5	-17.6	-17.6	17.7

Basic Wind Speed
95 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-8.3	-13.6	-21.8	45.5	-8.3	-13.6	-21.8	45.5	-8.7	-16.7	-26.8	45.5
	2:12	-8.3	-12.8	-20.2	41.9	-8.3	-12.8	-20.2	41.9	-8.3	-15.8	-24.8	41.9
	3:12	-8.4	-12.8	-20.2	37.8	-8.4	-12.8	-20.2	37.8	-8.4	-15.8	-24.8	37.8
	4:12	-8.4	-12.8	-20.2	33.6	-8.4	-12.8	-20.2	33.6	-8.4	-15.8	-24.8	33.6
	5:12	-8.4	-12.8	-20.3	30.3	-8.4	-12.8	-20.3	30.3	-8.4	-15.8	-24.9	30.3
	6:12	-8.5	-12.9	-20.3	27.5	-8.5	-12.9	-20.3	27.5	-8.5	-15.9	-24.9	27.5
	7:12	-8.5	-8.8	-8.8	24.9	-8.5	-8.8	-8.8	24.9	-8.9	-10.9	-10.9	24.9
	8:12	-8.5	-8.8	-8.8	22.6	-8.5	-8.8	-8.8	22.6	-8.9	-11.0	-11.0	22.6
	9:12	-8.6	-8.9	-8.9	20.6	-8.6	-8.9	-8.9	20.6	-9.0	-11.0	-11.0	20.6
	10:12	-8.6	-8.9	-8.9	18.8	-8.6	-8.9	-8.9	18.8	-9.0	-11.0	-11.0	18.8
	11:12	-8.7	-9.0	-9.0	17.3	-8.7	-9.0	-9.0	17.3	-9.1	-11.1	-11.1	17.3
	12:12	-8.7	-9.0	-9.0	16.0	-8.7	-9.0	-9.0	16.0	-9.1	-11.1	-11.1	16.0
Exposure Category C	1:12	-8.7	-16.7	-26.8	45.5	-10.3	-19.5	-31.1	45.5	-12.0	-22.7	-36.0	45.5
	2:12	-8.3	-15.8	-24.8	41.9	-9.1	-18.4	-28.8	41.9	-10.7	-21.4	-33.4	41.9
	3:12	-8.4	-15.8	-24.8	37.8	-9.1	-18.4	-28.8	37.8	-10.7	-21.4	-33.4	37.8
	4:12	-8.4	-15.8	-24.8	33.6	-9.2	-18.4	-28.8	33.6	-10.8	-21.4	-33.4	33.6
	5:12	-8.4	-15.8	-24.9	30.3	-9.2	-18.4	-28.8	30.3	-10.8	-21.4	-33.4	30.3
	6:12	-8.5	-15.9	-24.9	27.5	-9.2	-18.5	-28.9	27.5	-10.8	-21.5	-33.5	27.5
	7:12	-8.9	-10.9	-10.9	24.9	-10.4	-12.7	-12.7	25.5	-12.2	-14.9	-14.9	26.7
	8:12	-8.9	-11.0	-11.0	22.6	-10.5	-12.8	-12.8	23.2	-12.2	-14.9	-14.9	24.4
	9:12	-9.0	-11.0	-11.0	20.6	-10.5	-12.8	-12.8	21.1	-12.3	-15.0	-15.0	22.3
	10:12	-9.0	-11.0	-11.0	18.8	-10.6	-12.9	-12.9	19.4	-12.3	-15.0	-15.0	20.6
	11:12	-9.1	-11.1	-11.1	17.3	-10.6	-12.9	-12.9	17.9	-12.4	-15.0	-15.0	19.1
	12:12	-9.1	-11.1	-11.1	16.0	-10.6	-12.9	-12.9	16.6	-12.4	-15.1	-15.1	17.8
Exposure Category D	1:12	-10.9	-20.6	-32.7	41.4	-12.4	-23.3	-37.0	41.4	-14.2	-26.5	-41.9	41.4
	2:12	-9.7	-19.4	-30.3	38.0	-11.0	-22.0	-34.3	38.0	-12.6	-25.0	-38.9	38.0
	3:12	-9.7	-19.4	-30.3	34.4	-11.1	-22.0	-34.3	34.4	-12.6	-25.0	-38.9	34.4
	4:12	-9.7	-19.4	-30.3	31.1	-11.1	-22.0	-34.3	31.1	-12.7	-25.0	-38.9	31.1
	5:12	-9.7	-19.4	-30.4	28.4	-11.1	-22.1	-34.4	28.4	-12.7	-25.1	-38.9	28.4
	6:12	-9.8	-19.5	-30.4	25.8	-11.2	-22.1	-34.4	25.8	-12.7	-25.1	-39.0	25.8
	7:12	-11.0	-13.5	-13.5	24.4	-12.6	-15.3	-15.3	25.5	-14.3	-17.4	-17.4	26.7
	8:12	-11.1	-13.5	-13.5	22.4	-12.6	-15.3	-15.3	23.4	-14.4	-17.5	-17.5	24.6
	9:12	-11.1	-13.5	-13.5	20.5	-12.6	-15.4	-15.4	21.6	-14.4	-17.5	-17.5	22.7
	10:12	-11.1	-13.6	-13.6	18.9	-12.7	-15.4	-15.4	20.0	-14.4	-17.5	-17.5	21.1
	11:12	-11.2	-13.6	-13.6	17.5	-12.7	-15.5	-15.5	18.6	-14.5	-17.6	-17.6	19.8
	12:12	-11.2	-13.7	-13.7	16.4	-12.8	-15.5	-15.5	17.4	-14.5	-17.6	-17.6	18.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
	2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
	3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
	4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
	5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
	6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
	7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
	8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
	9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
	10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed **95 mph**

Ground Snow Load **60 psf**

Up and Down (psf)

Basic Wind Speed **95 mph**
Ground Snow Load **70 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	52.5	-8.3	-13.6	-21.8	52.5	-8.7	-16.7	-26.8	52.5
2:12	-8.3	-12.8	-20.2	48.2	-8.3	-12.8	-20.2	48.2	-8.3	-15.8	-24.8	48.2
3:12	-8.4	-12.8	-20.2	43.4	-8.4	-12.8	-20.2	43.4	-8.4	-15.8	-24.8	43.4
4:12	-8.4	-12.8	-20.2	38.6	-8.4	-12.8	-20.2	38.6	-8.4	-15.8	-24.8	38.6
5:12	-8.4	-12.8	-20.3	34.0	-8.4	-12.8	-20.3	34.0	-8.4	-15.8	-24.9	34.0
6:12	-8.5	-12.9	-20.3	30.3	-8.5	-12.9	-20.3	30.3	-8.5	-15.9	-24.9	30.3
7:12	-8.5	-8.8	-8.8	27.3	-8.5	-8.8	-8.8	27.3	-8.9	-10.9	-10.9	27.3
8:12	-8.5	-8.8	-8.8	24.6	-8.5	-8.8	-8.8	24.6	-8.9	-11.0	-11.0	24.6
9:12	-8.6	-8.9	-8.9	22.3	-8.6	-8.9	-8.9	22.3	-9.0	-11.0	-11.0	22.3
10:12	-8.6	-8.9	-8.9	20.2	-8.6	-8.9	-8.9	20.2	-9.0	-11.0	-11.0	20.2
11:12	-8.7	-9.0	-9.0	18.5	-8.7	-9.0	-9.0	18.5	-9.1	-11.1	-11.1	18.5
12:12	-8.7	-9.0	-9.0	17.0	-8.7	-9.0	-9.0	17.0	-9.1	-11.1	-11.1	17.0
Exposure Category C												
1:12	-8.7	-16.7	-26.8	52.5	-10.3	-19.5	-31.1	52.5	-12.0	-22.7	-36.0	52.5
2:12	-8.3	-15.8	-24.8	48.2	-9.1	-18.4	-28.8	48.2	-10.7	-21.4	-33.4	48.2
3:12	-8.4	-15.8	-24.8	43.4	-9.1	-18.4	-28.8	43.4	-10.7	-21.4	-33.4	43.4
4:12	-8.4	-15.8	-24.8	38.6	-9.2	-18.4	-28.8	38.6	-10.8	-21.4	-33.4	38.6
5:12	-8.4	-15.8	-24.9	34.0	-9.2	-18.4	-28.8	34.0	-10.8	-21.4	-33.4	34.0
6:12	-8.5	-15.9	-24.9	30.3	-9.2	-18.5	-28.9	30.3	-10.8	-21.5	-33.5	30.3
7:12	-8.9	-10.9	-10.9	27.3	-10.4	-12.7	-12.7	27.9	-12.2	-14.9	-14.9	29.1
8:12	-8.9	-11.0	-11.0	24.6	-10.5	-12.8	-12.8	25.2	-12.2	-14.9	-14.9	26.4
9:12	-9.0	-11.0	-11.0	22.3	-10.5	-12.8	-12.8	22.9	-12.3	-15.0	-15.0	24.1
10:12	-9.0	-11.0	-11.0	20.2	-10.6	-12.9	-12.9	20.8	-12.3	-15.0	-15.0	22.0
11:12	-9.1	-11.1	-11.1	18.5	-10.6	-12.9	-12.9	19.1	-12.4	-15.0	-15.0	20.3
12:12	-9.1	-11.1	-11.1	17.0	-10.6	-12.9	-12.9	17.6	-12.4	-15.1	-15.1	18.8
Exposure Category D												
1:12	-10.9	-20.6	-32.7	47.6	-12.4	-23.3	-37.0	47.6	-14.2	-26.5	-41.9	47.6
2:12	-9.7	-19.4	-30.3	43.8	-11.0	-22.0	-34.3	43.8	-12.6	-25.0	-38.9	43.8
3:12	-9.7	-19.4	-30.3	39.5	-11.1	-22.0	-34.3	39.5	-12.6	-25.0	-38.9	39.5
4:12	-9.7	-19.4	-30.3	35.1	-11.1	-22.0	-34.3	35.1	-12.7	-25.0	-38.9	35.1
5:12	-9.7	-19.4	-30.4	31.3	-11.1	-22.1	-34.4	31.3	-12.7	-25.1	-38.9	31.3
6:12	-9.8	-19.5	-30.4	28.3	-11.2	-22.1	-34.4	28.3	-12.7	-25.1	-39.0	28.3
7:12	-11.0	-13.5	-13.5	26.6	-12.6	-15.3	-15.3	27.6	-14.3	-17.4	-17.4	28.8
8:12	-11.1	-13.5	-13.5	24.2	-12.6	-15.3	-15.3	25.2	-14.4	-17.5	-17.5	26.4
9:12	-11.1	-13.5	-13.5	22.1	-12.6	-15.4	-15.4	23.1	-14.4	-17.5	-17.5	24.3
10:12	-11.1	-13.6	-13.6	20.2	-12.7	-15.4	-15.4	21.2	-14.4	-17.5	-17.5	22.4
11:12	-11.2	-13.6	-13.6	18.6	-12.7	-15.5	-15.5	19.7	-14.5	-17.6	-17.6	20.9
12:12	-11.2	-13.7	-13.7	17.3	-12.8	-15.5	-15.5	18.3	-14.5	-17.6	-17.6	19.5
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	59.4	-8.3	-13.6	-21.8	59.4	-8.7	-16.7	-26.8	59.4
2:12	-8.3	-12.8	-20.2	54.5	-8.3	-12.8	-20.2	54.5	-8.3	-15.8	-24.8	54.5
3:12	-8.4	-12.8	-20.2	49.1	-8.4	-12.8	-20.2	49.1	-8.4	-15.8	-24.8	49.1
4:12	-8.4	-12.8	-20.2	43.6	-8.4	-12.8	-20.2	43.6	-8.4	-15.8	-24.8	43.6
5:12	-8.4	-12.8	-20.3	38.3	-8.4	-12.8	-20.3	38.3	-8.4	-15.8	-24.9	38.3
6:12	-8.5	-12.9	-20.3	33.4	-8.5	-12.9	-20.3	33.4	-8.5	-15.9	-24.9	33.4
7:12	-8.5	-8.8	-8.8	29.7	-8.5	-8.8	-8.8	29.7	-8.9	-10.9	-10.9	29.7
8:12	-8.5	-8.8	-8.8	26.6	-8.5	-8.8	-8.8	26.6	-8.9	-11.0	-11.0	26.6
9:12	-8.6	-8.9	-8.9	24.0	-8.6	-8.9	-8.9	24.0	-9.0	-11.0	-11.0	24.0
10:12	-8.6	-8.9	-8.9	21.7	-8.6	-8.9	-8.9	21.7	-9.0	-11.0	-11.0	21.7
11:12	-8.7	-9.0	-9.0	19.7	-8.7	-9.0	-9.0	19.7	-9.1	-11.1	-11.1	19.7
12:12	-8.7	-9.0	-9.0	18.0	-8.7	-9.0	-9.0	18.0	-9.1	-11.1	-11.1	18.0
Exposure Category C												
1:12	-8.7	-16.7	-26.8	59.4	-10.3	-19.5	-31.1	59.4	-12.0	-22.7	-36.0	59.4
2:12	-8.3	-15.8	-24.8	54.5	-9.1	-18.4	-28.8	54.5	-10.7	-21.4	-33.4	54.5
3:12	-8.4	-15.8	-24.8	49.1	-9.1	-18.4	-28.8	49.1	-10.7	-21.4	-33.4	49.1
4:12	-8.4	-15.8	-24.8	43.6	-9.2	-18.4	-28.8	43.6	-10.8	-21.4	-33.4	43.6
5:12	-8.4	-15.8	-24.9	38.3	-9.2	-18.4	-28.8	38.3	-10.8	-21.4	-33.4	38.3
6:12	-8.5	-15.9	-24.9	33.4	-9.2	-18.5	-28.9	33.4	-10.8	-21.5	-33.5	33.4
7:12	-8.9	-10.9	-10.9	29.7	-10.4	-12.7	-12.7	30.3	-12.2	-14.9	-14.9	31.5
8:12	-8.9	-11.0	-11.0	26.6	-10.5	-12.8	-12.8	27.2	-12.2	-14.9	-14.9	28.4
9:12	-9.0	-11.0	-11.0	24.0	-10.5	-12.8	-12.8	24.6	-12.3	-15.0	-15.0	25.8
10:12	-9.0	-11.0	-11.0	21.7	-10.6	-12.9	-12.9	22.3	-12.3	-15.0	-15.0	23.5
11:12	-9.1	-11.1	-11.1	19.7	-10.6	-12.9	-12.9	20.3	-12.4	-15.0	-15.0	21.5
12:12	-9.1	-11.1	-11.1	18.0	-10.6	-12.9	-12.9	18.6	-12.4	-15.1	-15.1	19.8
Exposure Category D												
1:12	-10.9	-20.6	-32.7	53.9	-12.4	-23.3	-37.0	53.9	-14.2	-26.5	-41.9	53.9
2:12	-9.7	-19.4	-30.3	49.5	-11.0	-22.0	-34.3	49.5	-12.6	-25.0	-38.9	49.5
3:12	-9.7	-19.4	-30.3	44.6	-11.1	-22.0	-34.3	44.6	-12.6	-25.0	-38.9	44.6
4:12	-9.7	-19.4	-30.3	39.6	-11.1	-22.0	-34.3	39.6	-12.7	-25.0	-38.9	39.6
5:12	-9.7	-19.4	-30.4	34.9	-11.1	-22.1	-34.4	34.9	-12.7	-25.1	-38.9	34.9
6:12	-9.8	-19.5	-30.4	30.8	-11.2	-22.1	-34.4	30.8	-12.7	-25.1	-39.0	30.8
7:12	-11.0	-13.5	-13.5	28.8	-12.6	-15.3	-15.3	29.8	-14.3	-17.4	-17.4	31.0
8:12	-11.1	-13.5	-13.5	26.0	-12.6	-15.3	-15.3	27.0	-14.4	-17.5	-17.5	28.2
9:12	-11.1	-13.5	-13.5	23.6	-12.6	-15.4	-15.4	24.6	-14.4	-17.5	-17.5	25.8
10:12	-11.1	-13.6	-13.6	21.5	-12.7	-15.4	-15.4	22.5	-14.4	-17.5	-17.5	23.7
11:12	-11.2	-13.6	-13.6	19.7	-12.7	-15.5	-15.5	20.7	-14.5	-17.6	-17.6	21.9
12:12	-11.2	-13.7	-13.7	18.2	-12.8	-15.5	-15.5	19.2	-14.5	-17.6	-17.6	20.4

Basic Wind Speed
95 mph

Ground Snow Load
80 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.3	-13.6	-21.8	66.4	-8.3	-13.6	-21.8	66.4	-8.7	-16.7	-26.8	66.4
2:12	-8.3	-12.8	-20.2	60.9	-8.3	-12.8	-20.2	60.9	-8.3	-15.8	-24.8	60.9
3:12	-8.4	-12.8	-20.2	54.8	-8.4	-12.8	-20.2	54.8	-8.4	-15.8	-24.8	54.8
4:12	-8.4	-12.8	-20.2	48.6	-8.4	-12.8	-20.2	48.6	-8.4	-15.8	-24.8	48.6
5:12	-8.4	-12.8	-20.3	42.7	-8.4	-12.8	-20.3	42.7	-8.4	-15.8	-24.9	42.7
6:12	-8.5	-12.9	-20.3	37.1	-8.5	-12.9	-20.3	37.1	-8.5	-15.9	-24.9	37.1
7:12	-8.5	-8.8	-8.8	32.1	-8.5	-8.8	-8.8	32.1	-8.9	-10.9	-10.9	32.1
8:12	-8.5	-8.8	-8.8	28.7	-8.5	-8.8	-8.8	28.7	-8.9	-11.0	-11.0	28.7
9:12	-8.6	-8.9	-8.9	25.7	-8.6	-8.9	-8.9	25.7	-9.0	-11.0	-11.0	25.7
10:12	-8.6	-8.9	-8.9	23.1	-8.6	-8.9	-8.9	23.1	-9.0	-11.0	-11.0	23.1
11:12	-8.7	-9.0	-9.0	20.9	-8.7	-9.0	-9.0	20.9	-9.1	-11.1	-11.1	20.9
12:12	-8.7	-9.0	-9.0	19.0	-8.7	-9.0	-9.0	19.0	-9.1	-11.1	-11.1	19.0
1:12	-8.7	-16.7	-26.8	66.4	-10.3	-19.5	-31.1	66.4	-12.0	-22.7	-36.0	66.4
2:12	-8.3	-15.8	-24.8	60.9	-9.1	-18.4	-28.8	60.9	-10.7	-21.4	-33.4	60.9
3:12	-8.4	-15.8	-24.8	54.8	-9.1	-18.4	-28.8	54.8	-10.7	-21.4	-33.4	54.8
4:12	-8.4	-15.8	-24.8	48.6	-9.2	-18.4	-28.8	48.6	-10.8	-21.4	-33.4	48.6
5:12	-8.4	-15.8	-24.9	42.7	-9.2	-18.4	-28.8	42.7	-10.8	-21.4	-33.4	42.7
6:12	-8.5	-15.9	-24.9	37.1	-9.2	-18.5	-28.9	37.1	-10.8	-21.5	-33.5	37.1
7:12	-8.9	-10.9	-10.9	32.1	-10.4	-12.7	-12.7	32.7	-12.2	-14.9	-14.9	33.9
8:12	-8.9	-11.0	-11.0	28.7	-10.5	-12.8	-12.8	29.3	-12.2	-14.9	-14.9	30.5
9:12	-9.0	-11.0	-11.0	25.7	-10.5	-12.8	-12.8	26.3	-12.3	-15.0	-15.0	27.5
10:12	-9.0	-11.0	-11.0	23.1	-10.6	-12.9	-12.9	23.7	-12.3	-15.0	-15.0	24.9
11:12	-9.1	-11.1	-11.1	20.9	-10.6	-12.9	-12.9	21.5	-12.4	-15.0	-15.0	22.7
12:12	-9.1	-11.1	-11.1	19.0	-10.6	-12.9	-12.9	19.6	-12.4	-15.1	-15.1	20.8
1:12	-10.9	-20.6	-32.7	60.1	-12.4	-23.3	-37.0	60.1	-14.2	-26.5	-41.9	60.1
2:12	-9.7	-19.4	-30.3	55.2	-11.0	-22.0	-34.3	55.2	-12.6	-25.0	-38.9	55.2
3:12	-9.7	-19.4	-30.3	49.7	-11.1	-22.0	-34.3	49.7	-12.6	-25.0	-38.9	49.7
4:12	-9.7	-19.4	-30.3	44.1	-11.1	-22.0	-34.3	44.1	-12.7	-25.0	-38.9	44.1
5:12	-9.7	-19.4	-30.4	38.8	-11.1	-22.1	-34.4	38.8	-12.7	-25.1	-38.9	38.8
6:12	-9.8	-19.5	-30.4	33.8	-11.2	-22.1	-34.4	33.8	-12.7	-25.1	-39.0	33.8
7:12	-11.0	-13.5	-13.5	30.9	-12.6	-15.3	-15.3	31.9	-14.3	-17.4	-17.4	33.1
8:12	-11.1	-13.5	-13.5	27.8	-12.6	-15.3	-15.3	28.9	-14.4	-17.5	-17.5	30.1
9:12	-11.1	-13.5	-13.5	25.1	-12.6	-15.4	-15.4	26.2	-14.4	-17.5	-17.5	27.4
10:12	-11.1	-13.6	-13.6	22.8	-12.7	-15.4	-15.4	23.8	-14.4	-17.5	-17.5	25.0
11:12	-11.2	-13.6	-13.6	20.8	-12.7	-15.5	-15.5	21.8	-14.5	-17.6	-17.6	23.0
12:12	-11.2	-13.7	-13.7	19.1	-12.8	-15.5	-15.5	20.1	-14.5	-17.6	-17.6	21.3

Basic Wind Speed
95 mph

Ground Snow Load
90 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-13.6	-21.8	73.4	-8.3	-13.6	-21.8	73.4	-8.7	-16.7	-26.8	73.4
2:12	-8.3	-12.8	-20.2	67.2	-8.3	-12.8	-20.2	67.2	-8.3	-15.8	-24.8	67.2
3:12	-8.4	-12.8	-20.2	60.5	-8.4	-12.8	-20.2	60.5	-8.4	-15.8	-24.8	60.5
4:12	-8.4	-12.8	-20.2	53.6	-8.4	-12.8	-20.2	53.6	-8.4	-15.8	-24.8	53.6
5:12	-8.4	-12.8	-20.3	47.0	-8.4	-12.8	-20.3	47.0	-8.4	-15.8	-24.9	47.0
6:12	-8.5	-12.9	-20.3	40.9	-8.5	-12.9	-20.3	40.9	-8.5	-15.9	-24.9	40.9
7:12	-8.5	-8.8	-8.8	35.3	-8.5	-8.8	-8.8	35.3	-8.9	-10.9	-10.9	35.3
8:12	-8.5	-8.8	-8.8	30.7	-8.5	-8.8	-8.8	30.7	-8.9	-11.0	-11.0	30.7
9:12	-8.6	-8.9	-8.9	27.4	-8.6	-8.9	-8.9	27.4	-9.0	-11.0	-11.0	27.4
10:12	-8.6	-8.9	-8.9	24.5	-8.6	-8.9	-8.9	24.5	-9.0	-11.0	-11.0	24.5
11:12	-8.7	-9.0	-9.0	22.1	-8.7	-9.0	-9.0	22.1	-9.1	-11.1	-11.1	22.1
12:12	-8.7	-9.0	-9.0	20.0	-8.7	-9.0	-9.0	20.0	-9.1	-11.1	-11.1	20.0
Exposure Category C												
1:12	-8.7	-16.7	-26.8	73.4	-10.3	-19.5	-31.1	73.4	-12.0	-22.7	-36.0	73.4
2:12	-8.3	-15.8	-24.8	67.2	-9.1	-18.4	-28.8	67.2	-10.7	-21.4	-33.4	67.2
3:12	-8.4	-15.8	-24.8	60.5	-9.1	-18.4	-28.8	60.5	-10.7	-21.4	-33.4	60.5
4:12	-8.4	-15.8	-24.8	53.6	-9.2	-18.4	-28.8	53.6	-10.8	-21.4	-33.4	53.6
5:12	-8.4	-15.8	-24.9	47.0	-9.2	-18.4	-28.8	47.0	-10.8	-21.4	-33.4	47.0
6:12	-8.5	-15.9	-24.9	40.9	-9.2	-18.5	-28.9	40.9	-10.8	-21.5	-33.5	40.9
7:12	-8.9	-10.9	-10.9	35.3	-10.4	-12.7	-12.7	35.3	-12.2	-14.9	-14.9	36.3
8:12	-8.9	-11.0	-11.0	30.7	-10.5	-12.8	-12.8	31.3	-12.2	-14.9	-14.9	32.5
9:12	-9.0	-11.0	-11.0	27.4	-10.5	-12.8	-12.8	28.0	-12.3	-15.0	-15.0	29.2
10:12	-9.0	-11.0	-11.0	24.5	-10.6	-12.9	-12.9	25.1	-12.3	-15.0	-15.0	26.3
11:12	-9.1	-11.1	-11.1	22.1	-10.6	-12.9	-12.9	22.7	-12.4	-15.0	-15.0	23.9
12:12	-9.1	-11.1	-11.1	20.0	-10.6	-12.9	-12.9	20.6	-12.4	-15.1	-15.1	21.8
Exposure Category D												
1:12	-10.9	-20.6	-32.7	66.4	-12.4	-23.3	-37.0	66.4	-14.2	-26.5	-41.9	66.4
2:12	-9.7	-19.4	-30.3	60.9	-11.0	-22.0	-34.3	60.9	-12.6	-25.0	-38.9	60.9
3:12	-9.7	-19.4	-30.3	54.8	-11.1	-22.0	-34.3	54.8	-12.6	-25.0	-38.9	54.8
4:12	-9.7	-19.4	-30.3	48.6	-11.1	-22.0	-34.3	48.6	-12.7	-25.0	-38.9	48.6
5:12	-9.7	-19.4	-30.4	42.7	-11.1	-22.1	-34.4	42.7	-12.7	-25.1	-38.9	42.7
6:12	-9.8	-19.5	-30.4	37.1	-11.2	-22.1	-34.4	37.1	-12.7	-25.1	-39.0	37.1
7:12	-11.0	-13.5	-13.5	33.1	-12.6	-15.3	-15.3	34.1	-14.3	-17.4	-17.4	35.3
8:12	-11.1	-13.5	-13.5	29.7	-12.6	-15.3	-15.3	30.7	-14.4	-17.5	-17.5	31.9
9:12	-11.1	-13.5	-13.5	26.7	-12.6	-15.4	-15.4	27.7	-14.4	-17.5	-17.5	28.9
10:12	-11.1	-13.6	-13.6	24.1	-12.7	-15.4	-15.4	25.1	-14.4	-17.5	-17.5	26.3
11:12	-11.2	-13.6	-13.6	21.9	-12.7	-15.5	-15.5	22.9	-14.5	-17.6	-17.6	24.1
12:12	-11.2	-13.7	-13.7	20.0	-12.8	-15.5	-15.5	21.0	-14.5	-17.6	-17.6	22.2

Basic Wind Speed
95 mph

Ground Snow Load
100 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-8.3	-15.2	-24.3	13.4	-8.3	-15.2	-24.3	13.4	-9.8	-18.7	-29.8	13.4
	2:12	-8.3	-14.3	-22.5	13.4	-8.3	-14.3	-22.5	13.4	-8.7	-17.6	-27.6	13.4
	3:12	-8.4	-14.3	-22.5	13.3	-8.4	-14.3	-22.5	13.3	-8.7	-17.6	-27.6	13.3
	4:12	-8.4	-14.3	-22.5	13.2	-8.4	-14.3	-22.5	13.2	-8.8	-17.6	-27.6	13.2
	5:12	-8.4	-14.4	-22.6	13.2	-8.4	-14.4	-22.6	13.2	-8.8	-17.7	-27.7	13.2
	6:12	-8.5	-14.4	-22.6	13.0	-8.5	-14.4	-22.6	13.0	-8.8	-17.7	-27.7	13.0
	7:12	-8.5	-9.9	-9.9	12.9	-8.5	-9.9	-9.9	12.9	-10.0	-12.2	-12.2	13.3
	8:12	-8.5	-9.9	-9.9	12.8	-8.5	-9.9	-9.9	12.8	-10.0	-12.2	-12.2	13.2
	9:12	-8.6	-9.9	-9.9	12.7	-8.6	-9.9	-9.9	12.7	-10.1	-12.3	-12.3	13.1
	10:12	-8.6	-10.0	-10.0	12.6	-8.6	-10.0	-10.0	12.6	-10.1	-12.3	-12.3	12.9
	11:12	-8.7	-10.0	-10.0	12.4	-8.7	-10.0	-10.0	12.4	-10.2	-12.4	-12.4	12.8
	12:12	-8.7	-10.1	-10.1	12.3	-8.7	-10.1	-10.1	12.3	-10.2	-12.4	-12.4	12.7
Exposure Category C	1:12	-9.8	-18.7	-29.8	13.4	-11.5	-21.8	-34.5	13.4	-13.5	-25.3	-40.0	13.4
	2:12	-8.7	-17.6	-27.6	13.4	-10.2	-20.5	-32.0	13.4	-12.0	-23.8	-37.1	13.4
	3:12	-8.7	-17.6	-27.6	13.3	-10.3	-20.5	-32.0	13.3	-12.0	-23.8	-37.1	13.3
	4:12	-8.8	-17.6	-27.6	13.2	-10.3	-20.5	-32.0	13.2	-12.1	-23.9	-37.1	13.2
	5:12	-8.8	-17.7	-27.7	13.2	-10.3	-20.6	-32.1	13.2	-12.1	-23.9	-37.2	13.2
	6:12	-8.8	-17.7	-27.7	13.0	-10.4	-20.6	-32.1	13.0	-12.1	-23.9	-37.2	13.0
	7:12	-10.0	-12.2	-12.2	13.3	-11.7	-14.2	-14.2	14.8	-13.6	-16.6	-16.6	16.6
	8:12	-10.0	-12.2	-12.2	13.2	-11.7	-14.3	-14.3	14.7	-13.7	-16.6	-16.6	16.5
	9:12	-10.1	-12.3	-12.3	13.1	-11.8	-14.3	-14.3	14.6	-13.7	-16.7	-16.7	16.4
	10:12	-10.1	-12.3	-12.3	12.9	-11.8	-14.4	-14.4	14.5	-13.8	-16.7	-16.7	16.2
	11:12	-10.2	-12.4	-12.4	12.8	-11.8	-14.4	-14.4	14.4	-13.8	-16.8	-16.8	16.1
	12:12	-10.2	-12.4	-12.4	12.7	-11.9	-14.4	-14.4	14.2	-13.8	-16.8	-16.8	16.0
Exposure Category D	1:12	-12.2	-22.9	-36.4	13.4	-13.9	-26.0	-41.1	13.4	-15.8	-29.5	-46.6	13.4
	2:12	-10.8	-21.6	-33.7	13.4	-12.4	-24.5	-38.1	13.4	-14.1	-27.8	-43.2	13.4
	3:12	-10.9	-21.6	-33.7	13.3	-12.4	-24.5	-38.1	13.3	-14.1	-27.8	-43.2	13.3
	4:12	-10.9	-21.6	-33.7	13.2	-12.4	-24.5	-38.2	13.2	-14.2	-27.9	-43.3	13.2
	5:12	-10.9	-21.7	-33.8	13.2	-12.4	-24.6	-38.2	13.2	-14.2	-27.9	-43.3	13.2
	6:12	-11.0	-21.7	-33.8	13.0	-12.5	-24.6	-38.2	13.0	-14.2	-27.9	-43.3	13.0
	7:12	-12.3	-15.0	-15.0	15.4	-14.0	-17.1	-17.1	17.0	-16.0	-19.4	-19.4	18.7
	8:12	-12.4	-15.1	-15.1	15.3	-14.1	-17.1	-17.1	16.8	-16.0	-19.5	-19.5	18.6
	9:12	-12.4	-15.1	-15.1	15.2	-14.1	-17.1	-17.1	16.7	-16.1	-19.5	-19.5	18.5
	10:12	-12.5	-15.2	-15.2	15.1	-14.2	-17.2	-17.2	16.6	-16.1	-19.5	-19.5	18.3
	11:12	-12.5	-15.2	-15.2	14.9	-14.2	-17.2	-17.2	16.5	-16.2	-19.6	-19.6	18.2
	12:12	-12.5	-15.2	-15.2	14.8	-14.2	-17.3	-17.3	16.4	-16.2	-19.6	-19.6	18.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
	2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
	3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
	4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
	5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
	6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
	7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
	8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
	9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
	10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
	11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

100 mph

Ground Snow Load

0 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-15.2	-24.3	14.8	-8.3	-15.2	-24.3	14.8	-9.8	-18.7	-29.8	14.8
2:12	-8.3	-14.3	-22.5	14.4	-8.3	-14.3	-22.5	14.4	-8.7	-17.6	-27.6	14.4
3:12	-8.4	-14.3	-22.5	14.0	-8.4	-14.3	-22.5	14.0	-8.7	-17.6	-27.6	14.0
4:12	-8.4	-14.3	-22.5	13.2	-8.4	-14.3	-22.5	13.2	-8.8	-17.6	-27.6	13.2
5:12	-8.4	-14.4	-22.6	13.2	-8.4	-14.4	-22.6	13.2	-8.8	-17.7	-27.7	13.2
6:12	-8.5	-14.4	-22.6	13.0	-8.5	-14.4	-22.6	13.0	-8.8	-17.7	-27.7	13.0
7:12	-8.5	-9.9	-9.9	12.9	-8.5	-9.9	-9.9	12.9	-10.0	-12.2	-12.2	13.3
8:12	-8.5	-9.9	-9.9	12.8	-8.5	-9.9	-9.9	12.8	-10.0	-12.2	-12.2	13.2
9:12	-8.6	-9.9	-9.9	12.7	-8.6	-9.9	-9.9	12.7	-10.1	-12.3	-12.3	13.1
10:12	-8.6	-10.0	-10.0	12.6	-8.6	-10.0	-10.0	12.6	-10.1	-12.3	-12.3	12.9
11:12	-8.7	-10.0	-10.0	12.4	-8.7	-10.0	-10.0	12.4	-10.2	-12.4	-12.4	12.8
12:12	-8.7	-10.1	-10.1	12.3	-8.7	-10.1	-10.1	12.3	-10.2	-12.4	-12.4	12.7
Exposure Category C												
1:12	-9.8	-18.7	-29.8	14.8	-11.5	-21.8	-34.5	14.8	-13.5	-25.3	-40.0	14.8
2:12	-8.7	-17.6	-27.6	14.4	-10.2	-20.5	-32.0	14.4	-12.0	-23.8	-37.1	14.4
3:12	-8.7	-17.6	-27.6	14.0	-10.3	-20.5	-32.0	14.0	-12.0	-23.8	-37.1	14.0
4:12	-8.8	-17.6	-27.6	13.2	-10.3	-20.5	-32.0	13.2	-12.1	-23.9	-37.1	13.2
5:12	-8.8	-17.7	-27.7	13.2	-10.3	-20.6	-32.1	13.2	-12.1	-23.9	-37.2	13.2
6:12	-8.8	-17.7	-27.7	13.0	-10.4	-20.6	-32.1	13.0	-12.1	-23.9	-37.2	13.0
7:12	-10.0	-12.2	-12.2	13.3	-11.7	-14.2	-14.2	14.8	-13.6	-16.6	-16.6	16.6
8:12	-10.0	-12.2	-12.2	13.2	-11.7	-14.3	-14.3	14.7	-13.7	-16.6	-16.6	16.5
9:12	-10.1	-12.3	-12.3	13.1	-11.8	-14.3	-14.3	14.6	-13.7	-16.7	-16.7	16.4
10:12	-10.1	-12.3	-12.3	12.9	-11.8	-14.4	-14.4	14.5	-13.8	-16.7	-16.7	16.2
11:12	-10.2	-12.4	-12.4	12.8	-11.8	-14.4	-14.4	14.4	-13.8	-16.8	-16.8	16.1
12:12	-10.2	-12.4	-12.4	12.7	-11.9	-14.4	-14.4	14.2	-13.8	-16.8	-16.8	16.0
Exposure Category D												
1:12	-12.2	-22.9	-36.4	14.8	-13.9	-26.0	-41.1	14.8	-15.8	-29.5	-46.6	14.8
2:12	-10.8	-21.6	-33.7	14.4	-12.4	-24.5	-38.1	14.4	-14.1	-27.8	-43.2	14.4
3:12	-10.9	-21.6	-33.7	14.0	-12.4	-24.5	-38.1	14.0	-14.1	-27.8	-43.2	14.0
4:12	-10.9	-21.6	-33.7	13.2	-12.4	-24.5	-38.2	13.2	-14.2	-27.9	-43.3	13.2
5:12	-10.9	-21.7	-33.8	13.2	-12.4	-24.6	-38.2	13.2	-14.2	-27.9	-43.3	13.2
6:12	-11.0	-21.7	-33.8	13.0	-12.5	-24.6	-38.2	13.0	-14.2	-27.9	-43.3	13.0
7:12	-12.3	-15.0	-15.0	15.4	-14.0	-17.1	-17.1	17.0	-16.0	-19.4	-19.4	18.7
8:12	-12.4	-15.1	-15.1	15.3	-14.1	-17.1	-17.1	16.8	-16.0	-19.5	-19.5	18.6
9:12	-12.4	-15.1	-15.1	15.2	-14.1	-17.1	-17.1	16.7	-16.1	-19.5	-19.5	18.5
10:12	-12.5	-15.2	-15.2	15.1	-14.2	-17.2	-17.2	16.6	-16.1	-19.5	-19.5	18.3
11:12	-12.5	-15.2	-15.2	14.9	-14.2	-17.2	-17.2	16.5	-16.2	-19.6	-19.6	18.2
12:12	-12.5	-15.2	-15.2	14.8	-14.2	-17.3	-17.3	16.4	-16.2	-19.6	-19.6	18.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
100 mph

Ground Snow Load
5 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-8.3	-15.2	-24.3	18.5	-8.3	-15.2	-24.3	18.5	-9.8	-18.7	-29.8	18.5
	2:12	-8.3	-14.3	-22.5	17.8	-8.3	-14.3	-22.5	17.8	-8.7	-17.6	-27.6	17.8
	3:12	-8.4	-14.3	-22.5	17.0	-8.4	-14.3	-22.5	17.0	-8.7	-17.6	-27.6	17.0
	4:12	-8.4	-14.3	-22.5	14.6	-8.4	-14.3	-22.5	14.6	-8.8	-17.6	-27.6	14.6
	5:12	-8.4	-14.4	-22.6	14.0	-8.4	-14.4	-22.6	14.0	-8.8	-17.7	-27.7	14.0
	6:12	-8.5	-14.4	-22.6	13.4	-8.5	-14.4	-22.6	13.4	-8.8	-17.7	-27.7	13.4
	7:12	-8.5	-9.9	-9.9	12.9	-8.5	-9.9	-9.9	12.9	-10.0	-12.2	-12.2	13.3
	8:12	-8.5	-9.9	-9.9	12.8	-8.5	-9.9	-9.9	12.8	-10.0	-12.2	-12.2	13.2
	9:12	-8.6	-9.9	-9.9	12.7	-8.6	-9.9	-9.9	12.7	-10.1	-12.3	-12.3	13.1
	10:12	-8.6	-10.0	-10.0	12.6	-8.6	-10.0	-10.0	12.6	-10.1	-12.3	-12.3	12.9
	11:12	-8.7	-10.0	-10.0	12.4	-8.7	-10.0	-10.0	12.4	-10.2	-12.4	-12.4	12.8
	12:12	-8.7	-10.1	-10.1	12.3	-8.7	-10.1	-10.1	12.3	-10.2	-12.4	-12.4	12.7
Exposure Category C	1:12	-9.8	-18.7	-29.8	18.5	-11.5	-21.8	-34.5	18.5	-13.5	-25.3	-40.0	18.5
	2:12	-8.7	-17.6	-27.6	17.8	-10.2	-20.5	-32.0	17.8	-12.0	-23.8	-37.1	17.8
	3:12	-8.7	-17.6	-27.6	17.0	-10.3	-20.5	-32.0	17.0	-12.0	-23.8	-37.1	17.0
	4:12	-8.8	-17.6	-27.6	14.6	-10.3	-20.5	-32.0	14.6	-12.1	-23.9	-37.1	14.6
	5:12	-8.8	-17.7	-27.7	14.0	-10.3	-20.6	-32.1	14.0	-12.1	-23.9	-37.2	14.0
	6:12	-8.8	-17.7	-27.7	13.4	-10.4	-20.6	-32.1	13.4	-12.1	-23.9	-37.2	13.4
	7:12	-10.0	-12.2	-12.2	13.3	-11.7	-14.2	-14.2	14.8	-13.6	-16.6	-16.6	16.6
	8:12	-10.0	-12.2	-12.2	13.2	-11.7	-14.3	-14.3	14.7	-13.7	-16.6	-16.6	16.5
	9:12	-10.1	-12.3	-12.3	13.1	-11.8	-14.3	-14.3	14.6	-13.7	-16.7	-16.7	16.4
	10:12	-10.1	-12.3	-12.3	12.9	-11.8	-14.4	-14.4	14.5	-13.8	-16.7	-16.7	16.2
	11:12	-10.2	-12.4	-12.4	12.8	-11.8	-14.4	-14.4	14.4	-13.8	-16.8	-16.8	16.1
	12:12	-10.2	-12.4	-12.4	12.7	-11.9	-14.4	-14.4	14.2	-13.8	-16.8	-16.8	16.0
Exposure Category D	1:12	-12.2	-22.9	-36.4	18.5	-13.9	-26.0	-41.1	18.5	-15.8	-29.5	-46.6	18.5
	2:12	-10.8	-21.6	-33.7	17.8	-12.4	-24.5	-38.1	17.8	-14.1	-27.8	-43.2	17.8
	3:12	-10.9	-21.6	-33.7	17.0	-12.4	-24.5	-38.1	17.0	-14.1	-27.8	-43.2	17.0
	4:12	-10.9	-21.6	-33.7	14.2	-12.4	-24.5	-38.2	14.2	-14.2	-27.9	-43.3	14.2
	5:12	-10.9	-21.7	-33.8	13.7	-12.4	-24.6	-38.2	13.7	-14.2	-27.9	-43.3	13.7
	6:12	-11.0	-21.7	-33.8	13.2	-12.5	-24.6	-38.2	13.2	-14.2	-27.9	-43.3	13.2
	7:12	-12.3	-15.0	-15.0	15.4	-14.0	-17.1	-17.1	17.0	-16.0	-19.4	-19.4	18.7
	8:12	-12.4	-15.1	-15.1	15.3	-14.1	-17.1	-17.1	16.8	-16.0	-19.5	-19.5	18.6
	9:12	-12.4	-15.1	-15.1	15.2	-14.1	-17.1	-17.1	16.7	-16.1	-19.5	-19.5	18.5
	10:12	-12.5	-15.2	-15.2	15.1	-14.2	-17.2	-17.2	16.6	-16.1	-19.5	-19.5	18.3
	11:12	-12.5	-15.2	-15.2	14.9	-14.2	-17.2	-17.2	16.5	-16.2	-19.6	-19.6	18.2
	12:12	-12.5	-15.2	-15.2	14.8	-14.2	-17.3	-17.3	16.4	-16.2	-19.6	-19.6	18.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
	2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
	3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
	4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
	5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
	6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
	7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
	8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
	9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
	10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
	11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7	
		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

100 mph

Ground Snow Load

10 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-8.3	-15.2	-24.3	22.2	-8.3	-15.2	-24.3	22.2	-9.8	-18.7	-29.8	22.2
	2:12	-8.3	-14.3	-22.5	21.2	-8.3	-14.3	-22.5	21.2	-8.7	-17.6	-27.6	21.2
	3:12	-8.4	-14.3	-22.5	20.0	-8.4	-14.3	-22.5	20.0	-8.7	-17.6	-27.6	20.0
	4:12	-8.4	-14.3	-22.5	16.5	-8.4	-14.3	-22.5	16.5	-8.8	-17.6	-27.6	16.5
	5:12	-8.4	-14.4	-22.6	15.6	-8.4	-14.4	-22.6	15.6	-8.8	-17.7	-27.7	15.6
	6:12	-8.5	-14.4	-22.6	14.9	-8.5	-14.4	-22.6	14.9	-8.8	-17.7	-27.7	14.9
	7:12	-8.5	-9.9	-9.9	14.1	-8.5	-9.9	-9.9	14.1	-10.0	-12.2	-12.2	14.4
	8:12	-8.5	-9.9	-9.9	13.4	-8.5	-9.9	-9.9	13.4	-10.0	-12.2	-12.2	13.7
	9:12	-8.6	-9.9	-9.9	12.8	-8.6	-9.9	-9.9	12.8	-10.1	-12.3	-12.3	13.1
	10:12	-8.6	-10.0	-10.0	12.6	-8.6	-10.0	-10.0	12.6	-10.1	-12.3	-12.3	12.9
	11:12	-8.7	-10.0	-10.0	12.4	-8.7	-10.0	-10.0	12.4	-10.2	-12.4	-12.4	12.8
	12:12	-8.7	-10.1	-10.1	12.3	-8.7	-10.1	-10.1	12.3	-10.2	-12.4	-12.4	12.7
Exposure Category C	1:12	-9.8	-18.7	-29.8	22.2	-11.5	-21.8	-34.5	22.2	-13.5	-25.3	-40.0	22.2
	2:12	-8.7	-17.6	-27.6	21.2	-10.2	-20.5	-32.0	21.2	-12.0	-23.8	-37.1	21.2
	3:12	-8.7	-17.6	-27.6	20.0	-10.3	-20.5	-32.0	20.0	-12.0	-23.8	-37.1	20.0
	4:12	-8.8	-17.6	-27.6	16.5	-10.3	-20.5	-32.0	16.5	-12.1	-23.9	-37.1	16.5
	5:12	-8.8	-17.7	-27.7	15.6	-10.3	-20.6	-32.1	15.6	-12.1	-23.9	-37.2	15.6
	6:12	-8.8	-17.7	-27.7	14.9	-10.4	-20.6	-32.1	14.9	-12.1	-23.9	-37.2	14.9
	7:12	-10.0	-12.2	-12.2	14.4	-11.7	-14.2	-14.2	15.6	-13.6	-16.6	-16.6	16.9
	8:12	-10.0	-12.2	-12.2	13.7	-11.7	-14.3	-14.3	14.9	-13.7	-16.6	-16.6	16.5
	9:12	-10.1	-12.3	-12.3	13.1	-11.8	-14.3	-14.3	14.6	-13.7	-16.7	-16.7	16.4
	10:12	-10.1	-12.3	-12.3	12.9	-11.8	-14.4	-14.4	14.5	-13.8	-16.7	-16.7	16.2
	11:12	-10.2	-12.4	-12.4	12.8	-11.8	-14.4	-14.4	14.4	-13.8	-16.8	-16.8	16.1
	12:12	-10.2	-12.4	-12.4	12.7	-11.9	-14.4	-14.4	14.2	-13.8	-16.8	-16.8	16.0
Exposure Category D	1:12	-12.2	-22.9	-36.4	22.2	-13.9	-26.0	-41.1	22.2	-15.8	-29.5	-46.6	22.2
	2:12	-10.8	-21.6	-33.7	21.2	-12.4	-24.5	-38.1	21.2	-14.1	-27.8	-43.2	21.2
	3:12	-10.9	-21.6	-33.7	20.0	-12.4	-24.5	-38.1	20.0	-14.1	-27.8	-43.2	20.0
	4:12	-10.9	-21.6	-33.7	15.9	-12.4	-24.5	-38.2	15.9	-14.2	-27.9	-43.3	15.9
	5:12	-10.9	-21.7	-33.8	15.2	-12.4	-24.6	-38.2	15.2	-14.2	-27.9	-43.3	15.2
	6:12	-11.0	-21.7	-33.8	14.4	-12.5	-24.6	-38.2	14.4	-14.2	-27.9	-43.3	14.4
	7:12	-12.3	-15.0	-15.0	15.6	-14.0	-17.1	-17.1	17.0	-16.0	-19.4	-19.4	18.7
	8:12	-12.4	-15.1	-15.1	15.3	-14.1	-17.1	-17.1	16.8	-16.0	-19.5	-19.5	18.6
	9:12	-12.4	-15.1	-15.1	15.2	-14.1	-17.1	-17.1	16.7	-16.1	-19.5	-19.5	18.5
	10:12	-12.5	-15.2	-15.2	15.1	-14.2	-17.2	-17.2	16.6	-16.1	-19.5	-19.5	18.3
	11:12	-12.5	-15.2	-15.2	14.9	-14.2	-17.2	-17.2	16.5	-16.2	-19.6	-19.6	18.2
	12:12	-12.5	-15.2	-15.2	14.8	-14.2	-17.3	-17.3	16.4	-16.2	-19.6	-19.6	18.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
	2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
	4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
	5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
	6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
	7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
	8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
	9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

100 mph

Ground Snow Load

15 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-8.3	-15.2	-24.3	25.9	-8.3	-15.2	-24.3	25.9	-9.8	-18.7	-29.8	25.9
	2:12	-8.3	-14.3	-22.5	24.6	-8.3	-14.3	-22.5	24.6	-8.7	-17.6	-27.6	24.6
	3:12	-8.4	-14.3	-22.5	23.1	-8.4	-14.3	-22.5	23.1	-8.7	-17.6	-27.6	23.1
	4:12	-8.4	-14.3	-22.5	18.3	-8.4	-14.3	-22.5	18.3	-8.8	-17.6	-27.6	18.3
	5:12	-8.4	-14.4	-22.6	17.3	-8.4	-14.4	-22.6	17.3	-8.8	-17.7	-27.7	17.3
	6:12	-8.5	-14.4	-22.6	16.3	-8.5	-14.4	-22.6	16.3	-8.8	-17.7	-27.7	16.3
	7:12	-8.5	-9.9	-9.9	15.3	-8.5	-9.9	-9.9	15.3	-10.0	-12.2	-12.2	15.6
	8:12	-8.5	-9.9	-9.9	14.5	-8.5	-9.9	-9.9	14.5	-10.0	-12.2	-12.2	14.8
	9:12	-8.6	-9.9	-9.9	13.7	-8.6	-9.9	-9.9	13.7	-10.1	-12.3	-12.3	14.0
	10:12	-8.6	-10.0	-10.0	13.0	-8.6	-10.0	-10.0	13.0	-10.1	-12.3	-12.3	13.3
	11:12	-8.7	-10.0	-10.0	12.4	-8.7	-10.0	-10.0	12.4	-10.2	-12.4	-12.4	12.8
	12:12	-8.7	-10.1	-10.1	12.3	-8.7	-10.1	-10.1	12.3	-10.2	-12.4	-12.4	12.7
Exposure Category C	1:12	-9.8	-18.7	-29.8	25.9	-11.5	-21.8	-34.5	25.9	-13.5	-25.3	-40.0	25.9
	2:12	-8.7	-17.6	-27.6	24.6	-10.2	-20.5	-32.0	24.6	-12.0	-23.8	-37.1	24.6
	3:12	-8.7	-17.6	-27.6	23.1	-10.3	-20.5	-32.0	23.1	-12.0	-23.8	-37.1	23.1
	4:12	-8.8	-17.6	-27.6	18.3	-10.3	-20.5	-32.0	18.3	-12.1	-23.9	-37.1	18.3
	5:12	-8.8	-17.7	-27.7	17.3	-10.3	-20.6	-32.1	17.3	-12.1	-23.9	-37.2	17.3
	6:12	-8.8	-17.7	-27.7	16.3	-10.4	-20.6	-32.1	16.3	-12.1	-23.9	-37.2	16.3
	7:12	-10.0	-12.2	-12.2	15.6	-11.7	-14.2	-14.2	16.8	-13.6	-16.6	-16.6	18.1
	8:12	-10.0	-12.2	-12.2	14.8	-11.7	-14.3	-14.3	15.9	-13.7	-16.6	-16.6	17.2
	9:12	-10.1	-12.3	-12.3	14.0	-11.8	-14.3	-14.3	15.1	-13.7	-16.7	-16.7	16.5
	10:12	-10.1	-12.3	-12.3	13.3	-11.8	-14.4	-14.4	14.5	-13.8	-16.7	-16.7	16.2
	11:12	-10.2	-12.4	-12.4	12.8	-11.8	-14.4	-14.4	14.4	-13.8	-16.8	-16.8	16.1
	12:12	-10.2	-12.4	-12.4	12.7	-11.9	-14.4	-14.4	14.2	-13.8	-16.8	-16.8	16.0
Exposure Category D	1:12	-12.2	-22.9	-36.4	25.9	-13.9	-26.0	-41.1	25.9	-15.8	-29.5	-46.6	25.9
	2:12	-10.8	-21.6	-33.7	24.6	-12.4	-24.5	-38.1	24.6	-14.1	-27.8	-43.2	24.6
	3:12	-10.9	-21.6	-33.7	23.1	-12.4	-24.5	-38.1	23.1	-14.1	-27.8	-43.2	23.1
	4:12	-10.9	-21.6	-33.7	17.6	-12.4	-24.5	-38.2	17.6	-14.2	-27.9	-43.3	17.6
	5:12	-10.9	-21.7	-33.8	16.6	-12.4	-24.6	-38.2	16.6	-14.2	-27.9	-43.3	16.6
	6:12	-11.0	-21.7	-33.8	15.7	-12.5	-24.6	-38.2	15.7	-14.2	-27.9	-43.3	15.7
	7:12	-12.3	-15.0	-15.0	16.7	-14.0	-17.1	-17.1	17.9	-16.0	-19.4	-19.4	19.2
	8:12	-12.4	-15.1	-15.1	15.9	-14.1	-17.1	-17.1	17.1	-16.0	-19.5	-19.5	18.6
	9:12	-12.4	-15.1	-15.1	15.2	-14.1	-17.1	-17.1	16.7	-16.1	-19.5	-19.5	18.5
	10:12	-12.5	-15.2	-15.2	15.1	-14.2	-17.2	-17.2	16.6	-16.1	-19.5	-19.5	18.3
	11:12	-12.5	-15.2	-15.2	14.9	-14.2	-17.2	-17.2	16.5	-16.2	-19.6	-19.6	18.2
	12:12	-12.5	-15.2	-15.2	14.8	-14.2	-17.3	-17.3	16.4	-16.2	-19.6	-19.6	18.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **100 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-8.3	-15.2	-24.3	25.9	-8.3	-15.2	-24.3	25.9	-9.8	-18.7	-29.8	25.9
	2:12	-8.3	-14.3	-22.5	24.6	-8.3	-14.3	-22.5	24.6	-8.7	-17.6	-27.6	24.6
	3:12	-8.4	-14.3	-22.5	23.1	-8.4	-14.3	-22.5	23.1	-8.7	-17.6	-27.6	23.1
	4:12	-8.4	-14.3	-22.5	20.2	-8.4	-14.3	-22.5	20.2	-8.8	-17.6	-27.6	20.2
	5:12	-8.4	-14.4	-22.6	18.9	-8.4	-14.4	-22.6	18.9	-8.8	-17.7	-27.7	18.9
	6:12	-8.5	-14.4	-22.6	17.7	-8.5	-14.4	-22.6	17.7	-8.8	-17.7	-27.7	17.7
	7:12	-8.5	-9.9	-9.9	16.5	-8.5	-9.9	-9.9	16.5	-10.0	-12.2	-12.2	16.8
	8:12	-8.5	-9.9	-9.9	15.5	-8.5	-9.9	-9.9	15.5	-10.0	-12.2	-12.2	15.8
	9:12	-8.6	-9.9	-9.9	14.6	-8.6	-9.9	-9.9	14.6	-10.1	-12.3	-12.3	14.9
	10:12	-8.6	-10.0	-10.0	13.8	-8.6	-10.0	-10.0	13.8	-10.1	-12.3	-12.3	14.0
	11:12	-8.7	-10.0	-10.0	13.1	-8.7	-10.0	-10.0	13.1	-10.2	-12.4	-12.4	13.3
	12:12	-8.7	-10.1	-10.1	12.4	-8.7	-10.1	-10.1	12.4	-10.2	-12.4	-12.4	12.7
Exposure Category C	1:12	-9.8	-18.7	-29.8	25.9	-11.5	-21.8	-34.5	25.9	-13.5	-25.3	-40.0	25.9
	2:12	-8.7	-17.6	-27.6	24.6	-10.2	-20.5	-32.0	24.6	-12.0	-23.8	-37.1	24.6
	3:12	-8.7	-17.6	-27.6	23.1	-10.3	-20.5	-32.0	23.1	-12.0	-23.8	-37.1	23.1
	4:12	-8.8	-17.6	-27.6	20.2	-10.3	-20.5	-32.0	20.2	-12.1	-23.9	-37.1	20.2
	5:12	-8.8	-17.7	-27.7	18.9	-10.3	-20.6	-32.1	18.9	-12.1	-23.9	-37.2	18.9
	6:12	-8.8	-17.7	-27.7	17.7	-10.4	-20.6	-32.1	17.7	-12.1	-23.9	-37.2	17.7
	7:12	-10.0	-12.2	-12.2	16.8	-11.7	-14.2	-14.2	17.9	-13.6	-16.6	-16.6	19.3
	8:12	-10.0	-12.2	-12.2	15.8	-11.7	-14.3	-14.3	16.9	-13.7	-16.6	-16.6	18.2
	9:12	-10.1	-12.3	-12.3	14.9	-11.8	-14.3	-14.3	16.0	-13.7	-16.7	-16.7	17.3
	10:12	-10.1	-12.3	-12.3	14.0	-11.8	-14.4	-14.4	15.2	-13.8	-16.7	-16.7	16.5
	11:12	-10.2	-12.4	-12.4	13.3	-11.8	-14.4	-14.4	14.5	-13.8	-16.8	-16.8	16.1
	12:12	-10.2	-12.4	-12.4	12.7	-11.9	-14.4	-14.4	14.2	-13.8	-16.8	-16.8	16.0
Exposure Category D	1:12	-12.2	-22.9	-36.4	25.9	-13.9	-26.0	-41.1	25.9	-15.8	-29.5	-46.6	25.9
	2:12	-10.8	-21.6	-33.7	24.6	-12.4	-24.5	-38.1	24.6	-14.1	-27.8	-43.2	24.6
	3:12	-10.9	-21.6	-33.7	23.1	-12.4	-24.5	-38.1	23.1	-14.1	-27.8	-43.2	23.1
	4:12	-10.9	-21.6	-33.7	19.3	-12.4	-24.5	-38.2	19.3	-14.2	-27.9	-43.3	19.3
	5:12	-10.9	-21.7	-33.8	18.1	-12.4	-24.6	-38.2	18.1	-14.2	-27.9	-43.3	18.1
	6:12	-11.0	-21.7	-33.8	17.0	-12.5	-24.6	-38.2	17.0	-14.2	-27.9	-43.3	17.0
	7:12	-12.3	-15.0	-15.0	17.8	-14.0	-17.1	-17.1	18.9	-16.0	-19.4	-19.4	20.3
	8:12	-12.4	-15.1	-15.1	16.8	-14.1	-17.1	-17.1	18.0	-16.0	-19.5	-19.5	19.3
	9:12	-12.4	-15.1	-15.1	16.0	-14.1	-17.1	-17.1	17.2	-16.1	-19.5	-19.5	18.5
	10:12	-12.5	-15.2	-15.2	15.3	-14.2	-17.2	-17.2	16.6	-16.1	-19.5	-19.5	18.3
	11:12	-12.5	-15.2	-15.2	14.9	-14.2	-17.2	-17.2	16.5	-16.2	-19.6	-19.6	18.2
	12:12	-12.5	-15.2	-15.2	14.8	-14.2	-17.3	-17.3	16.4	-16.2	-19.6	-19.6	18.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
	5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
	6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
	7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
	8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
	9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
	10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
	11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **100 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

100 mph

Ground Snow Load

30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-15.2	-24.3	26.7	-8.3	-15.2	-24.3	26.7	-9.8	-18.7	-29.8	26.7
2:12	-8.3	-14.3	-22.5	25.3	-8.3	-14.3	-22.5	25.3	-8.7	-17.6	-27.6	25.3
3:12	-8.4	-14.3	-22.5	23.7	-8.4	-14.3	-22.5	23.7	-8.7	-17.6	-27.6	23.7
4:12	-8.4	-14.3	-22.5	22.1	-8.4	-14.3	-22.5	22.1	-8.8	-17.6	-27.6	22.1
5:12	-8.4	-14.4	-22.6	20.5	-8.4	-14.4	-22.6	20.5	-8.8	-17.7	-27.7	20.5
6:12	-8.5	-14.4	-22.6	19.1	-8.5	-14.4	-22.6	19.1	-8.8	-17.7	-27.7	19.1
7:12	-8.5	-9.9	-9.9	17.7	-8.5	-9.9	-9.9	17.7	-10.0	-12.2	-12.2	18.0
8:12	-8.5	-9.9	-9.9	16.5	-8.5	-9.9	-9.9	16.5	-10.0	-12.2	-12.2	16.8
9:12	-8.6	-9.9	-9.9	15.4	-8.6	-9.9	-9.9	15.4	-10.1	-12.3	-12.3	15.7
10:12	-8.6	-10.0	-10.0	14.5	-8.6	-10.0	-10.0	14.5	-10.1	-12.3	-12.3	14.8
11:12	-8.7	-10.0	-10.0	13.7	-8.7	-10.0	-10.0	13.7	-10.2	-12.4	-12.4	13.9
12:12	-8.7	-10.1	-10.1	12.9	-8.7	-10.1	-10.1	12.9	-10.2	-12.4	-12.4	13.2
Exposure Category C												
1:12	-9.8	-18.7	-29.8	26.7	-11.5	-21.8	-34.5	26.7	-13.5	-25.3	-40.0	26.7
2:12	-8.7	-17.6	-27.6	25.3	-10.2	-20.5	-32.0	25.3	-12.0	-23.8	-37.1	25.3
3:12	-8.7	-17.6	-27.6	23.7	-10.3	-20.5	-32.0	23.7	-12.0	-23.8	-37.1	23.7
4:12	-8.8	-17.6	-27.6	22.1	-10.3	-20.5	-32.0	22.1	-12.1	-23.9	-37.1	22.1
5:12	-8.8	-17.7	-27.7	20.5	-10.3	-20.6	-32.1	20.5	-12.1	-23.9	-37.2	20.5
6:12	-8.8	-17.7	-27.7	19.1	-10.4	-20.6	-32.1	19.1	-12.1	-23.9	-37.2	19.1
7:12	-10.0	-12.2	-12.2	18.0	-11.7	-14.2	-14.2	19.1	-13.6	-16.6	-16.6	20.5
8:12	-10.0	-12.2	-12.2	16.8	-11.7	-14.3	-14.3	17.9	-13.7	-16.6	-16.6	19.3
9:12	-10.1	-12.3	-12.3	15.7	-11.8	-14.3	-14.3	16.9	-13.7	-16.7	-16.7	18.2
10:12	-10.1	-12.3	-12.3	14.8	-11.8	-14.4	-14.4	15.9	-13.8	-16.7	-16.7	17.2
11:12	-10.2	-12.4	-12.4	13.9	-11.8	-14.4	-14.4	15.1	-13.8	-16.8	-16.8	16.4
12:12	-10.2	-12.4	-12.4	13.2	-11.9	-14.4	-14.4	14.4	-13.8	-16.8	-16.8	16.0
Exposure Category D												
1:12	-12.2	-22.9	-36.4	25.9	-13.9	-26.0	-41.1	25.9	-15.8	-29.5	-46.6	25.9
2:12	-10.8	-21.6	-33.7	24.6	-12.4	-24.5	-38.1	24.6	-14.1	-27.8	-43.2	24.6
3:12	-10.9	-21.6	-33.7	23.1	-12.4	-24.5	-38.1	23.1	-14.1	-27.8	-43.2	23.1
4:12	-10.9	-21.6	-33.7	21.0	-12.4	-24.5	-38.2	21.0	-14.2	-27.9	-43.3	21.0
5:12	-10.9	-21.7	-33.8	19.6	-12.4	-24.6	-38.2	19.6	-14.2	-27.9	-43.3	19.6
6:12	-11.0	-21.7	-33.8	18.2	-12.5	-24.6	-38.2	18.2	-14.2	-27.9	-43.3	18.2
7:12	-12.3	-15.0	-15.0	18.9	-14.0	-17.1	-17.1	20.0	-16.0	-19.4	-19.4	21.3
8:12	-12.4	-15.1	-15.1	17.8	-14.1	-17.1	-17.1	18.9	-16.0	-19.5	-19.5	20.2
9:12	-12.4	-15.1	-15.1	16.8	-14.1	-17.1	-17.1	17.9	-16.1	-19.5	-19.5	19.2
10:12	-12.5	-15.2	-15.2	15.9	-14.2	-17.2	-17.2	17.1	-16.1	-19.5	-19.5	18.4
11:12	-12.5	-15.2	-15.2	15.2	-14.2	-17.2	-17.2	16.5	-16.2	-19.6	-19.6	18.2
12:12	-12.5	-15.2	-15.2	14.8	-14.2	-17.3	-17.3	16.4	-16.2	-19.6	-19.6	18.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.3	-15.2	-24.3	29.3	-8.3	-15.2	-24.3	29.3	-9.8	-18.7	-29.8	29.3
2:12	-8.3	-14.3	-22.5	27.6	-8.3	-14.3	-22.5	27.6	-8.7	-17.6	-27.6	27.6
3:12	-8.4	-14.3	-22.5	25.8	-8.4	-14.3	-22.5	25.8	-8.7	-17.6	-27.6	25.8
4:12	-8.4	-14.3	-22.5	24.0	-8.4	-14.3	-22.5	24.0	-8.8	-17.6	-27.6	24.0
5:12	-8.4	-14.4	-22.6	22.2	-8.4	-14.4	-22.6	22.2	-8.8	-17.7	-27.7	22.2
6:12	-8.5	-14.4	-22.6	20.5	-8.5	-14.4	-22.6	20.5	-8.8	-17.7	-27.7	20.5
7:12	-8.5	-9.9	-9.9	18.9	-8.5	-9.9	-9.9	18.9	-10.0	-12.2	-12.2	19.2
8:12	-8.5	-9.9	-9.9	17.5	-8.5	-9.9	-9.9	17.5	-10.0	-12.2	-12.2	17.8
9:12	-8.6	-9.9	-9.9	16.3	-8.6	-9.9	-9.9	16.3	-10.1	-12.3	-12.3	16.6
10:12	-8.6	-10.0	-10.0	15.2	-8.6	-10.0	-10.0	15.2	-10.1	-12.3	-12.3	15.5
11:12	-8.7	-10.0	-10.0	14.3	-8.7	-10.0	-10.0	14.3	-10.2	-12.4	-12.4	14.5
12:12	-8.7	-10.1	-10.1	13.5	-8.7	-10.1	-10.1	13.5	-10.2	-12.4	-12.4	13.7
1:12	-9.8	-18.7	-29.8	29.3	-11.5	-21.8	-34.5	29.3	-13.5	-25.3	-40.0	29.3
2:12	-8.7	-17.6	-27.6	27.6	-10.2	-20.5	-32.0	27.6	-12.0	-23.8	-37.1	27.6
3:12	-8.7	-17.6	-27.6	25.8	-10.3	-20.5	-32.0	25.8	-12.0	-23.8	-37.1	25.8
4:12	-8.8	-17.6	-27.6	24.0	-10.3	-20.5	-32.0	24.0	-12.1	-23.9	-37.1	24.0
5:12	-8.8	-17.7	-27.7	22.2	-10.3	-20.6	-32.1	22.2	-12.1	-23.9	-37.2	22.2
6:12	-8.8	-17.7	-27.7	20.5	-10.4	-20.6	-32.1	20.5	-12.1	-23.9	-37.2	20.5
7:12	-10.0	-12.2	-12.2	19.2	-11.7	-14.2	-14.2	20.3	-13.6	-16.6	-16.6	21.7
8:12	-10.0	-12.2	-12.2	17.8	-11.7	-14.3	-14.3	18.9	-13.7	-16.6	-16.6	20.3
9:12	-10.1	-12.3	-12.3	16.6	-11.8	-14.3	-14.3	17.7	-13.7	-16.7	-16.7	19.0
10:12	-10.1	-12.3	-12.3	15.5	-11.8	-14.4	-14.4	16.6	-13.8	-16.7	-16.7	18.0
11:12	-10.2	-12.4	-12.4	14.5	-11.8	-14.4	-14.4	15.7	-13.8	-16.8	-16.8	17.0
12:12	-10.2	-12.4	-12.4	13.7	-11.9	-14.4	-14.4	14.9	-13.8	-16.8	-16.8	16.2
1:12	-12.2	-22.9	-36.4	27.5	-13.9	-26.0	-41.1	27.5	-15.8	-29.5	-46.6	27.5
2:12	-10.8	-21.6	-33.7	26.0	-12.4	-24.5	-38.1	26.0	-14.1	-27.8	-43.2	26.0
3:12	-10.9	-21.6	-33.7	24.3	-12.4	-24.5	-38.1	24.3	-14.1	-27.8	-43.2	24.3
4:12	-10.9	-21.6	-33.7	22.7	-12.4	-24.5	-38.2	22.7	-14.2	-27.9	-43.3	22.7
5:12	-10.9	-21.7	-33.8	21.0	-12.4	-24.6	-38.2	21.0	-14.2	-27.9	-43.3	21.0
6:12	-11.0	-21.7	-33.8	19.5	-12.5	-24.6	-38.2	19.5	-14.2	-27.9	-43.3	19.5
7:12	-12.3	-15.0	-15.0	19.9	-14.0	-17.1	-17.1	21.1	-16.0	-19.4	-19.4	22.4
8:12	-12.4	-15.1	-15.1	18.7	-14.1	-17.1	-17.1	19.8	-16.0	-19.5	-19.5	21.1
9:12	-12.4	-15.1	-15.1	17.5	-14.1	-17.1	-17.1	18.7	-16.1	-19.5	-19.5	20.0
10:12	-12.5	-15.2	-15.2	16.6	-14.2	-17.2	-17.2	17.7	-16.1	-19.5	-19.5	19.0
11:12	-12.5	-15.2	-15.2	15.7	-14.2	-17.2	-17.2	16.9	-16.2	-19.6	-19.6	18.2
12:12	-12.5	-15.2	-15.2	15.0	-14.2	-17.3	-17.3	16.4	-16.2	-19.6	-19.6	18.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.3	-15.2	-24.3	31.9	-8.3	-15.2	-24.3	31.9	-9.8	-18.7	-29.8	31.9
2:12	-8.3	-14.3	-22.5	30.0	-8.3	-14.3	-22.5	30.0	-8.7	-17.6	-27.6	30.0
3:12	-8.4	-14.3	-22.5	27.9	-8.4	-14.3	-22.5	27.9	-8.7	-17.6	-27.6	27.9
4:12	-8.4	-14.3	-22.5	25.8	-8.4	-14.3	-22.5	25.8	-8.8	-17.6	-27.6	25.8
5:12	-8.4	-14.4	-22.6	23.8	-8.4	-14.4	-22.6	23.8	-8.8	-17.7	-27.7	23.8
6:12	-8.5	-14.4	-22.6	21.9	-8.5	-14.4	-22.6	21.9	-8.8	-17.7	-27.7	21.9
7:12	-8.5	-9.9	-9.9	20.1	-8.5	-9.9	-9.9	20.1	-10.0	-12.2	-12.2	20.4
8:12	-8.5	-9.9	-9.9	18.5	-8.5	-9.9	-9.9	18.5	-10.0	-12.2	-12.2	18.8
9:12	-8.6	-9.9	-9.9	17.1	-8.6	-9.9	-9.9	17.1	-10.1	-12.3	-12.3	17.4
10:12	-8.6	-10.0	-10.0	15.9	-8.6	-10.0	-10.0	15.9	-10.1	-12.3	-12.3	16.2
11:12	-8.7	-10.0	-10.0	14.9	-8.7	-10.0	-10.0	14.9	-10.2	-12.4	-12.4	15.2
12:12	-8.7	-10.1	-10.1	14.0	-8.7	-10.1	-10.1	14.0	-10.2	-12.4	-12.4	14.2
1:12	-9.8	-18.7	-29.8	31.9	-11.5	-21.8	-34.5	31.9	-13.5	-25.3	-40.0	31.9
2:12	-8.7	-17.6	-27.6	30.0	-10.2	-20.5	-32.0	30.0	-12.0	-23.8	-37.1	30.0
3:12	-8.7	-17.6	-27.6	27.9	-10.3	-20.5	-32.0	27.9	-12.0	-23.8	-37.1	27.9
4:12	-8.8	-17.6	-27.6	25.8	-10.3	-20.5	-32.0	25.8	-12.1	-23.9	-37.1	25.8
5:12	-8.8	-17.7	-27.7	23.8	-10.3	-20.6	-32.1	23.8	-12.1	-23.9	-37.2	23.8
6:12	-8.8	-17.7	-27.7	21.9	-10.4	-20.6	-32.1	21.9	-12.1	-23.9	-37.2	21.9
7:12	-10.0	-12.2	-12.2	20.4	-11.7	-14.2	-14.2	21.5	-13.6	-16.6	-16.6	22.9
8:12	-10.0	-12.2	-12.2	18.8	-11.7	-14.3	-14.3	20.0	-13.7	-16.6	-16.6	21.3
9:12	-10.1	-12.3	-12.3	17.4	-11.8	-14.3	-14.3	18.6	-13.7	-16.7	-16.7	19.9
10:12	-10.1	-12.3	-12.3	16.2	-11.8	-14.4	-14.4	17.3	-13.8	-16.7	-16.7	18.7
11:12	-10.2	-12.4	-12.4	15.2	-11.8	-14.4	-14.4	16.3	-13.8	-16.8	-16.8	17.6
12:12	-10.2	-12.4	-12.4	14.2	-11.9	-14.4	-14.4	15.4	-13.8	-16.8	-16.8	16.7
1:12	-12.2	-22.9	-36.4	29.8	-13.9	-26.0	-41.1	29.8	-15.8	-29.5	-46.6	29.8
2:12	-10.8	-21.6	-33.7	28.1	-12.4	-24.5	-38.1	28.1	-14.1	-27.8	-43.2	28.1
3:12	-10.9	-21.6	-33.7	26.2	-12.4	-24.5	-38.1	26.2	-14.1	-27.8	-43.2	26.2
4:12	-10.9	-21.6	-33.7	24.3	-12.4	-24.5	-38.2	24.3	-14.2	-27.9	-43.3	24.3
5:12	-10.9	-21.7	-33.8	22.5	-12.4	-24.6	-38.2	22.5	-14.2	-27.9	-43.3	22.5
6:12	-11.0	-21.7	-33.8	20.7	-12.5	-24.6	-38.2	20.7	-14.2	-27.9	-43.3	20.7
7:12	-12.3	-15.0	-15.0	21.0	-14.0	-17.1	-17.1	22.2	-16.0	-19.4	-19.4	23.5
8:12	-12.4	-15.1	-15.1	19.6	-14.1	-17.1	-17.1	20.7	-16.0	-19.5	-19.5	22.1
9:12	-12.4	-15.1	-15.1	18.3	-14.1	-17.1	-17.1	19.5	-16.1	-19.5	-19.5	20.8
10:12	-12.5	-15.2	-15.2	17.2	-14.2	-17.2	-17.2	18.4	-16.1	-19.5	-19.5	19.7
11:12	-12.5	-15.2	-15.2	16.3	-14.2	-17.2	-17.2	17.4	-16.2	-19.6	-19.6	18.7
12:12	-12.5	-15.2	-15.2	15.4	-14.2	-17.3	-17.3	16.6	-16.2	-19.6	-19.6	18.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
100 mph

Ground Snow Load
40 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.3	-15.2	-24.3	35.1	-8.3	-15.2	-24.3	35.1	-9.8	-18.7	-29.8	35.1
2:12	-8.3	-14.3	-22.5	32.4	-8.3	-14.3	-22.5	32.4	-8.7	-17.6	-27.6	32.4
3:12	-8.4	-14.3	-22.5	30.1	-8.4	-14.3	-22.5	30.1	-8.7	-17.6	-27.6	30.1
4:12	-8.4	-14.3	-22.5	27.7	-8.4	-14.3	-22.5	27.7	-8.8	-17.6	-27.6	27.7
5:12	-8.4	-14.4	-22.6	25.4	-8.4	-14.4	-22.6	25.4	-8.8	-17.7	-27.7	25.4
6:12	-8.5	-14.4	-22.6	23.3	-8.5	-14.4	-22.6	23.3	-8.8	-17.7	-27.7	23.3
7:12	-8.5	-9.9	-9.9	21.3	-8.5	-9.9	-9.9	21.3	-10.0	-12.2	-12.2	21.6
8:12	-8.5	-9.9	-9.9	19.5	-8.5	-9.9	-9.9	19.5	-10.0	-12.2	-12.2	19.8
9:12	-8.6	-9.9	-9.9	18.0	-8.6	-9.9	-9.9	18.0	-10.1	-12.3	-12.3	18.3
10:12	-8.6	-10.0	-10.0	16.6	-8.6	-10.0	-10.0	16.6	-10.1	-12.3	-12.3	16.9
11:12	-8.7	-10.0	-10.0	15.5	-8.7	-10.0	-10.0	15.5	-10.2	-12.4	-12.4	15.8
12:12	-8.7	-10.1	-10.1	14.5	-8.7	-10.1	-10.1	14.5	-10.2	-12.4	-12.4	14.8
1:12	-9.8	-18.7	-29.8	35.1	-11.5	-21.8	-34.5	35.1	-13.5	-25.3	-40.0	35.1
2:12	-8.7	-17.6	-27.6	32.4	-10.2	-20.5	-32.0	32.4	-12.0	-23.8	-37.1	32.4
3:12	-8.7	-17.6	-27.6	30.1	-10.3	-20.5	-32.0	30.1	-12.0	-23.8	-37.1	30.1
4:12	-8.8	-17.6	-27.6	27.7	-10.3	-20.5	-32.0	27.7	-12.1	-23.9	-37.1	27.7
5:12	-8.8	-17.7	-27.7	25.4	-10.3	-20.6	-32.1	25.4	-12.1	-23.9	-37.2	25.4
6:12	-8.8	-17.7	-27.7	23.3	-10.4	-20.6	-32.1	23.3	-12.1	-23.9	-37.2	23.3
7:12	-10.0	-12.2	-12.2	21.6	-11.7	-14.2	-14.2	22.7	-13.6	-16.6	-16.6	24.1
8:12	-10.0	-12.2	-12.2	19.8	-11.7	-14.3	-14.3	21.0	-13.7	-16.6	-16.6	22.3
9:12	-10.1	-12.3	-12.3	18.3	-11.8	-14.3	-14.3	19.4	-13.7	-16.7	-16.7	20.7
10:12	-10.1	-12.3	-12.3	16.9	-11.8	-14.4	-14.4	18.1	-13.8	-16.7	-16.7	19.4
11:12	-10.2	-12.4	-12.4	15.8	-11.8	-14.4	-14.4	16.9	-13.8	-16.8	-16.8	18.2
12:12	-10.2	-12.4	-12.4	14.8	-11.9	-14.4	-14.4	15.9	-13.8	-16.8	-16.8	17.2
1:12	-12.2	-22.9	-36.4	32.1	-13.9	-26.0	-41.1	32.1	-15.8	-29.5	-46.6	32.1
2:12	-10.8	-21.6	-33.7	30.3	-12.4	-24.5	-38.1	30.3	-14.1	-27.8	-43.2	30.3
3:12	-10.9	-21.6	-33.7	28.2	-12.4	-24.5	-38.1	28.2	-14.1	-27.8	-43.2	28.2
4:12	-10.9	-21.6	-33.7	26.0	-12.4	-24.5	-38.2	26.0	-14.2	-27.9	-43.3	26.0
5:12	-10.9	-21.7	-33.8	24.0	-12.4	-24.6	-38.2	24.0	-14.2	-27.9	-43.3	24.0
6:12	-11.0	-21.7	-33.8	22.0	-12.5	-24.6	-38.2	22.0	-14.2	-27.9	-43.3	22.0
7:12	-12.3	-15.0	-15.0	22.1	-14.0	-17.1	-17.1	23.2	-16.0	-19.4	-19.4	24.6
8:12	-12.4	-15.1	-15.1	20.5	-14.1	-17.1	-17.1	21.6	-16.0	-19.5	-19.5	23.0
9:12	-12.4	-15.1	-15.1	19.1	-14.1	-17.1	-17.1	20.2	-16.1	-19.5	-19.5	21.6
10:12	-12.5	-15.2	-15.2	17.9	-14.2	-17.2	-17.2	19.0	-16.1	-19.5	-19.5	20.3
11:12	-12.5	-15.2	-15.2	16.8	-14.2	-17.2	-17.2	17.9	-16.2	-19.6	-19.6	19.3
12:12	-12.5	-15.2	-15.2	15.9	-14.2	-17.3	-17.3	17.0	-16.2	-19.6	-19.6	18.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **100 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.3	-15.2	-24.3	38.6	-8.3	-15.2	-24.3	38.6	-9.8	-18.7	-29.8	38.6
2:12	-8.3	-14.3	-22.5	35.5	-8.3	-14.3	-22.5	35.5	-8.7	-17.6	-27.6	35.5
3:12	-8.4	-14.3	-22.5	32.2	-8.4	-14.3	-22.5	32.2	-8.7	-17.6	-27.6	32.2
4:12	-8.4	-14.3	-22.5	29.6	-8.4	-14.3	-22.5	29.6	-8.8	-17.6	-27.6	29.6
5:12	-8.4	-14.4	-22.6	27.1	-8.4	-14.4	-22.6	27.1	-8.8	-17.7	-27.7	27.1
6:12	-8.5	-14.4	-22.6	24.7	-8.5	-14.4	-22.6	24.7	-8.8	-17.7	-27.7	24.7
7:12	-8.5	-9.9	-9.9	22.5	-8.5	-9.9	-9.9	22.5	-10.0	-12.2	-12.2	22.8
8:12	-8.5	-9.9	-9.9	20.6	-8.5	-9.9	-9.9	20.6	-10.0	-12.2	-12.2	20.8
9:12	-8.6	-9.9	-9.9	18.8	-8.6	-9.9	-9.9	18.8	-10.1	-12.3	-12.3	19.1
10:12	-8.6	-10.0	-10.0	17.4	-8.6	-10.0	-10.0	17.4	-10.1	-12.3	-12.3	17.6
11:12	-8.7	-10.0	-10.0	16.1	-8.7	-10.0	-10.0	16.1	-10.2	-12.4	-12.4	16.4
12:12	-8.7	-10.1	-10.1	15.0	-8.7	-10.1	-10.1	15.0	-10.2	-12.4	-12.4	15.3
1:12	-9.8	-18.7	-29.8	38.6	-11.5	-21.8	-34.5	38.6	-13.5	-25.3	-40.0	38.6
2:12	-8.7	-17.6	-27.6	35.5	-10.2	-20.5	-32.0	35.5	-12.0	-23.8	-37.1	35.5
3:12	-8.7	-17.6	-27.6	32.2	-10.3	-20.5	-32.0	32.2	-12.0	-23.8	-37.1	32.2
4:12	-8.8	-17.6	-27.6	29.6	-10.3	-20.5	-32.0	29.6	-12.1	-23.9	-37.1	29.6
5:12	-8.8	-17.7	-27.7	27.1	-10.3	-20.6	-32.1	27.1	-12.1	-23.9	-37.2	27.1
6:12	-8.8	-17.7	-27.7	24.7	-10.4	-20.6	-32.1	24.7	-12.1	-23.9	-37.2	24.7
7:12	-10.0	-12.2	-12.2	22.8	-11.7	-14.2	-14.2	23.9	-13.6	-16.6	-16.6	25.3
8:12	-10.0	-12.2	-12.2	20.8	-11.7	-14.3	-14.3	22.0	-13.7	-16.6	-16.6	23.3
9:12	-10.1	-12.3	-12.3	19.1	-11.8	-14.3	-14.3	20.3	-13.7	-16.7	-16.7	21.6
10:12	-10.1	-12.3	-12.3	17.6	-11.8	-14.4	-14.4	18.8	-13.8	-16.7	-16.7	20.1
11:12	-10.2	-12.4	-12.4	16.4	-11.8	-14.4	-14.4	17.5	-13.8	-16.8	-16.8	18.8
12:12	-10.2	-12.4	-12.4	15.3	-11.9	-14.4	-14.4	16.4	-13.8	-16.8	-16.8	17.7
1:12	-12.2	-22.9	-36.4	35.1	-13.9	-26.0	-41.1	35.1	-15.8	-29.5	-46.6	35.1
2:12	-10.8	-21.6	-33.7	32.4	-12.4	-24.5	-38.1	32.4	-14.1	-27.8	-43.2	32.4
3:12	-10.9	-21.6	-33.7	30.1	-12.4	-24.5	-38.1	30.1	-14.1	-27.8	-43.2	30.1
4:12	-10.9	-21.6	-33.7	27.7	-12.4	-24.5	-38.2	27.7	-14.2	-27.9	-43.3	27.7
5:12	-10.9	-21.7	-33.8	25.4	-12.4	-24.6	-38.2	25.4	-14.2	-27.9	-43.3	25.4
6:12	-11.0	-21.7	-33.8	23.3	-12.5	-24.6	-38.2	23.3	-14.2	-27.9	-43.3	23.3
7:12	-12.3	-15.0	-15.0	23.2	-14.0	-17.1	-17.1	24.3	-16.0	-19.4	-19.4	25.6
8:12	-12.4	-15.1	-15.1	21.4	-14.1	-17.1	-17.1	22.6	-16.0	-19.5	-19.5	23.9
9:12	-12.4	-15.1	-15.1	19.9	-14.1	-17.1	-17.1	21.0	-16.1	-19.5	-19.5	22.3
10:12	-12.5	-15.2	-15.2	18.5	-14.2	-17.2	-17.2	19.7	-16.1	-19.5	-19.5	21.0
11:12	-12.5	-15.2	-15.2	17.3	-14.2	-17.2	-17.2	18.5	-16.2	-19.6	-19.6	19.8
12:12	-12.5	-15.2	-15.2	16.3	-14.2	-17.3	-17.3	17.5	-16.2	-19.6	-19.6	18.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.3	-15.2	-24.3	45.5	-8.3	-15.2	-24.3	45.5	-9.8	-18.7	-29.8	45.5
2:12	-8.3	-14.3	-22.5	41.9	-8.3	-14.3	-22.5	41.9	-8.7	-17.6	-27.6	41.9
3:12	-8.4	-14.3	-22.5	37.8	-8.4	-14.3	-22.5	37.8	-8.7	-17.6	-27.6	37.8
4:12	-8.4	-14.3	-22.5	33.6	-8.4	-14.3	-22.5	33.6	-8.8	-17.6	-27.6	33.6
5:12	-8.4	-14.4	-22.6	30.3	-8.4	-14.4	-22.6	30.3	-8.8	-17.7	-27.7	30.3
6:12	-8.5	-14.4	-22.6	27.5	-8.5	-14.4	-22.6	27.5	-8.8	-17.7	-27.7	27.5
7:12	-8.5	-9.9	-9.9	24.9	-8.5	-9.9	-9.9	24.9	-10.0	-12.2	-12.2	25.2
8:12	-8.5	-9.9	-9.9	22.6	-8.5	-9.9	-9.9	22.6	-10.0	-12.2	-12.2	22.9
9:12	-8.6	-9.9	-9.9	20.6	-8.6	-9.9	-9.9	20.6	-10.1	-12.3	-12.3	20.8
10:12	-8.6	-10.0	-10.0	18.8	-8.6	-10.0	-10.0	18.8	-10.1	-12.3	-12.3	19.1
11:12	-8.7	-10.0	-10.0	17.3	-8.7	-10.0	-10.0	17.3	-10.2	-12.4	-12.4	17.6
12:12	-8.7	-10.1	-10.1	16.0	-8.7	-10.1	-10.1	16.0	-10.2	-12.4	-12.4	16.3
1:12	-9.8	-18.7	-29.8	45.5	-11.5	-21.8	-34.5	45.5	-13.5	-25.3	-40.0	45.5
2:12	-8.7	-17.6	-27.6	41.9	-10.2	-20.5	-32.0	41.9	-12.0	-23.8	-37.1	41.9
3:12	-8.7	-17.6	-27.6	37.8	-10.3	-20.5	-32.0	37.8	-12.0	-23.8	-37.1	37.8
4:12	-8.8	-17.6	-27.6	33.6	-10.3	-20.5	-32.0	33.6	-12.1	-23.9	-37.1	33.6
5:12	-8.8	-17.7	-27.7	30.3	-10.3	-20.6	-32.1	30.3	-12.1	-23.9	-37.2	30.3
6:12	-8.8	-17.7	-27.7	27.5	-10.4	-20.6	-32.1	27.5	-12.1	-23.9	-37.2	27.5
7:12	-10.0	-12.2	-12.2	25.2	-11.7	-14.2	-14.2	26.3	-13.6	-16.6	-16.6	27.7
8:12	-10.0	-12.2	-12.2	22.9	-11.7	-14.3	-14.3	24.0	-13.7	-16.6	-16.6	25.3
9:12	-10.1	-12.3	-12.3	20.8	-11.8	-14.3	-14.3	22.0	-13.7	-16.7	-16.7	23.3
10:12	-10.1	-12.3	-12.3	19.1	-11.8	-14.4	-14.4	20.2	-13.8	-16.7	-16.7	21.5
11:12	-10.2	-12.4	-12.4	17.6	-11.8	-14.4	-14.4	18.7	-13.8	-16.8	-16.8	20.0
12:12	-10.2	-12.4	-12.4	16.3	-11.9	-14.4	-14.4	17.4	-13.8	-16.8	-16.8	18.7
1:12	-12.2	-22.9	-36.4	41.4	-13.9	-26.0	-41.1	41.4	-15.8	-29.5	-46.6	41.4
2:12	-10.8	-21.6	-33.7	38.0	-12.4	-24.5	-38.1	38.0	-14.1	-27.8	-43.2	38.0
3:12	-10.9	-21.6	-33.7	34.4	-12.4	-24.5	-38.1	34.4	-14.1	-27.8	-43.2	34.4
4:12	-10.9	-21.6	-33.7	31.1	-12.4	-24.5	-38.2	31.1	-14.2	-27.9	-43.3	31.1
5:12	-10.9	-21.7	-33.8	28.4	-12.4	-24.6	-38.2	28.4	-14.2	-27.9	-43.3	28.4
6:12	-11.0	-21.7	-33.8	25.8	-12.5	-24.6	-38.2	25.8	-14.2	-27.9	-43.3	25.8
7:12	-12.3	-15.0	-15.0	25.3	-14.0	-17.1	-17.1	26.5	-16.0	-19.4	-19.4	27.8
8:12	-12.4	-15.1	-15.1	23.2	-14.1	-17.1	-17.1	24.4	-16.0	-19.5	-19.5	25.7
9:12	-12.4	-15.1	-15.1	21.4	-14.1	-17.1	-17.1	22.5	-16.1	-19.5	-19.5	23.9
10:12	-12.5	-15.2	-15.2	19.8	-14.2	-17.2	-17.2	21.0	-16.1	-19.5	-19.5	22.3
11:12	-12.5	-15.2	-15.2	18.4	-14.2	-17.2	-17.2	19.6	-16.2	-19.6	-19.6	20.9
12:12	-12.5	-15.2	-15.2	17.2	-14.2	-17.3	-17.3	18.4	-16.2	-19.6	-19.6	19.7

Basic Wind Speed
100 mph

Ground Snow Load
60 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
100 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-15.2	-24.3	52.5	-8.3	-15.2	-24.3	52.5	-9.8	-18.7	-29.8	52.5
2:12	-8.3	-14.3	-22.5	48.2	-8.3	-14.3	-22.5	48.2	-8.7	-17.6	-27.6	48.2
3:12	-8.4	-14.3	-22.5	43.4	-8.4	-14.3	-22.5	43.4	-8.7	-17.6	-27.6	43.4
4:12	-8.4	-14.3	-22.5	38.6	-8.4	-14.3	-22.5	38.6	-8.8	-17.6	-27.6	38.6
5:12	-8.4	-14.4	-22.6	34.0	-8.4	-14.4	-22.6	34.0	-8.8	-17.7	-27.7	34.0
6:12	-8.5	-14.4	-22.6	30.3	-8.5	-14.4	-22.6	30.3	-8.8	-17.7	-27.7	30.3
7:12	-8.5	-9.9	-9.9	27.3	-8.5	-9.9	-9.9	27.3	-10.0	-12.2	-12.2	27.6
8:12	-8.5	-9.9	-9.9	24.6	-8.5	-9.9	-9.9	24.6	-10.0	-12.2	-12.2	24.9
9:12	-8.6	-9.9	-9.9	22.3	-8.6	-9.9	-9.9	22.3	-10.1	-12.3	-12.3	22.6
10:12	-8.6	-10.0	-10.0	20.2	-8.6	-10.0	-10.0	20.2	-10.1	-12.3	-12.3	20.5
11:12	-8.7	-10.0	-10.0	18.5	-8.7	-10.0	-10.0	18.5	-10.2	-12.4	-12.4	18.8
12:12	-8.7	-10.1	-10.1	17.0	-8.7	-10.1	-10.1	17.0	-10.2	-12.4	-12.4	17.3
Exposure Category C												
1:12	-9.8	-18.7	-29.8	52.5	-11.5	-21.8	-34.5	52.5	-13.5	-25.3	-40.0	52.5
2:12	-8.7	-17.6	-27.6	48.2	-10.2	-20.5	-32.0	48.2	-12.0	-23.8	-37.1	48.2
3:12	-8.7	-17.6	-27.6	43.4	-10.3	-20.5	-32.0	43.4	-12.0	-23.8	-37.1	43.4
4:12	-8.8	-17.6	-27.6	38.6	-10.3	-20.5	-32.0	38.6	-12.1	-23.9	-37.1	38.6
5:12	-8.8	-17.7	-27.7	34.0	-10.3	-20.6	-32.1	34.0	-12.1	-23.9	-37.2	34.0
6:12	-8.8	-17.7	-27.7	30.3	-10.4	-20.6	-32.1	30.3	-12.1	-23.9	-37.2	30.3
7:12	-10.0	-12.2	-12.2	27.6	-11.7	-14.2	-14.2	28.7	-13.6	-16.6	-16.6	30.0
8:12	-10.0	-12.2	-12.2	24.9	-11.7	-14.3	-14.3	26.1	-13.7	-16.6	-16.6	27.4
9:12	-10.1	-12.3	-12.3	22.6	-11.8	-14.3	-14.3	23.7	-13.7	-16.7	-16.7	25.0
10:12	-10.1	-12.3	-12.3	20.5	-11.8	-14.4	-14.4	21.7	-13.8	-16.7	-16.7	23.0
11:12	-10.2	-12.4	-12.4	18.8	-11.8	-14.4	-14.4	19.9	-13.8	-16.8	-16.8	21.2
12:12	-10.2	-12.4	-12.4	17.3	-11.9	-14.4	-14.4	18.4	-13.8	-16.8	-16.8	19.7
Exposure Category D												
1:12	-12.2	-22.9	-36.4	47.6	-13.9	-26.0	-41.1	47.6	-15.8	-29.5	-46.6	47.6
2:12	-10.8	-21.6	-33.7	43.8	-12.4	-24.5	-38.1	43.8	-14.1	-27.8	-43.2	43.8
3:12	-10.9	-21.6	-33.7	39.5	-12.4	-24.5	-38.1	39.5	-14.1	-27.8	-43.2	39.5
4:12	-10.9	-21.6	-33.7	35.1	-12.4	-24.5	-38.2	35.1	-14.2	-27.9	-43.3	35.1
5:12	-10.9	-21.7	-33.8	31.3	-12.4	-24.6	-38.2	31.3	-14.2	-27.9	-43.3	31.3
6:12	-11.0	-21.7	-33.8	28.3	-12.5	-24.6	-38.2	28.3	-14.2	-27.9	-43.3	28.3
7:12	-12.3	-15.0	-15.0	27.5	-14.0	-17.1	-17.1	28.6	-16.0	-19.4	-19.4	30.0
8:12	-12.4	-15.1	-15.1	25.1	-14.1	-17.1	-17.1	26.2	-16.0	-19.5	-19.5	27.5
9:12	-12.4	-15.1	-15.1	22.9	-14.1	-17.1	-17.1	24.1	-16.1	-19.5	-19.5	25.4
10:12	-12.5	-15.2	-15.2	21.1	-14.2	-17.2	-17.2	22.2	-16.1	-19.5	-19.5	23.6
11:12	-12.5	-15.2	-15.2	19.5	-14.2	-17.2	-17.2	20.7	-16.2	-19.6	-19.6	22.0
12:12	-12.5	-15.2	-15.2	18.2	-14.2	-17.3	-17.3	19.3	-16.2	-19.6	-19.6	20.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-15.2	-24.3	59.4	-8.3	-15.2	-24.3	59.4	-9.8	-18.7	-29.8	59.4
2:12	-8.3	-14.3	-22.5	54.5	-8.3	-14.3	-22.5	54.5	-8.7	-17.6	-27.6	54.5
3:12	-8.4	-14.3	-22.5	49.1	-8.4	-14.3	-22.5	49.1	-8.7	-17.6	-27.6	49.1
4:12	-8.4	-14.3	-22.5	43.6	-8.4	-14.3	-22.5	43.6	-8.8	-17.6	-27.6	43.6
5:12	-8.4	-14.4	-22.6	38.3	-8.4	-14.4	-22.6	38.3	-8.8	-17.7	-27.7	38.3
6:12	-8.5	-14.4	-22.6	33.4	-8.5	-14.4	-22.6	33.4	-8.8	-17.7	-27.7	33.4
7:12	-8.5	-9.9	-9.9	29.7	-8.5	-9.9	-9.9	29.7	-10.0	-12.2	-12.2	30.0
8:12	-8.5	-9.9	-9.9	26.6	-8.5	-9.9	-9.9	26.6	-10.0	-12.2	-12.2	26.9
9:12	-8.6	-9.9	-9.9	24.0	-8.6	-9.9	-9.9	24.0	-10.1	-12.3	-12.3	24.3
10:12	-8.6	-10.0	-10.0	21.7	-8.6	-10.0	-10.0	21.7	-10.1	-12.3	-12.3	22.0
11:12	-8.7	-10.0	-10.0	19.7	-8.7	-10.0	-10.0	19.7	-10.2	-12.4	-12.4	20.0
12:12	-8.7	-10.1	-10.1	18.0	-8.7	-10.1	-10.1	18.0	-10.2	-12.4	-12.4	18.3
Exposure Category C												
1:12	-9.8	-18.7	-29.8	59.4	-11.5	-21.8	-34.5	59.4	-13.5	-25.3	-40.0	59.4
2:12	-8.7	-17.6	-27.6	54.5	-10.2	-20.5	-32.0	54.5	-12.0	-23.8	-37.1	54.5
3:12	-8.7	-17.6	-27.6	49.1	-10.3	-20.5	-32.0	49.1	-12.0	-23.8	-37.1	49.1
4:12	-8.8	-17.6	-27.6	43.6	-10.3	-20.5	-32.0	43.6	-12.1	-23.9	-37.1	43.6
5:12	-8.8	-17.7	-27.7	38.3	-10.3	-20.6	-32.1	38.3	-12.1	-23.9	-37.2	38.3
6:12	-8.8	-17.7	-27.7	33.4	-10.4	-20.6	-32.1	33.4	-12.1	-23.9	-37.2	33.4
7:12	-10.0	-12.2	-12.2	30.0	-11.7	-14.2	-14.2	31.1	-13.6	-16.6	-16.6	32.4
8:12	-10.0	-12.2	-12.2	26.9	-11.7	-14.3	-14.3	28.1	-13.7	-16.6	-16.6	29.4
9:12	-10.1	-12.3	-12.3	24.3	-11.8	-14.3	-14.3	25.4	-13.7	-16.7	-16.7	26.7
10:12	-10.1	-12.3	-12.3	22.0	-11.8	-14.4	-14.4	23.1	-13.8	-16.7	-16.7	24.4
11:12	-10.2	-12.4	-12.4	20.0	-11.8	-14.4	-14.4	21.1	-13.8	-16.8	-16.8	22.4
12:12	-10.2	-12.4	-12.4	18.3	-11.9	-14.4	-14.4	19.4	-13.8	-16.8	-16.8	20.8
Exposure Category D												
1:12	-12.2	-22.9	-36.4	53.9	-13.9	-26.0	-41.1	53.9	-15.8	-29.5	-46.6	53.9
2:12	-10.8	-21.6	-33.7	49.5	-12.4	-24.5	-38.1	49.5	-14.1	-27.8	-43.2	49.5
3:12	-10.9	-21.6	-33.7	44.6	-12.4	-24.5	-38.1	44.6	-14.1	-27.8	-43.2	44.6
4:12	-10.9	-21.6	-33.7	39.6	-12.4	-24.5	-38.2	39.6	-14.2	-27.9	-43.3	39.6
5:12	-10.9	-21.7	-33.8	34.9	-12.4	-24.6	-38.2	34.9	-14.2	-27.9	-43.3	34.9
6:12	-11.0	-21.7	-33.8	30.8	-12.5	-24.6	-38.2	30.8	-14.2	-27.9	-43.3	30.8
7:12	-12.3	-15.0	-15.0	29.6	-14.0	-17.1	-17.1	30.8	-16.0	-19.4	-19.4	32.1
8:12	-12.4	-15.1	-15.1	26.9	-14.1	-17.1	-17.1	28.0	-16.0	-19.5	-19.5	29.4
9:12	-12.4	-15.1	-15.1	24.5	-14.1	-17.1	-17.1	25.6	-16.1	-19.5	-19.5	27.0
10:12	-12.5	-15.2	-15.2	22.4	-14.2	-17.2	-17.2	23.5	-16.1	-19.5	-19.5	24.9
11:12	-12.5	-15.2	-15.2	20.6	-14.2	-17.2	-17.2	21.7	-16.2	-19.6	-19.6	23.1
12:12	-12.5	-15.2	-15.2	19.1	-14.2	-17.3	-17.3	20.2	-16.2	-19.6	-19.6	21.5

Basic Wind Speed **100 mph**
Ground Snow Load **80 psf**

Side Load (psf)
Lateral

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
100 mph
Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.3	-15.2	-24.3	66.4	-8.3	-15.2	-24.3	66.4	-9.8	-18.7	-29.8	66.4
2:12	-8.3	-14.3	-22.5	60.9	-8.3	-14.3	-22.5	60.9	-8.7	-17.6	-27.6	60.9
3:12	-8.4	-14.3	-22.5	54.8	-8.4	-14.3	-22.5	54.8	-8.7	-17.6	-27.6	54.8
4:12	-8.4	-14.3	-22.5	48.6	-8.4	-14.3	-22.5	48.6	-8.8	-17.6	-27.6	48.6
5:12	-8.4	-14.4	-22.6	42.7	-8.4	-14.4	-22.6	42.7	-8.8	-17.7	-27.7	42.7
6:12	-8.5	-14.4	-22.6	37.1	-8.5	-14.4	-22.6	37.1	-8.8	-17.7	-27.7	37.1
7:12	-8.5	-9.9	-9.9	32.1	-8.5	-9.9	-9.9	32.1	-10.0	-12.2	-12.2	32.4
8:12	-8.5	-9.9	-9.9	28.7	-8.5	-9.9	-9.9	28.7	-10.0	-12.2	-12.2	29.0
9:12	-8.6	-9.9	-9.9	25.7	-8.6	-9.9	-9.9	25.7	-10.1	-12.3	-12.3	26.0
10:12	-8.6	-10.0	-10.0	23.1	-8.6	-10.0	-10.0	23.1	-10.1	-12.3	-12.3	23.4
11:12	-8.7	-10.0	-10.0	20.9	-8.7	-10.0	-10.0	20.9	-10.2	-12.4	-12.4	21.2
12:12	-8.7	-10.1	-10.1	19.0	-8.7	-10.1	-10.1	19.0	-10.2	-12.4	-12.4	19.3
1:12	-9.8	-18.7	-29.8	66.4	-11.5	-21.8	-34.5	66.4	-13.5	-25.3	-40.0	66.4
2:12	-8.7	-17.6	-27.6	60.9	-10.2	-20.5	-32.0	60.9	-12.0	-23.8	-37.1	60.9
3:12	-8.7	-17.6	-27.6	54.8	-10.3	-20.5	-32.0	54.8	-12.0	-23.8	-37.1	54.8
4:12	-8.8	-17.6	-27.6	48.6	-10.3	-20.5	-32.0	48.6	-12.1	-23.9	-37.1	48.6
5:12	-8.8	-17.7	-27.7	42.7	-10.3	-20.6	-32.1	42.7	-12.1	-23.9	-37.2	42.7
6:12	-8.8	-17.7	-27.7	37.1	-10.4	-20.6	-32.1	37.1	-12.1	-23.9	-37.2	37.1
7:12	-10.0	-12.2	-12.2	32.4	-11.7	-14.2	-14.2	33.5	-13.6	-16.6	-16.6	34.8
8:12	-10.0	-12.2	-12.2	29.0	-11.7	-14.3	-14.3	30.1	-13.7	-16.6	-16.6	31.4
9:12	-10.1	-12.3	-12.3	26.0	-11.8	-14.3	-14.3	27.1	-13.7	-16.7	-16.7	28.4
10:12	-10.1	-12.3	-12.3	23.4	-11.8	-14.4	-14.4	24.5	-13.8	-16.7	-16.7	25.9
11:12	-10.2	-12.4	-12.4	21.2	-11.8	-14.4	-14.4	22.3	-13.8	-16.8	-16.8	23.7
12:12	-10.2	-12.4	-12.4	19.3	-11.9	-14.4	-14.4	20.4	-13.8	-16.8	-16.8	21.8
1:12	-12.2	-22.9	-36.4	60.1	-13.9	-26.0	-41.1	60.1	-15.8	-29.5	-46.6	60.1
2:12	-10.8	-21.6	-33.7	55.2	-12.4	-24.5	-38.1	55.2	-14.1	-27.8	-43.2	55.2
3:12	-10.9	-21.6	-33.7	49.7	-12.4	-24.5	-38.1	49.7	-14.1	-27.8	-43.2	49.7
4:12	-10.9	-21.6	-33.7	44.1	-12.4	-24.5	-38.2	44.1	-14.2	-27.9	-43.3	44.1
5:12	-10.9	-21.7	-33.8	38.8	-12.4	-24.6	-38.2	38.8	-14.2	-27.9	-43.3	38.8
6:12	-11.0	-21.7	-33.8	33.8	-12.5	-24.6	-38.2	33.8	-14.2	-27.9	-43.3	33.8
7:12	-12.3	-15.0	-15.0	31.8	-14.0	-17.1	-17.1	32.9	-16.0	-19.4	-19.4	34.3
8:12	-12.4	-15.1	-15.1	28.7	-14.1	-17.1	-17.1	29.9	-16.0	-19.5	-19.5	31.2
9:12	-12.4	-15.1	-15.1	26.0	-14.1	-17.1	-17.1	27.2	-16.1	-19.5	-19.5	28.5
10:12	-12.5	-15.2	-15.2	23.7	-14.2	-17.2	-17.2	24.8	-16.1	-19.5	-19.5	26.2
11:12	-12.5	-15.2	-15.2	21.7	-14.2	-17.2	-17.2	22.8	-16.2	-19.6	-19.6	24.2
12:12	-12.5	-15.2	-15.2	20.0	-14.2	-17.3	-17.3	21.1	-16.2	-19.6	-19.6	22.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
100 mph

Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.3	-15.2	-24.3	73.4	-8.3	-15.2	-24.3	73.4	-9.8	-18.7	-29.8	73.4
2:12	-8.3	-14.3	-22.5	67.2	-8.3	-14.3	-22.5	67.2	-8.7	-17.6	-27.6	67.2
3:12	-8.4	-14.3	-22.5	60.5	-8.4	-14.3	-22.5	60.5	-8.7	-17.6	-27.6	60.5
4:12	-8.4	-14.3	-22.5	53.6	-8.4	-14.3	-22.5	53.6	-8.8	-17.6	-27.6	53.6
5:12	-8.4	-14.4	-22.6	47.0	-8.4	-14.4	-22.6	47.0	-8.8	-17.7	-27.7	47.0
6:12	-8.5	-14.4	-22.6	40.9	-8.5	-14.4	-22.6	40.9	-8.8	-17.7	-27.7	40.9
7:12	-8.5	-9.9	-9.9	35.3	-8.5	-9.9	-9.9	35.3	-10.0	-12.2	-12.2	35.3
8:12	-8.5	-9.9	-9.9	30.7	-8.5	-9.9	-9.9	30.7	-10.0	-12.2	-12.2	31.0
9:12	-8.6	-9.9	-9.9	27.4	-8.6	-9.9	-9.9	27.4	-10.1	-12.3	-12.3	27.7
10:12	-8.6	-10.0	-10.0	24.5	-8.6	-10.0	-10.0	24.5	-10.1	-12.3	-12.3	24.8
11:12	-8.7	-10.0	-10.0	22.1	-8.7	-10.0	-10.0	22.1	-10.2	-12.4	-12.4	22.4
12:12	-8.7	-10.1	-10.1	20.0	-8.7	-10.1	-10.1	20.0	-10.2	-12.4	-12.4	20.3
Exposure Category C												
1:12	-9.8	-18.7	-29.8	73.4	-11.5	-21.8	-34.5	73.4	-13.5	-25.3	-40.0	73.4
2:12	-8.7	-17.6	-27.6	67.2	-10.2	-20.5	-32.0	67.2	-12.0	-23.8	-37.1	67.2
3:12	-8.7	-17.6	-27.6	60.5	-10.3	-20.5	-32.0	60.5	-12.0	-23.8	-37.1	60.5
4:12	-8.8	-17.6	-27.6	53.6	-10.3	-20.5	-32.0	53.6	-12.1	-23.9	-37.1	53.6
5:12	-8.8	-17.7	-27.7	47.0	-10.3	-20.6	-32.1	47.0	-12.1	-23.9	-37.2	47.0
6:12	-8.8	-17.7	-27.7	40.9	-10.4	-20.6	-32.1	40.9	-12.1	-23.9	-37.2	40.9
7:12	-10.0	-12.2	-12.2	35.3	-11.7	-14.2	-14.2	35.9	-13.6	-16.6	-16.6	37.2
8:12	-10.0	-12.2	-12.2	31.0	-11.7	-14.3	-14.3	32.1	-13.7	-16.6	-16.6	33.5
9:12	-10.1	-12.3	-12.3	27.7	-11.8	-14.3	-14.3	28.8	-13.7	-16.7	-16.7	30.2
10:12	-10.1	-12.3	-12.3	24.8	-11.8	-14.4	-14.4	26.0	-13.8	-16.7	-16.7	27.3
11:12	-10.2	-12.4	-12.4	22.4	-11.8	-14.4	-14.4	23.5	-13.8	-16.8	-16.8	24.9
12:12	-10.2	-12.4	-12.4	20.3	-11.9	-14.4	-14.4	21.5	-13.8	-16.8	-16.8	22.8
Exposure Category D												
1:12	-12.2	-22.9	-36.4	66.4	-13.9	-26.0	-41.1	66.4	-15.8	-29.5	-46.6	66.4
2:12	-10.8	-21.6	-33.7	60.9	-12.4	-24.5	-38.1	60.9	-14.1	-27.8	-43.2	60.9
3:12	-10.9	-21.6	-33.7	54.8	-12.4	-24.5	-38.1	54.8	-14.1	-27.8	-43.2	54.8
4:12	-10.9	-21.6	-33.7	48.6	-12.4	-24.5	-38.2	48.6	-14.2	-27.9	-43.3	48.6
5:12	-10.9	-21.7	-33.8	42.7	-12.4	-24.6	-38.2	42.7	-14.2	-27.9	-43.3	42.7
6:12	-11.0	-21.7	-33.8	37.1	-12.5	-24.6	-38.2	37.1	-14.2	-27.9	-43.3	37.1
7:12	-12.3	-15.0	-15.0	34.0	-14.0	-17.1	-17.1	35.1	-16.0	-19.4	-19.4	36.4
8:12	-12.4	-15.1	-15.1	30.6	-14.1	-17.1	-17.1	31.7	-16.0	-19.5	-19.5	33.0
9:12	-12.4	-15.1	-15.1	27.6	-14.1	-17.1	-17.1	28.7	-16.1	-19.5	-19.5	30.0
10:12	-12.5	-15.2	-15.2	25.0	-14.2	-17.2	-17.2	26.1	-16.1	-19.5	-19.5	27.5
11:12	-12.5	-15.2	-15.2	22.8	-14.2	-17.2	-17.2	23.9	-16.2	-19.6	-19.6	25.2
12:12	-12.5	-15.2	-15.2	20.9	-14.2	-17.3	-17.3	22.0	-16.2	-19.6	-19.6	23.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed **105 mph**
Ground Snow Load **0 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.8	-16.9	-26.9	13.4	-8.8	-16.9	-26.9	13.4	-11.0	-20.7	-33.0	13.4
2:12	-8.3	-15.9	-24.9	13.4	-8.3	-15.9	-24.9	13.4	-9.7	-19.5	-30.5	13.4
3:12	-8.4	-15.9	-25.0	13.3	-8.4	-15.9	-25.0	13.3	-9.8	-19.6	-30.6	13.3
4:12	-8.4	-15.9	-25.0	13.2	-8.4	-15.9	-25.0	13.2	-9.8	-19.6	-30.6	13.2
5:12	-8.4	-15.9	-25.0	13.2	-8.4	-15.9	-25.0	13.2	-9.8	-19.6	-30.6	13.2
6:12	-8.5	-16.0	-25.0	13.0	-8.5	-16.0	-25.0	13.0	-9.9	-19.7	-30.7	13.0
7:12	-9.0	-11.0	-11.0	12.9	-9.0	-11.0	-11.0	12.9	-11.1	-13.6	-13.6	14.3
8:12	-9.0	-11.0	-11.0	12.8	-9.0	-11.0	-11.0	12.8	-11.2	-13.6	-13.6	14.2
9:12	-9.0	-11.1	-11.1	12.7	-9.0	-11.1	-11.1	12.7	-11.2	-13.7	-13.7	14.1
10:12	-9.1	-11.1	-11.1	12.6	-9.1	-11.1	-11.1	12.6	-11.2	-13.7	-13.7	14.0
11:12	-9.1	-11.1	-11.1	12.4	-9.1	-11.1	-11.1	12.4	-11.3	-13.7	-13.7	13.8
12:12	-9.2	-11.2	-11.2	12.3	-9.2	-11.2	-11.2	12.3	-11.3	-13.8	-13.8	13.7
1:12	-11.0	-20.7	-33.0	13.4	-12.8	-24.1	-38.2	13.4	-15.0	-28.0	-44.3	13.4
2:12	-9.7	-19.5	-30.5	13.4	-11.4	-22.7	-35.4	13.4	-13.4	-26.4	-41.0	13.4
3:12	-9.8	-19.6	-30.6	13.3	-11.4	-22.7	-35.4	13.3	-13.4	-26.4	-41.0	13.3
4:12	-9.8	-19.6	-30.6	13.2	-11.5	-22.8	-35.5	13.2	-13.4	-26.4	-41.1	13.2
5:12	-9.8	-19.6	-30.6	13.2	-11.5	-22.8	-35.5	13.2	-13.5	-26.5	-41.1	13.2
6:12	-9.9	-19.7	-30.7	13.0	-11.5	-22.8	-35.5	13.0	-13.5	-26.5	-41.1	13.0
7:12	-11.1	-13.6	-13.6	14.3	-13.0	-15.8	-15.8	16.0	-15.2	-18.4	-18.4	18.0
8:12	-11.2	-13.6	-13.6	14.2	-13.0	-15.9	-15.9	15.9	-15.2	-18.5	-18.5	17.8
9:12	-11.2	-13.7	-13.7	14.1	-13.1	-15.9	-15.9	15.8	-15.2	-18.5	-18.5	17.7
10:12	-11.2	-13.7	-13.7	14.0	-13.1	-15.9	-15.9	15.7	-15.3	-18.5	-18.5	17.6
11:12	-11.3	-13.7	-13.7	13.8	-13.2	-16.0	-16.0	15.5	-15.3	-18.6	-18.6	17.5
12:12	-11.3	-13.8	-13.8	13.7	-13.2	-16.0	-16.0	15.4	-15.4	-18.6	-18.6	17.4
1:12	-13.5	-25.4	-40.2	13.4	-15.4	-28.8	-45.5	13.4	-17.6	-32.7	-51.5	13.4
2:12	-12.1	-23.9	-37.3	13.4	-13.8	-27.1	-42.1	13.4	-15.7	-30.8	-47.8	13.4
3:12	-12.1	-24.0	-37.3	13.3	-13.8	-27.1	-42.2	13.3	-15.7	-30.8	-47.8	13.3
4:12	-12.1	-24.0	-37.3	13.2	-13.8	-27.2	-42.2	13.2	-15.8	-30.8	-47.8	13.2
5:12	-12.2	-24.0	-37.4	13.2	-13.8	-27.2	-42.2	13.2	-15.8	-30.9	-47.8	13.2
6:12	-12.2	-24.1	-37.4	13.0	-13.9	-27.2	-42.3	13.0	-15.8	-30.9	-47.9	13.0
7:12	-13.7	-16.7	-16.7	16.7	-15.6	-18.9	-18.9	18.4	-17.7	-21.5	-21.5	20.3
8:12	-13.8	-16.7	-16.7	16.5	-15.6	-19.0	-19.0	18.2	-17.8	-21.6	-21.6	20.2
9:12	-13.8	-16.8	-16.8	16.4	-15.7	-19.0	-19.0	18.1	-17.8	-21.6	-21.6	20.0
10:12	-13.8	-16.8	-16.8	16.3	-15.7	-19.1	-19.1	18.0	-17.9	-21.6	-21.6	19.9
11:12	-13.9	-16.8	-16.8	16.2	-15.8	-19.1	-19.1	17.9	-17.9	-21.7	-21.7	19.8
12:12	-13.9	-16.9	-16.9	16.1	-15.8	-19.1	-19.1	17.7	-17.9	-21.7	-21.7	19.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.8	-16.9	-26.9	14.8	-8.8	-16.9	-26.9	14.8	-11.0	-20.7	-33.0	14.8
2:12	-8.3	-15.9	-24.9	14.4	-8.3	-15.9	-24.9	14.4	-9.7	-19.5	-30.5	14.4
3:12	-8.4	-15.9	-25.0	14.0	-8.4	-15.9	-25.0	14.0	-9.8	-19.6	-30.6	14.0
4:12	-8.4	-15.9	-25.0	13.2	-8.4	-15.9	-25.0	13.2	-9.8	-19.6	-30.6	13.2
5:12	-8.4	-15.9	-25.0	13.2	-8.4	-15.9	-25.0	13.2	-9.8	-19.6	-30.6	13.2
6:12	-8.5	-16.0	-25.0	13.0	-8.5	-16.0	-25.0	13.0	-9.9	-19.7	-30.7	13.0
7:12	-9.0	-11.0	-11.0	12.9	-9.0	-11.0	-11.0	12.9	-11.1	-13.6	-13.6	14.3
8:12	-9.0	-11.0	-11.0	12.8	-9.0	-11.0	-11.0	12.8	-11.2	-13.6	-13.6	14.2
9:12	-9.0	-11.1	-11.1	12.7	-9.0	-11.1	-11.1	12.7	-11.2	-13.7	-13.7	14.1
10:12	-9.1	-11.1	-11.1	12.6	-9.1	-11.1	-11.1	12.6	-11.2	-13.7	-13.7	14.0
11:12	-9.1	-11.1	-11.1	12.4	-9.1	-11.1	-11.1	12.4	-11.3	-13.7	-13.7	13.8
12:12	-9.2	-11.2	-11.2	12.3	-9.2	-11.2	-11.2	12.3	-11.3	-13.8	-13.8	13.7
1:12	-11.0	-20.7	-33.0	14.8	-12.8	-24.1	-38.2	14.8	-15.0	-28.0	-44.3	14.8
2:12	-9.7	-19.5	-30.5	14.4	-11.4	-22.7	-35.4	14.4	-13.4	-26.4	-41.0	14.4
3:12	-9.8	-19.6	-30.6	14.0	-11.4	-22.7	-35.4	14.0	-13.4	-26.4	-41.0	14.0
4:12	-9.8	-19.6	-30.6	13.2	-11.5	-22.8	-35.5	13.2	-13.4	-26.4	-41.1	13.2
5:12	-9.8	-19.6	-30.6	13.2	-11.5	-22.8	-35.5	13.2	-13.5	-26.5	-41.1	13.2
6:12	-9.9	-19.7	-30.7	13.0	-11.5	-22.8	-35.5	13.0	-13.5	-26.5	-41.1	13.0
7:12	-11.1	-13.6	-13.6	14.3	-13.0	-15.8	-15.8	16.0	-15.2	-18.4	-18.4	18.0
8:12	-11.2	-13.6	-13.6	14.2	-13.0	-15.9	-15.9	15.9	-15.2	-18.5	-18.5	17.8
9:12	-11.2	-13.7	-13.7	14.1	-13.1	-15.9	-15.9	15.8	-15.2	-18.5	-18.5	17.7
10:12	-11.2	-13.7	-13.7	14.0	-13.1	-15.9	-15.9	15.7	-15.3	-18.5	-18.5	17.6
11:12	-11.3	-13.7	-13.7	13.8	-13.2	-16.0	-16.0	15.5	-15.3	-18.6	-18.6	17.5
12:12	-11.3	-13.8	-13.8	13.7	-13.2	-16.0	-16.0	15.4	-15.4	-18.6	-18.6	17.4
1:12	-13.5	-25.4	-40.2	14.8	-15.4	-28.8	-45.5	14.8	-17.6	-32.7	-51.5	14.8
2:12	-12.1	-23.9	-37.3	14.4	-13.8	-27.1	-42.1	14.4	-15.7	-30.8	-47.8	14.4
3:12	-12.1	-24.0	-37.3	14.0	-13.8	-27.1	-42.2	14.0	-15.7	-30.8	-47.8	14.0
4:12	-12.1	-24.0	-37.3	13.2	-13.8	-27.2	-42.2	13.2	-15.8	-30.8	-47.8	13.2
5:12	-12.2	-24.0	-37.4	13.2	-13.8	-27.2	-42.2	13.2	-15.8	-30.9	-47.8	13.2
6:12	-12.2	-24.1	-37.4	13.0	-13.9	-27.2	-42.3	13.0	-15.8	-30.9	-47.9	13.0
7:12	-13.7	-16.7	-16.7	16.7	-15.6	-18.9	-18.9	18.4	-17.7	-21.5	-21.5	20.3
8:12	-13.8	-16.7	-16.7	16.5	-15.6	-19.0	-19.0	18.2	-17.8	-21.6	-21.6	20.2
9:12	-13.8	-16.8	-16.8	16.4	-15.7	-19.0	-19.0	18.1	-17.8	-21.6	-21.6	20.0
10:12	-13.8	-16.8	-16.8	16.3	-15.7	-19.1	-19.1	18.0	-17.9	-21.6	-21.6	19.9
11:12	-13.9	-16.8	-16.8	16.2	-15.8	-19.1	-19.1	17.9	-17.9	-21.7	-21.7	19.8
12:12	-13.9	-16.9	-16.9	16.1	-15.8	-19.1	-19.1	17.7	-17.9	-21.7	-21.7	19.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
105 mph

Ground Snow Load
5 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-8.8	-16.9	-26.9	18.5	-8.8	-16.9	-26.9	18.5	-11.0	-20.7	-33.0	18.5
	2:12	-8.3	-15.9	-24.9	17.8	-8.3	-15.9	-24.9	17.8	-9.7	-19.5	-30.5	17.8
	3:12	-8.4	-15.9	-25.0	17.0	-8.4	-15.9	-25.0	17.0	-9.8	-19.6	-30.6	17.0
	4:12	-8.4	-15.9	-25.0	14.6	-8.4	-15.9	-25.0	14.6	-9.8	-19.6	-30.6	14.6
	5:12	-8.4	-15.9	-25.0	14.0	-8.4	-15.9	-25.0	14.0	-9.8	-19.6	-30.6	14.0
	6:12	-8.5	-16.0	-25.0	13.4	-8.5	-16.0	-25.0	13.4	-9.9	-19.7	-30.7	13.4
	7:12	-9.0	-11.0	-11.0	12.9	-9.0	-11.0	-11.0	12.9	-11.1	-13.6	-13.6	14.3
	8:12	-9.0	-11.0	-11.0	12.8	-9.0	-11.0	-11.0	12.8	-11.2	-13.6	-13.6	14.2
	9:12	-9.0	-11.1	-11.1	12.7	-9.0	-11.1	-11.1	12.7	-11.2	-13.7	-13.7	14.1
	10:12	-9.1	-11.1	-11.1	12.6	-9.1	-11.1	-11.1	12.6	-11.2	-13.7	-13.7	14.0
	11:12	-9.1	-11.1	-11.1	12.4	-9.1	-11.1	-11.1	12.4	-11.3	-13.7	-13.7	13.8
	12:12	-9.2	-11.2	-11.2	12.3	-9.2	-11.2	-11.2	12.3	-11.3	-13.8	-13.8	13.7
Exposure Category C	1:12	-11.0	-20.7	-33.0	18.5	-12.8	-24.1	-38.2	18.5	-15.0	-28.0	-44.3	18.5
	2:12	-9.7	-19.5	-30.5	17.8	-11.4	-22.7	-35.4	17.8	-13.4	-26.4	-41.0	17.8
	3:12	-9.8	-19.6	-30.6	17.0	-11.4	-22.7	-35.4	17.0	-13.4	-26.4	-41.0	17.0
	4:12	-9.8	-19.6	-30.6	14.6	-11.5	-22.8	-35.5	14.6	-13.4	-26.4	-41.1	14.6
	5:12	-9.8	-19.6	-30.6	14.0	-11.5	-22.8	-35.5	14.0	-13.5	-26.5	-41.1	14.0
	6:12	-9.9	-19.7	-30.7	13.4	-11.5	-22.8	-35.5	13.4	-13.5	-26.5	-41.1	13.4
	7:12	-11.1	-13.6	-13.6	14.3	-13.0	-15.8	-15.8	16.0	-15.2	-18.4	-18.4	18.0
	8:12	-11.2	-13.6	-13.6	14.2	-13.0	-15.9	-15.9	15.9	-15.2	-18.5	-18.5	17.8
	9:12	-11.2	-13.7	-13.7	14.1	-13.1	-15.9	-15.9	15.8	-15.2	-18.5	-18.5	17.7
	10:12	-11.2	-13.7	-13.7	14.0	-13.1	-15.9	-15.9	15.7	-15.3	-18.5	-18.5	17.6
	11:12	-11.3	-13.7	-13.7	13.8	-13.2	-16.0	-16.0	15.5	-15.3	-18.6	-18.6	17.5
	12:12	-11.3	-13.8	-13.8	13.7	-13.2	-16.0	-16.0	15.4	-15.4	-18.6	-18.6	17.4
Exposure Category D	1:12	-13.5	-25.4	-40.2	18.5	-15.4	-28.8	-45.5	18.5	-17.6	-32.7	-51.5	18.5
	2:12	-12.1	-23.9	-37.3	17.8	-13.8	-27.1	-42.1	17.8	-15.7	-30.8	-47.8	17.8
	3:12	-12.1	-24.0	-37.3	17.0	-13.8	-27.1	-42.2	17.0	-15.7	-30.8	-47.8	17.0
	4:12	-12.1	-24.0	-37.3	14.2	-13.8	-27.2	-42.2	14.2	-15.8	-30.8	-47.8	14.2
	5:12	-12.2	-24.0	-37.4	13.7	-13.8	-27.2	-42.2	13.7	-15.8	-30.9	-47.8	13.7
	6:12	-12.2	-24.1	-37.4	13.2	-13.9	-27.2	-42.3	13.2	-15.8	-30.9	-47.9	13.2
	7:12	-13.7	-16.7	-16.7	16.7	-15.6	-18.9	-18.9	18.4	-17.7	-21.5	-21.5	20.3
	8:12	-13.8	-16.7	-16.7	16.5	-15.6	-19.0	-19.0	18.2	-17.8	-21.6	-21.6	20.2
	9:12	-13.8	-16.8	-16.8	16.4	-15.7	-19.0	-19.0	18.1	-17.8	-21.6	-21.6	20.0
	10:12	-13.8	-16.8	-16.8	16.3	-15.7	-19.1	-19.1	18.0	-17.9	-21.6	-21.6	19.9
	11:12	-13.9	-16.8	-16.8	16.2	-15.8	-19.1	-19.1	17.9	-17.9	-21.7	-21.7	19.8
	12:12	-13.9	-16.9	-16.9	16.1	-15.8	-19.1	-19.1	17.7	-17.9	-21.7	-21.7	19.7
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
	2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
	3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
	4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
	5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
	6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
	7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
	8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
	9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
	10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
	11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

105 mph

Ground Snow Load

10 psf

Up and Down (psf)

Basic Wind Speed
105 mph
Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.8	-16.9	-26.9	22.2	-8.8	-16.9	-26.9	22.2	-11.0	-20.7	-33.0	22.2
2:12	-8.3	-15.9	-24.9	21.2	-8.3	-15.9	-24.9	21.2	-9.7	-19.5	-30.5	21.2
3:12	-8.4	-15.9	-25.0	20.0	-8.4	-15.9	-25.0	20.0	-9.8	-19.6	-30.6	20.0
4:12	-8.4	-15.9	-25.0	16.5	-8.4	-15.9	-25.0	16.5	-9.8	-19.6	-30.6	16.5
5:12	-8.4	-15.9	-25.0	15.6	-8.4	-15.9	-25.0	15.6	-9.8	-19.6	-30.6	15.6
6:12	-8.5	-16.0	-25.0	14.9	-8.5	-16.0	-25.0	14.9	-9.9	-19.7	-30.7	14.9
7:12	-9.0	-11.0	-11.0	14.1	-9.0	-11.0	-11.0	14.1	-11.1	-13.6	-13.6	15.2
8:12	-9.0	-11.0	-11.0	13.4	-9.0	-11.0	-11.0	13.4	-11.2	-13.6	-13.6	14.5
9:12	-9.0	-11.1	-11.1	12.8	-9.0	-11.1	-11.1	12.8	-11.2	-13.7	-13.7	14.1
10:12	-9.1	-11.1	-11.1	12.6	-9.1	-11.1	-11.1	12.6	-11.2	-13.7	-13.7	14.0
11:12	-9.1	-11.1	-11.1	12.4	-9.1	-11.1	-11.1	12.4	-11.3	-13.7	-13.7	13.8
12:12	-9.2	-11.2	-11.2	12.3	-9.2	-11.2	-11.2	12.3	-11.3	-13.8	-13.8	13.7
1:12	-11.0	-20.7	-33.0	22.2	-12.8	-24.1	-38.2	22.2	-15.0	-28.0	-44.3	22.2
2:12	-9.7	-19.5	-30.5	21.2	-11.4	-22.7	-35.4	21.2	-13.4	-26.4	-41.0	21.2
3:12	-9.8	-19.6	-30.6	20.0	-11.4	-22.7	-35.4	20.0	-13.4	-26.4	-41.0	20.0
4:12	-9.8	-19.6	-30.6	16.5	-11.5	-22.8	-35.5	16.5	-13.4	-26.4	-41.1	16.5
5:12	-9.8	-19.6	-30.6	15.6	-11.5	-22.8	-35.5	15.6	-13.5	-26.5	-41.1	15.6
6:12	-9.9	-19.7	-30.7	14.9	-11.5	-22.8	-35.5	14.9	-13.5	-26.5	-41.1	14.9
7:12	-11.1	-13.6	-13.6	15.2	-13.0	-15.8	-15.8	16.4	-15.2	-18.4	-18.4	18.0
8:12	-11.2	-13.6	-13.6	14.5	-13.0	-15.9	-15.9	15.9	-15.2	-18.5	-18.5	17.8
9:12	-11.2	-13.7	-13.7	14.1	-13.1	-15.9	-15.9	15.8	-15.2	-18.5	-18.5	17.7
10:12	-11.2	-13.7	-13.7	14.0	-13.1	-15.9	-15.9	15.7	-15.3	-18.5	-18.5	17.6
11:12	-11.3	-13.7	-13.7	13.8	-13.2	-16.0	-16.0	15.5	-15.3	-18.6	-18.6	17.5
12:12	-11.3	-13.8	-13.8	13.7	-13.2	-16.0	-16.0	15.4	-15.4	-18.6	-18.6	17.4
1:12	-13.5	-25.4	-40.2	22.2	-15.4	-28.8	-45.5	22.2	-17.6	-32.7	-51.5	22.2
2:12	-12.1	-23.9	-37.3	21.2	-13.8	-27.1	-42.1	21.2	-15.7	-30.8	-47.8	21.2
3:12	-12.1	-24.0	-37.3	20.0	-13.8	-27.1	-42.2	20.0	-15.7	-30.8	-47.8	20.0
4:12	-12.1	-24.0	-37.3	15.9	-13.8	-27.2	-42.2	15.9	-15.8	-30.8	-47.8	15.9
5:12	-12.2	-24.0	-37.4	15.2	-13.8	-27.2	-42.2	15.2	-15.8	-30.9	-47.8	15.2
6:12	-12.2	-24.1	-37.4	14.4	-13.9	-27.2	-42.3	14.4	-15.8	-30.9	-47.9	14.4
7:12	-13.7	-16.7	-16.7	16.7	-15.6	-18.9	-18.9	18.4	-17.7	-21.5	-21.5	20.3
8:12	-13.8	-16.7	-16.7	16.5	-15.6	-19.0	-19.0	18.2	-17.8	-21.6	-21.6	20.2
9:12	-13.8	-16.8	-16.8	16.4	-15.7	-19.0	-19.0	18.1	-17.8	-21.6	-21.6	20.0
10:12	-13.8	-16.8	-16.8	16.3	-15.7	-19.1	-19.1	18.0	-17.9	-21.6	-21.6	19.9
11:12	-13.9	-16.8	-16.8	16.2	-15.8	-19.1	-19.1	17.9	-17.9	-21.7	-21.7	19.8
12:12	-13.9	-16.9	-16.9	16.1	-15.8	-19.1	-19.1	17.7	-17.9	-21.7	-21.7	19.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.8	-16.9	-26.9	25.9	-8.8	-16.9	-26.9	25.9	-11.0	-20.7	-33.0	25.9
2:12	-8.3	-15.9	-24.9	24.6	-8.3	-15.9	-24.9	24.6	-9.7	-19.5	-30.5	24.6
3:12	-8.4	-15.9	-25.0	23.1	-8.4	-15.9	-25.0	23.1	-9.8	-19.6	-30.6	23.1
4:12	-8.4	-15.9	-25.0	18.3	-8.4	-15.9	-25.0	18.3	-9.8	-19.6	-30.6	18.3
5:12	-8.4	-15.9	-25.0	17.3	-8.4	-15.9	-25.0	17.3	-9.8	-19.6	-30.6	17.3
6:12	-8.5	-16.0	-25.0	16.3	-8.5	-16.0	-25.0	16.3	-9.9	-19.7	-30.7	16.3
7:12	-9.0	-11.0	-11.0	15.3	-9.0	-11.0	-11.0	15.3	-11.1	-13.6	-13.6	16.4
8:12	-9.0	-11.0	-11.0	14.5	-9.0	-11.0	-11.0	14.5	-11.2	-13.6	-13.6	15.5
9:12	-9.0	-11.1	-11.1	13.7	-9.0	-11.1	-11.1	13.7	-11.2	-13.7	-13.7	14.8
10:12	-9.1	-11.1	-11.1	13.0	-9.1	-11.1	-11.1	13.0	-11.2	-13.7	-13.7	14.1
11:12	-9.1	-11.1	-11.1	12.4	-9.1	-11.1	-11.1	12.4	-11.3	-13.7	-13.7	13.8
12:12	-9.2	-11.2	-11.2	12.3	-9.2	-11.2	-11.2	12.3	-11.3	-13.8	-13.8	13.7
Exposure Category C												
1:12	-11.0	-20.7	-33.0	25.9	-12.8	-24.1	-38.2	25.9	-15.0	-28.0	-44.3	25.9
2:12	-9.7	-19.5	-30.5	24.6	-11.4	-22.7	-35.4	24.6	-13.4	-26.4	-41.0	24.6
3:12	-9.8	-19.6	-30.6	23.1	-11.4	-22.7	-35.4	23.1	-13.4	-26.4	-41.0	23.1
4:12	-9.8	-19.6	-30.6	18.3	-11.5	-22.8	-35.5	18.3	-13.4	-26.4	-41.1	18.3
5:12	-9.8	-19.6	-30.6	17.3	-11.5	-22.8	-35.5	17.3	-13.5	-26.5	-41.1	17.3
6:12	-9.9	-19.7	-30.7	16.3	-11.5	-22.8	-35.5	16.3	-13.5	-26.5	-41.1	16.3
7:12	-11.1	-13.6	-13.6	16.4	-13.0	-15.8	-15.8	17.6	-15.2	-18.4	-18.4	19.1
8:12	-11.2	-13.6	-13.6	15.5	-13.0	-15.9	-15.9	16.8	-15.2	-18.5	-18.5	18.2
9:12	-11.2	-13.7	-13.7	14.8	-13.1	-15.9	-15.9	16.0	-15.2	-18.5	-18.5	17.7
10:12	-11.2	-13.7	-13.7	14.1	-13.1	-15.9	-15.9	15.7	-15.3	-18.5	-18.5	17.6
11:12	-11.3	-13.7	-13.7	13.8	-13.2	-16.0	-16.0	15.5	-15.3	-18.6	-18.6	17.5
12:12	-11.3	-13.8	-13.8	13.7	-13.2	-16.0	-16.0	15.4	-15.4	-18.6	-18.6	17.4
Exposure Category D												
1:12	-13.5	-25.4	-40.2	25.9	-15.4	-28.8	-45.5	25.9	-17.6	-32.7	-51.5	25.9
2:12	-12.1	-23.9	-37.3	24.6	-13.8	-27.1	-42.1	24.6	-15.7	-30.8	-47.8	24.6
3:12	-12.1	-24.0	-37.3	23.1	-13.8	-27.1	-42.2	23.1	-15.7	-30.8	-47.8	23.1
4:12	-12.1	-24.0	-37.3	17.6	-13.8	-27.2	-42.2	17.6	-15.8	-30.8	-47.8	17.6
5:12	-12.2	-24.0	-37.4	16.6	-13.8	-27.2	-42.2	16.6	-15.8	-30.9	-47.8	16.6
6:12	-12.2	-24.1	-37.4	15.7	-13.9	-27.2	-42.3	15.7	-15.8	-30.9	-47.9	15.7
7:12	-13.7	-16.7	-16.7	17.6	-15.6	-18.9	-18.9	18.9	-17.7	-21.5	-21.5	20.4
8:12	-13.8	-16.7	-16.7	16.9	-15.6	-19.0	-19.0	18.2	-17.8	-21.6	-21.6	20.2
9:12	-13.8	-16.8	-16.8	16.4	-15.7	-19.0	-19.0	18.1	-17.8	-21.6	-21.6	20.0
10:12	-13.8	-16.8	-16.8	16.3	-15.7	-19.1	-19.1	18.0	-17.9	-21.6	-21.6	19.9
11:12	-13.9	-16.8	-16.8	16.2	-15.8	-19.1	-19.1	17.9	-17.9	-21.7	-21.7	19.8
12:12	-13.9	-16.9	-16.9	16.1	-15.8	-19.1	-19.1	17.7	-17.9	-21.7	-21.7	19.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed
105 mph

Ground Snow Load
20 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.8	-16.9	-26.9	25.9	-8.8	-16.9	-26.9	25.9	-11.0	-20.7	-33.0	25.9
2:12	-8.3	-15.9	-24.9	24.6	-8.3	-15.9	-24.9	24.6	-9.7	-19.5	-30.5	24.6
3:12	-8.4	-15.9	-25.0	23.1	-8.4	-15.9	-25.0	23.1	-9.8	-19.6	-30.6	23.1
4:12	-8.4	-15.9	-25.0	20.2	-8.4	-15.9	-25.0	20.2	-9.8	-19.6	-30.6	20.2
5:12	-8.4	-15.9	-25.0	18.9	-8.4	-15.9	-25.0	18.9	-9.8	-19.6	-30.6	18.9
6:12	-8.5	-16.0	-25.0	17.7	-8.5	-16.0	-25.0	17.7	-9.9	-19.7	-30.7	17.7
7:12	-9.0	-11.0	-11.0	16.5	-9.0	-11.0	-11.0	16.5	-11.1	-13.6	-13.6	17.6
8:12	-9.0	-11.0	-11.0	15.5	-9.0	-11.0	-11.0	15.5	-11.2	-13.6	-13.6	16.5
9:12	-9.0	-11.1	-11.1	14.6	-9.0	-11.1	-11.1	14.6	-11.2	-13.7	-13.7	15.6
10:12	-9.1	-11.1	-11.1	13.8	-9.1	-11.1	-11.1	13.8	-11.2	-13.7	-13.7	14.8
11:12	-9.1	-11.1	-11.1	13.1	-9.1	-11.1	-11.1	13.1	-11.3	-13.7	-13.7	14.1
12:12	-9.2	-11.2	-11.2	12.4	-9.2	-11.2	-11.2	12.4	-11.3	-13.8	-13.8	13.7
Exposure Category C												
1:12	-11.0	-20.7	-33.0	25.9	-12.8	-24.1	-38.2	25.9	-15.0	-28.0	-44.3	25.9
2:12	-9.7	-19.5	-30.5	24.6	-11.4	-22.7	-35.4	24.6	-13.4	-26.4	-41.0	24.6
3:12	-9.8	-19.6	-30.6	23.1	-11.4	-22.7	-35.4	23.1	-13.4	-26.4	-41.0	23.1
4:12	-9.8	-19.6	-30.6	20.2	-11.5	-22.8	-35.5	20.2	-13.4	-26.4	-41.1	20.2
5:12	-9.8	-19.6	-30.6	18.9	-11.5	-22.8	-35.5	18.9	-13.5	-26.5	-41.1	18.9
6:12	-9.9	-19.7	-30.7	17.7	-11.5	-22.8	-35.5	17.7	-13.5	-26.5	-41.1	17.7
7:12	-11.1	-13.6	-13.6	17.6	-13.0	-15.8	-15.8	18.8	-15.2	-18.4	-18.4	20.3
8:12	-11.2	-13.6	-13.6	16.5	-13.0	-15.9	-15.9	17.8	-15.2	-18.5	-18.5	19.3
9:12	-11.2	-13.7	-13.7	15.6	-13.1	-15.9	-15.9	16.9	-15.2	-18.5	-18.5	18.3
10:12	-11.2	-13.7	-13.7	14.8	-13.1	-15.9	-15.9	16.1	-15.3	-18.5	-18.5	17.6
11:12	-11.3	-13.7	-13.7	14.1	-13.2	-16.0	-16.0	15.5	-15.3	-18.6	-18.6	17.5
12:12	-11.3	-13.8	-13.8	13.7	-13.2	-16.0	-16.0	15.4	-15.4	-18.6	-18.6	17.4
Exposure Category D												
1:12	-13.5	-25.4	-40.2	25.9	-15.4	-28.8	-45.5	25.9	-17.6	-32.7	-51.5	25.9
2:12	-12.1	-23.9	-37.3	24.6	-13.8	-27.1	-42.1	24.6	-15.7	-30.8	-47.8	24.6
3:12	-12.1	-24.0	-37.3	23.1	-13.8	-27.1	-42.2	23.1	-15.7	-30.8	-47.8	23.1
4:12	-12.1	-24.0	-37.3	19.3	-13.8	-27.2	-42.2	19.3	-15.8	-30.8	-47.8	19.3
5:12	-12.2	-24.0	-37.4	18.1	-13.8	-27.2	-42.2	18.1	-15.8	-30.9	-47.8	18.1
6:12	-12.2	-24.1	-37.4	17.0	-13.9	-27.2	-42.3	17.0	-15.8	-30.9	-47.9	17.0
7:12	-13.7	-16.7	-16.7	18.7	-15.6	-18.9	-18.9	20.0	-17.7	-21.5	-21.5	21.4
8:12	-13.8	-16.7	-16.7	17.8	-15.6	-19.0	-19.0	19.0	-17.8	-21.6	-21.6	20.5
9:12	-13.8	-16.8	-16.8	16.9	-15.7	-19.0	-19.0	18.2	-17.8	-21.6	-21.6	20.0
10:12	-13.8	-16.8	-16.8	16.3	-15.7	-19.1	-19.1	18.0	-17.9	-21.6	-21.6	19.9
11:12	-13.9	-16.8	-16.8	16.2	-15.8	-19.1	-19.1	17.9	-17.9	-21.7	-21.7	19.8
12:12	-13.9	-16.9	-16.9	16.1	-15.8	-19.1	-19.1	17.7	-17.9	-21.7	-21.7	19.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

105 mph

Ground Snow Load

25 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.8	-16.9	-26.9	26.7	-8.8	-16.9	-26.9	26.7	-11.0	-20.7	-33.0	26.7
2:12	-8.3	-15.9	-24.9	25.3	-8.3	-15.9	-24.9	25.3	-9.7	-19.5	-30.5	25.3
3:12	-8.4	-15.9	-25.0	23.7	-8.4	-15.9	-25.0	23.7	-9.8	-19.6	-30.6	23.7
4:12	-8.4	-15.9	-25.0	22.1	-8.4	-15.9	-25.0	22.1	-9.8	-19.6	-30.6	22.1
5:12	-8.4	-15.9	-25.0	20.5	-8.4	-15.9	-25.0	20.5	-9.8	-19.6	-30.6	20.5
6:12	-8.5	-16.0	-25.0	19.1	-8.5	-16.0	-25.0	19.1	-9.9	-19.7	-30.7	19.1
7:12	-9.0	-11.0	-11.0	17.7	-9.0	-11.0	-11.0	17.7	-11.1	-13.6	-13.6	18.8
8:12	-9.0	-11.0	-11.0	16.5	-9.0	-11.0	-11.0	16.5	-11.2	-13.6	-13.6	17.6
9:12	-9.0	-11.1	-11.1	15.4	-9.0	-11.1	-11.1	15.4	-11.2	-13.7	-13.7	16.5
10:12	-9.1	-11.1	-11.1	14.5	-9.1	-11.1	-11.1	14.5	-11.2	-13.7	-13.7	15.5
11:12	-9.1	-11.1	-11.1	13.7	-9.1	-11.1	-11.1	13.7	-11.3	-13.7	-13.7	14.7
12:12	-9.2	-11.2	-11.2	12.9	-9.2	-11.2	-11.2	12.9	-11.3	-13.8	-13.8	14.0
Exposure Category C												
1:12	-11.0	-20.7	-33.0	26.7	-12.8	-24.1	-38.2	26.7	-15.0	-28.0	-44.3	26.7
2:12	-9.7	-19.5	-30.5	25.3	-11.4	-22.7	-35.4	25.3	-13.4	-26.4	-41.0	25.3
3:12	-9.8	-19.6	-30.6	23.7	-11.4	-22.7	-35.4	23.7	-13.4	-26.4	-41.0	23.7
4:12	-9.8	-19.6	-30.6	22.1	-11.5	-22.8	-35.5	22.1	-13.4	-26.4	-41.1	22.1
5:12	-9.8	-19.6	-30.6	20.5	-11.5	-22.8	-35.5	20.5	-13.5	-26.5	-41.1	20.5
6:12	-9.9	-19.7	-30.7	19.1	-11.5	-22.8	-35.5	19.1	-13.5	-26.5	-41.1	19.1
7:12	-11.1	-13.6	-13.6	18.8	-13.0	-15.8	-15.8	20.0	-15.2	-18.4	-18.4	21.5
8:12	-11.2	-13.6	-13.6	17.6	-13.0	-15.9	-15.9	18.8	-15.2	-18.5	-18.5	20.3
9:12	-11.2	-13.7	-13.7	16.5	-13.1	-15.9	-15.9	17.7	-15.2	-18.5	-18.5	19.2
10:12	-11.2	-13.7	-13.7	15.5	-13.1	-15.9	-15.9	16.8	-15.3	-18.5	-18.5	18.3
11:12	-11.3	-13.7	-13.7	14.7	-13.2	-16.0	-16.0	16.0	-15.3	-18.6	-18.6	17.5
12:12	-11.3	-13.8	-13.8	14.0	-13.2	-16.0	-16.0	15.4	-15.4	-18.6	-18.6	17.4
Exposure Category D												
1:12	-13.5	-25.4	-40.2	25.9	-15.4	-28.8	-45.5	25.9	-17.6	-32.7	-51.5	25.9
2:12	-12.1	-23.9	-37.3	24.6	-13.8	-27.1	-42.1	24.6	-15.7	-30.8	-47.8	24.6
3:12	-12.1	-24.0	-37.3	23.1	-13.8	-27.1	-42.2	23.1	-15.7	-30.8	-47.8	23.1
4:12	-12.1	-24.0	-37.3	21.0	-13.8	-27.2	-42.2	21.0	-15.8	-30.8	-47.8	21.0
5:12	-12.2	-24.0	-37.4	19.6	-13.8	-27.2	-42.2	19.6	-15.8	-30.9	-47.8	19.6
6:12	-12.2	-24.1	-37.4	18.2	-13.9	-27.2	-42.3	18.2	-15.8	-30.9	-47.9	18.2
7:12	-13.7	-16.7	-16.7	19.8	-15.6	-18.9	-18.9	21.1	-17.7	-21.5	-21.5	22.5
8:12	-13.8	-16.7	-16.7	18.7	-15.6	-19.0	-19.0	20.0	-17.8	-21.6	-21.6	21.4
9:12	-13.8	-16.8	-16.8	17.7	-15.7	-19.0	-19.0	19.0	-17.8	-21.6	-21.6	20.4
10:12	-13.8	-16.8	-16.8	16.8	-15.7	-19.1	-19.1	18.1	-17.9	-21.6	-21.6	19.9
11:12	-13.9	-16.8	-16.8	16.2	-15.8	-19.1	-19.1	17.9	-17.9	-21.7	-21.7	19.8
12:12	-13.9	-16.9	-16.9	16.1	-15.8	-19.1	-19.1	17.7	-17.9	-21.7	-21.7	19.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
105 mph

Ground Snow Load
30 psf

Up and Down (psf)

Basic Wind Speed **105 mph**
Ground Snow Load **35 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.8	-16.9	-26.9	29.3	-8.8	-16.9	-26.9	29.3	-11.0	-20.7	-33.0	29.3
2:12	-8.3	-15.9	-24.9	27.6	-8.3	-15.9	-24.9	27.6	-9.7	-19.5	-30.5	27.6
3:12	-8.4	-15.9	-25.0	25.8	-8.4	-15.9	-25.0	25.8	-9.8	-19.6	-30.6	25.8
4:12	-8.4	-15.9	-25.0	24.0	-8.4	-15.9	-25.0	24.0	-9.8	-19.6	-30.6	24.0
5:12	-8.4	-15.9	-25.0	22.2	-8.4	-15.9	-25.0	22.2	-9.8	-19.6	-30.6	22.2
6:12	-8.5	-16.0	-25.0	20.5	-8.5	-16.0	-25.0	20.5	-9.9	-19.7	-30.7	20.5
7:12	-9.0	-11.0	-11.0	18.9	-9.0	-11.0	-11.0	18.9	-11.1	-13.6	-13.6	20.0
8:12	-9.0	-11.0	-11.0	17.5	-9.0	-11.0	-11.0	17.5	-11.2	-13.6	-13.6	18.6
9:12	-9.0	-11.1	-11.1	16.3	-9.0	-11.1	-11.1	16.3	-11.2	-13.7	-13.7	17.3
10:12	-9.1	-11.1	-11.1	15.2	-9.1	-11.1	-11.1	15.2	-11.2	-13.7	-13.7	16.3
11:12	-9.1	-11.1	-11.1	14.3	-9.1	-11.1	-11.1	14.3	-11.3	-13.7	-13.7	15.3
12:12	-9.2	-11.2	-11.2	13.5	-9.2	-11.2	-11.2	13.5	-11.3	-13.8	-13.8	14.5
Exposure Category C												
1:12	-11.0	-20.7	-33.0	29.3	-12.8	-24.1	-38.2	29.3	-15.0	-28.0	-44.3	29.3
2:12	-9.7	-19.5	-30.5	27.6	-11.4	-22.7	-35.4	27.6	-13.4	-26.4	-41.0	27.6
3:12	-9.8	-19.6	-30.6	25.8	-11.4	-22.7	-35.4	25.8	-13.4	-26.4	-41.0	25.8
4:12	-9.8	-19.6	-30.6	24.0	-11.5	-22.8	-35.5	24.0	-13.4	-26.4	-41.1	24.0
5:12	-9.8	-19.6	-30.6	22.2	-11.5	-22.8	-35.5	22.2	-13.5	-26.5	-41.1	22.2
6:12	-9.9	-19.7	-30.7	20.5	-11.5	-22.8	-35.5	20.5	-13.5	-26.5	-41.1	20.5
7:12	-11.1	-13.6	-13.6	20.0	-13.0	-15.8	-15.8	21.2	-15.2	-18.4	-18.4	22.7
8:12	-11.2	-13.6	-13.6	18.6	-13.0	-15.9	-15.9	19.8	-15.2	-18.5	-18.5	21.3
9:12	-11.2	-13.7	-13.7	17.3	-13.1	-15.9	-15.9	18.6	-15.2	-18.5	-18.5	20.1
10:12	-11.2	-13.7	-13.7	16.3	-13.1	-15.9	-15.9	17.5	-15.3	-18.5	-18.5	19.0
11:12	-11.3	-13.7	-13.7	15.3	-13.2	-16.0	-16.0	16.6	-15.3	-18.6	-18.6	18.0
12:12	-11.3	-13.8	-13.8	14.5	-13.2	-16.0	-16.0	15.8	-15.4	-18.6	-18.6	17.4
Exposure Category D												
1:12	-13.5	-25.4	-40.2	27.5	-15.4	-28.8	-45.5	27.5	-17.6	-32.7	-51.5	27.5
2:12	-12.1	-23.9	-37.3	26.0	-13.8	-27.1	-42.1	26.0	-15.7	-30.8	-47.8	26.0
3:12	-12.1	-24.0	-37.3	24.3	-13.8	-27.1	-42.2	24.3	-15.7	-30.8	-47.8	24.3
4:12	-12.1	-24.0	-37.3	22.7	-13.8	-27.2	-42.2	22.7	-15.8	-30.8	-47.8	22.7
5:12	-12.2	-24.0	-37.4	21.0	-13.8	-27.2	-42.2	21.0	-15.8	-30.9	-47.8	21.0
6:12	-12.2	-24.1	-37.4	19.5	-13.9	-27.2	-42.3	19.5	-15.8	-30.9	-47.9	19.5
7:12	-13.7	-16.7	-16.7	20.9	-15.6	-18.9	-18.9	22.1	-17.7	-21.5	-21.5	23.6
8:12	-13.8	-16.7	-16.7	19.6	-15.6	-19.0	-19.0	20.9	-17.8	-21.6	-21.6	22.3
9:12	-13.8	-16.8	-16.8	18.5	-15.7	-19.0	-19.0	19.7	-17.8	-21.6	-21.6	21.2
10:12	-13.8	-16.8	-16.8	17.5	-15.7	-19.1	-19.1	18.8	-17.9	-21.6	-21.6	20.2
11:12	-13.9	-16.8	-16.8	16.6	-15.8	-19.1	-19.1	17.9	-17.9	-21.7	-21.7	19.8
12:12	-13.9	-16.9	-16.9	16.1	-15.8	-19.1	-19.1	17.7	-17.9	-21.7	-21.7	19.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
105 mph

Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.8	-16.9	-26.9	31.9	-8.8	-16.9	-26.9	31.9	-11.0	-20.7	-33.0	31.9
2:12	-8.3	-15.9	-24.9	30.0	-8.3	-15.9	-24.9	30.0	-9.7	-19.5	-30.5	30.0
3:12	-8.4	-15.9	-25.0	27.9	-8.4	-15.9	-25.0	27.9	-9.8	-19.6	-30.6	27.9
4:12	-8.4	-15.9	-25.0	25.8	-8.4	-15.9	-25.0	25.8	-9.8	-19.6	-30.6	25.8
5:12	-8.4	-15.9	-25.0	23.8	-8.4	-15.9	-25.0	23.8	-9.8	-19.6	-30.6	23.8
6:12	-8.5	-16.0	-25.0	21.9	-8.5	-16.0	-25.0	21.9	-9.9	-19.7	-30.7	21.9
7:12	-9.0	-11.0	-11.0	20.1	-9.0	-11.0	-11.0	20.1	-11.1	-13.6	-13.6	21.2
8:12	-9.0	-11.0	-11.0	18.5	-9.0	-11.0	-11.0	18.5	-11.2	-13.6	-13.6	19.6
9:12	-9.0	-11.1	-11.1	17.1	-9.0	-11.1	-11.1	17.1	-11.2	-13.7	-13.7	18.2
10:12	-9.1	-11.1	-11.1	15.9	-9.1	-11.1	-11.1	15.9	-11.2	-13.7	-13.7	17.0
11:12	-9.1	-11.1	-11.1	14.9	-9.1	-11.1	-11.1	14.9	-11.3	-13.7	-13.7	15.9
12:12	-9.2	-11.2	-11.2	14.0	-9.2	-11.2	-11.2	14.0	-11.3	-13.8	-13.8	15.0
1:12	-11.0	-20.7	-33.0	31.9	-12.8	-24.1	-38.2	31.9	-15.0	-28.0	-44.3	31.9
2:12	-9.7	-19.5	-30.5	30.0	-11.4	-22.7	-35.4	30.0	-13.4	-26.4	-41.0	30.0
3:12	-9.8	-19.6	-30.6	27.9	-11.4	-22.7	-35.4	27.9	-13.4	-26.4	-41.0	27.9
4:12	-9.8	-19.6	-30.6	25.8	-11.5	-22.8	-35.5	25.8	-13.4	-26.4	-41.1	25.8
5:12	-9.8	-19.6	-30.6	23.8	-11.5	-22.8	-35.5	23.8	-13.5	-26.5	-41.1	23.8
6:12	-9.9	-19.7	-30.7	21.9	-11.5	-22.8	-35.5	21.9	-13.5	-26.5	-41.1	21.9
7:12	-11.1	-13.6	-13.6	21.2	-13.0	-15.8	-15.8	22.4	-15.2	-18.4	-18.4	23.9
8:12	-11.2	-13.6	-13.6	19.6	-13.0	-15.9	-15.9	20.8	-15.2	-18.5	-18.5	22.3
9:12	-11.2	-13.7	-13.7	18.2	-13.1	-15.9	-15.9	19.5	-15.2	-18.5	-18.5	20.9
10:12	-11.2	-13.7	-13.7	17.0	-13.1	-15.9	-15.9	18.2	-15.3	-18.5	-18.5	19.7
11:12	-11.3	-13.7	-13.7	15.9	-13.2	-16.0	-16.0	17.2	-15.3	-18.6	-18.6	18.6
12:12	-11.3	-13.8	-13.8	15.0	-13.2	-16.0	-16.0	16.3	-15.4	-18.6	-18.6	17.7
1:12	-13.5	-25.4	-40.2	29.8	-15.4	-28.8	-45.5	29.8	-17.6	-32.7	-51.5	29.8
2:12	-12.1	-23.9	-37.3	28.1	-13.8	-27.1	-42.1	28.1	-15.7	-30.8	-47.8	28.1
3:12	-12.1	-24.0	-37.3	26.2	-13.8	-27.1	-42.2	26.2	-15.7	-30.8	-47.8	26.2
4:12	-12.1	-24.0	-37.3	24.3	-13.8	-27.2	-42.2	24.3	-15.8	-30.8	-47.8	24.3
5:12	-12.2	-24.0	-37.4	22.5	-13.8	-27.2	-42.2	22.5	-15.8	-30.9	-47.8	22.5
6:12	-12.2	-24.1	-37.4	20.7	-13.9	-27.2	-42.3	20.7	-15.8	-30.9	-47.9	20.7
7:12	-13.7	-16.7	-16.7	22.0	-15.6	-18.9	-18.9	23.2	-17.7	-21.5	-21.5	24.7
8:12	-13.8	-16.7	-16.7	20.5	-15.6	-19.0	-19.0	21.8	-17.8	-21.6	-21.6	23.2
9:12	-13.8	-16.8	-16.8	19.3	-15.7	-19.0	-19.0	20.5	-17.8	-21.6	-21.6	22.0
10:12	-13.8	-16.8	-16.8	18.1	-15.7	-19.1	-19.1	19.4	-17.9	-21.6	-21.6	20.9
11:12	-13.9	-16.8	-16.8	17.2	-15.8	-19.1	-19.1	18.5	-17.9	-21.7	-21.7	19.9
12:12	-13.9	-16.9	-16.9	16.4	-15.8	-19.1	-19.1	17.7	-17.9	-21.7	-21.7	19.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
105 mph
Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.8	-16.9	-26.9	35.1	-8.8	-16.9	-26.9	35.1	-11.0	-20.7	-33.0	35.1
2:12	-8.3	-15.9	-24.9	32.4	-8.3	-15.9	-24.9	32.4	-9.7	-19.5	-30.5	32.4
3:12	-8.4	-15.9	-25.0	30.1	-8.4	-15.9	-25.0	30.1	-9.8	-19.6	-30.6	30.1
4:12	-8.4	-15.9	-25.0	27.7	-8.4	-15.9	-25.0	27.7	-9.8	-19.6	-30.6	27.7
5:12	-8.4	-15.9	-25.0	25.4	-8.4	-15.9	-25.0	25.4	-9.8	-19.6	-30.6	25.4
6:12	-8.5	-16.0	-25.0	23.3	-8.5	-16.0	-25.0	23.3	-9.9	-19.7	-30.7	23.3
7:12	-9.0	-11.0	-11.0	21.3	-9.0	-11.0	-11.0	21.3	-11.1	-13.6	-13.6	22.4
8:12	-9.0	-11.0	-11.0	19.5	-9.0	-11.0	-11.0	19.5	-11.2	-13.6	-13.6	20.6
9:12	-9.0	-11.1	-11.1	18.0	-9.0	-11.1	-11.1	18.0	-11.2	-13.7	-13.7	19.0
10:12	-9.1	-11.1	-11.1	16.6	-9.1	-11.1	-11.1	16.6	-11.2	-13.7	-13.7	17.7
11:12	-9.1	-11.1	-11.1	15.5	-9.1	-11.1	-11.1	15.5	-11.3	-13.7	-13.7	16.5
12:12	-9.2	-11.2	-11.2	14.5	-9.2	-11.2	-11.2	14.5	-11.3	-13.8	-13.8	15.5
1:12	-11.0	-20.7	-33.0	35.1	-12.8	-24.1	-38.2	35.1	-15.0	-28.0	-44.3	35.1
2:12	-9.7	-19.5	-30.5	32.4	-11.4	-22.7	-35.4	32.4	-13.4	-26.4	-41.0	32.4
3:12	-9.8	-19.6	-30.6	30.1	-11.4	-22.7	-35.4	30.1	-13.4	-26.4	-41.0	30.1
4:12	-9.8	-19.6	-30.6	27.7	-11.5	-22.8	-35.5	27.7	-13.4	-26.4	-41.1	27.7
5:12	-9.8	-19.6	-30.6	25.4	-11.5	-22.8	-35.5	25.4	-13.5	-26.5	-41.1	25.4
6:12	-9.9	-19.7	-30.7	23.3	-11.5	-22.8	-35.5	23.3	-13.5	-26.5	-41.1	23.3
7:12	-11.1	-13.6	-13.6	22.4	-13.0	-15.8	-15.8	23.6	-15.2	-18.4	-18.4	25.1
8:12	-11.2	-13.6	-13.6	20.6	-13.0	-15.9	-15.9	21.9	-15.2	-18.5	-18.5	23.3
9:12	-11.2	-13.7	-13.7	19.0	-13.1	-15.9	-15.9	20.3	-15.2	-18.5	-18.5	21.8
10:12	-11.2	-13.7	-13.7	17.7	-13.1	-15.9	-15.9	19.0	-15.3	-18.5	-18.5	20.4
11:12	-11.3	-13.7	-13.7	16.5	-13.2	-16.0	-16.0	17.8	-15.3	-18.6	-18.6	19.2
12:12	-11.3	-13.8	-13.8	15.5	-13.2	-16.0	-16.0	16.8	-15.4	-18.6	-18.6	18.2
1:12	-13.5	-25.4	-40.2	32.1	-15.4	-28.8	-45.5	32.1	-17.6	-32.7	-51.5	32.1
2:12	-12.1	-23.9	-37.3	30.3	-13.8	-27.1	-42.1	30.3	-15.7	-30.8	-47.8	30.3
3:12	-12.1	-24.0	-37.3	28.2	-13.8	-27.1	-42.2	28.2	-15.7	-30.8	-47.8	28.2
4:12	-12.1	-24.0	-37.3	26.0	-13.8	-27.2	-42.2	26.0	-15.8	-30.8	-47.8	26.0
5:12	-12.2	-24.0	-37.4	24.0	-13.8	-27.2	-42.2	24.0	-15.8	-30.9	-47.8	24.0
6:12	-12.2	-24.1	-37.4	22.0	-13.9	-27.2	-42.3	22.0	-15.8	-30.9	-47.9	22.0
7:12	-13.7	-16.7	-16.7	23.0	-15.6	-18.9	-18.9	24.3	-17.7	-21.5	-21.5	25.8
8:12	-13.8	-16.7	-16.7	21.4	-15.6	-19.0	-19.0	22.7	-17.8	-21.6	-21.6	24.2
9:12	-13.8	-16.8	-16.8	20.0	-15.7	-19.0	-19.0	21.3	-17.8	-21.6	-21.6	22.7
10:12	-13.8	-16.8	-16.8	18.8	-15.7	-19.1	-19.1	20.1	-17.9	-21.6	-21.6	21.5
11:12	-13.9	-16.8	-16.8	17.7	-15.8	-19.1	-19.1	19.0	-17.9	-21.7	-21.7	20.5
12:12	-13.9	-16.9	-16.9	16.8	-15.8	-19.1	-19.1	18.1	-17.9	-21.7	-21.7	19.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
105 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-8.8	-16.9	-26.9	38.6	-8.8	-16.9	-26.9	38.6	-11.0	-20.7	-33.0	38.6
	2:12	-8.3	-15.9	-24.9	35.5	-8.3	-15.9	-24.9	35.5	-9.7	-19.5	-30.5	35.5
	3:12	-8.4	-15.9	-25.0	32.2	-8.4	-15.9	-25.0	32.2	-9.8	-19.6	-30.6	32.2
	4:12	-8.4	-15.9	-25.0	29.6	-8.4	-15.9	-25.0	29.6	-9.8	-19.6	-30.6	29.6
	5:12	-8.4	-15.9	-25.0	27.1	-8.4	-15.9	-25.0	27.1	-9.8	-19.6	-30.6	27.1
	6:12	-8.5	-16.0	-25.0	24.7	-8.5	-16.0	-25.0	24.7	-9.9	-19.7	-30.7	24.7
	7:12	-9.0	-11.0	-11.0	22.5	-9.0	-11.0	-11.0	22.5	-11.1	-13.6	-13.6	23.6
	8:12	-9.0	-11.0	-11.0	20.6	-9.0	-11.0	-11.0	20.6	-11.2	-13.6	-13.6	21.6
	9:12	-9.0	-11.1	-11.1	18.8	-9.0	-11.1	-11.1	18.8	-11.2	-13.7	-13.7	19.9
	10:12	-9.1	-11.1	-11.1	17.4	-9.1	-11.1	-11.1	17.4	-11.2	-13.7	-13.7	18.4
	11:12	-9.1	-11.1	-11.1	16.1	-9.1	-11.1	-11.1	16.1	-11.3	-13.7	-13.7	17.1
	12:12	-9.2	-11.2	-11.2	15.0	-9.2	-11.2	-11.2	15.0	-11.3	-13.8	-13.8	16.0
Exposure Category C	1:12	-11.0	-20.7	-33.0	38.6	-12.8	-24.1	-38.2	38.6	-15.0	-28.0	-44.3	38.6
	2:12	-9.7	-19.5	-30.5	35.5	-11.4	-22.7	-35.4	35.5	-13.4	-26.4	-41.0	35.5
	3:12	-9.8	-19.6	-30.6	32.2	-11.4	-22.7	-35.4	32.2	-13.4	-26.4	-41.0	32.2
	4:12	-9.8	-19.6	-30.6	29.6	-11.5	-22.8	-35.5	29.6	-13.4	-26.4	-41.1	29.6
	5:12	-9.8	-19.6	-30.6	27.1	-11.5	-22.8	-35.5	27.1	-13.5	-26.5	-41.1	27.1
	6:12	-9.9	-19.7	-30.7	24.7	-11.5	-22.8	-35.5	24.7	-13.5	-26.5	-41.1	24.7
	7:12	-11.1	-13.6	-13.6	23.6	-13.0	-15.8	-15.8	24.8	-15.2	-18.4	-18.4	26.3
	8:12	-11.2	-13.6	-13.6	21.6	-13.0	-15.9	-15.9	22.9	-15.2	-18.5	-18.5	24.3
	9:12	-11.2	-13.7	-13.7	19.9	-13.1	-15.9	-15.9	21.2	-15.2	-18.5	-18.5	22.6
	10:12	-11.2	-13.7	-13.7	18.4	-13.1	-15.9	-15.9	19.7	-15.3	-18.5	-18.5	21.1
	11:12	-11.3	-13.7	-13.7	17.1	-13.2	-16.0	-16.0	18.4	-15.3	-18.6	-18.6	19.8
	12:12	-11.3	-13.8	-13.8	16.0	-13.2	-16.0	-16.0	17.3	-15.4	-18.6	-18.6	18.7
Exposure Category D	1:12	-13.5	-25.4	-40.2	35.1	-15.4	-28.8	-45.5	35.1	-17.6	-32.7	-51.5	35.1
	2:12	-12.1	-23.9	-37.3	32.4	-13.8	-27.1	-42.1	32.4	-15.7	-30.8	-47.8	32.4
	3:12	-12.1	-24.0	-37.3	30.1	-13.8	-27.1	-42.2	30.1	-15.7	-30.8	-47.8	30.1
	4:12	-12.1	-24.0	-37.3	27.7	-13.8	-27.2	-42.2	27.7	-15.8	-30.8	-47.8	27.7
	5:12	-12.2	-24.0	-37.4	25.4	-13.8	-27.2	-42.2	25.4	-15.8	-30.9	-47.8	25.4
	6:12	-12.2	-24.1	-37.4	23.3	-13.9	-27.2	-42.3	23.3	-15.8	-30.9	-47.9	23.3
	7:12	-13.7	-16.7	-16.7	24.1	-15.6	-18.9	-18.9	25.4	-17.7	-21.5	-21.5	26.8
	8:12	-13.8	-16.7	-16.7	22.3	-15.6	-19.0	-19.0	23.6	-17.8	-21.6	-21.6	25.1
	9:12	-13.8	-16.8	-16.8	20.8	-15.7	-19.0	-19.0	22.1	-17.8	-21.6	-21.6	23.5
	10:12	-13.8	-16.8	-16.8	19.4	-15.7	-19.1	-19.1	20.7	-17.9	-21.6	-21.6	22.2
	11:12	-13.9	-16.8	-16.8	18.3	-15.8	-19.1	-19.1	19.5	-17.9	-21.7	-21.7	21.0
	12:12	-13.9	-16.9	-16.9	17.3	-15.8	-19.1	-19.1	18.5	-17.9	-21.7	-21.7	20.0
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
	2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
	3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
	4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
	5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
	6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
	7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
	8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
	9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
	10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
	11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.8	-16.9	-26.9	45.5	-8.8	-16.9	-26.9	45.5	-11.0	-20.7	-33.0	45.5
2:12	-8.3	-15.9	-24.9	41.9	-8.3	-15.9	-24.9	41.9	-9.7	-19.5	-30.5	41.9
3:12	-8.4	-15.9	-25.0	37.8	-8.4	-15.9	-25.0	37.8	-9.8	-19.6	-30.6	37.8
4:12	-8.4	-15.9	-25.0	33.6	-8.4	-15.9	-25.0	33.6	-9.8	-19.6	-30.6	33.6
5:12	-8.4	-15.9	-25.0	30.3	-8.4	-15.9	-25.0	30.3	-9.8	-19.6	-30.6	30.3
6:12	-8.5	-16.0	-25.0	27.5	-8.5	-16.0	-25.0	27.5	-9.9	-19.7	-30.7	27.5
7:12	-9.0	-11.0	-11.0	24.9	-9.0	-11.0	-11.0	24.9	-11.1	-13.6	-13.6	26.0
8:12	-9.0	-11.0	-11.0	22.6	-9.0	-11.0	-11.0	22.6	-11.2	-13.6	-13.6	23.6
9:12	-9.0	-11.1	-11.1	20.6	-9.0	-11.1	-11.1	20.6	-11.2	-13.7	-13.7	21.6
10:12	-9.1	-11.1	-11.1	18.8	-9.1	-11.1	-11.1	18.8	-11.2	-13.7	-13.7	19.9
11:12	-9.1	-11.1	-11.1	17.3	-9.1	-11.1	-11.1	17.3	-11.3	-13.7	-13.7	18.3
12:12	-9.2	-11.2	-11.2	16.0	-9.2	-11.2	-11.2	16.0	-11.3	-13.8	-13.8	17.0
Exposure Category C												
1:12	-11.0	-20.7	-33.0	45.5	-12.8	-24.1	-38.2	45.5	-15.0	-28.0	-44.3	45.5
2:12	-9.7	-19.5	-30.5	41.9	-11.4	-22.7	-35.4	41.9	-13.4	-26.4	-41.0	41.9
3:12	-9.8	-19.6	-30.6	37.8	-11.4	-22.7	-35.4	37.8	-13.4	-26.4	-41.0	37.8
4:12	-9.8	-19.6	-30.6	33.6	-11.5	-22.8	-35.5	33.6	-13.4	-26.4	-41.1	33.6
5:12	-9.8	-19.6	-30.6	30.3	-11.5	-22.8	-35.5	30.3	-13.5	-26.5	-41.1	30.3
6:12	-9.9	-19.7	-30.7	27.5	-11.5	-22.8	-35.5	27.5	-13.5	-26.5	-41.1	27.5
7:12	-11.1	-13.6	-13.6	26.0	-13.0	-15.8	-15.8	27.2	-15.2	-18.4	-18.4	28.7
8:12	-11.2	-13.6	-13.6	23.6	-13.0	-15.9	-15.9	24.9	-15.2	-18.5	-18.5	26.4
9:12	-11.2	-13.7	-13.7	21.6	-13.1	-15.9	-15.9	22.9	-15.2	-18.5	-18.5	24.3
10:12	-11.2	-13.7	-13.7	19.9	-13.1	-15.9	-15.9	21.1	-15.3	-18.5	-18.5	22.6
11:12	-11.3	-13.7	-13.7	18.3	-13.2	-16.0	-16.0	19.6	-15.3	-18.6	-18.6	21.1
12:12	-11.3	-13.8	-13.8	17.0	-13.2	-16.0	-16.0	18.3	-15.4	-18.6	-18.6	19.8
Exposure Category D												
1:12	-13.5	-25.4	-40.2	41.4	-15.4	-28.8	-45.5	41.4	-17.6	-32.7	-51.5	41.4
2:12	-12.1	-23.9	-37.3	38.0	-13.8	-27.1	-42.1	38.0	-15.7	-30.8	-47.8	38.0
3:12	-12.1	-24.0	-37.3	34.4	-13.8	-27.1	-42.2	34.4	-15.7	-30.8	-47.8	34.4
4:12	-12.1	-24.0	-37.3	31.1	-13.8	-27.2	-42.2	31.1	-15.8	-30.8	-47.8	31.1
5:12	-12.2	-24.0	-37.4	28.4	-13.8	-27.2	-42.2	28.4	-15.8	-30.9	-47.8	28.4
6:12	-12.2	-24.1	-37.4	25.8	-13.9	-27.2	-42.3	25.8	-15.8	-30.9	-47.9	25.8
7:12	-13.7	-16.7	-16.7	26.3	-15.6	-18.9	-18.9	27.5	-17.7	-21.5	-21.5	29.0
8:12	-13.8	-16.7	-16.7	24.2	-15.6	-19.0	-19.0	25.4	-17.8	-21.6	-21.6	26.9
9:12	-13.8	-16.8	-16.8	22.3	-15.7	-19.0	-19.0	23.6	-17.8	-21.6	-21.6	25.1
10:12	-13.8	-16.8	-16.8	20.7	-15.7	-19.1	-19.1	22.0	-17.9	-21.6	-21.6	23.5
11:12	-13.9	-16.8	-16.8	19.4	-15.8	-19.1	-19.1	20.6	-17.9	-21.7	-21.7	22.1
12:12	-13.9	-16.9	-16.9	18.2	-15.8	-19.1	-19.1	19.4	-17.9	-21.7	-21.7	20.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

105 mph

Ground Snow Load

60 psf

Up and Down (psf)

Basic Wind Speed
105 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.8	-16.9	-26.9	52.5	-8.8	-16.9	-26.9	52.5	-11.0	-20.7	-33.0	52.5
2:12	-8.3	-15.9	-24.9	48.2	-8.3	-15.9	-24.9	48.2	-9.7	-19.5	-30.5	48.2
3:12	-8.4	-15.9	-25.0	43.4	-8.4	-15.9	-25.0	43.4	-9.8	-19.6	-30.6	43.4
4:12	-8.4	-15.9	-25.0	38.6	-8.4	-15.9	-25.0	38.6	-9.8	-19.6	-30.6	38.6
5:12	-8.4	-15.9	-25.0	34.0	-8.4	-15.9	-25.0	34.0	-9.8	-19.6	-30.6	34.0
6:12	-8.5	-16.0	-25.0	30.3	-8.5	-16.0	-25.0	30.3	-9.9	-19.7	-30.7	30.3
7:12	-9.0	-11.0	-11.0	27.3	-9.0	-11.0	-11.0	27.3	-11.1	-13.6	-13.6	28.3
8:12	-9.0	-11.0	-11.0	24.6	-9.0	-11.0	-11.0	24.6	-11.2	-13.6	-13.6	25.7
9:12	-9.0	-11.1	-11.1	22.3	-9.0	-11.1	-11.1	22.3	-11.2	-13.7	-13.7	23.3
10:12	-9.1	-11.1	-11.1	20.2	-9.1	-11.1	-11.1	20.2	-11.2	-13.7	-13.7	21.3
11:12	-9.1	-11.1	-11.1	18.5	-9.1	-11.1	-11.1	18.5	-11.3	-13.7	-13.7	19.5
12:12	-9.2	-11.2	-11.2	17.0	-9.2	-11.2	-11.2	17.0	-11.3	-13.8	-13.8	18.0
1:12	-11.0	-20.7	-33.0	52.5	-12.8	-24.1	-38.2	52.5	-15.0	-28.0	-44.3	52.5
2:12	-9.7	-19.5	-30.5	48.2	-11.4	-22.7	-35.4	48.2	-13.4	-26.4	-41.0	48.2
3:12	-9.8	-19.6	-30.6	43.4	-11.4	-22.7	-35.4	43.4	-13.4	-26.4	-41.0	43.4
4:12	-9.8	-19.6	-30.6	38.6	-11.5	-22.8	-35.5	38.6	-13.4	-26.4	-41.1	38.6
5:12	-9.8	-19.6	-30.6	34.0	-11.5	-22.8	-35.5	34.0	-13.5	-26.5	-41.1	34.0
6:12	-9.9	-19.7	-30.7	30.3	-11.5	-22.8	-35.5	30.3	-13.5	-26.5	-41.1	30.3
7:12	-11.1	-13.6	-13.6	28.3	-13.0	-15.8	-15.8	29.6	-15.2	-18.4	-18.4	31.1
8:12	-11.2	-13.6	-13.6	25.7	-13.0	-15.9	-15.9	26.9	-15.2	-18.5	-18.5	28.4
9:12	-11.2	-13.7	-13.7	23.3	-13.1	-15.9	-15.9	24.6	-15.2	-18.5	-18.5	26.0
10:12	-11.2	-13.7	-13.7	21.3	-13.1	-15.9	-15.9	22.6	-15.3	-18.5	-18.5	24.0
11:12	-11.3	-13.7	-13.7	19.5	-13.2	-16.0	-16.0	20.8	-15.3	-18.6	-18.6	22.3
12:12	-11.3	-13.8	-13.8	18.0	-13.2	-16.0	-16.0	19.3	-15.4	-18.6	-18.6	20.8
1:12	-13.5	-25.4	-40.2	47.6	-15.4	-28.8	-45.5	47.6	-17.6	-32.7	-51.5	47.6
2:12	-12.1	-23.9	-37.3	43.8	-13.8	-27.1	-42.1	43.8	-15.7	-30.8	-47.8	43.8
3:12	-12.1	-24.0	-37.3	39.5	-13.8	-27.1	-42.2	39.5	-15.7	-30.8	-47.8	39.5
4:12	-12.1	-24.0	-37.3	35.1	-13.8	-27.2	-42.2	35.1	-15.8	-30.8	-47.8	35.1
5:12	-12.2	-24.0	-37.4	31.3	-13.8	-27.2	-42.2	31.3	-15.8	-30.9	-47.8	31.3
6:12	-12.2	-24.1	-37.4	28.3	-13.9	-27.2	-42.3	28.3	-15.8	-30.9	-47.9	28.3
7:12	-13.7	-16.7	-16.7	28.4	-15.6	-18.9	-18.9	29.7	-17.7	-21.5	-21.5	31.1
8:12	-13.8	-16.7	-16.7	26.0	-15.6	-19.0	-19.0	27.3	-17.8	-21.6	-21.6	28.7
9:12	-13.8	-16.8	-16.8	23.9	-15.7	-19.0	-19.0	25.1	-17.8	-21.6	-21.6	26.6
10:12	-13.8	-16.8	-16.8	22.0	-15.7	-19.1	-19.1	23.3	-17.9	-21.6	-21.6	24.8
11:12	-13.9	-16.8	-16.8	20.4	-15.8	-19.1	-19.1	21.7	-17.9	-21.7	-21.7	23.2
12:12	-13.9	-16.9	-16.9	19.1	-15.8	-19.1	-19.1	20.4	-17.9	-21.7	-21.7	21.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
105 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-8.8	-16.9	-26.9	59.4	-8.8	-16.9	-26.9	59.4	-11.0	-20.7	-33.0	59.4
2:12	-8.3	-15.9	-24.9	54.5	-8.3	-15.9	-24.9	54.5	-9.7	-19.5	-30.5	54.5
3:12	-8.4	-15.9	-25.0	49.1	-8.4	-15.9	-25.0	49.1	-9.8	-19.6	-30.6	49.1
4:12	-8.4	-15.9	-25.0	43.6	-8.4	-15.9	-25.0	43.6	-9.8	-19.6	-30.6	43.6
5:12	-8.4	-15.9	-25.0	38.3	-8.4	-15.9	-25.0	38.3	-9.8	-19.6	-30.6	38.3
6:12	-8.5	-16.0	-25.0	33.4	-8.5	-16.0	-25.0	33.4	-9.9	-19.7	-30.7	33.4
7:12	-9.0	-11.0	-11.0	29.7	-9.0	-11.0	-11.0	29.7	-11.1	-13.6	-13.6	30.7
8:12	-9.0	-11.0	-11.0	26.6	-9.0	-11.0	-11.0	26.6	-11.2	-13.6	-13.6	27.7
9:12	-9.0	-11.1	-11.1	24.0	-9.0	-11.1	-11.1	24.0	-11.2	-13.7	-13.7	25.0
10:12	-9.1	-11.1	-11.1	21.7	-9.1	-11.1	-11.1	21.7	-11.2	-13.7	-13.7	22.7
11:12	-9.1	-11.1	-11.1	19.7	-9.1	-11.1	-11.1	19.7	-11.3	-13.7	-13.7	20.7
12:12	-9.2	-11.2	-11.2	18.0	-9.2	-11.2	-11.2	18.0	-11.3	-13.8	-13.8	19.1
Exposure Category C												
1:12	-11.0	-20.7	-33.0	59.4	-12.8	-24.1	-38.2	59.4	-15.0	-28.0	-44.3	59.4
2:12	-9.7	-19.5	-30.5	54.5	-11.4	-22.7	-35.4	54.5	-13.4	-26.4	-41.0	54.5
3:12	-9.8	-19.6	-30.6	49.1	-11.4	-22.7	-35.4	49.1	-13.4	-26.4	-41.0	49.1
4:12	-9.8	-19.6	-30.6	43.6	-11.5	-22.8	-35.5	43.6	-13.4	-26.4	-41.1	43.6
5:12	-9.8	-19.6	-30.6	38.3	-11.5	-22.8	-35.5	38.3	-13.5	-26.5	-41.1	38.3
6:12	-9.9	-19.7	-30.7	33.4	-11.5	-22.8	-35.5	33.4	-13.5	-26.5	-41.1	33.4
7:12	-11.1	-13.6	-13.6	30.7	-13.0	-15.8	-15.8	32.0	-15.2	-18.4	-18.4	33.5
8:12	-11.2	-13.6	-13.6	27.7	-13.0	-15.9	-15.9	29.0	-15.2	-18.5	-18.5	30.4
9:12	-11.2	-13.7	-13.7	25.0	-13.1	-15.9	-15.9	26.3	-15.2	-18.5	-18.5	27.8
10:12	-11.2	-13.7	-13.7	22.7	-13.1	-15.9	-15.9	24.0	-15.3	-18.5	-18.5	25.4
11:12	-11.3	-13.7	-13.7	20.7	-13.2	-16.0	-16.0	22.0	-15.3	-18.6	-18.6	23.5
12:12	-11.3	-13.8	-13.8	19.1	-13.2	-16.0	-16.0	20.3	-15.4	-18.6	-18.6	21.8
Exposure Category D												
1:12	-13.5	-25.4	-40.2	53.9	-15.4	-28.8	-45.5	53.9	-17.6	-32.7	-51.5	53.9
2:12	-12.1	-23.9	-37.3	49.5	-13.8	-27.1	-42.1	49.5	-15.7	-30.8	-47.8	49.5
3:12	-12.1	-24.0	-37.3	44.6	-13.8	-27.1	-42.2	44.6	-15.7	-30.8	-47.8	44.6
4:12	-12.1	-24.0	-37.3	39.6	-13.8	-27.2	-42.2	39.6	-15.8	-30.8	-47.8	39.6
5:12	-12.2	-24.0	-37.4	34.9	-13.8	-27.2	-42.2	34.9	-15.8	-30.9	-47.8	34.9
6:12	-12.2	-24.1	-37.4	30.8	-13.9	-27.2	-42.3	30.8	-15.8	-30.9	-47.9	30.8
7:12	-13.7	-16.7	-16.7	30.6	-15.6	-18.9	-18.9	31.8	-17.7	-21.5	-21.5	33.3
8:12	-13.8	-16.7	-16.7	27.8	-15.6	-19.0	-19.0	29.1	-17.8	-21.6	-21.6	30.5
9:12	-13.8	-16.8	-16.8	25.4	-15.7	-19.0	-19.0	26.7	-17.8	-21.6	-21.6	28.1
10:12	-13.8	-16.8	-16.8	23.3	-15.7	-19.1	-19.1	24.6	-17.9	-21.6	-21.6	26.0
11:12	-13.9	-16.8	-16.8	21.5	-15.8	-19.1	-19.1	22.8	-17.9	-21.7	-21.7	24.3
12:12	-13.9	-16.9	-16.9	20.0	-15.8	-19.1	-19.1	21.3	-17.9	-21.7	-21.7	22.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.8	-16.9	-26.9	66.4	-8.8	-16.9	-26.9	66.4	-11.0	-20.7	-33.0	66.4
2:12	-8.3	-15.9	-24.9	60.9	-8.3	-15.9	-24.9	60.9	-9.7	-19.5	-30.5	60.9
3:12	-8.4	-15.9	-25.0	54.8	-8.4	-15.9	-25.0	54.8	-9.8	-19.6	-30.6	54.8
4:12	-8.4	-15.9	-25.0	48.6	-8.4	-15.9	-25.0	48.6	-9.8	-19.6	-30.6	48.6
5:12	-8.4	-15.9	-25.0	42.7	-8.4	-15.9	-25.0	42.7	-9.8	-19.6	-30.6	42.7
6:12	-8.5	-16.0	-25.0	37.1	-8.5	-16.0	-25.0	37.1	-9.9	-19.7	-30.7	37.1
7:12	-9.0	-11.0	-11.0	32.1	-9.0	-11.0	-11.0	32.1	-11.1	-13.6	-13.6	33.1
8:12	-9.0	-11.0	-11.0	28.7	-9.0	-11.0	-11.0	28.7	-11.2	-13.6	-13.6	29.7
9:12	-9.0	-11.1	-11.1	25.7	-9.0	-11.1	-11.1	25.7	-11.2	-13.7	-13.7	26.7
10:12	-9.1	-11.1	-11.1	23.1	-9.1	-11.1	-11.1	23.1	-11.2	-13.7	-13.7	24.2
11:12	-9.1	-11.1	-11.1	20.9	-9.1	-11.1	-11.1	20.9	-11.3	-13.7	-13.7	22.0
12:12	-9.2	-11.2	-11.2	19.0	-9.2	-11.2	-11.2	19.0	-11.3	-13.8	-13.8	20.1
1:12	-11.0	-20.7	-33.0	66.4	-12.8	-24.1	-38.2	66.4	-15.0	-28.0	-44.3	66.4
2:12	-9.7	-19.5	-30.5	60.9	-11.4	-22.7	-35.4	60.9	-13.4	-26.4	-41.0	60.9
3:12	-9.8	-19.6	-30.6	54.8	-11.4	-22.7	-35.4	54.8	-13.4	-26.4	-41.0	54.8
4:12	-9.8	-19.6	-30.6	48.6	-11.5	-22.8	-35.5	48.6	-13.4	-26.4	-41.1	48.6
5:12	-9.8	-19.6	-30.6	42.7	-11.5	-22.8	-35.5	42.7	-13.5	-26.5	-41.1	42.7
6:12	-9.9	-19.7	-30.7	37.1	-11.5	-22.8	-35.5	37.1	-13.5	-26.5	-41.1	37.1
7:12	-11.1	-13.6	-13.6	33.1	-13.0	-15.8	-15.8	34.4	-15.2	-18.4	-18.4	35.9
8:12	-11.2	-13.6	-13.6	29.7	-13.0	-15.9	-15.9	31.0	-15.2	-18.5	-18.5	32.5
9:12	-11.2	-13.7	-13.7	26.7	-13.1	-15.9	-15.9	28.0	-15.2	-18.5	-18.5	29.5
10:12	-11.2	-13.7	-13.7	24.2	-13.1	-15.9	-15.9	25.4	-15.3	-18.5	-18.5	26.9
11:12	-11.3	-13.7	-13.7	22.0	-13.2	-16.0	-16.0	23.2	-15.3	-18.6	-18.6	24.7
12:12	-11.3	-13.8	-13.8	20.1	-13.2	-16.0	-16.0	21.3	-15.4	-18.6	-18.6	22.8
1:12	-13.5	-25.4	-40.2	60.1	-15.4	-28.8	-45.5	60.1	-17.6	-32.7	-51.5	60.1
2:12	-12.1	-23.9	-37.3	55.2	-13.8	-27.1	-42.1	55.2	-15.7	-30.8	-47.8	55.2
3:12	-12.1	-24.0	-37.3	49.7	-13.8	-27.1	-42.2	49.7	-15.7	-30.8	-47.8	49.7
4:12	-12.1	-24.0	-37.3	44.1	-13.8	-27.2	-42.2	44.1	-15.8	-30.8	-47.8	44.1
5:12	-12.2	-24.0	-37.4	38.8	-13.8	-27.2	-42.2	38.8	-15.8	-30.9	-47.8	38.8
6:12	-12.2	-24.1	-37.4	33.8	-13.9	-27.2	-42.3	33.8	-15.8	-30.9	-47.9	33.8
7:12	-13.7	-16.7	-16.7	32.7	-15.6	-18.9	-18.9	34.0	-17.7	-21.5	-21.5	35.5
8:12	-13.8	-16.7	-16.7	29.7	-15.6	-19.0	-19.0	30.9	-17.8	-21.6	-21.6	32.4
9:12	-13.8	-16.8	-16.8	27.0	-15.7	-19.0	-19.0	28.2	-17.8	-21.6	-21.6	29.7
10:12	-13.8	-16.8	-16.8	24.6	-15.7	-19.1	-19.1	25.9	-17.9	-21.6	-21.6	27.3
11:12	-13.9	-16.8	-16.8	22.6	-15.8	-19.1	-19.1	23.9	-17.9	-21.7	-21.7	25.3
12:12	-13.9	-16.9	-16.9	20.9	-15.8	-19.1	-19.1	22.2	-17.9	-21.7	-21.7	23.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **105 mph**

Ground Snow Load **90 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
105 mph
Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-8.8	-16.9	-26.9	73.4	-8.8	-16.9	-26.9	73.4	-11.0	-20.7	-33.0	73.4
2:12	-8.3	-15.9	-24.9	67.2	-8.3	-15.9	-24.9	67.2	-9.7	-19.5	-30.5	67.2
3:12	-8.4	-15.9	-25.0	60.5	-8.4	-15.9	-25.0	60.5	-9.8	-19.6	-30.6	60.5
4:12	-8.4	-15.9	-25.0	53.6	-8.4	-15.9	-25.0	53.6	-9.8	-19.6	-30.6	53.6
5:12	-8.4	-15.9	-25.0	47.0	-8.4	-15.9	-25.0	47.0	-9.8	-19.6	-30.6	47.0
6:12	-8.5	-16.0	-25.0	40.9	-8.5	-16.0	-25.0	40.9	-9.9	-19.7	-30.7	40.9
7:12	-9.0	-11.0	-11.0	35.3	-9.0	-11.0	-11.0	35.3	-11.1	-13.6	-13.6	35.5
8:12	-9.0	-11.0	-11.0	30.7	-9.0	-11.0	-11.0	30.7	-11.2	-13.6	-13.6	31.8
9:12	-9.0	-11.1	-11.1	27.4	-9.0	-11.1	-11.1	27.4	-11.2	-13.7	-13.7	28.5
10:12	-9.1	-11.1	-11.1	24.5	-9.1	-11.1	-11.1	24.5	-11.2	-13.7	-13.7	25.6
11:12	-9.1	-11.1	-11.1	22.1	-9.1	-11.1	-11.1	22.1	-11.3	-13.7	-13.7	23.2
12:12	-9.2	-11.2	-11.2	20.0	-9.2	-11.2	-11.2	20.0	-11.3	-13.8	-13.8	21.1
1:12	-11.0	-20.7	-33.0	73.4	-12.8	-24.1	-38.2	73.4	-15.0	-28.0	-44.3	73.4
2:12	-9.7	-19.5	-30.5	67.2	-11.4	-22.7	-35.4	67.2	-13.4	-26.4	-41.0	67.2
3:12	-9.8	-19.6	-30.6	60.5	-11.4	-22.7	-35.4	60.5	-13.4	-26.4	-41.0	60.5
4:12	-9.8	-19.6	-30.6	53.6	-11.5	-22.8	-35.5	53.6	-13.4	-26.4	-41.1	53.6
5:12	-9.8	-19.6	-30.6	47.0	-11.5	-22.8	-35.5	47.0	-13.5	-26.5	-41.1	47.0
6:12	-9.9	-19.7	-30.7	40.9	-11.5	-22.8	-35.5	40.9	-13.5	-26.5	-41.1	40.9
7:12	-11.1	-13.6	-13.6	35.5	-13.0	-15.8	-15.8	36.8	-15.2	-18.4	-18.4	38.3
8:12	-11.2	-13.6	-13.6	31.8	-13.0	-15.9	-15.9	33.0	-15.2	-18.5	-18.5	34.5
9:12	-11.2	-13.7	-13.7	28.5	-13.1	-15.9	-15.9	29.7	-15.2	-18.5	-18.5	31.2
10:12	-11.2	-13.7	-13.7	25.6	-13.1	-15.9	-15.9	26.9	-15.3	-18.5	-18.5	28.3
11:12	-11.3	-13.7	-13.7	23.2	-13.2	-16.0	-16.0	24.4	-15.3	-18.6	-18.6	25.9
12:12	-11.3	-13.8	-13.8	21.1	-13.2	-16.0	-16.0	22.3	-15.4	-18.6	-18.6	23.8
1:12	-13.5	-25.4	-40.2	66.4	-15.4	-28.8	-45.5	66.4	-17.6	-32.7	-51.5	66.4
2:12	-12.1	-23.9	-37.3	60.9	-13.8	-27.1	-42.1	60.9	-15.7	-30.8	-47.8	60.9
3:12	-12.1	-24.0	-37.3	54.8	-13.8	-27.1	-42.2	54.8	-15.7	-30.8	-47.8	54.8
4:12	-12.1	-24.0	-37.3	48.6	-13.8	-27.2	-42.2	48.6	-15.8	-30.8	-47.8	48.6
5:12	-12.2	-24.0	-37.4	42.7	-13.8	-27.2	-42.2	42.7	-15.8	-30.9	-47.8	42.7
6:12	-12.2	-24.1	-37.4	37.1	-13.9	-27.2	-42.3	37.1	-15.8	-30.9	-47.9	37.1
7:12	-13.7	-16.7	-16.7	34.9	-15.6	-18.9	-18.9	36.1	-17.7	-21.5	-21.5	37.6
8:12	-13.8	-16.7	-16.7	31.5	-15.6	-19.0	-19.0	32.7	-17.8	-21.6	-21.6	34.2
9:12	-13.8	-16.8	-16.8	28.5	-15.7	-19.0	-19.0	29.8	-17.8	-21.6	-21.6	31.2
10:12	-13.8	-16.8	-16.8	25.9	-15.7	-19.1	-19.1	27.2	-17.9	-21.6	-21.6	28.6
11:12	-13.9	-16.8	-16.8	23.7	-15.8	-19.1	-19.1	25.0	-17.9	-21.7	-21.7	26.4
12:12	-13.9	-16.9	-16.9	21.8	-15.8	-19.1	-19.1	23.1	-17.9	-21.7	-21.7	24.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.8	-18.6	-29.7	13.4	-9.8	-18.6	-29.7	13.4	-12.1	-22.9	-36.3	13.4
2:12	-8.7	-17.5	-27.5	13.4	-8.7	-17.5	-27.5	13.4	-10.8	-21.6	-33.6	13.4
3:12	-8.7	-17.6	-27.5	13.3	-8.7	-17.6	-27.5	13.3	-10.8	-21.6	-33.7	13.3
4:12	-8.7	-17.6	-27.5	13.2	-8.7	-17.6	-27.5	13.2	-10.9	-21.6	-33.7	13.2
5:12	-8.8	-17.6	-27.6	13.2	-8.8	-17.6	-27.6	13.2	-10.9	-21.6	-33.7	13.2
6:12	-8.8	-17.7	-27.6	13.0	-8.8	-17.7	-27.6	13.0	-10.9	-21.7	-33.8	13.0
7:12	-9.9	-12.2	-12.2	13.3	-9.9	-12.2	-12.2	13.3	-12.3	-15.0	-15.0	15.4
8:12	-10.0	-12.2	-12.2	13.2	-10.0	-12.2	-12.2	13.2	-12.4	-15.0	-15.0	15.3
9:12	-10.0	-12.2	-12.2	13.0	-10.0	-12.2	-12.2	13.0	-12.4	-15.1	-15.1	15.2
10:12	-10.1	-12.3	-12.3	12.9	-10.1	-12.3	-12.3	12.9	-12.4	-15.1	-15.1	15.0
11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.5	-15.2	-15.2	14.9
12:12	-10.2	-12.4	-12.4	12.7	-10.2	-12.4	-12.4	12.7	-12.5	-15.2	-15.2	14.8
1:12	-12.1	-22.9	-36.3	13.4	-14.2	-26.6	-42.1	13.4	-16.6	-30.9	-48.7	13.4
2:12	-10.8	-21.6	-33.6	13.4	-12.7	-25.1	-39.0	13.4	-14.8	-29.1	-45.1	13.4
3:12	-10.8	-21.6	-33.7	13.3	-12.7	-25.1	-39.0	13.3	-14.8	-29.1	-45.2	13.3
4:12	-10.9	-21.6	-33.7	13.2	-12.7	-25.1	-39.0	13.2	-14.8	-29.1	-45.2	13.2
5:12	-10.9	-21.6	-33.7	13.2	-12.7	-25.1	-39.1	13.2	-14.9	-29.2	-45.2	13.2
6:12	-10.9	-21.7	-33.8	13.0	-12.8	-25.2	-39.1	13.0	-14.9	-29.2	-45.3	13.0
7:12	-12.3	-15.0	-15.0	15.4	-14.4	-17.5	-17.5	17.3	-16.7	-20.3	-20.3	19.4
8:12	-12.4	-15.0	-15.0	15.3	-14.4	-17.5	-17.5	17.1	-16.8	-20.4	-20.4	19.3
9:12	-12.4	-15.1	-15.1	15.2	-14.5	-17.6	-17.6	17.0	-16.8	-20.4	-20.4	19.1
10:12	-12.4	-15.1	-15.1	15.0	-14.5	-17.6	-17.6	16.9	-16.9	-20.4	-20.4	19.0
11:12	-12.5	-15.2	-15.2	14.9	-14.5	-17.6	-17.6	16.8	-16.9	-20.5	-20.5	18.9
12:12	-12.5	-15.2	-15.2	14.8	-14.6	-17.7	-17.7	16.7	-16.9	-20.5	-20.5	18.8
1:12	-15.0	-28.0	-44.3	13.4	-17.0	-31.7	-50.0	13.4	-19.4	-36.0	-56.7	13.4
2:12	-13.4	-26.4	-41.0	13.4	-15.2	-29.9	-46.4	13.4	-17.4	-33.9	-52.5	14.1
3:12	-13.4	-26.4	-41.1	13.3	-15.2	-29.9	-46.4	13.3	-17.4	-33.9	-52.6	14.1
4:12	-13.4	-26.4	-41.1	13.2	-15.3	-29.9	-46.4	13.2	-17.4	-34.0	-52.6	14.0
5:12	-13.5	-26.5	-41.1	13.2	-15.3	-30.0	-46.5	13.2	-17.4	-34.0	-52.6	13.9
6:12	-13.5	-26.5	-41.2	13.0	-15.3	-30.0	-46.5	13.0	-17.5	-34.0	-52.7	13.8
7:12	-15.2	-18.4	-18.4	18.0	-17.2	-20.9	-20.9	19.8	-19.6	-23.7	-23.7	21.9
8:12	-15.2	-18.5	-18.5	17.8	-17.3	-20.9	-20.9	19.7	-19.6	-23.8	-23.8	21.8
9:12	-15.2	-18.5	-18.5	17.7	-17.3	-21.0	-21.0	19.6	-19.7	-23.8	-23.8	21.7
10:12	-15.3	-18.5	-18.5	17.6	-17.3	-21.0	-21.0	19.4	-19.7	-23.8	-23.8	21.6
11:12	-15.3	-18.6	-18.6	17.5	-17.4	-21.0	-21.0	19.3	-19.7	-23.9	-23.9	21.5
12:12	-15.4	-18.6	-18.6	17.4	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**
Ground Snow Load **0 psf**

Up and Down (psf)

Basic Wind Speed **110 mph**
Ground Snow Load **5 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-9.8	-18.6	-29.7	14.8	-9.8	-18.6	-29.7	14.8	-12.1	-22.9	-36.3	14.8
	2:12	-8.7	-17.5	-27.5	14.4	-8.7	-17.5	-27.5	14.4	-10.8	-21.6	-33.6	14.4
	3:12	-8.7	-17.6	-27.5	14.0	-8.7	-17.6	-27.5	14.0	-10.8	-21.6	-33.7	14.0
	4:12	-8.7	-17.6	-27.5	13.2	-8.7	-17.6	-27.5	13.2	-10.9	-21.6	-33.7	13.2
	5:12	-8.8	-17.6	-27.6	13.2	-8.8	-17.6	-27.6	13.2	-10.9	-21.6	-33.7	13.2
	6:12	-8.8	-17.7	-27.6	13.0	-8.8	-17.7	-27.6	13.0	-10.9	-21.7	-33.8	13.0
	7:12	-9.9	-12.2	-12.2	13.3	-9.9	-12.2	-12.2	13.3	-12.3	-15.0	-15.0	15.4
	8:12	-10.0	-12.2	-12.2	13.2	-10.0	-12.2	-12.2	13.2	-12.4	-15.0	-15.0	15.3
	9:12	-10.0	-12.2	-12.2	13.0	-10.0	-12.2	-12.2	13.0	-12.4	-15.1	-15.1	15.2
	10:12	-10.1	-12.3	-12.3	12.9	-10.1	-12.3	-12.3	12.9	-12.4	-15.1	-15.1	15.0
	11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.5	-15.2	-15.2	14.9
	12:12	-10.2	-12.4	-12.4	12.7	-10.2	-12.4	-12.4	12.7	-12.5	-15.2	-15.2	14.8
Exposure Category C	1:12	-12.1	-22.9	-36.3	14.8	-14.2	-26.6	-42.1	14.8	-16.6	-30.9	-48.7	14.8
	2:12	-10.8	-21.6	-33.6	14.4	-12.7	-25.1	-39.0	14.4	-14.8	-29.1	-45.1	14.4
	3:12	-10.8	-21.6	-33.7	14.0	-12.7	-25.1	-39.0	14.0	-14.8	-29.1	-45.2	14.0
	4:12	-10.9	-21.6	-33.7	13.2	-12.7	-25.1	-39.0	13.2	-14.8	-29.1	-45.2	13.2
	5:12	-10.9	-21.6	-33.7	13.2	-12.7	-25.1	-39.1	13.2	-14.9	-29.2	-45.2	13.2
	6:12	-10.9	-21.7	-33.8	13.0	-12.8	-25.2	-39.1	13.0	-14.9	-29.2	-45.3	13.0
	7:12	-12.3	-15.0	-15.0	15.4	-14.4	-17.5	-17.5	17.3	-16.7	-20.3	-20.3	19.4
	8:12	-12.4	-15.0	-15.0	15.3	-14.4	-17.5	-17.5	17.1	-16.8	-20.4	-20.4	19.3
	9:12	-12.4	-15.1	-15.1	15.2	-14.5	-17.6	-17.6	17.0	-16.8	-20.4	-20.4	19.1
	10:12	-12.4	-15.1	-15.1	15.0	-14.5	-17.6	-17.6	16.9	-16.9	-20.4	-20.4	19.0
	11:12	-12.5	-15.2	-15.2	14.9	-14.5	-17.6	-17.6	16.8	-16.9	-20.5	-20.5	18.9
	12:12	-12.5	-15.2	-15.2	14.8	-14.6	-17.7	-17.7	16.7	-16.9	-20.5	-20.5	18.8
Exposure Category D	1:12	-15.0	-28.0	-44.3	14.8	-17.0	-31.7	-50.0	14.8	-19.4	-36.0	-56.7	14.8
	2:12	-13.4	-26.4	-41.0	14.4	-15.2	-29.9	-46.4	14.4	-17.4	-33.9	-52.5	15.0
	3:12	-13.4	-26.4	-41.1	14.0	-15.2	-29.9	-46.4	14.0	-17.4	-33.9	-52.6	14.5
	4:12	-13.4	-26.4	-41.1	13.2	-15.3	-29.9	-46.4	13.2	-17.4	-34.0	-52.6	14.0
	5:12	-13.5	-26.5	-41.1	13.2	-15.3	-30.0	-46.5	13.2	-17.4	-34.0	-52.6	13.9
	6:12	-13.5	-26.5	-41.2	13.0	-15.3	-30.0	-46.5	13.0	-17.5	-34.0	-52.7	13.8
	7:12	-15.2	-18.4	-18.4	18.0	-17.2	-20.9	-20.9	19.8	-19.6	-23.7	-23.7	21.9
	8:12	-15.2	-18.5	-18.5	17.8	-17.3	-20.9	-20.9	19.7	-19.6	-23.8	-23.8	21.8
	9:12	-15.2	-18.5	-18.5	17.7	-17.3	-21.0	-21.0	19.6	-19.7	-23.8	-23.8	21.7
	10:12	-15.3	-18.5	-18.5	17.6	-17.3	-21.0	-21.0	19.4	-19.7	-23.8	-23.8	21.6
	11:12	-15.3	-18.6	-18.6	17.5	-17.4	-21.0	-21.0	19.3	-19.7	-23.9	-23.9	21.5
	12:12	-15.4	-18.6	-18.6	17.4	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
	2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
	3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
	4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
	5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
	6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
	7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
	8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
	9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
	10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
	11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.8	-18.6	-29.7	18.5	-9.8	-18.6	-29.7	18.5	-12.1	-22.9	-36.3	18.5
2:12	-8.7	-17.5	-27.5	17.8	-8.7	-17.5	-27.5	17.8	-10.8	-21.6	-33.6	17.8
3:12	-8.7	-17.6	-27.5	17.0	-8.7	-17.6	-27.5	17.0	-10.8	-21.6	-33.7	17.0
4:12	-8.7	-17.6	-27.5	14.6	-8.7	-17.6	-27.5	14.6	-10.9	-21.6	-33.7	14.6
5:12	-8.8	-17.6	-27.6	14.0	-8.8	-17.6	-27.6	14.0	-10.9	-21.6	-33.7	14.0
6:12	-8.8	-17.7	-27.6	13.4	-8.8	-17.7	-27.6	13.4	-10.9	-21.7	-33.8	13.4
7:12	-9.9	-12.2	-12.2	13.3	-9.9	-12.2	-12.2	13.3	-12.3	-15.0	-15.0	15.4
8:12	-10.0	-12.2	-12.2	13.2	-10.0	-12.2	-12.2	13.2	-12.4	-15.0	-15.0	15.3
9:12	-10.0	-12.2	-12.2	13.0	-10.0	-12.2	-12.2	13.0	-12.4	-15.1	-15.1	15.2
10:12	-10.1	-12.3	-12.3	12.9	-10.1	-12.3	-12.3	12.9	-12.4	-15.1	-15.1	15.0
11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.5	-15.2	-15.2	14.9
12:12	-10.2	-12.4	-12.4	12.7	-10.2	-12.4	-12.4	12.7	-12.5	-15.2	-15.2	14.8
Exposure Category C												
1:12	-12.1	-22.9	-36.3	18.5	-14.2	-26.6	-42.1	18.5	-16.6	-30.9	-48.7	18.5
2:12	-10.8	-21.6	-33.6	17.8	-12.7	-25.1	-39.0	17.8	-14.8	-29.1	-45.1	17.8
3:12	-10.8	-21.6	-33.7	17.0	-12.7	-25.1	-39.0	17.0	-14.8	-29.1	-45.2	17.0
4:12	-10.9	-21.6	-33.7	14.6	-12.7	-25.1	-39.0	14.6	-14.8	-29.1	-45.2	14.6
5:12	-10.9	-21.6	-33.7	14.0	-12.7	-25.1	-39.1	14.0	-14.9	-29.2	-45.2	14.0
6:12	-10.9	-21.7	-33.8	13.4	-12.8	-25.2	-39.1	13.4	-14.9	-29.2	-45.3	13.4
7:12	-12.3	-15.0	-15.0	15.4	-14.4	-17.5	-17.5	17.3	-16.7	-20.3	-20.3	19.4
8:12	-12.4	-15.0	-15.0	15.3	-14.4	-17.5	-17.5	17.1	-16.8	-20.4	-20.4	19.3
9:12	-12.4	-15.1	-15.1	15.2	-14.5	-17.6	-17.6	17.0	-16.8	-20.4	-20.4	19.1
10:12	-12.4	-15.1	-15.1	15.0	-14.5	-17.6	-17.6	16.9	-16.9	-20.4	-20.4	19.0
11:12	-12.5	-15.2	-15.2	14.9	-14.5	-17.6	-17.6	16.8	-16.9	-20.5	-20.5	18.9
12:12	-12.5	-15.2	-15.2	14.8	-14.6	-17.7	-17.7	16.7	-16.9	-20.5	-20.5	18.8
Exposure Category D												
1:12	-15.0	-28.0	-44.3	18.5	-17.0	-31.7	-50.0	18.5	-19.4	-36.0	-56.7	18.5
2:12	-13.4	-26.4	-41.0	17.8	-15.2	-29.9	-46.4	17.8	-17.4	-33.9	-52.5	18.4
3:12	-13.4	-26.4	-41.1	17.0	-15.2	-29.9	-46.4	17.0	-17.4	-33.9	-52.6	17.6
4:12	-13.4	-26.4	-41.1	14.2	-15.3	-29.9	-46.4	14.2	-17.4	-34.0	-52.6	14.8
5:12	-13.5	-26.5	-41.1	13.7	-15.3	-30.0	-46.5	13.7	-17.4	-34.0	-52.6	14.2
6:12	-13.5	-26.5	-41.2	13.2	-15.3	-30.0	-46.5	13.2	-17.5	-34.0	-52.7	13.8
7:12	-15.2	-18.4	-18.4	18.0	-17.2	-20.9	-20.9	19.8	-19.6	-23.7	-23.7	21.9
8:12	-15.2	-18.5	-18.5	17.8	-17.3	-20.9	-20.9	19.7	-19.6	-23.8	-23.8	21.8
9:12	-15.2	-18.5	-18.5	17.7	-17.3	-21.0	-21.0	19.6	-19.7	-23.8	-23.8	21.7
10:12	-15.3	-18.5	-18.5	17.6	-17.3	-21.0	-21.0	19.4	-19.7	-23.8	-23.8	21.6
11:12	-15.3	-18.6	-18.6	17.5	-17.4	-21.0	-21.0	19.3	-19.7	-23.9	-23.9	21.5
12:12	-15.4	-18.6	-18.6	17.4	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
110 mph

Ground Snow Load
10 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.8	-18.6	-29.7	22.2	-9.8	-18.6	-29.7	22.2	-12.1	-22.9	-36.3	22.2
2:12	-8.7	-17.5	-27.5	21.2	-8.7	-17.5	-27.5	21.2	-10.8	-21.6	-33.6	21.2
3:12	-8.7	-17.6	-27.5	20.0	-8.7	-17.6	-27.5	20.0	-10.8	-21.6	-33.7	20.0
4:12	-8.7	-17.6	-27.5	16.5	-8.7	-17.6	-27.5	16.5	-10.9	-21.6	-33.7	16.5
5:12	-8.8	-17.6	-27.6	15.6	-8.8	-17.6	-27.6	15.6	-10.9	-21.6	-33.7	15.6
6:12	-8.8	-17.7	-27.6	14.9	-8.8	-17.7	-27.6	14.9	-10.9	-21.7	-33.8	14.9
7:12	-9.9	-12.2	-12.2	14.4	-9.9	-12.2	-12.2	14.4	-12.3	-15.0	-15.0	16.0
8:12	-10.0	-12.2	-12.2	13.7	-10.0	-12.2	-12.2	13.7	-12.4	-15.0	-15.0	15.3
9:12	-10.0	-12.2	-12.2	13.1	-10.0	-12.2	-12.2	13.1	-12.4	-15.1	-15.1	15.2
10:12	-10.1	-12.3	-12.3	12.9	-10.1	-12.3	-12.3	12.9	-12.4	-15.1	-15.1	15.0
11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.5	-15.2	-15.2	14.9
12:12	-10.2	-12.4	-12.4	12.7	-10.2	-12.4	-12.4	12.7	-12.5	-15.2	-15.2	14.8
1:12	-12.1	-22.9	-36.3	22.2	-14.2	-26.6	-42.1	22.2	-16.6	-30.9	-48.7	22.2
2:12	-10.8	-21.6	-33.6	21.2	-12.7	-25.1	-39.0	21.2	-14.8	-29.1	-45.1	21.2
3:12	-10.8	-21.6	-33.7	20.0	-12.7	-25.1	-39.0	20.0	-14.8	-29.1	-45.2	20.0
4:12	-10.9	-21.6	-33.7	16.5	-12.7	-25.1	-39.0	16.5	-14.8	-29.1	-45.2	16.5
5:12	-10.9	-21.6	-33.7	15.6	-12.7	-25.1	-39.1	15.6	-14.9	-29.2	-45.2	15.6
6:12	-10.9	-21.7	-33.8	14.9	-12.8	-25.2	-39.1	14.9	-14.9	-29.2	-45.3	14.9
7:12	-12.3	-15.0	-15.0	16.0	-14.4	-17.5	-17.5	17.4	-16.7	-20.3	-20.3	19.4
8:12	-12.4	-15.0	-15.0	15.3	-14.4	-17.5	-17.5	17.1	-16.8	-20.4	-20.4	19.3
9:12	-12.4	-15.1	-15.1	15.2	-14.5	-17.6	-17.6	17.0	-16.8	-20.4	-20.4	19.1
10:12	-12.4	-15.1	-15.1	15.0	-14.5	-17.6	-17.6	16.9	-16.9	-20.4	-20.4	19.0
11:12	-12.5	-15.2	-15.2	14.9	-14.5	-17.6	-17.6	16.8	-16.9	-20.5	-20.5	18.9
12:12	-12.5	-15.2	-15.2	14.8	-14.6	-17.7	-17.7	16.7	-16.9	-20.5	-20.5	18.8
1:12	-15.0	-28.0	-44.3	22.2	-17.0	-31.7	-50.0	22.2	-19.4	-36.0	-56.7	22.2
2:12	-13.4	-26.4	-41.0	21.2	-15.2	-29.9	-46.4	21.2	-17.4	-33.9	-52.5	21.8
3:12	-13.4	-26.4	-41.1	20.0	-15.2	-29.9	-46.4	20.0	-17.4	-33.9	-52.6	20.6
4:12	-13.4	-26.4	-41.1	15.9	-15.3	-29.9	-46.4	15.9	-17.4	-34.0	-52.6	16.5
5:12	-13.5	-26.5	-41.1	15.2	-15.3	-30.0	-46.5	15.2	-17.4	-34.0	-52.6	15.7
6:12	-13.5	-26.5	-41.2	14.4	-15.3	-30.0	-46.5	14.4	-17.5	-34.0	-52.7	15.0
7:12	-15.2	-18.4	-18.4	18.0	-17.2	-20.9	-20.9	19.8	-19.6	-23.7	-23.7	21.9
8:12	-15.2	-18.5	-18.5	17.8	-17.3	-20.9	-20.9	19.7	-19.6	-23.8	-23.8	21.8
9:12	-15.2	-18.5	-18.5	17.7	-17.3	-21.0	-21.0	19.6	-19.7	-23.8	-23.8	21.7
10:12	-15.3	-18.5	-18.5	17.6	-17.3	-21.0	-21.0	19.4	-19.7	-23.8	-23.8	21.6
11:12	-15.3	-18.6	-18.6	17.5	-17.4	-21.0	-21.0	19.3	-19.7	-23.9	-23.9	21.5
12:12	-15.4	-18.6	-18.6	17.4	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
110 mph

Ground Snow Load
15 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.8	-18.6	-29.7	25.9	-9.8	-18.6	-29.7	25.9	-12.1	-22.9	-36.3	25.9
2:12	-8.7	-17.5	-27.5	24.6	-8.7	-17.5	-27.5	24.6	-10.8	-21.6	-33.6	24.6
3:12	-8.7	-17.6	-27.5	23.1	-8.7	-17.6	-27.5	23.1	-10.8	-21.6	-33.7	23.1
4:12	-8.7	-17.6	-27.5	18.3	-8.7	-17.6	-27.5	18.3	-10.9	-21.6	-33.7	18.3
5:12	-8.8	-17.6	-27.6	17.3	-8.8	-17.6	-27.6	17.3	-10.9	-21.6	-33.7	17.3
6:12	-8.8	-17.7	-27.6	16.3	-8.8	-17.7	-27.6	16.3	-10.9	-21.7	-33.8	16.3
7:12	-9.9	-12.2	-12.2	15.6	-9.9	-12.2	-12.2	15.6	-12.3	-15.0	-15.0	17.2
8:12	-10.0	-12.2	-12.2	14.7	-10.0	-12.2	-12.2	14.7	-12.4	-15.0	-15.0	16.3
9:12	-10.0	-12.2	-12.2	14.0	-10.0	-12.2	-12.2	14.0	-12.4	-15.1	-15.1	15.6
10:12	-10.1	-12.3	-12.3	13.3	-10.1	-12.3	-12.3	13.3	-12.4	-15.1	-15.1	15.0
11:12	-10.1	-12.3	-12.3	12.8	-10.1	-12.3	-12.3	12.8	-12.5	-15.2	-15.2	14.9
12:12	-10.2	-12.4	-12.4	12.7	-10.2	-12.4	-12.4	12.7	-12.5	-15.2	-15.2	14.8
Exposure Category C												
1:12	-12.1	-22.9	-36.3	25.9	-14.2	-26.6	-42.1	25.9	-16.6	-30.9	-48.7	25.9
2:12	-10.8	-21.6	-33.6	24.6	-12.7	-25.1	-39.0	24.6	-14.8	-29.1	-45.1	24.6
3:12	-10.8	-21.6	-33.7	23.1	-12.7	-25.1	-39.0	23.1	-14.8	-29.1	-45.2	23.1
4:12	-10.9	-21.6	-33.7	18.3	-12.7	-25.1	-39.0	18.3	-14.8	-29.1	-45.2	18.3
5:12	-10.9	-21.6	-33.7	17.3	-12.7	-25.1	-39.1	17.3	-14.9	-29.2	-45.2	17.3
6:12	-10.9	-21.7	-33.8	16.3	-12.8	-25.2	-39.1	16.3	-14.9	-29.2	-45.3	16.3
7:12	-12.3	-15.0	-15.0	17.2	-14.4	-17.5	-17.5	18.6	-16.7	-20.3	-20.3	20.2
8:12	-12.4	-15.0	-15.0	16.3	-14.4	-17.5	-17.5	17.7	-16.8	-20.4	-20.4	19.3
9:12	-12.4	-15.1	-15.1	15.6	-14.5	-17.6	-17.6	17.0	-16.8	-20.4	-20.4	19.1
10:12	-12.4	-15.1	-15.1	15.0	-14.5	-17.6	-17.6	16.9	-16.9	-20.4	-20.4	19.0
11:12	-12.5	-15.2	-15.2	14.9	-14.5	-17.6	-17.6	16.8	-16.9	-20.5	-20.5	18.9
12:12	-12.5	-15.2	-15.2	14.8	-14.6	-17.7	-17.7	16.7	-16.9	-20.5	-20.5	18.8
Exposure Category D												
1:12	-15.0	-28.0	-44.3	25.9	-17.0	-31.7	-50.0	25.9	-19.4	-36.0	-56.7	25.9
2:12	-13.4	-26.4	-41.0	24.6	-15.2	-29.9	-46.4	24.6	-17.4	-33.9	-52.5	25.1
3:12	-13.4	-26.4	-41.1	23.1	-15.2	-29.9	-46.4	23.1	-17.4	-33.9	-52.6	23.6
4:12	-13.4	-26.4	-41.1	17.6	-15.3	-29.9	-46.4	17.6	-17.4	-34.0	-52.6	18.2
5:12	-13.5	-26.5	-41.1	16.6	-15.3	-30.0	-46.5	16.6	-17.4	-34.0	-52.6	17.2
6:12	-13.5	-26.5	-41.2	15.7	-15.3	-30.0	-46.5	15.7	-17.5	-34.0	-52.7	16.3
7:12	-15.2	-18.4	-18.4	18.6	-17.2	-20.9	-20.9	20.0	-19.6	-23.7	-23.7	21.9
8:12	-15.2	-18.5	-18.5	17.8	-17.3	-20.9	-20.9	19.7	-19.6	-23.8	-23.8	21.8
9:12	-15.2	-18.5	-18.5	17.7	-17.3	-21.0	-21.0	19.6	-19.7	-23.8	-23.8	21.7
10:12	-15.3	-18.5	-18.5	17.6	-17.3	-21.0	-21.0	19.4	-19.7	-23.8	-23.8	21.6
11:12	-15.3	-18.6	-18.6	17.5	-17.4	-21.0	-21.0	19.3	-19.7	-23.9	-23.9	21.5
12:12	-15.4	-18.6	-18.6	17.4	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.8	-18.6	-29.7	25.9	-9.8	-18.6	-29.7	25.9	-12.1	-22.9	-36.3	25.9
2:12	-8.7	-17.5	-27.5	24.6	-8.7	-17.5	-27.5	24.6	-10.8	-21.6	-33.6	24.6
3:12	-8.7	-17.6	-27.5	23.1	-8.7	-17.6	-27.5	23.1	-10.8	-21.6	-33.7	23.1
4:12	-8.7	-17.6	-27.5	20.2	-8.7	-17.6	-27.5	20.2	-10.9	-21.6	-33.7	20.2
5:12	-8.8	-17.6	-27.6	18.9	-8.8	-17.6	-27.6	18.9	-10.9	-21.6	-33.7	18.9
6:12	-8.8	-17.7	-27.6	17.7	-8.8	-17.7	-27.6	17.7	-10.9	-21.7	-33.8	17.7
7:12	-9.9	-12.2	-12.2	16.8	-9.9	-12.2	-12.2	16.8	-12.3	-15.0	-15.0	18.4
8:12	-10.0	-12.2	-12.2	15.7	-10.0	-12.2	-12.2	15.7	-12.4	-15.0	-15.0	17.3
9:12	-10.0	-12.2	-12.2	14.8	-10.0	-12.2	-12.2	14.8	-12.4	-15.1	-15.1	16.4
10:12	-10.1	-12.3	-12.3	14.0	-10.1	-12.3	-12.3	14.0	-12.4	-15.1	-15.1	15.6
11:12	-10.1	-12.3	-12.3	13.3	-10.1	-12.3	-12.3	13.3	-12.5	-15.2	-15.2	14.9
12:12	-10.2	-12.4	-12.4	12.7	-10.2	-12.4	-12.4	12.7	-12.5	-15.2	-15.2	14.8
Exposure Category C												
1:12	-12.1	-22.9	-36.3	25.9	-14.2	-26.6	-42.1	25.9	-16.6	-30.9	-48.7	25.9
2:12	-10.8	-21.6	-33.6	24.6	-12.7	-25.1	-39.0	24.6	-14.8	-29.1	-45.1	24.6
3:12	-10.8	-21.6	-33.7	23.1	-12.7	-25.1	-39.0	23.1	-14.8	-29.1	-45.2	23.1
4:12	-10.9	-21.6	-33.7	20.2	-12.7	-25.1	-39.0	20.2	-14.8	-29.1	-45.2	20.2
5:12	-10.9	-21.6	-33.7	18.9	-12.7	-25.1	-39.1	18.9	-14.9	-29.2	-45.2	18.9
6:12	-10.9	-21.7	-33.8	17.7	-12.8	-25.2	-39.1	17.7	-14.9	-29.2	-45.3	17.7
7:12	-12.3	-15.0	-15.0	18.4	-14.4	-17.5	-17.5	19.8	-16.7	-20.3	-20.3	21.4
8:12	-12.4	-15.0	-15.0	17.3	-14.4	-17.5	-17.5	18.7	-16.8	-20.4	-20.4	20.3
9:12	-12.4	-15.1	-15.1	16.4	-14.5	-17.6	-17.6	17.8	-16.8	-20.4	-20.4	19.4
10:12	-12.4	-15.1	-15.1	15.6	-14.5	-17.6	-17.6	17.0	-16.9	-20.4	-20.4	19.0
11:12	-12.5	-15.2	-15.2	14.9	-14.5	-17.6	-17.6	16.8	-16.9	-20.5	-20.5	18.9
12:12	-12.5	-15.2	-15.2	14.8	-14.6	-17.7	-17.7	16.7	-16.9	-20.5	-20.5	18.8
Exposure Category D												
1:12	-15.0	-28.0	-44.3	25.9	-17.0	-31.7	-50.0	25.9	-19.4	-36.0	-56.7	25.9
2:12	-13.4	-26.4	-41.0	24.6	-15.2	-29.9	-46.4	24.6	-17.4	-33.9	-52.5	25.1
3:12	-13.4	-26.4	-41.1	23.1	-15.2	-29.9	-46.4	23.1	-17.4	-33.9	-52.6	23.6
4:12	-13.4	-26.4	-41.1	19.3	-15.3	-29.9	-46.4	19.3	-17.4	-34.0	-52.6	19.8
5:12	-13.5	-26.5	-41.1	18.1	-15.3	-30.0	-46.5	18.1	-17.4	-34.0	-52.6	18.6
6:12	-13.5	-26.5	-41.2	17.0	-15.3	-30.0	-46.5	17.0	-17.5	-34.0	-52.7	17.5
7:12	-15.2	-18.4	-18.4	19.7	-17.2	-20.9	-20.9	21.1	-19.6	-23.7	-23.7	22.7
8:12	-15.2	-18.5	-18.5	18.8	-17.3	-20.9	-20.9	20.1	-19.6	-23.8	-23.8	21.8
9:12	-15.2	-18.5	-18.5	17.9	-17.3	-21.0	-21.0	19.6	-19.7	-23.8	-23.8	21.7
10:12	-15.3	-18.5	-18.5	17.6	-17.3	-21.0	-21.0	19.4	-19.7	-23.8	-23.8	21.6
11:12	-15.3	-18.6	-18.6	17.5	-17.4	-21.0	-21.0	19.3	-19.7	-23.9	-23.9	21.5
12:12	-15.4	-18.6	-18.6	17.4	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

110 mph

Ground Snow Load

25 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.8	-18.6	-29.7	26.7	-9.8	-18.6	-29.7	26.7	-12.1	-22.9	-36.3	26.7
2:12	-8.7	-17.5	-27.5	25.3	-8.7	-17.5	-27.5	25.3	-10.8	-21.6	-33.6	25.3
3:12	-8.7	-17.6	-27.5	23.7	-8.7	-17.6	-27.5	23.7	-10.8	-21.6	-33.7	23.7
4:12	-8.7	-17.6	-27.5	22.1	-8.7	-17.6	-27.5	22.1	-10.9	-21.6	-33.7	22.1
5:12	-8.8	-17.6	-27.6	20.5	-8.8	-17.6	-27.6	20.5	-10.9	-21.6	-33.7	20.5
6:12	-8.8	-17.7	-27.6	19.1	-8.8	-17.7	-27.6	19.1	-10.9	-21.7	-33.8	19.1
7:12	-9.9	-12.2	-12.2	18.0	-9.9	-12.2	-12.2	18.0	-12.3	-15.0	-15.0	19.6
8:12	-10.0	-12.2	-12.2	16.8	-10.0	-12.2	-12.2	16.8	-12.4	-15.0	-15.0	18.4
9:12	-10.0	-12.2	-12.2	15.7	-10.0	-12.2	-12.2	15.7	-12.4	-15.1	-15.1	17.3
10:12	-10.1	-12.3	-12.3	14.7	-10.1	-12.3	-12.3	14.7	-12.4	-15.1	-15.1	16.3
11:12	-10.1	-12.3	-12.3	13.9	-10.1	-12.3	-12.3	13.9	-12.5	-15.2	-15.2	15.5
12:12	-10.2	-12.4	-12.4	13.2	-10.2	-12.4	-12.4	13.2	-12.5	-15.2	-15.2	14.8
1:12	-12.1	-22.9	-36.3	26.7	-14.2	-26.6	-42.1	26.7	-16.6	-30.9	-48.7	26.7
2:12	-10.8	-21.6	-33.6	25.3	-12.7	-25.1	-39.0	25.3	-14.8	-29.1	-45.1	25.3
3:12	-10.8	-21.6	-33.7	23.7	-12.7	-25.1	-39.0	23.7	-14.8	-29.1	-45.2	23.7
4:12	-10.9	-21.6	-33.7	22.1	-12.7	-25.1	-39.0	22.1	-14.8	-29.1	-45.2	22.1
5:12	-10.9	-21.6	-33.7	20.5	-12.7	-25.1	-39.1	20.5	-14.9	-29.2	-45.2	20.5
6:12	-10.9	-21.7	-33.8	19.1	-12.8	-25.2	-39.1	19.1	-14.9	-29.2	-45.3	19.1
7:12	-12.3	-15.0	-15.0	19.6	-14.4	-17.5	-17.5	21.0	-16.7	-20.3	-20.3	22.6
8:12	-12.4	-15.0	-15.0	18.4	-14.4	-17.5	-17.5	19.7	-16.8	-20.4	-20.4	21.3
9:12	-12.4	-15.1	-15.1	17.3	-14.5	-17.6	-17.6	18.7	-16.8	-20.4	-20.4	20.3
10:12	-12.4	-15.1	-15.1	16.3	-14.5	-17.6	-17.6	17.7	-16.9	-20.4	-20.4	19.3
11:12	-12.5	-15.2	-15.2	15.5	-14.5	-17.6	-17.6	16.9	-16.9	-20.5	-20.5	18.9
12:12	-12.5	-15.2	-15.2	14.8	-14.6	-17.7	-17.7	16.7	-16.9	-20.5	-20.5	18.8
1:12	-15.0	-28.0	-44.3	25.9	-17.0	-31.7	-50.0	25.9	-19.4	-36.0	-56.7	25.9
2:12	-13.4	-26.4	-41.0	24.6	-15.2	-29.9	-46.4	24.6	-17.4	-33.9	-52.5	25.1
3:12	-13.4	-26.4	-41.1	23.1	-15.2	-29.9	-46.4	23.1	-17.4	-33.9	-52.6	23.6
4:12	-13.4	-26.4	-41.1	21.0	-15.3	-29.9	-46.4	21.0	-17.4	-34.0	-52.6	21.5
5:12	-13.5	-26.5	-41.1	19.6	-15.3	-30.0	-46.5	19.6	-17.4	-34.0	-52.6	20.1
6:12	-13.5	-26.5	-41.2	18.2	-15.3	-30.0	-46.5	18.2	-17.5	-34.0	-52.7	18.8
7:12	-15.2	-18.4	-18.4	20.8	-17.2	-20.9	-20.9	22.2	-19.6	-23.7	-23.7	23.8
8:12	-15.2	-18.5	-18.5	19.7	-17.3	-20.9	-20.9	21.1	-19.6	-23.8	-23.8	22.7
9:12	-15.2	-18.5	-18.5	18.7	-17.3	-21.0	-21.0	20.1	-19.7	-23.8	-23.8	21.7
10:12	-15.3	-18.5	-18.5	17.8	-17.3	-21.0	-21.0	19.4	-19.7	-23.8	-23.8	21.6
11:12	-15.3	-18.6	-18.6	17.5	-17.4	-21.0	-21.0	19.3	-19.7	-23.9	-23.9	21.5
12:12	-15.4	-18.6	-18.6	17.4	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
110 mph

Ground Snow Load
30 psf

Up and Down (psf)

Basic Wind Speed **110 mph**
Ground Snow Load **35 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.8	-18.6	-29.7	29.3	-9.8	-18.6	-29.7	29.3	-12.1	-22.9	-36.3	29.3
2:12	-8.7	-17.5	-27.5	27.6	-8.7	-17.5	-27.5	27.6	-10.8	-21.6	-33.6	27.6
3:12	-8.7	-17.6	-27.5	25.8	-8.7	-17.6	-27.5	25.8	-10.8	-21.6	-33.7	25.8
4:12	-8.7	-17.6	-27.5	24.0	-8.7	-17.6	-27.5	24.0	-10.9	-21.6	-33.7	24.0
5:12	-8.8	-17.6	-27.6	22.2	-8.8	-17.6	-27.6	22.2	-10.9	-21.6	-33.7	22.2
6:12	-8.8	-17.7	-27.6	20.5	-8.8	-17.7	-27.6	20.5	-10.9	-21.7	-33.8	20.5
7:12	-9.9	-12.2	-12.2	19.2	-9.9	-12.2	-12.2	19.2	-12.3	-15.0	-15.0	20.8
8:12	-10.0	-12.2	-12.2	17.8	-10.0	-12.2	-12.2	17.8	-12.4	-15.0	-15.0	19.4
9:12	-10.0	-12.2	-12.2	16.5	-10.0	-12.2	-12.2	16.5	-12.4	-15.1	-15.1	18.1
10:12	-10.1	-12.3	-12.3	15.5	-10.1	-12.3	-12.3	15.5	-12.4	-15.1	-15.1	17.1
11:12	-10.1	-12.3	-12.3	14.5	-10.1	-12.3	-12.3	14.5	-12.5	-15.2	-15.2	16.1
12:12	-10.2	-12.4	-12.4	13.7	-10.2	-12.4	-12.4	13.7	-12.5	-15.2	-15.2	15.3
Exposure Category C												
1:12	-12.1	-22.9	-36.3	29.3	-14.2	-26.6	-42.1	29.3	-16.6	-30.9	-48.7	29.3
2:12	-10.8	-21.6	-33.6	27.6	-12.7	-25.1	-39.0	27.6	-14.8	-29.1	-45.1	27.6
3:12	-10.8	-21.6	-33.7	25.8	-12.7	-25.1	-39.0	25.8	-14.8	-29.1	-45.2	25.8
4:12	-10.9	-21.6	-33.7	24.0	-12.7	-25.1	-39.0	24.0	-14.8	-29.1	-45.2	24.0
5:12	-10.9	-21.6	-33.7	22.2	-12.7	-25.1	-39.1	22.2	-14.9	-29.2	-45.2	22.2
6:12	-10.9	-21.7	-33.8	20.5	-12.8	-25.2	-39.1	20.5	-14.9	-29.2	-45.3	20.5
7:12	-12.3	-15.0	-15.0	20.8	-14.4	-17.5	-17.5	22.2	-16.7	-20.3	-20.3	23.8
8:12	-12.4	-15.0	-15.0	19.4	-14.4	-17.5	-17.5	20.8	-16.8	-20.4	-20.4	22.4
9:12	-12.4	-15.1	-15.1	18.1	-14.5	-17.6	-17.6	19.5	-16.8	-20.4	-20.4	21.1
10:12	-12.4	-15.1	-15.1	17.1	-14.5	-17.6	-17.6	18.4	-16.9	-20.4	-20.4	20.0
11:12	-12.5	-15.2	-15.2	16.1	-14.5	-17.6	-17.6	17.5	-16.9	-20.5	-20.5	19.1
12:12	-12.5	-15.2	-15.2	15.3	-14.6	-17.7	-17.7	16.7	-16.9	-20.5	-20.5	18.8
Exposure Category D												
1:12	-15.0	-28.0	-44.3	27.5	-17.0	-31.7	-50.0	27.5	-19.4	-36.0	-56.7	27.5
2:12	-13.4	-26.4	-41.0	26.0	-15.2	-29.9	-46.4	26.0	-17.4	-33.9	-52.5	26.5
3:12	-13.4	-26.4	-41.1	24.3	-15.2	-29.9	-46.4	24.3	-17.4	-33.9	-52.6	24.9
4:12	-13.4	-26.4	-41.1	22.7	-15.3	-29.9	-46.4	22.7	-17.4	-34.0	-52.6	23.2
5:12	-13.5	-26.5	-41.1	21.0	-15.3	-30.0	-46.5	21.0	-17.4	-34.0	-52.6	21.6
6:12	-13.5	-26.5	-41.2	19.5	-15.3	-30.0	-46.5	19.5	-17.5	-34.0	-52.7	20.0
7:12	-15.2	-18.4	-18.4	21.9	-17.2	-20.9	-20.9	23.2	-19.6	-23.7	-23.7	24.8
8:12	-15.2	-18.5	-18.5	20.6	-17.3	-20.9	-20.9	22.0	-19.6	-23.8	-23.8	23.6
9:12	-15.2	-18.5	-18.5	19.5	-17.3	-21.0	-21.0	20.8	-19.7	-23.8	-23.8	22.4
10:12	-15.3	-18.5	-18.5	18.5	-17.3	-21.0	-21.0	19.9	-19.7	-23.8	-23.8	21.6
11:12	-15.3	-18.6	-18.6	17.6	-17.4	-21.0	-21.0	19.3	-19.7	-23.9	-23.9	21.5
12:12	-15.4	-18.6	-18.6	17.4	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed **110 mph**
Ground Snow Load **40 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.8	-18.6	-29.7	31.9	-9.8	-18.6	-29.7	31.9	-12.1	-22.9	-36.3	31.9
2:12	-8.7	-17.5	-27.5	30.0	-8.7	-17.5	-27.5	30.0	-10.8	-21.6	-33.6	30.0
3:12	-8.7	-17.6	-27.5	27.9	-8.7	-17.6	-27.5	27.9	-10.8	-21.6	-33.7	27.9
4:12	-8.7	-17.6	-27.5	25.8	-8.7	-17.6	-27.5	25.8	-10.9	-21.6	-33.7	25.8
5:12	-8.8	-17.6	-27.6	23.8	-8.8	-17.6	-27.6	23.8	-10.9	-21.6	-33.7	23.8
6:12	-8.8	-17.7	-27.6	21.9	-8.8	-17.7	-27.6	21.9	-10.9	-21.7	-33.8	21.9
7:12	-9.9	-12.2	-12.2	20.4	-9.9	-12.2	-12.2	20.4	-12.3	-15.0	-15.0	22.0
8:12	-10.0	-12.2	-12.2	18.8	-10.0	-12.2	-12.2	18.8	-12.4	-15.0	-15.0	20.4
9:12	-10.0	-12.2	-12.2	17.4	-10.0	-12.2	-12.2	17.4	-12.4	-15.1	-15.1	19.0
10:12	-10.1	-12.3	-12.3	16.2	-10.1	-12.3	-12.3	16.2	-12.4	-15.1	-15.1	17.8
11:12	-10.1	-12.3	-12.3	15.1	-10.1	-12.3	-12.3	15.1	-12.5	-15.2	-15.2	16.7
12:12	-10.2	-12.4	-12.4	14.2	-10.2	-12.4	-12.4	14.2	-12.5	-15.2	-15.2	15.8
Exposure Category C												
1:12	-12.1	-22.9	-36.3	31.9	-14.2	-26.6	-42.1	31.9	-16.6	-30.9	-48.7	31.9
2:12	-10.8	-21.6	-33.6	30.0	-12.7	-25.1	-39.0	30.0	-14.8	-29.1	-45.1	30.0
3:12	-10.8	-21.6	-33.7	27.9	-12.7	-25.1	-39.0	27.9	-14.8	-29.1	-45.2	27.9
4:12	-10.9	-21.6	-33.7	25.8	-12.7	-25.1	-39.0	25.8	-14.8	-29.1	-45.2	25.8
5:12	-10.9	-21.6	-33.7	23.8	-12.7	-25.1	-39.1	23.8	-14.9	-29.2	-45.2	23.8
6:12	-10.9	-21.7	-33.8	21.9	-12.8	-25.2	-39.1	21.9	-14.9	-29.2	-45.3	21.9
7:12	-12.3	-15.0	-15.0	22.0	-14.4	-17.5	-17.5	23.4	-16.7	-20.3	-20.3	25.0
8:12	-12.4	-15.0	-15.0	20.4	-14.4	-17.5	-17.5	21.8	-16.8	-20.4	-20.4	23.4
9:12	-12.4	-15.1	-15.1	19.0	-14.5	-17.6	-17.6	20.4	-16.8	-20.4	-20.4	22.0
10:12	-12.4	-15.1	-15.1	17.8	-14.5	-17.6	-17.6	19.2	-16.9	-20.4	-20.4	20.8
11:12	-12.5	-15.2	-15.2	16.7	-14.5	-17.6	-17.6	18.1	-16.9	-20.5	-20.5	19.7
12:12	-12.5	-15.2	-15.2	15.8	-14.6	-17.7	-17.7	17.2	-16.9	-20.5	-20.5	18.8
Exposure Category D												
1:12	-15.0	-28.0	-44.3	29.8	-17.0	-31.7	-50.0	29.8	-19.4	-36.0	-56.7	29.8
2:12	-13.4	-26.4	-41.0	28.1	-15.2	-29.9	-46.4	28.1	-17.4	-33.9	-52.5	28.7
3:12	-13.4	-26.4	-41.1	26.2	-15.2	-29.9	-46.4	26.2	-17.4	-33.9	-52.6	26.8
4:12	-13.4	-26.4	-41.1	24.3	-15.3	-29.9	-46.4	24.3	-17.4	-34.0	-52.6	24.9
5:12	-13.5	-26.5	-41.1	22.5	-15.3	-30.0	-46.5	22.5	-17.4	-34.0	-52.6	23.1
6:12	-13.5	-26.5	-41.2	20.7	-15.3	-30.0	-46.5	20.7	-17.5	-34.0	-52.7	21.3
7:12	-15.2	-18.4	-18.4	22.9	-17.2	-20.9	-20.9	24.3	-19.6	-23.7	-23.7	25.9
8:12	-15.2	-18.5	-18.5	21.5	-17.3	-20.9	-20.9	22.9	-19.6	-23.8	-23.8	24.5
9:12	-15.2	-18.5	-18.5	20.2	-17.3	-21.0	-21.0	21.6	-19.7	-23.8	-23.8	23.2
10:12	-15.3	-18.5	-18.5	19.1	-17.3	-21.0	-21.0	20.5	-19.7	-23.8	-23.8	22.1
11:12	-15.3	-18.6	-18.6	18.2	-17.4	-21.0	-21.0	19.5	-19.7	-23.9	-23.9	21.5
12:12	-15.4	-18.6	-18.6	17.4	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.8	-18.6	-29.7	35.1	-9.8	-18.6	-29.7	35.1	-12.1	-22.9	-36.3	35.1
2:12	-8.7	-17.5	-27.5	32.4	-8.7	-17.5	-27.5	32.4	-10.8	-21.6	-33.6	32.4
3:12	-8.7	-17.6	-27.5	30.1	-8.7	-17.6	-27.5	30.1	-10.8	-21.6	-33.7	30.1
4:12	-8.7	-17.6	-27.5	27.7	-8.7	-17.6	-27.5	27.7	-10.9	-21.6	-33.7	27.7
5:12	-8.8	-17.6	-27.6	25.4	-8.8	-17.6	-27.6	25.4	-10.9	-21.6	-33.7	25.4
6:12	-8.8	-17.7	-27.6	23.3	-8.8	-17.7	-27.6	23.3	-10.9	-21.7	-33.8	23.3
7:12	-9.9	-12.2	-12.2	21.6	-9.9	-12.2	-12.2	21.6	-12.3	-15.0	-15.0	23.2
8:12	-10.0	-12.2	-12.2	19.8	-10.0	-12.2	-12.2	19.8	-12.4	-15.0	-15.0	21.4
9:12	-10.0	-12.2	-12.2	18.2	-10.0	-12.2	-12.2	18.2	-12.4	-15.1	-15.1	19.8
10:12	-10.1	-12.3	-12.3	16.9	-10.1	-12.3	-12.3	16.9	-12.4	-15.1	-15.1	18.5
11:12	-10.1	-12.3	-12.3	15.7	-10.1	-12.3	-12.3	15.7	-12.5	-15.2	-15.2	17.3
12:12	-10.2	-12.4	-12.4	14.7	-10.2	-12.4	-12.4	14.7	-12.5	-15.2	-15.2	16.3
1:12	-12.1	-22.9	-36.3	35.1	-14.2	-26.6	-42.1	35.1	-16.6	-30.9	-48.7	35.1
2:12	-10.8	-21.6	-33.6	32.4	-12.7	-25.1	-39.0	32.4	-14.8	-29.1	-45.1	32.4
3:12	-10.8	-21.6	-33.7	30.1	-12.7	-25.1	-39.0	30.1	-14.8	-29.1	-45.2	30.1
4:12	-10.9	-21.6	-33.7	27.7	-12.7	-25.1	-39.0	27.7	-14.8	-29.1	-45.2	27.7
5:12	-10.9	-21.6	-33.7	25.4	-12.7	-25.1	-39.1	25.4	-14.9	-29.2	-45.2	25.4
6:12	-10.9	-21.7	-33.8	23.3	-12.8	-25.2	-39.1	23.3	-14.9	-29.2	-45.3	23.3
7:12	-12.3	-15.0	-15.0	23.2	-14.4	-17.5	-17.5	24.6	-16.7	-20.3	-20.3	26.2
8:12	-12.4	-15.0	-15.0	21.4	-14.4	-17.5	-17.5	22.8	-16.8	-20.4	-20.4	24.4
9:12	-12.4	-15.1	-15.1	19.8	-14.5	-17.6	-17.6	21.2	-16.8	-20.4	-20.4	22.8
10:12	-12.4	-15.1	-15.1	18.5	-14.5	-17.6	-17.6	19.9	-16.9	-20.4	-20.4	21.5
11:12	-12.5	-15.2	-15.2	17.3	-14.5	-17.6	-17.6	18.7	-16.9	-20.5	-20.5	20.3
12:12	-12.5	-15.2	-15.2	16.3	-14.6	-17.7	-17.7	17.7	-16.9	-20.5	-20.5	19.3
1:12	-15.0	-28.0	-44.3	32.1	-17.0	-31.7	-50.0	32.1	-19.4	-36.0	-56.7	32.1
2:12	-13.4	-26.4	-41.0	30.3	-15.2	-29.9	-46.4	30.3	-17.4	-33.9	-52.5	30.8
3:12	-13.4	-26.4	-41.1	28.2	-15.2	-29.9	-46.4	28.2	-17.4	-33.9	-52.6	28.7
4:12	-13.4	-26.4	-41.1	26.0	-15.3	-29.9	-46.4	26.0	-17.4	-34.0	-52.6	26.6
5:12	-13.5	-26.5	-41.1	24.0	-15.3	-30.0	-46.5	24.0	-17.4	-34.0	-52.6	24.5
6:12	-13.5	-26.5	-41.2	22.0	-15.3	-30.0	-46.5	22.0	-17.5	-34.0	-52.7	22.6
7:12	-15.2	-18.4	-18.4	24.0	-17.2	-20.9	-20.9	25.4	-19.6	-23.7	-23.7	27.0
8:12	-15.2	-18.5	-18.5	22.4	-17.3	-20.9	-20.9	23.8	-19.6	-23.8	-23.8	25.4
9:12	-15.2	-18.5	-18.5	21.0	-17.3	-21.0	-21.0	22.4	-19.7	-23.8	-23.8	24.0
10:12	-15.3	-18.5	-18.5	19.8	-17.3	-21.0	-21.0	21.2	-19.7	-23.8	-23.8	22.8
11:12	-15.3	-18.6	-18.6	18.7	-17.4	-21.0	-21.0	20.1	-19.7	-23.9	-23.9	21.7
12:12	-15.4	-18.6	-18.6	17.8	-17.4	-21.1	-21.1	19.2	-19.8	-23.9	-23.9	21.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
110 mph

Ground Snow Load
45 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.8	-18.6	-29.7	38.6	-9.8	-18.6	-29.7	38.6	-12.1	-22.9	-36.3	38.6
2:12	-8.7	-17.5	-27.5	35.5	-8.7	-17.5	-27.5	35.5	-10.8	-21.6	-33.6	35.5
3:12	-8.7	-17.6	-27.5	32.2	-8.7	-17.6	-27.5	32.2	-10.8	-21.6	-33.7	32.2
4:12	-8.7	-17.6	-27.5	29.6	-8.7	-17.6	-27.5	29.6	-10.9	-21.6	-33.7	29.6
5:12	-8.8	-17.6	-27.6	27.1	-8.8	-17.6	-27.6	27.1	-10.9	-21.6	-33.7	27.1
6:12	-8.8	-17.7	-27.6	24.7	-8.8	-17.7	-27.6	24.7	-10.9	-21.7	-33.8	24.7
7:12	-9.9	-12.2	-12.2	22.8	-9.9	-12.2	-12.2	22.8	-12.3	-15.0	-15.0	24.4
8:12	-10.0	-12.2	-12.2	20.8	-10.0	-12.2	-12.2	20.8	-12.4	-15.0	-15.0	22.4
9:12	-10.0	-12.2	-12.2	19.1	-10.0	-12.2	-12.2	19.1	-12.4	-15.1	-15.1	20.7
10:12	-10.1	-12.3	-12.3	17.6	-10.1	-12.3	-12.3	17.6	-12.4	-15.1	-15.1	19.2
11:12	-10.1	-12.3	-12.3	16.3	-10.1	-12.3	-12.3	16.3	-12.5	-15.2	-15.2	17.9
12:12	-10.2	-12.4	-12.4	15.2	-10.2	-12.4	-12.4	15.2	-12.5	-15.2	-15.2	16.8
1:12	-12.1	-22.9	-36.3	38.6	-14.2	-26.6	-42.1	38.6	-16.6	-30.9	-48.7	38.6
2:12	-10.8	-21.6	-33.6	35.5	-12.7	-25.1	-39.0	35.5	-14.8	-29.1	-45.1	35.5
3:12	-10.8	-21.6	-33.7	32.2	-12.7	-25.1	-39.0	32.2	-14.8	-29.1	-45.2	32.2
4:12	-10.9	-21.6	-33.7	29.6	-12.7	-25.1	-39.0	29.6	-14.8	-29.1	-45.2	29.6
5:12	-10.9	-21.6	-33.7	27.1	-12.7	-25.1	-39.1	27.1	-14.9	-29.2	-45.2	27.1
6:12	-10.9	-21.7	-33.8	24.7	-12.8	-25.2	-39.1	24.7	-14.9	-29.2	-45.3	24.7
7:12	-12.3	-15.0	-15.0	24.4	-14.4	-17.5	-17.5	25.7	-16.7	-20.3	-20.3	27.3
8:12	-12.4	-15.0	-15.0	22.4	-14.4	-17.5	-17.5	23.8	-16.8	-20.4	-20.4	25.4
9:12	-12.4	-15.1	-15.1	20.7	-14.5	-17.6	-17.6	22.1	-16.8	-20.4	-20.4	23.7
10:12	-12.4	-15.1	-15.1	19.2	-14.5	-17.6	-17.6	20.6	-16.9	-20.4	-20.4	22.2
11:12	-12.5	-15.2	-15.2	17.9	-14.5	-17.6	-17.6	19.3	-16.9	-20.5	-20.5	20.9
12:12	-12.5	-15.2	-15.2	16.8	-14.6	-17.7	-17.7	18.2	-16.9	-20.5	-20.5	19.8
1:12	-15.0	-28.0	-44.3	35.1	-17.0	-31.7	-50.0	35.1	-19.4	-36.0	-56.7	35.1
2:12	-13.4	-26.4	-41.0	32.4	-15.2	-29.9	-46.4	32.4	-17.4	-33.9	-52.5	33.0
3:12	-13.4	-26.4	-41.1	30.1	-15.2	-29.9	-46.4	30.1	-17.4	-33.9	-52.6	30.6
4:12	-13.4	-26.4	-41.1	27.7	-15.3	-29.9	-46.4	27.7	-17.4	-34.0	-52.6	28.3
5:12	-13.5	-26.5	-41.1	25.4	-15.3	-30.0	-46.5	25.4	-17.4	-34.0	-52.6	26.0
6:12	-13.5	-26.5	-41.2	23.3	-15.3	-30.0	-46.5	23.3	-17.5	-34.0	-52.7	23.8
7:12	-15.2	-18.4	-18.4	25.1	-17.2	-20.9	-20.9	26.5	-19.6	-23.7	-23.7	28.1
8:12	-15.2	-18.5	-18.5	23.3	-17.3	-20.9	-20.9	24.7	-19.6	-23.8	-23.8	26.3
9:12	-15.2	-18.5	-18.5	21.8	-17.3	-21.0	-21.0	23.2	-19.7	-23.8	-23.8	24.8
10:12	-15.3	-18.5	-18.5	20.4	-17.3	-21.0	-21.0	21.8	-19.7	-23.8	-23.8	23.4
11:12	-15.3	-18.6	-18.6	19.2	-17.4	-21.0	-21.0	20.6	-19.7	-23.9	-23.9	22.2
12:12	-15.4	-18.6	-18.6	18.2	-17.4	-21.1	-21.1	19.6	-19.8	-23.9	-23.9	21.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

110 mph

Ground Snow Load

50 psf

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-9.8	-18.6	-29.7	45.5	-9.8	-18.6	-29.7	45.5	-12.1	-22.9	-36.3	45.5
	2:12	-8.7	-17.5	-27.5	41.9	-8.7	-17.5	-27.5	41.9	-10.8	-21.6	-33.6	41.9
	3:12	-8.7	-17.6	-27.5	37.8	-8.7	-17.6	-27.5	37.8	-10.8	-21.6	-33.7	37.8
	4:12	-8.7	-17.6	-27.5	33.6	-8.7	-17.6	-27.5	33.6	-10.9	-21.6	-33.7	33.6
	5:12	-8.8	-17.6	-27.6	30.3	-8.8	-17.6	-27.6	30.3	-10.9	-21.6	-33.7	30.3
	6:12	-8.8	-17.7	-27.6	27.5	-8.8	-17.7	-27.6	27.5	-10.9	-21.7	-33.8	27.5
	7:12	-9.9	-12.2	-12.2	25.2	-9.9	-12.2	-12.2	25.2	-12.3	-15.0	-15.0	26.8
	8:12	-10.0	-12.2	-12.2	22.8	-10.0	-12.2	-12.2	22.8	-12.4	-15.0	-15.0	24.4
	9:12	-10.0	-12.2	-12.2	20.8	-10.0	-12.2	-12.2	20.8	-12.4	-15.1	-15.1	22.4
	10:12	-10.1	-12.3	-12.3	19.1	-10.1	-12.3	-12.3	19.1	-12.4	-15.1	-15.1	20.7
	11:12	-10.1	-12.3	-12.3	17.5	-10.1	-12.3	-12.3	17.5	-12.5	-15.2	-15.2	19.1
	12:12	-10.2	-12.4	-12.4	16.2	-10.2	-12.4	-12.4	16.2	-12.5	-15.2	-15.2	17.8
Exposure Category C	1:12	-12.1	-22.9	-36.3	45.5	-14.2	-26.6	-42.1	45.5	-16.6	-30.9	-48.7	45.5
	2:12	-10.8	-21.6	-33.6	41.9	-12.7	-25.1	-39.0	41.9	-14.8	-29.1	-45.1	41.9
	3:12	-10.8	-21.6	-33.7	37.8	-12.7	-25.1	-39.0	37.8	-14.8	-29.1	-45.2	37.8
	4:12	-10.9	-21.6	-33.7	33.6	-12.7	-25.1	-39.0	33.6	-14.8	-29.1	-45.2	33.6
	5:12	-10.9	-21.6	-33.7	30.3	-12.7	-25.1	-39.1	30.3	-14.9	-29.2	-45.2	30.3
	6:12	-10.9	-21.7	-33.8	27.5	-12.8	-25.2	-39.1	27.5	-14.9	-29.2	-45.3	27.5
	7:12	-12.3	-15.0	-15.0	26.8	-14.4	-17.5	-17.5	28.1	-16.7	-20.3	-20.3	29.7
	8:12	-12.4	-15.0	-15.0	24.4	-14.4	-17.5	-17.5	25.8	-16.8	-20.4	-20.4	27.4
	9:12	-12.4	-15.1	-15.1	22.4	-14.5	-17.6	-17.6	23.8	-16.8	-20.4	-20.4	25.4
	10:12	-12.4	-15.1	-15.1	20.7	-14.5	-17.6	-17.6	22.0	-16.9	-20.4	-20.4	23.6
	11:12	-12.5	-15.2	-15.2	19.1	-14.5	-17.6	-17.6	20.5	-16.9	-20.5	-20.5	22.1
	12:12	-12.5	-15.2	-15.2	17.8	-14.6	-17.7	-17.7	19.2	-16.9	-20.5	-20.5	20.8
Exposure Category D	1:12	-15.0	-28.0	-44.3	41.4	-17.0	-31.7	-50.0	41.4	-19.4	-36.0	-56.7	41.4
	2:12	-13.4	-26.4	-41.0	38.0	-15.2	-29.9	-46.4	38.0	-17.4	-33.9	-52.5	38.0
	3:12	-13.4	-26.4	-41.1	34.4	-15.2	-29.9	-46.4	34.4	-17.4	-33.9	-52.6	34.5
	4:12	-13.4	-26.4	-41.1	31.1	-15.3	-29.9	-46.4	31.1	-17.4	-34.0	-52.6	31.7
	5:12	-13.5	-26.5	-41.1	28.4	-15.3	-30.0	-46.5	28.4	-17.4	-34.0	-52.6	28.9
	6:12	-13.5	-26.5	-41.2	25.8	-15.3	-30.0	-46.5	25.8	-17.5	-34.0	-52.7	26.4
	7:12	-15.2	-18.4	-18.4	27.2	-17.2	-20.9	-20.9	28.6	-19.6	-23.7	-23.7	30.2
	8:12	-15.2	-18.5	-18.5	25.1	-17.3	-20.9	-20.9	26.5	-19.6	-23.8	-23.8	28.1
	9:12	-15.2	-18.5	-18.5	23.3	-17.3	-21.0	-21.0	24.7	-19.7	-23.8	-23.8	26.3
	10:12	-15.3	-18.5	-18.5	21.7	-17.3	-21.0	-21.0	23.1	-19.7	-23.8	-23.8	24.7
	11:12	-15.3	-18.6	-18.6	20.3	-17.4	-21.0	-21.0	21.7	-19.7	-23.9	-23.9	23.3
	12:12	-15.4	-18.6	-18.6	19.2	-17.4	-21.1	-21.1	20.5	-19.8	-23.9	-23.9	22.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
	2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
	3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
	4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
	5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
	6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
	7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
	8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
	9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
	10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed **110 mph**

Ground Snow Load **60 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-9.8	-18.6	-29.7	52.5	-9.8	-18.6	-29.7	52.5	-12.1	-22.9	-36.3	52.5
2:12	-8.7	-17.5	-27.5	48.2	-8.7	-17.5	-27.5	48.2	-10.8	-21.6	-33.6	48.2
3:12	-8.7	-17.6	-27.5	43.4	-8.7	-17.6	-27.5	43.4	-10.8	-21.6	-33.7	43.4
4:12	-8.7	-17.6	-27.5	38.6	-8.7	-17.6	-27.5	38.6	-10.9	-21.6	-33.7	38.6
5:12	-8.8	-17.6	-27.6	34.0	-8.8	-17.6	-27.6	34.0	-10.9	-21.6	-33.7	34.0
6:12	-8.8	-17.7	-27.6	30.3	-8.8	-17.7	-27.6	30.3	-10.9	-21.7	-33.8	30.3
7:12	-9.9	-12.2	-12.2	27.6	-9.9	-12.2	-12.2	27.6	-12.3	-15.0	-15.0	29.2
8:12	-10.0	-12.2	-12.2	24.9	-10.0	-12.2	-12.2	24.9	-12.4	-15.0	-15.0	26.5
9:12	-10.0	-12.2	-12.2	22.5	-10.0	-12.2	-12.2	22.5	-12.4	-15.1	-15.1	24.1
10:12	-10.1	-12.3	-12.3	20.5	-10.1	-12.3	-12.3	20.5	-12.4	-15.1	-15.1	22.1
11:12	-10.1	-12.3	-12.3	18.7	-10.1	-12.3	-12.3	18.7	-12.5	-15.2	-15.2	20.3
12:12	-10.2	-12.4	-12.4	17.3	-10.2	-12.4	-12.4	17.3	-12.5	-15.2	-15.2	18.9
1:12	-12.1	-22.9	-36.3	52.5	-14.2	-26.6	-42.1	52.5	-16.6	-30.9	-48.7	52.5
2:12	-10.8	-21.6	-33.6	48.2	-12.7	-25.1	-39.0	48.2	-14.8	-29.1	-45.1	48.2
3:12	-10.8	-21.6	-33.7	43.4	-12.7	-25.1	-39.0	43.4	-14.8	-29.1	-45.2	43.4
4:12	-10.9	-21.6	-33.7	38.6	-12.7	-25.1	-39.0	38.6	-14.8	-29.1	-45.2	38.6
5:12	-10.9	-21.6	-33.7	34.0	-12.7	-25.1	-39.1	34.0	-14.9	-29.2	-45.2	34.0
6:12	-10.9	-21.7	-33.8	30.3	-12.8	-25.2	-39.1	30.3	-14.9	-29.2	-45.3	30.3
7:12	-12.3	-15.0	-15.0	29.2	-14.4	-17.5	-17.5	30.5	-16.7	-20.3	-20.3	32.1
8:12	-12.4	-15.0	-15.0	26.5	-14.4	-17.5	-17.5	27.9	-16.8	-20.4	-20.4	29.5
9:12	-12.4	-15.1	-15.1	24.1	-14.5	-17.6	-17.6	25.5	-16.8	-20.4	-20.4	27.1
10:12	-12.4	-15.1	-15.1	22.1	-14.5	-17.6	-17.6	23.5	-16.9	-20.4	-20.4	25.1
11:12	-12.5	-15.2	-15.2	20.3	-14.5	-17.6	-17.6	21.7	-16.9	-20.5	-20.5	23.3
12:12	-12.5	-15.2	-15.2	18.9	-14.6	-17.7	-17.7	20.2	-16.9	-20.5	-20.5	21.8
1:12	-15.0	-28.0	-44.3	47.6	-17.0	-31.7	-50.0	47.6	-19.4	-36.0	-56.7	47.6
2:12	-13.4	-26.4	-41.0	43.8	-15.2	-29.9	-46.4	43.8	-17.4	-33.9	-52.5	43.8
3:12	-13.4	-26.4	-41.1	39.5	-15.2	-29.9	-46.4	39.5	-17.4	-33.9	-52.6	39.5
4:12	-13.4	-26.4	-41.1	35.1	-15.3	-29.9	-46.4	35.1	-17.4	-34.0	-52.6	35.1
5:12	-13.5	-26.5	-41.1	31.3	-15.3	-30.0	-46.5	31.3	-17.4	-34.0	-52.6	31.9
6:12	-13.5	-26.5	-41.2	28.3	-15.3	-30.0	-46.5	28.3	-17.5	-34.0	-52.7	28.9
7:12	-15.2	-18.4	-18.4	29.4	-17.2	-20.9	-20.9	30.8	-19.6	-23.7	-23.7	32.4
8:12	-15.2	-18.5	-18.5	27.0	-17.3	-20.9	-20.9	28.4	-19.6	-23.8	-23.8	30.0
9:12	-15.2	-18.5	-18.5	24.9	-17.3	-21.0	-21.0	26.2	-19.7	-23.8	-23.8	27.8
10:12	-15.3	-18.5	-18.5	23.0	-17.3	-21.0	-21.0	24.4	-19.7	-23.8	-23.8	26.0
11:12	-15.3	-18.6	-18.6	21.4	-17.4	-21.0	-21.0	22.8	-19.7	-23.9	-23.9	24.4
12:12	-15.4	-18.6	-18.6	20.1	-17.4	-21.1	-21.1	21.5	-19.8	-23.9	-23.9	23.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
110 mph

Ground Snow Load
70 psf

Up and Down (psf)

Basic Wind Speed
110 mph
Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.8	-18.6	-29.7	59.4	-9.8	-18.6	-29.7	59.4	-12.1	-22.9	-36.3	59.4
2:12	-8.7	-17.5	-27.5	54.5	-8.7	-17.5	-27.5	54.5	-10.8	-21.6	-33.6	54.5
3:12	-8.7	-17.6	-27.5	49.1	-8.7	-17.6	-27.5	49.1	-10.8	-21.6	-33.7	49.1
4:12	-8.7	-17.6	-27.5	43.6	-8.7	-17.6	-27.5	43.6	-10.9	-21.6	-33.7	43.6
5:12	-8.8	-17.6	-27.6	38.3	-8.8	-17.6	-27.6	38.3	-10.9	-21.6	-33.7	38.3
6:12	-8.8	-17.7	-27.6	33.4	-8.8	-17.7	-27.6	33.4	-10.9	-21.7	-33.8	33.4
7:12	-9.9	-12.2	-12.2	29.9	-9.9	-12.2	-12.2	29.9	-12.3	-15.0	-15.0	31.5
8:12	-10.0	-12.2	-12.2	26.9	-10.0	-12.2	-12.2	26.9	-12.4	-15.0	-15.0	28.5
9:12	-10.0	-12.2	-12.2	24.2	-10.0	-12.2	-12.2	24.2	-12.4	-15.1	-15.1	25.8
10:12	-10.1	-12.3	-12.3	21.9	-10.1	-12.3	-12.3	21.9	-12.4	-15.1	-15.1	23.5
11:12	-10.1	-12.3	-12.3	20.0	-10.1	-12.3	-12.3	20.0	-12.5	-15.2	-15.2	21.6
12:12	-10.2	-12.4	-12.4	18.3	-10.2	-12.4	-12.4	18.3	-12.5	-15.2	-15.2	19.9
Exposure Category C												
1:12	-12.1	-22.9	-36.3	59.4	-14.2	-26.6	-42.1	59.4	-16.6	-30.9	-48.7	59.4
2:12	-10.8	-21.6	-33.6	54.5	-12.7	-25.1	-39.0	54.5	-14.8	-29.1	-45.1	54.5
3:12	-10.8	-21.6	-33.7	49.1	-12.7	-25.1	-39.0	49.1	-14.8	-29.1	-45.2	49.1
4:12	-10.9	-21.6	-33.7	43.6	-12.7	-25.1	-39.0	43.6	-14.8	-29.1	-45.2	43.6
5:12	-10.9	-21.6	-33.7	38.3	-12.7	-25.1	-39.1	38.3	-14.9	-29.2	-45.2	38.3
6:12	-10.9	-21.7	-33.8	33.4	-12.8	-25.2	-39.1	33.4	-14.9	-29.2	-45.3	33.4
7:12	-12.3	-15.0	-15.0	31.5	-14.4	-17.5	-17.5	32.9	-16.7	-20.3	-20.3	34.5
8:12	-12.4	-15.0	-15.0	28.5	-14.4	-17.5	-17.5	29.9	-16.8	-20.4	-20.4	31.5
9:12	-12.4	-15.1	-15.1	25.8	-14.5	-17.6	-17.6	27.2	-16.8	-20.4	-20.4	28.8
10:12	-12.4	-15.1	-15.1	23.5	-14.5	-17.6	-17.6	24.9	-16.9	-20.4	-20.4	26.5
11:12	-12.5	-15.2	-15.2	21.6	-14.5	-17.6	-17.6	22.9	-16.9	-20.5	-20.5	24.5
12:12	-12.5	-15.2	-15.2	19.9	-14.6	-17.7	-17.7	21.2	-16.9	-20.5	-20.5	22.8
Exposure Category D												
1:12	-15.0	-28.0	-44.3	53.9	-17.0	-31.7	-50.0	53.9	-19.4	-36.0	-56.7	53.9
2:12	-13.4	-26.4	-41.0	49.5	-15.2	-29.9	-46.4	49.5	-17.4	-33.9	-52.5	49.5
3:12	-13.4	-26.4	-41.1	44.6	-15.2	-29.9	-46.4	44.6	-17.4	-33.9	-52.6	44.6
4:12	-13.4	-26.4	-41.1	39.6	-15.3	-29.9	-46.4	39.6	-17.4	-34.0	-52.6	39.6
5:12	-13.5	-26.5	-41.1	34.9	-15.3	-30.0	-46.5	34.9	-17.4	-34.0	-52.6	34.9
6:12	-13.5	-26.5	-41.2	30.8	-15.3	-30.0	-46.5	30.8	-17.5	-34.0	-52.7	31.4
7:12	-15.2	-18.4	-18.4	31.6	-17.2	-20.9	-20.9	32.9	-19.6	-23.7	-23.7	34.5
8:12	-15.2	-18.5	-18.5	28.8	-17.3	-20.9	-20.9	30.2	-19.6	-23.8	-23.8	31.8
9:12	-15.2	-18.5	-18.5	26.4	-17.3	-21.0	-21.0	27.8	-19.7	-23.8	-23.8	29.4
10:12	-15.3	-18.5	-18.5	24.3	-17.3	-21.0	-21.0	25.7	-19.7	-23.8	-23.8	27.3
11:12	-15.3	-18.6	-18.6	22.5	-17.4	-21.0	-21.0	23.9	-19.7	-23.9	-23.9	25.5
12:12	-15.4	-18.6	-18.6	21.0	-17.4	-21.1	-21.1	22.4	-19.8	-23.9	-23.9	24.0
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.8	-18.6	-29.7	66.4	-9.8	-18.6	-29.7	66.4	-12.1	-22.9	-36.3	66.4
2:12	-8.7	-17.5	-27.5	60.9	-8.7	-17.5	-27.5	60.9	-10.8	-21.6	-33.6	60.9
3:12	-8.7	-17.6	-27.5	54.8	-8.7	-17.6	-27.5	54.8	-10.8	-21.6	-33.7	54.8
4:12	-8.7	-17.6	-27.5	48.6	-8.7	-17.6	-27.5	48.6	-10.9	-21.6	-33.7	48.6
5:12	-8.8	-17.6	-27.6	42.7	-8.8	-17.6	-27.6	42.7	-10.9	-21.6	-33.7	42.7
6:12	-8.8	-17.7	-27.6	37.1	-8.8	-17.7	-27.6	37.1	-10.9	-21.7	-33.8	37.1
7:12	-9.9	-12.2	-12.2	32.3	-9.9	-12.2	-12.2	32.3	-12.3	-15.0	-15.0	33.9
8:12	-10.0	-12.2	-12.2	28.9	-10.0	-12.2	-12.2	28.9	-12.4	-15.0	-15.0	30.5
9:12	-10.0	-12.2	-12.2	26.0	-10.0	-12.2	-12.2	26.0	-12.4	-15.1	-15.1	27.6
10:12	-10.1	-12.3	-12.3	23.4	-10.1	-12.3	-12.3	23.4	-12.4	-15.1	-15.1	25.0
11:12	-10.1	-12.3	-12.3	21.2	-10.1	-12.3	-12.3	21.2	-12.5	-15.2	-15.2	22.8
12:12	-10.2	-12.4	-12.4	19.3	-10.2	-12.4	-12.4	19.3	-12.5	-15.2	-15.2	20.9
Exposure Category C												
1:12	-12.1	-22.9	-36.3	66.4	-14.2	-26.6	-42.1	66.4	-16.6	-30.9	-48.7	66.4
2:12	-10.8	-21.6	-33.6	60.9	-12.7	-25.1	-39.0	60.9	-14.8	-29.1	-45.1	60.9
3:12	-10.8	-21.6	-33.7	54.8	-12.7	-25.1	-39.0	54.8	-14.8	-29.1	-45.2	54.8
4:12	-10.9	-21.6	-33.7	48.6	-12.7	-25.1	-39.0	48.6	-14.8	-29.1	-45.2	48.6
5:12	-10.9	-21.6	-33.7	42.7	-12.7	-25.1	-39.1	42.7	-14.9	-29.2	-45.2	42.7
6:12	-10.9	-21.7	-33.8	37.1	-12.8	-25.2	-39.1	37.1	-14.9	-29.2	-45.3	37.1
7:12	-12.3	-15.0	-15.0	33.9	-14.4	-17.5	-17.5	35.3	-16.7	-20.3	-20.3	36.9
8:12	-12.4	-15.0	-15.0	30.5	-14.4	-17.5	-17.5	31.9	-16.8	-20.4	-20.4	33.5
9:12	-12.4	-15.1	-15.1	27.6	-14.5	-17.6	-17.6	28.9	-16.8	-20.4	-20.4	30.5
10:12	-12.4	-15.1	-15.1	25.0	-14.5	-17.6	-17.6	26.4	-16.9	-20.4	-20.4	28.0
11:12	-12.5	-15.2	-15.2	22.8	-14.5	-17.6	-17.6	24.1	-16.9	-20.5	-20.5	25.7
12:12	-12.5	-15.2	-15.2	20.9	-14.6	-17.7	-17.7	22.3	-16.9	-20.5	-20.5	23.9
Exposure Category D												
1:12	-15.0	-28.0	-44.3	60.1	-17.0	-31.7	-50.0	60.1	-19.4	-36.0	-56.7	60.1
2:12	-13.4	-26.4	-41.0	55.2	-15.2	-29.9	-46.4	55.2	-17.4	-33.9	-52.5	55.2
3:12	-13.4	-26.4	-41.1	49.7	-15.2	-29.9	-46.4	49.7	-17.4	-33.9	-52.6	49.7
4:12	-13.4	-26.4	-41.1	44.1	-15.3	-29.9	-46.4	44.1	-17.4	-34.0	-52.6	44.1
5:12	-13.5	-26.5	-41.1	38.8	-15.3	-30.0	-46.5	38.8	-17.4	-34.0	-52.6	38.8
6:12	-13.5	-26.5	-41.2	33.8	-15.3	-30.0	-46.5	33.8	-17.5	-34.0	-52.7	33.9
7:12	-15.2	-18.4	-18.4	33.7	-17.2	-20.9	-20.9	35.1	-19.6	-23.7	-23.7	36.7
8:12	-15.2	-18.5	-18.5	30.6	-17.3	-20.9	-20.9	32.0	-19.6	-23.8	-23.8	33.6
9:12	-15.2	-18.5	-18.5	27.9	-17.3	-21.0	-21.0	29.3	-19.7	-23.8	-23.8	30.9
10:12	-15.3	-18.5	-18.5	25.6	-17.3	-21.0	-21.0	27.0	-19.7	-23.8	-23.8	28.6
11:12	-15.3	-18.6	-18.6	23.6	-17.4	-21.0	-21.0	25.0	-19.7	-23.9	-23.9	26.6
12:12	-15.4	-18.6	-18.6	21.9	-17.4	-21.1	-21.1	23.3	-19.8	-23.9	-23.9	24.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **90 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-9.8	-18.6	-29.7	73.4	-9.8	-18.6	-29.7	73.4	-12.1	-22.9	-36.3	73.4
2:12	-8.7	-17.5	-27.5	67.2	-8.7	-17.5	-27.5	67.2	-10.8	-21.6	-33.6	67.2
3:12	-8.7	-17.6	-27.5	60.5	-8.7	-17.6	-27.5	60.5	-10.8	-21.6	-33.7	60.5
4:12	-8.7	-17.6	-27.5	53.6	-8.7	-17.6	-27.5	53.6	-10.9	-21.6	-33.7	53.6
5:12	-8.8	-17.6	-27.6	47.0	-8.8	-17.6	-27.6	47.0	-10.9	-21.6	-33.7	47.0
6:12	-8.8	-17.7	-27.6	40.9	-8.8	-17.7	-27.6	40.9	-10.9	-21.7	-33.8	40.9
7:12	-9.9	-12.2	-12.2	35.3	-9.9	-12.2	-12.2	35.3	-12.3	-15.0	-15.0	36.3
8:12	-10.0	-12.2	-12.2	31.0	-10.0	-12.2	-12.2	31.0	-12.4	-15.0	-15.0	32.6
9:12	-10.0	-12.2	-12.2	27.7	-10.0	-12.2	-12.2	27.7	-12.4	-15.1	-15.1	29.3
10:12	-10.1	-12.3	-12.3	24.8	-10.1	-12.3	-12.3	24.8	-12.4	-15.1	-15.1	26.4
11:12	-10.1	-12.3	-12.3	22.4	-10.1	-12.3	-12.3	22.4	-12.5	-15.2	-15.2	24.0
12:12	-10.2	-12.4	-12.4	20.3	-10.2	-12.4	-12.4	20.3	-12.5	-15.2	-15.2	21.9
Exposure Category C												
1:12	-12.1	-22.9	-36.3	73.4	-14.2	-26.6	-42.1	73.4	-16.6	-30.9	-48.7	73.4
2:12	-10.8	-21.6	-33.6	67.2	-12.7	-25.1	-39.0	67.2	-14.8	-29.1	-45.1	67.2
3:12	-10.8	-21.6	-33.7	60.5	-12.7	-25.1	-39.0	60.5	-14.8	-29.1	-45.2	60.5
4:12	-10.9	-21.6	-33.7	53.6	-12.7	-25.1	-39.0	53.6	-14.8	-29.1	-45.2	53.6
5:12	-10.9	-21.6	-33.7	47.0	-12.7	-25.1	-39.1	47.0	-14.9	-29.2	-45.2	47.0
6:12	-10.9	-21.7	-33.8	40.9	-12.8	-25.2	-39.1	40.9	-14.9	-29.2	-45.3	40.9
7:12	-12.3	-15.0	-15.0	36.3	-14.4	-17.5	-17.5	37.7	-16.7	-20.3	-20.3	39.3
8:12	-12.4	-15.0	-15.0	32.6	-14.4	-17.5	-17.5	34.0	-16.8	-20.4	-20.4	35.6
9:12	-12.4	-15.1	-15.1	29.3	-14.5	-17.6	-17.6	30.7	-16.8	-20.4	-20.4	32.3
10:12	-12.4	-15.1	-15.1	26.4	-14.5	-17.6	-17.6	27.8	-16.9	-20.4	-20.4	29.4
11:12	-12.5	-15.2	-15.2	24.0	-14.5	-17.6	-17.6	25.4	-16.9	-20.5	-20.5	27.0
12:12	-12.5	-15.2	-15.2	21.9	-14.6	-17.7	-17.7	23.3	-16.9	-20.5	-20.5	24.9
Exposure Category D												
1:12	-15.0	-28.0	-44.3	66.4	-17.0	-31.7	-50.0	66.4	-19.4	-36.0	-56.7	66.4
2:12	-13.4	-26.4	-41.0	60.9	-15.2	-29.9	-46.4	60.9	-17.4	-33.9	-52.5	60.9
3:12	-13.4	-26.4	-41.1	54.8	-15.2	-29.9	-46.4	54.8	-17.4	-33.9	-52.6	54.8
4:12	-13.4	-26.4	-41.1	48.6	-15.3	-29.9	-46.4	48.6	-17.4	-34.0	-52.6	48.6
5:12	-13.5	-26.5	-41.1	42.7	-15.3	-30.0	-46.5	42.7	-17.4	-34.0	-52.6	42.7
6:12	-13.5	-26.5	-41.2	37.1	-15.3	-30.0	-46.5	37.1	-17.5	-34.0	-52.7	37.1
7:12	-15.2	-18.4	-18.4	35.9	-17.2	-20.9	-20.9	37.2	-19.6	-23.7	-23.7	38.8
8:12	-15.2	-18.5	-18.5	32.5	-17.3	-20.9	-20.9	33.8	-19.6	-23.8	-23.8	35.4
9:12	-15.2	-18.5	-18.5	29.5	-17.3	-21.0	-21.0	30.9	-19.7	-23.8	-23.8	32.5
10:12	-15.3	-18.5	-18.5	26.9	-17.3	-21.0	-21.0	28.3	-19.7	-23.8	-23.8	29.9
11:12	-15.3	-18.6	-18.6	24.7	-17.4	-21.0	-21.0	26.1	-19.7	-23.9	-23.9	27.7
12:12	-15.4	-18.6	-18.6	22.8	-17.4	-21.1	-21.1	24.2	-19.8	-23.9	-23.9	25.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **110 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-10.8	-20.5	-32.6	13.4	-10.8	-20.5	-32.6	13.4	-13.4	-25.1	-39.8	13.4
2:12	-9.6	-19.3	-30.2	13.4	-9.6	-19.3	-30.2	13.4	-11.9	-23.7	-36.9	13.4
3:12	-9.6	-19.3	-30.2	13.3	-9.6	-19.3	-30.2	13.3	-12.0	-23.7	-36.9	13.3
4:12	-9.7	-19.3	-30.2	13.2	-9.7	-19.3	-30.2	13.2	-12.0	-23.7	-36.9	13.2
5:12	-9.7	-19.4	-30.2	13.2	-9.7	-19.4	-30.2	13.2	-12.0	-23.8	-37.0	13.2
6:12	-9.7	-19.4	-30.3	13.0	-9.7	-19.4	-30.3	13.0	-12.1	-23.8	-37.0	13.0
7:12	-11.0	-13.4	-13.4	14.2	-11.0	-13.4	-13.4	14.2	-13.6	-16.5	-16.5	16.5
8:12	-11.0	-13.4	-13.4	14.1	-11.0	-13.4	-13.4	14.1	-13.6	-16.5	-16.5	16.4
9:12	-11.1	-13.5	-13.5	14.0	-11.1	-13.5	-13.5	14.0	-13.6	-16.6	-16.6	16.3
10:12	-11.1	-13.5	-13.5	13.8	-11.1	-13.5	-13.5	13.8	-13.7	-16.6	-16.6	16.2
11:12	-11.1	-13.6	-13.6	13.7	-11.1	-13.6	-13.6	13.7	-13.7	-16.7	-16.7	16.0
12:12	-11.2	-13.6	-13.6	13.6	-11.2	-13.6	-13.6	13.6	-13.8	-16.7	-16.7	15.9
1:12	-13.4	-25.1	-39.8	13.4	-15.6	-29.2	-46.1	13.4	-18.2	-33.8	-53.4	13.4
2:12	-11.9	-23.7	-36.9	13.4	-14.0	-27.5	-42.7	13.4	-16.3	-31.9	-49.5	13.6
3:12	-12.0	-23.7	-36.9	13.3	-14.0	-27.5	-42.7	13.3	-16.3	-31.9	-49.5	13.5
4:12	-12.0	-23.7	-36.9	13.2	-14.0	-27.5	-42.8	13.2	-16.3	-32.0	-49.5	13.4
5:12	-12.0	-23.8	-37.0	13.2	-14.0	-27.6	-42.8	13.2	-16.4	-32.0	-49.5	13.3
6:12	-12.1	-23.8	-37.0	13.0	-14.1	-27.6	-42.8	13.0	-16.4	-32.0	-49.6	13.2
7:12	-13.6	-16.5	-16.5	16.5	-15.8	-19.2	-19.2	18.6	-18.4	-22.3	-22.3	20.9
8:12	-13.6	-16.5	-16.5	16.4	-15.9	-19.2	-19.2	18.4	-18.4	-22.3	-22.3	20.8
9:12	-13.6	-16.6	-16.6	16.3	-15.9	-19.3	-19.3	18.3	-18.5	-22.4	-22.4	20.6
10:12	-13.7	-16.6	-16.6	16.2	-15.9	-19.3	-19.3	18.2	-18.5	-22.4	-22.4	20.5
11:12	-13.7	-16.7	-16.7	16.0	-16.0	-19.4	-19.4	18.1	-18.6	-22.5	-22.5	20.4
12:12	-13.8	-16.7	-16.7	15.9	-16.0	-19.4	-19.4	17.9	-18.6	-22.5	-22.5	20.3
1:12	-16.5	-30.7	-48.5	13.4	-18.7	-34.8	-54.8	13.4	-21.3	-39.4	-62.1	13.4
2:12	-14.7	-29.0	-45.0	13.4	-16.8	-32.8	-50.8	13.8	-19.1	-37.2	-57.5	15.1
3:12	-14.8	-29.0	-45.0	13.3	-16.8	-32.8	-50.8	13.7	-19.1	-37.2	-57.6	15.0
4:12	-14.8	-29.0	-45.0	13.2	-16.8	-32.8	-50.9	13.7	-19.1	-37.2	-57.6	15.0
5:12	-14.8	-29.0	-45.1	13.2	-16.8	-32.9	-50.9	13.6	-19.2	-37.3	-57.6	14.9
6:12	-14.9	-29.1	-45.1	13.0	-16.9	-32.9	-50.9	13.5	-19.2	-37.3	-57.7	14.8
7:12	-16.7	-20.2	-20.2	19.3	-18.9	-22.9	-22.9	21.3	-21.5	-26.0	-26.0	23.7
8:12	-16.7	-20.3	-20.3	19.2	-19.0	-23.0	-23.0	21.2	-21.6	-26.1	-26.1	23.6
9:12	-16.8	-20.3	-20.3	19.1	-19.0	-23.0	-23.0	21.1	-21.6	-26.1	-26.1	23.4
10:12	-16.8	-20.4	-20.4	19.0	-19.0	-23.0	-23.0	21.0	-21.6	-26.2	-26.2	23.3
11:12	-16.8	-20.4	-20.4	18.8	-19.1	-23.1	-23.1	20.9	-21.7	-26.2	-26.2	23.2
12:12	-16.9	-20.4	-20.4	18.7	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**

Ground Snow Load **0 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-10.8	-20.5	-32.6	14.8	-10.8	-20.5	-32.6	14.8	-13.4	-25.1	-39.8	14.8
2:12	-9.6	-19.3	-30.2	14.4	-9.6	-19.3	-30.2	14.4	-11.9	-23.7	-36.9	14.4
3:12	-9.6	-19.3	-30.2	14.0	-9.6	-19.3	-30.2	14.0	-12.0	-23.7	-36.9	14.0
4:12	-9.7	-19.3	-30.2	13.2	-9.7	-19.3	-30.2	13.2	-12.0	-23.7	-36.9	13.2
5:12	-9.7	-19.4	-30.2	13.2	-9.7	-19.4	-30.2	13.2	-12.0	-23.8	-37.0	13.2
6:12	-9.7	-19.4	-30.3	13.0	-9.7	-19.4	-30.3	13.0	-12.1	-23.8	-37.0	13.0
7:12	-11.0	-13.4	-13.4	14.2	-11.0	-13.4	-13.4	14.2	-13.6	-16.5	-16.5	16.5
8:12	-11.0	-13.4	-13.4	14.1	-11.0	-13.4	-13.4	14.1	-13.6	-16.5	-16.5	16.4
9:12	-11.1	-13.5	-13.5	14.0	-11.1	-13.5	-13.5	14.0	-13.6	-16.6	-16.6	16.3
10:12	-11.1	-13.5	-13.5	13.8	-11.1	-13.5	-13.5	13.8	-13.7	-16.6	-16.6	16.2
11:12	-11.1	-13.6	-13.6	13.7	-11.1	-13.6	-13.6	13.7	-13.7	-16.7	-16.7	16.0
12:12	-11.2	-13.6	-13.6	13.6	-11.2	-13.6	-13.6	13.6	-13.8	-16.7	-16.7	15.9
Exposure Category C												
1:12	-13.4	-25.1	-39.8	14.8	-15.6	-29.2	-46.1	14.8	-18.2	-33.8	-53.4	14.8
2:12	-11.9	-23.7	-36.9	14.4	-14.0	-27.5	-42.7	14.4	-16.3	-31.9	-49.5	14.5
3:12	-12.0	-23.7	-36.9	14.0	-14.0	-27.5	-42.7	14.0	-16.3	-31.9	-49.5	14.1
4:12	-12.0	-23.7	-36.9	13.2	-14.0	-27.5	-42.8	13.2	-16.3	-32.0	-49.5	13.4
5:12	-12.0	-23.8	-37.0	13.2	-14.0	-27.6	-42.8	13.2	-16.4	-32.0	-49.5	13.3
6:12	-12.1	-23.8	-37.0	13.0	-14.1	-27.6	-42.8	13.0	-16.4	-32.0	-49.6	13.2
7:12	-13.6	-16.5	-16.5	16.5	-15.8	-19.2	-19.2	18.6	-18.4	-22.3	-22.3	20.9
8:12	-13.6	-16.5	-16.5	16.4	-15.9	-19.2	-19.2	18.4	-18.4	-22.3	-22.3	20.8
9:12	-13.6	-16.6	-16.6	16.3	-15.9	-19.3	-19.3	18.3	-18.5	-22.4	-22.4	20.6
10:12	-13.7	-16.6	-16.6	16.2	-15.9	-19.3	-19.3	18.2	-18.5	-22.4	-22.4	20.5
11:12	-13.7	-16.7	-16.7	16.0	-16.0	-19.4	-19.4	18.1	-18.6	-22.5	-22.5	20.4
12:12	-13.8	-16.7	-16.7	15.9	-16.0	-19.4	-19.4	17.9	-18.6	-22.5	-22.5	20.3
Exposure Category D												
1:12	-16.5	-30.7	-48.5	14.8	-18.7	-34.8	-54.8	14.8	-21.3	-39.4	-62.1	14.8
2:12	-14.7	-29.0	-45.0	14.4	-16.8	-32.8	-50.8	14.7	-19.1	-37.2	-57.5	15.7
3:12	-14.8	-29.0	-45.0	14.0	-16.8	-32.8	-50.8	14.3	-19.1	-37.2	-57.6	15.3
4:12	-14.8	-29.0	-45.0	13.2	-16.8	-32.8	-50.9	13.7	-19.1	-37.2	-57.6	15.0
5:12	-14.8	-29.0	-45.1	13.2	-16.8	-32.9	-50.9	13.6	-19.2	-37.3	-57.6	14.9
6:12	-14.9	-29.1	-45.1	13.0	-16.9	-32.9	-50.9	13.5	-19.2	-37.3	-57.7	14.8
7:12	-16.7	-20.2	-20.2	19.3	-18.9	-22.9	-22.9	21.3	-21.5	-26.0	-26.0	23.7
8:12	-16.7	-20.3	-20.3	19.2	-19.0	-23.0	-23.0	21.2	-21.6	-26.1	-26.1	23.6
9:12	-16.8	-20.3	-20.3	19.1	-19.0	-23.0	-23.0	21.1	-21.6	-26.1	-26.1	23.4
10:12	-16.8	-20.4	-20.4	19.0	-19.0	-23.0	-23.0	21.0	-21.6	-26.2	-26.2	23.3
11:12	-16.8	-20.4	-20.4	18.8	-19.1	-23.1	-23.1	20.9	-21.7	-26.2	-26.2	23.2
12:12	-16.9	-20.4	-20.4	18.7	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**

Ground Snow Load **5 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-10.8	-20.5	-32.6	18.5	-10.8	-20.5	-32.6	18.5	-13.4	-25.1	-39.8	18.5
2:12	-9.6	-19.3	-30.2	17.8	-9.6	-19.3	-30.2	17.8	-11.9	-23.7	-36.9	17.8
3:12	-9.6	-19.3	-30.2	17.0	-9.6	-19.3	-30.2	17.0	-12.0	-23.7	-36.9	17.0
4:12	-9.7	-19.3	-30.2	14.6	-9.7	-19.3	-30.2	14.6	-12.0	-23.7	-36.9	14.6
5:12	-9.7	-19.4	-30.2	14.0	-9.7	-19.4	-30.2	14.0	-12.0	-23.8	-37.0	14.0
6:12	-9.7	-19.4	-30.3	13.4	-9.7	-19.4	-30.3	13.4	-12.1	-23.8	-37.0	13.4
7:12	-11.0	-13.4	-13.4	14.2	-11.0	-13.4	-13.4	14.2	-13.6	-16.5	-16.5	16.5
8:12	-11.0	-13.4	-13.4	14.1	-11.0	-13.4	-13.4	14.1	-13.6	-16.5	-16.5	16.4
9:12	-11.1	-13.5	-13.5	14.0	-11.1	-13.5	-13.5	14.0	-13.6	-16.6	-16.6	16.3
10:12	-11.1	-13.5	-13.5	13.8	-11.1	-13.5	-13.5	13.8	-13.7	-16.6	-16.6	16.2
11:12	-11.1	-13.6	-13.6	13.7	-11.1	-13.6	-13.6	13.7	-13.7	-16.7	-16.7	16.0
12:12	-11.2	-13.6	-13.6	13.6	-11.2	-13.6	-13.6	13.6	-13.8	-16.7	-16.7	15.9
Exposure Category C												
1:12	-13.4	-25.1	-39.8	18.5	-15.6	-29.2	-46.1	18.5	-18.2	-33.8	-53.4	18.5
2:12	-11.9	-23.7	-36.9	17.8	-14.0	-27.5	-42.7	17.8	-16.3	-31.9	-49.5	17.9
3:12	-12.0	-23.7	-36.9	17.0	-14.0	-27.5	-42.7	17.0	-16.3	-31.9	-49.5	17.1
4:12	-12.0	-23.7	-36.9	14.6	-14.0	-27.5	-42.8	14.6	-16.3	-32.0	-49.5	14.7
5:12	-12.0	-23.8	-37.0	14.0	-14.0	-27.6	-42.8	14.0	-16.4	-32.0	-49.5	14.1
6:12	-12.1	-23.8	-37.0	13.4	-14.1	-27.6	-42.8	13.4	-16.4	-32.0	-49.6	13.6
7:12	-13.6	-16.5	-16.5	16.5	-15.8	-19.2	-19.2	18.6	-18.4	-22.3	-22.3	20.9
8:12	-13.6	-16.5	-16.5	16.4	-15.9	-19.2	-19.2	18.4	-18.4	-22.3	-22.3	20.8
9:12	-13.6	-16.6	-16.6	16.3	-15.9	-19.3	-19.3	18.3	-18.5	-22.4	-22.4	20.6
10:12	-13.7	-16.6	-16.6	16.2	-15.9	-19.3	-19.3	18.2	-18.5	-22.4	-22.4	20.5
11:12	-13.7	-16.7	-16.7	16.0	-16.0	-19.4	-19.4	18.1	-18.6	-22.5	-22.5	20.4
12:12	-13.8	-16.7	-16.7	15.9	-16.0	-19.4	-19.4	17.9	-18.6	-22.5	-22.5	20.3
Exposure Category D												
1:12	-16.5	-30.7	-48.5	18.5	-18.7	-34.8	-54.8	18.5	-21.3	-39.4	-62.1	18.5
2:12	-14.7	-29.0	-45.0	17.8	-16.8	-32.8	-50.8	18.1	-19.1	-37.2	-57.5	19.1
3:12	-14.8	-29.0	-45.0	17.0	-16.8	-32.8	-50.8	17.3	-19.1	-37.2	-57.6	18.3
4:12	-14.8	-29.0	-45.0	14.2	-16.8	-32.8	-50.9	14.5	-19.1	-37.2	-57.6	15.5
5:12	-14.8	-29.0	-45.1	13.7	-16.8	-32.9	-50.9	14.0	-19.2	-37.3	-57.6	15.0
6:12	-14.9	-29.1	-45.1	13.2	-16.9	-32.9	-50.9	13.5	-19.2	-37.3	-57.7	14.8
7:12	-16.7	-20.2	-20.2	19.3	-18.9	-22.9	-22.9	21.3	-21.5	-26.0	-26.0	23.7
8:12	-16.7	-20.3	-20.3	19.2	-19.0	-23.0	-23.0	21.2	-21.6	-26.1	-26.1	23.6
9:12	-16.8	-20.3	-20.3	19.1	-19.0	-23.0	-23.0	21.1	-21.6	-26.1	-26.1	23.4
10:12	-16.8	-20.4	-20.4	19.0	-19.0	-23.0	-23.0	21.0	-21.6	-26.2	-26.2	23.3
11:12	-16.8	-20.4	-20.4	18.8	-19.1	-23.1	-23.1	20.9	-21.7	-26.2	-26.2	23.2
12:12	-16.9	-20.4	-20.4	18.7	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**

Ground Snow Load **10 psf**

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-10.8	-20.5	-32.6	22.2	-10.8	-20.5	-32.6	22.2	-13.4	-25.1	-39.8	22.2
	2:12	-9.6	-19.3	-30.2	21.2	-9.6	-19.3	-30.2	21.2	-11.9	-23.7	-36.9	21.2
	3:12	-9.6	-19.3	-30.2	20.0	-9.6	-19.3	-30.2	20.0	-12.0	-23.7	-36.9	20.0
	4:12	-9.7	-19.3	-30.2	16.5	-9.7	-19.3	-30.2	16.5	-12.0	-23.7	-36.9	16.5
	5:12	-9.7	-19.4	-30.2	15.6	-9.7	-19.4	-30.2	15.6	-12.0	-23.8	-37.0	15.6
	6:12	-9.7	-19.4	-30.3	14.9	-9.7	-19.4	-30.3	14.9	-12.1	-23.8	-37.0	14.9
	7:12	-11.0	-13.4	-13.4	15.1	-11.0	-13.4	-13.4	15.1	-13.6	-16.5	-16.5	16.8
	8:12	-11.0	-13.4	-13.4	14.4	-11.0	-13.4	-13.4	14.4	-13.6	-16.5	-16.5	16.4
	9:12	-11.1	-13.5	-13.5	14.0	-11.1	-13.5	-13.5	14.0	-13.6	-16.6	-16.6	16.3
	10:12	-11.1	-13.5	-13.5	13.8	-11.1	-13.5	-13.5	13.8	-13.7	-16.6	-16.6	16.2
	11:12	-11.1	-13.6	-13.6	13.7	-11.1	-13.6	-13.6	13.7	-13.7	-16.7	-16.7	16.0
	12:12	-11.2	-13.6	-13.6	13.6	-11.2	-13.6	-13.6	13.6	-13.8	-16.7	-16.7	15.9
Exposure Category C	1:12	-13.4	-25.1	-39.8	22.2	-15.6	-29.2	-46.1	22.2	-18.2	-33.8	-53.4	22.2
	2:12	-11.9	-23.7	-36.9	21.2	-14.0	-27.5	-42.7	21.2	-16.3	-31.9	-49.5	21.3
	3:12	-12.0	-23.7	-36.9	20.0	-14.0	-27.5	-42.7	20.0	-16.3	-31.9	-49.5	20.2
	4:12	-12.0	-23.7	-36.9	16.5	-14.0	-27.5	-42.8	16.5	-16.3	-32.0	-49.5	16.6
	5:12	-12.0	-23.8	-37.0	15.6	-14.0	-27.6	-42.8	15.6	-16.4	-32.0	-49.5	15.8
	6:12	-12.1	-23.8	-37.0	14.9	-14.1	-27.6	-42.8	14.9	-16.4	-32.0	-49.6	15.0
	7:12	-13.6	-16.5	-16.5	16.8	-15.8	-19.2	-19.2	18.6	-18.4	-22.3	-22.3	20.9
	8:12	-13.6	-16.5	-16.5	16.4	-15.9	-19.2	-19.2	18.4	-18.4	-22.3	-22.3	20.8
	9:12	-13.6	-16.6	-16.6	16.3	-15.9	-19.3	-19.3	18.3	-18.5	-22.4	-22.4	20.6
	10:12	-13.7	-16.6	-16.6	16.2	-15.9	-19.3	-19.3	18.2	-18.5	-22.4	-22.4	20.5
	11:12	-13.7	-16.7	-16.7	16.0	-16.0	-19.4	-19.4	18.1	-18.6	-22.5	-22.5	20.4
	12:12	-13.8	-16.7	-16.7	15.9	-16.0	-19.4	-19.4	17.9	-18.6	-22.5	-22.5	20.3
Exposure Category D	1:12	-16.5	-30.7	-48.5	22.2	-18.7	-34.8	-54.8	22.2	-21.3	-39.4	-62.1	22.2
	2:12	-14.7	-29.0	-45.0	21.2	-16.8	-32.8	-50.8	21.5	-19.1	-37.2	-57.5	22.5
	3:12	-14.8	-29.0	-45.0	20.0	-16.8	-32.8	-50.8	20.4	-19.1	-37.2	-57.6	21.3
	4:12	-14.8	-29.0	-45.0	15.9	-16.8	-32.8	-50.9	16.2	-19.1	-37.2	-57.6	17.2
	5:12	-14.8	-29.0	-45.1	15.2	-16.8	-32.9	-50.9	15.5	-19.2	-37.3	-57.6	16.4
	6:12	-14.9	-29.1	-45.1	14.4	-16.9	-32.9	-50.9	14.7	-19.2	-37.3	-57.7	15.7
	7:12	-16.7	-20.2	-20.2	19.3	-18.9	-22.9	-22.9	21.3	-21.5	-26.0	-26.0	23.7
	8:12	-16.7	-20.3	-20.3	19.2	-19.0	-23.0	-23.0	21.2	-21.6	-26.1	-26.1	23.6
	9:12	-16.8	-20.3	-20.3	19.1	-19.0	-23.0	-23.0	21.1	-21.6	-26.1	-26.1	23.4
	10:12	-16.8	-20.4	-20.4	19.0	-19.0	-23.0	-23.0	21.0	-21.6	-26.2	-26.2	23.3
	11:12	-16.8	-20.4	-20.4	18.8	-19.1	-23.1	-23.1	20.9	-21.7	-26.2	-26.2	23.2
	12:12	-16.9	-20.4	-20.4	18.7	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
	2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
	4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
	5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
	6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
	7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
	8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
	9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**

Ground Snow Load **15 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-10.8	-20.5	-32.6	25.9	-10.8	-20.5	-32.6	25.9	-13.4	-25.1	-39.8	25.9
2:12	-9.6	-19.3	-30.2	24.6	-9.6	-19.3	-30.2	24.6	-11.9	-23.7	-36.9	24.6
3:12	-9.6	-19.3	-30.2	23.1	-9.6	-19.3	-30.2	23.1	-12.0	-23.7	-36.9	23.1
4:12	-9.7	-19.3	-30.2	18.3	-9.7	-19.3	-30.2	18.3	-12.0	-23.7	-36.9	18.3
5:12	-9.7	-19.4	-30.2	17.3	-9.7	-19.4	-30.2	17.3	-12.0	-23.8	-37.0	17.3
6:12	-9.7	-19.4	-30.3	16.3	-9.7	-19.4	-30.3	16.3	-12.1	-23.8	-37.0	16.3
7:12	-11.0	-13.4	-13.4	16.3	-11.0	-13.4	-13.4	16.3	-13.6	-16.5	-16.5	18.0
8:12	-11.0	-13.4	-13.4	15.4	-11.0	-13.4	-13.4	15.4	-13.6	-16.5	-16.5	17.2
9:12	-11.1	-13.5	-13.5	14.7	-11.1	-13.5	-13.5	14.7	-13.6	-16.6	-16.6	16.4
10:12	-11.1	-13.5	-13.5	14.0	-11.1	-13.5	-13.5	14.0	-13.7	-16.6	-16.6	16.2
11:12	-11.1	-13.6	-13.6	13.7	-11.1	-13.6	-13.6	13.7	-13.7	-16.7	-16.7	16.0
12:12	-11.2	-13.6	-13.6	13.6	-11.2	-13.6	-13.6	13.6	-13.8	-16.7	-16.7	15.9
Exposure Category C												
1:12	-13.4	-25.1	-39.8	25.9	-15.6	-29.2	-46.1	25.9	-18.2	-33.8	-53.4	25.9
2:12	-11.9	-23.7	-36.9	24.6	-14.0	-27.5	-42.7	24.6	-16.3	-31.9	-49.5	24.7
3:12	-12.0	-23.7	-36.9	23.1	-14.0	-27.5	-42.7	23.1	-16.3	-31.9	-49.5	23.2
4:12	-12.0	-23.7	-36.9	18.3	-14.0	-27.5	-42.8	18.3	-16.3	-32.0	-49.5	18.5
5:12	-12.0	-23.8	-37.0	17.3	-14.0	-27.6	-42.8	17.3	-16.4	-32.0	-49.5	17.4
6:12	-12.1	-23.8	-37.0	16.3	-14.1	-27.6	-42.8	16.3	-16.4	-32.0	-49.6	16.4
7:12	-13.6	-16.5	-16.5	18.0	-15.8	-19.2	-19.2	19.5	-18.4	-22.3	-22.3	21.3
8:12	-13.6	-16.5	-16.5	17.2	-15.9	-19.2	-19.2	18.7	-18.4	-22.3	-22.3	20.8
9:12	-13.6	-16.6	-16.6	16.4	-15.9	-19.3	-19.3	18.3	-18.5	-22.4	-22.4	20.6
10:12	-13.7	-16.6	-16.6	16.2	-15.9	-19.3	-19.3	18.2	-18.5	-22.4	-22.4	20.5
11:12	-13.7	-16.7	-16.7	16.0	-16.0	-19.4	-19.4	18.1	-18.6	-22.5	-22.5	20.4
12:12	-13.8	-16.7	-16.7	15.9	-16.0	-19.4	-19.4	17.9	-18.6	-22.5	-22.5	20.3
Exposure Category D												
1:12	-16.5	-30.7	-48.5	25.9	-18.7	-34.8	-54.8	25.9	-21.3	-39.4	-62.1	25.9
2:12	-14.7	-29.0	-45.0	24.6	-16.8	-32.8	-50.8	24.9	-19.1	-37.2	-57.5	25.9
3:12	-14.8	-29.0	-45.0	23.1	-16.8	-32.8	-50.8	23.4	-19.1	-37.2	-57.6	24.4
4:12	-14.8	-29.0	-45.0	17.6	-16.8	-32.8	-50.9	17.9	-19.1	-37.2	-57.6	18.9
5:12	-14.8	-29.0	-45.1	16.6	-16.8	-32.9	-50.9	16.9	-19.2	-37.3	-57.6	17.9
6:12	-14.9	-29.1	-45.1	15.7	-16.9	-32.9	-50.9	16.0	-19.2	-37.3	-57.7	17.0
7:12	-16.7	-20.2	-20.2	19.6	-18.9	-22.9	-22.9	21.3	-21.5	-26.0	-26.0	23.7
8:12	-16.7	-20.3	-20.3	19.2	-19.0	-23.0	-23.0	21.2	-21.6	-26.1	-26.1	23.6
9:12	-16.8	-20.3	-20.3	19.1	-19.0	-23.0	-23.0	21.1	-21.6	-26.1	-26.1	23.4
10:12	-16.8	-20.4	-20.4	19.0	-19.0	-23.0	-23.0	21.0	-21.6	-26.2	-26.2	23.3
11:12	-16.8	-20.4	-20.4	18.8	-19.1	-23.1	-23.1	20.9	-21.7	-26.2	-26.2	23.2
12:12	-16.9	-20.4	-20.4	18.7	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1

Basic Wind Speed

115 mph

Ground Snow Load

20 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-10.8	-20.5	-32.6	25.9	-10.8	-20.5	-32.6	25.9	-13.4	-25.1	-39.8	25.9
2:12	-9.6	-19.3	-30.2	24.6	-9.6	-19.3	-30.2	24.6	-11.9	-23.7	-36.9	24.6
3:12	-9.6	-19.3	-30.2	23.1	-9.6	-19.3	-30.2	23.1	-12.0	-23.7	-36.9	23.1
4:12	-9.7	-19.3	-30.2	20.2	-9.7	-19.3	-30.2	20.2	-12.0	-23.7	-36.9	20.2
5:12	-9.7	-19.4	-30.2	18.9	-9.7	-19.4	-30.2	18.9	-12.0	-23.8	-37.0	18.9
6:12	-9.7	-19.4	-30.3	17.7	-9.7	-19.4	-30.3	17.7	-12.1	-23.8	-37.0	17.7
7:12	-11.0	-13.4	-13.4	17.5	-11.0	-13.4	-13.4	17.5	-13.6	-16.5	-16.5	19.2
8:12	-11.0	-13.4	-13.4	16.4	-11.0	-13.4	-13.4	16.4	-13.6	-16.5	-16.5	18.2
9:12	-11.1	-13.5	-13.5	15.5	-11.1	-13.5	-13.5	15.5	-13.6	-16.6	-16.6	17.3
10:12	-11.1	-13.5	-13.5	14.7	-11.1	-13.5	-13.5	14.7	-13.7	-16.6	-16.6	16.5
11:12	-11.1	-13.6	-13.6	14.0	-11.1	-13.6	-13.6	14.0	-13.7	-16.7	-16.7	16.0
12:12	-11.2	-13.6	-13.6	13.6	-11.2	-13.6	-13.6	13.6	-13.8	-16.7	-16.7	15.9
Exposure Category C												
1:12	-13.4	-25.1	-39.8	25.9	-15.6	-29.2	-46.1	25.9	-18.2	-33.8	-53.4	25.9
2:12	-11.9	-23.7	-36.9	24.6	-14.0	-27.5	-42.7	24.6	-16.3	-31.9	-49.5	24.7
3:12	-12.0	-23.7	-36.9	23.1	-14.0	-27.5	-42.7	23.1	-16.3	-31.9	-49.5	23.2
4:12	-12.0	-23.7	-36.9	20.2	-14.0	-27.5	-42.8	20.2	-16.3	-32.0	-49.5	20.3
5:12	-12.0	-23.8	-37.0	18.9	-14.0	-27.6	-42.8	18.9	-16.4	-32.0	-49.5	19.0
6:12	-12.1	-23.8	-37.0	17.7	-14.1	-27.6	-42.8	17.7	-16.4	-32.0	-49.6	17.8
7:12	-13.6	-16.5	-16.5	19.2	-15.8	-19.2	-19.2	20.7	-18.4	-22.3	-22.3	22.5
8:12	-13.6	-16.5	-16.5	18.2	-15.9	-19.2	-19.2	19.7	-18.4	-22.3	-22.3	21.4
9:12	-13.6	-16.6	-16.6	17.3	-15.9	-19.3	-19.3	18.8	-18.5	-22.4	-22.4	20.6
10:12	-13.7	-16.6	-16.6	16.5	-15.9	-19.3	-19.3	18.2	-18.5	-22.4	-22.4	20.5
11:12	-13.7	-16.7	-16.7	16.0	-16.0	-19.4	-19.4	18.1	-18.6	-22.5	-22.5	20.4
12:12	-13.8	-16.7	-16.7	15.9	-16.0	-19.4	-19.4	17.9	-18.6	-22.5	-22.5	20.3
Exposure Category D												
1:12	-16.5	-30.7	-48.5	25.9	-18.7	-34.8	-54.8	25.9	-21.3	-39.4	-62.1	25.9
2:12	-14.7	-29.0	-45.0	24.6	-16.8	-32.8	-50.8	24.9	-19.1	-37.2	-57.5	25.9
3:12	-14.8	-29.0	-45.0	23.1	-16.8	-32.8	-50.8	23.4	-19.1	-37.2	-57.6	24.4
4:12	-14.8	-29.0	-45.0	19.3	-16.8	-32.8	-50.9	19.6	-19.1	-37.2	-57.6	20.6
5:12	-14.8	-29.0	-45.1	18.1	-16.8	-32.9	-50.9	18.4	-19.2	-37.3	-57.6	19.4
6:12	-14.9	-29.1	-45.1	17.0	-16.9	-32.9	-50.9	17.3	-19.2	-37.3	-57.7	18.2
7:12	-16.7	-20.2	-20.2	20.7	-18.9	-22.9	-22.9	22.2	-21.5	-26.0	-26.0	24.0
8:12	-16.7	-20.3	-20.3	19.8	-19.0	-23.0	-23.0	21.3	-21.6	-26.1	-26.1	23.6
9:12	-16.8	-20.3	-20.3	19.1	-19.0	-23.0	-23.0	21.1	-21.6	-26.1	-26.1	23.4
10:12	-16.8	-20.4	-20.4	19.0	-19.0	-23.0	-23.0	21.0	-21.6	-26.2	-26.2	23.3
11:12	-16.8	-20.4	-20.4	18.8	-19.1	-23.1	-23.1	20.9	-21.7	-26.2	-26.2	23.2
12:12	-16.9	-20.4	-20.4	18.7	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
115 mph

Ground Snow Load
25 psf

Up and Down (psf)

Basic Wind Speed
115 mph
Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-10.8	-20.5	-32.6	26.7	-10.8	-20.5	-32.6	26.7	-13.4	-25.1	-39.8	26.7
2:12	-9.6	-19.3	-30.2	25.3	-9.6	-19.3	-30.2	25.3	-11.9	-23.7	-36.9	25.3
3:12	-9.6	-19.3	-30.2	23.7	-9.6	-19.3	-30.2	23.7	-12.0	-23.7	-36.9	23.7
4:12	-9.7	-19.3	-30.2	22.1	-9.7	-19.3	-30.2	22.1	-12.0	-23.7	-36.9	22.1
5:12	-9.7	-19.4	-30.2	20.5	-9.7	-19.4	-30.2	20.5	-12.0	-23.8	-37.0	20.5
6:12	-9.7	-19.4	-30.3	19.1	-9.7	-19.4	-30.3	19.1	-12.1	-23.8	-37.0	19.1
7:12	-11.0	-13.4	-13.4	18.7	-11.0	-13.4	-13.4	18.7	-13.6	-16.5	-16.5	20.4
8:12	-11.0	-13.4	-13.4	17.5	-11.0	-13.4	-13.4	17.5	-13.6	-16.5	-16.5	19.2
9:12	-11.1	-13.5	-13.5	16.4	-11.1	-13.5	-13.5	16.4	-13.6	-16.6	-16.6	18.1
10:12	-11.1	-13.5	-13.5	15.4	-11.1	-13.5	-13.5	15.4	-13.7	-16.6	-16.6	17.2
11:12	-11.1	-13.6	-13.6	14.6	-11.1	-13.6	-13.6	14.6	-13.7	-16.7	-16.7	16.4
12:12	-11.2	-13.6	-13.6	13.9	-11.2	-13.6	-13.6	13.9	-13.8	-16.7	-16.7	15.9
1:12	-13.4	-25.1	-39.8	26.7	-15.6	-29.2	-46.1	26.7	-18.2	-33.8	-53.4	26.7
2:12	-11.9	-23.7	-36.9	25.3	-14.0	-27.5	-42.7	25.3	-16.3	-31.9	-49.5	25.4
3:12	-12.0	-23.7	-36.9	23.7	-14.0	-27.5	-42.7	23.7	-16.3	-31.9	-49.5	23.8
4:12	-12.0	-23.7	-36.9	22.1	-14.0	-27.5	-42.8	22.1	-16.3	-32.0	-49.5	22.2
5:12	-12.0	-23.8	-37.0	20.5	-14.0	-27.6	-42.8	20.5	-16.4	-32.0	-49.5	20.7
6:12	-12.1	-23.8	-37.0	19.1	-14.1	-27.6	-42.8	19.1	-16.4	-32.0	-49.6	19.2
7:12	-13.6	-16.5	-16.5	20.4	-15.8	-19.2	-19.2	21.9	-18.4	-22.3	-22.3	23.7
8:12	-13.6	-16.5	-16.5	19.2	-15.9	-19.2	-19.2	20.7	-18.4	-22.3	-22.3	22.5
9:12	-13.6	-16.6	-16.6	18.1	-15.9	-19.3	-19.3	19.6	-18.5	-22.4	-22.4	21.4
10:12	-13.7	-16.6	-16.6	17.2	-15.9	-19.3	-19.3	18.7	-18.5	-22.4	-22.4	20.5
11:12	-13.7	-16.7	-16.7	16.4	-16.0	-19.4	-19.4	18.1	-18.6	-22.5	-22.5	20.4
12:12	-13.8	-16.7	-16.7	15.9	-16.0	-19.4	-19.4	17.9	-18.6	-22.5	-22.5	20.3
1:12	-16.5	-30.7	-48.5	25.9	-18.7	-34.8	-54.8	25.9	-21.3	-39.4	-62.1	25.9
2:12	-14.7	-29.0	-45.0	24.6	-16.8	-32.8	-50.8	24.9	-19.1	-37.2	-57.5	25.9
3:12	-14.8	-29.0	-45.0	23.1	-16.8	-32.8	-50.8	23.4	-19.1	-37.2	-57.6	24.4
4:12	-14.8	-29.0	-45.0	21.0	-16.8	-32.8	-50.9	21.3	-19.1	-37.2	-57.6	22.3
5:12	-14.8	-29.0	-45.1	19.6	-16.8	-32.9	-50.9	19.9	-19.2	-37.3	-57.6	20.8
6:12	-14.9	-29.1	-45.1	18.2	-16.9	-32.9	-50.9	18.5	-19.2	-37.3	-57.7	19.5
7:12	-16.7	-20.2	-20.2	21.8	-18.9	-22.9	-22.9	23.3	-21.5	-26.0	-26.0	25.1
8:12	-16.7	-20.3	-20.3	20.7	-19.0	-23.0	-23.0	22.2	-21.6	-26.1	-26.1	24.0
9:12	-16.8	-20.3	-20.3	19.7	-19.0	-23.0	-23.0	21.2	-21.6	-26.1	-26.1	23.4
10:12	-16.8	-20.4	-20.4	19.0	-19.0	-23.0	-23.0	21.0	-21.6	-26.2	-26.2	23.3
11:12	-16.8	-20.4	-20.4	18.8	-19.1	-23.1	-23.1	20.9	-21.7	-26.2	-26.2	23.2
12:12	-16.9	-20.4	-20.4	18.7	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-10.8	-20.5	-32.6	29.3	-10.8	-20.5	-32.6	29.3	-13.4	-25.1	-39.8	29.3
2:12	-9.6	-19.3	-30.2	27.6	-9.6	-19.3	-30.2	27.6	-11.9	-23.7	-36.9	27.6
3:12	-9.6	-19.3	-30.2	25.8	-9.6	-19.3	-30.2	25.8	-12.0	-23.7	-36.9	25.8
4:12	-9.7	-19.3	-30.2	24.0	-9.7	-19.3	-30.2	24.0	-12.0	-23.7	-36.9	24.0
5:12	-9.7	-19.4	-30.2	22.2	-9.7	-19.4	-30.2	22.2	-12.0	-23.8	-37.0	22.2
6:12	-9.7	-19.4	-30.3	20.5	-9.7	-19.4	-30.3	20.5	-12.1	-23.8	-37.0	20.5
7:12	-11.0	-13.4	-13.4	19.9	-11.0	-13.4	-13.4	19.9	-13.6	-16.5	-16.5	21.6
8:12	-11.0	-13.4	-13.4	18.5	-11.0	-13.4	-13.4	18.5	-13.6	-16.5	-16.5	20.2
9:12	-11.1	-13.5	-13.5	17.2	-11.1	-13.5	-13.5	17.2	-13.6	-16.6	-16.6	19.0
10:12	-11.1	-13.5	-13.5	16.2	-11.1	-13.5	-13.5	16.2	-13.7	-16.6	-16.6	17.9
11:12	-11.1	-13.6	-13.6	15.2	-11.1	-13.6	-13.6	15.2	-13.7	-16.7	-16.7	17.0
12:12	-11.2	-13.6	-13.6	14.4	-11.2	-13.6	-13.6	14.4	-13.8	-16.7	-16.7	16.2
1:12	-13.4	-25.1	-39.8	29.3	-15.6	-29.2	-46.1	29.3	-18.2	-33.8	-53.4	29.3
2:12	-11.9	-23.7	-36.9	27.6	-14.0	-27.5	-42.7	27.6	-16.3	-31.9	-49.5	27.8
3:12	-12.0	-23.7	-36.9	25.8	-14.0	-27.5	-42.7	25.8	-16.3	-31.9	-49.5	25.9
4:12	-12.0	-23.7	-36.9	24.0	-14.0	-27.5	-42.8	24.0	-16.3	-32.0	-49.5	24.1
5:12	-12.0	-23.8	-37.0	22.2	-14.0	-27.6	-42.8	22.2	-16.4	-32.0	-49.5	22.3
6:12	-12.1	-23.8	-37.0	20.5	-14.1	-27.6	-42.8	20.5	-16.4	-32.0	-49.6	20.6
7:12	-13.6	-16.5	-16.5	21.6	-15.8	-19.2	-19.2	23.1	-18.4	-22.3	-22.3	24.9
8:12	-13.6	-16.5	-16.5	20.2	-15.9	-19.2	-19.2	21.7	-18.4	-22.3	-22.3	23.5
9:12	-13.6	-16.6	-16.6	19.0	-15.9	-19.3	-19.3	20.5	-18.5	-22.4	-22.4	22.2
10:12	-13.7	-16.6	-16.6	17.9	-15.9	-19.3	-19.3	19.4	-18.5	-22.4	-22.4	21.2
11:12	-13.7	-16.7	-16.7	17.0	-16.0	-19.4	-19.4	18.5	-18.6	-22.5	-22.5	20.4
12:12	-13.8	-16.7	-16.7	16.2	-16.0	-19.4	-19.4	17.9	-18.6	-22.5	-22.5	20.3
1:12	-16.5	-30.7	-48.5	27.5	-18.7	-34.8	-54.8	27.5	-21.3	-39.4	-62.1	27.5
2:12	-14.7	-29.0	-45.0	26.0	-16.8	-32.8	-50.8	26.3	-19.1	-37.2	-57.5	27.3
3:12	-14.8	-29.0	-45.0	24.3	-16.8	-32.8	-50.8	24.6	-19.1	-37.2	-57.6	25.6
4:12	-14.8	-29.0	-45.0	22.7	-16.8	-32.8	-50.9	23.0	-19.1	-37.2	-57.6	23.9
5:12	-14.8	-29.0	-45.1	21.0	-16.8	-32.9	-50.9	21.3	-19.2	-37.3	-57.6	22.3
6:12	-14.9	-29.1	-45.1	19.5	-16.9	-32.9	-50.9	19.8	-19.2	-37.3	-57.7	20.8
7:12	-16.7	-20.2	-20.2	22.9	-18.9	-22.9	-22.9	24.4	-21.5	-26.0	-26.0	26.1
8:12	-16.7	-20.3	-20.3	21.6	-19.0	-23.0	-23.0	23.1	-21.6	-26.1	-26.1	24.9
9:12	-16.8	-20.3	-20.3	20.5	-19.0	-23.0	-23.0	22.0	-21.6	-26.1	-26.1	23.7
10:12	-16.8	-20.4	-20.4	19.5	-19.0	-23.0	-23.0	21.0	-21.6	-26.2	-26.2	23.3
11:12	-16.8	-20.4	-20.4	18.8	-19.1	-23.1	-23.1	20.9	-21.7	-26.2	-26.2	23.2
12:12	-16.9	-20.4	-20.4	18.7	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1

Basic Wind Speed
115 mph

Ground Snow Load
35 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-10.8	-20.5	-32.6	31.9	-10.8	-20.5	-32.6	31.9	-13.4	-25.1	-39.8	31.9
2:12	-9.6	-19.3	-30.2	30.0	-9.6	-19.3	-30.2	30.0	-11.9	-23.7	-36.9	30.0
3:12	-9.6	-19.3	-30.2	27.9	-9.6	-19.3	-30.2	27.9	-12.0	-23.7	-36.9	27.9
4:12	-9.7	-19.3	-30.2	25.8	-9.7	-19.3	-30.2	25.8	-12.0	-23.7	-36.9	25.8
5:12	-9.7	-19.4	-30.2	23.8	-9.7	-19.4	-30.2	23.8	-12.0	-23.8	-37.0	23.8
6:12	-9.7	-19.4	-30.3	21.9	-9.7	-19.4	-30.3	21.9	-12.1	-23.8	-37.0	21.9
7:12	-11.0	-13.4	-13.4	21.1	-11.0	-13.4	-13.4	21.1	-13.6	-16.5	-16.5	22.8
8:12	-11.0	-13.4	-13.4	19.5	-11.0	-13.4	-13.4	19.5	-13.6	-16.5	-16.5	21.2
9:12	-11.1	-13.5	-13.5	18.1	-11.1	-13.5	-13.5	18.1	-13.6	-16.6	-16.6	19.8
10:12	-11.1	-13.5	-13.5	16.9	-11.1	-13.5	-13.5	16.9	-13.7	-16.6	-16.6	18.6
11:12	-11.1	-13.6	-13.6	15.8	-11.1	-13.6	-13.6	15.8	-13.7	-16.7	-16.7	17.6
12:12	-11.2	-13.6	-13.6	14.9	-11.2	-13.6	-13.6	14.9	-13.8	-16.7	-16.7	16.7
Exposure Category C												
1:12	-13.4	-25.1	-39.8	31.9	-15.6	-29.2	-46.1	31.9	-18.2	-33.8	-53.4	31.9
2:12	-11.9	-23.7	-36.9	30.0	-14.0	-27.5	-42.7	30.0	-16.3	-31.9	-49.5	30.1
3:12	-12.0	-23.7	-36.9	27.9	-14.0	-27.5	-42.7	27.9	-16.3	-31.9	-49.5	28.1
4:12	-12.0	-23.7	-36.9	25.8	-14.0	-27.5	-42.8	25.8	-16.3	-32.0	-49.5	26.0
5:12	-12.0	-23.8	-37.0	23.8	-14.0	-27.6	-42.8	23.8	-16.4	-32.0	-49.5	23.9
6:12	-12.1	-23.8	-37.0	21.9	-14.1	-27.6	-42.8	21.9	-16.4	-32.0	-49.6	22.0
7:12	-13.6	-16.5	-16.5	22.8	-15.8	-19.2	-19.2	24.3	-18.4	-22.3	-22.3	26.1
8:12	-13.6	-16.5	-16.5	21.2	-15.9	-19.2	-19.2	22.7	-18.4	-22.3	-22.3	24.5
9:12	-13.6	-16.6	-16.6	19.8	-15.9	-19.3	-19.3	21.4	-18.5	-22.4	-22.4	23.1
10:12	-13.7	-16.6	-16.6	18.6	-15.9	-19.3	-19.3	20.1	-18.5	-22.4	-22.4	21.9
11:12	-13.7	-16.7	-16.7	17.6	-16.0	-19.4	-19.4	19.1	-18.6	-22.5	-22.5	20.8
12:12	-13.8	-16.7	-16.7	16.7	-16.0	-19.4	-19.4	18.2	-18.6	-22.5	-22.5	20.3
Exposure Category D												
1:12	-16.5	-30.7	-48.5	29.8	-18.7	-34.8	-54.8	29.8	-21.3	-39.4	-62.1	29.8
2:12	-14.7	-29.0	-45.0	28.1	-16.8	-32.8	-50.8	28.4	-19.1	-37.2	-57.5	29.4
3:12	-14.8	-29.0	-45.0	26.2	-16.8	-32.8	-50.8	26.6	-19.1	-37.2	-57.6	27.5
4:12	-14.8	-29.0	-45.0	24.3	-16.8	-32.8	-50.9	24.7	-19.1	-37.2	-57.6	25.6
5:12	-14.8	-29.0	-45.1	22.5	-16.8	-32.9	-50.9	22.8	-19.2	-37.3	-57.6	23.8
6:12	-14.9	-29.1	-45.1	20.7	-16.9	-32.9	-50.9	21.1	-19.2	-37.3	-57.7	22.0
7:12	-16.7	-20.2	-20.2	24.0	-18.9	-22.9	-22.9	25.5	-21.5	-26.0	-26.0	27.2
8:12	-16.7	-20.3	-20.3	22.5	-19.0	-23.0	-23.0	24.0	-21.6	-26.1	-26.1	25.8
9:12	-16.8	-20.3	-20.3	21.2	-19.0	-23.0	-23.0	22.8	-21.6	-26.1	-26.1	24.5
10:12	-16.8	-20.4	-20.4	20.1	-19.0	-23.0	-23.0	21.7	-21.6	-26.2	-26.2	23.4
11:12	-16.8	-20.4	-20.4	19.2	-19.1	-23.1	-23.1	20.9	-21.7	-26.2	-26.2	23.2
12:12	-16.9	-20.4	-20.4	18.7	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
115 mph

Ground Snow Load
40 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-10.8	-20.5	-32.6	35.1	-10.8	-20.5	-32.6	35.1	-13.4	-25.1	-39.8	35.1
2:12	-9.6	-19.3	-30.2	32.4	-9.6	-19.3	-30.2	32.4	-11.9	-23.7	-36.9	32.4
3:12	-9.6	-19.3	-30.2	30.1	-9.6	-19.3	-30.2	30.1	-12.0	-23.7	-36.9	30.1
4:12	-9.7	-19.3	-30.2	27.7	-9.7	-19.3	-30.2	27.7	-12.0	-23.7	-36.9	27.7
5:12	-9.7	-19.4	-30.2	25.4	-9.7	-19.4	-30.2	25.4	-12.0	-23.8	-37.0	25.4
6:12	-9.7	-19.4	-30.3	23.3	-9.7	-19.4	-30.3	23.3	-12.1	-23.8	-37.0	23.3
7:12	-11.0	-13.4	-13.4	22.3	-11.0	-13.4	-13.4	22.3	-13.6	-16.5	-16.5	24.0
8:12	-11.0	-13.4	-13.4	20.5	-11.0	-13.4	-13.4	20.5	-13.6	-16.5	-16.5	22.2
9:12	-11.1	-13.5	-13.5	18.9	-11.1	-13.5	-13.5	18.9	-13.6	-16.6	-16.6	20.7
10:12	-11.1	-13.5	-13.5	17.6	-11.1	-13.5	-13.5	17.6	-13.7	-16.6	-16.6	19.3
11:12	-11.1	-13.6	-13.6	16.4	-11.1	-13.6	-13.6	16.4	-13.7	-16.7	-16.7	18.2
12:12	-11.2	-13.6	-13.6	15.4	-11.2	-13.6	-13.6	15.4	-13.8	-16.7	-16.7	17.2
Exposure Category C												
1:12	-13.4	-25.1	-39.8	35.1	-15.6	-29.2	-46.1	35.1	-18.2	-33.8	-53.4	35.1
2:12	-11.9	-23.7	-36.9	32.4	-14.0	-27.5	-42.7	32.4	-16.3	-31.9	-49.5	32.5
3:12	-12.0	-23.7	-36.9	30.1	-14.0	-27.5	-42.7	30.1	-16.3	-31.9	-49.5	30.2
4:12	-12.0	-23.7	-36.9	27.7	-14.0	-27.5	-42.8	27.7	-16.3	-32.0	-49.5	27.8
5:12	-12.0	-23.8	-37.0	25.4	-14.0	-27.6	-42.8	25.4	-16.4	-32.0	-49.5	25.5
6:12	-12.1	-23.8	-37.0	23.3	-14.1	-27.6	-42.8	23.3	-16.4	-32.0	-49.6	23.4
7:12	-13.6	-16.5	-16.5	24.0	-15.8	-19.2	-19.2	25.5	-18.4	-22.3	-22.3	27.3
8:12	-13.6	-16.5	-16.5	22.2	-15.9	-19.2	-19.2	23.8	-18.4	-22.3	-22.3	25.5
9:12	-13.6	-16.6	-16.6	20.7	-15.9	-19.3	-19.3	22.2	-18.5	-22.4	-22.4	24.0
10:12	-13.7	-16.6	-16.6	19.3	-15.9	-19.3	-19.3	20.9	-18.5	-22.4	-22.4	22.6
11:12	-13.7	-16.7	-16.7	18.2	-16.0	-19.4	-19.4	19.7	-18.6	-22.5	-22.5	21.4
12:12	-13.8	-16.7	-16.7	17.2	-16.0	-19.4	-19.4	18.7	-18.6	-22.5	-22.5	20.4
Exposure Category D												
1:12	-16.5	-30.7	-48.5	32.1	-18.7	-34.8	-54.8	32.1	-21.3	-39.4	-62.1	32.1
2:12	-14.7	-29.0	-45.0	30.3	-16.8	-32.8	-50.8	30.6	-19.1	-37.2	-57.5	31.5
3:12	-14.8	-29.0	-45.0	28.2	-16.8	-32.8	-50.8	28.5	-19.1	-37.2	-57.6	29.4
4:12	-14.8	-29.0	-45.0	26.0	-16.8	-32.8	-50.9	26.3	-19.1	-37.2	-57.6	27.3
5:12	-14.8	-29.0	-45.1	24.0	-16.8	-32.9	-50.9	24.3	-19.2	-37.3	-57.6	25.2
6:12	-14.9	-29.1	-45.1	22.0	-16.9	-32.9	-50.9	22.3	-19.2	-37.3	-57.7	23.3
7:12	-16.7	-20.2	-20.2	25.0	-18.9	-22.9	-22.9	26.5	-21.5	-26.0	-26.0	28.3
8:12	-16.7	-20.3	-20.3	23.4	-19.0	-23.0	-23.0	24.9	-21.6	-26.1	-26.1	26.7
9:12	-16.8	-20.3	-20.3	22.0	-19.0	-23.0	-23.0	23.5	-21.6	-26.1	-26.1	25.3
10:12	-16.8	-20.4	-20.4	20.8	-19.0	-23.0	-23.0	22.3	-21.6	-26.2	-26.2	24.1
11:12	-16.8	-20.4	-20.4	19.7	-19.1	-23.1	-23.1	21.2	-21.7	-26.2	-26.2	23.2
12:12	-16.9	-20.4	-20.4	18.8	-19.1	-23.1	-23.1	20.7	-21.7	-26.2	-26.2	23.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
115 mph

Ground Snow Load
45 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-10.8	-20.5	-32.6	38.6	-10.8	-20.5	-32.6	38.6	-13.4	-25.1	-39.8	38.6
	2:12	-9.6	-19.3	-30.2	35.5	-9.6	-19.3	-30.2	35.5	-11.9	-23.7	-36.9	35.5
	3:12	-9.6	-19.3	-30.2	32.2	-9.6	-19.3	-30.2	32.2	-12.0	-23.7	-36.9	32.2
	4:12	-9.7	-19.3	-30.2	29.6	-9.7	-19.3	-30.2	29.6	-12.0	-23.7	-36.9	29.6
	5:12	-9.7	-19.4	-30.2	27.1	-9.7	-19.4	-30.2	27.1	-12.0	-23.8	-37.0	27.1
	6:12	-9.7	-19.4	-30.3	24.7	-9.7	-19.4	-30.3	24.7	-12.1	-23.8	-37.0	24.7
	7:12	-11.0	-13.4	-13.4	23.5	-11.0	-13.4	-13.4	23.5	-13.6	-16.5	-16.5	25.2
	8:12	-11.0	-13.4	-13.4	21.5	-11.0	-13.4	-13.4	21.5	-13.6	-16.5	-16.5	23.3
	9:12	-11.1	-13.5	-13.5	19.8	-11.1	-13.5	-13.5	19.8	-13.6	-16.6	-16.6	21.5
	10:12	-11.1	-13.5	-13.5	18.3	-11.1	-13.5	-13.5	18.3	-13.7	-16.6	-16.6	20.1
	11:12	-11.1	-13.6	-13.6	17.0	-11.1	-13.6	-13.6	17.0	-13.7	-16.7	-16.7	18.8
	12:12	-11.2	-13.6	-13.6	15.9	-11.2	-13.6	-13.6	15.9	-13.8	-16.7	-16.7	17.7
Exposure Category C	1:12	-13.4	-25.1	-39.8	38.6	-15.6	-29.2	-46.1	38.6	-18.2	-33.8	-53.4	38.6
	2:12	-11.9	-23.7	-36.9	35.5	-14.0	-27.5	-42.7	35.5	-16.3	-31.9	-49.5	35.5
	3:12	-12.0	-23.7	-36.9	32.2	-14.0	-27.5	-42.7	32.2	-16.3	-31.9	-49.5	32.3
	4:12	-12.0	-23.7	-36.9	29.6	-14.0	-27.5	-42.8	29.6	-16.3	-32.0	-49.5	29.7
	5:12	-12.0	-23.8	-37.0	27.1	-14.0	-27.6	-42.8	27.1	-16.4	-32.0	-49.5	27.2
	6:12	-12.1	-23.8	-37.0	24.7	-14.1	-27.6	-42.8	24.7	-16.4	-32.0	-49.6	24.8
	7:12	-13.6	-16.5	-16.5	25.2	-15.8	-19.2	-19.2	26.7	-18.4	-22.3	-22.3	28.5
	8:12	-13.6	-16.5	-16.5	23.3	-15.9	-19.2	-19.2	24.8	-18.4	-22.3	-22.3	26.5
	9:12	-13.6	-16.6	-16.6	21.5	-15.9	-19.3	-19.3	23.1	-18.5	-22.4	-22.4	24.8
	10:12	-13.7	-16.6	-16.6	20.1	-15.9	-19.3	-19.3	21.6	-18.5	-22.4	-22.4	23.3
	11:12	-13.7	-16.7	-16.7	18.8	-16.0	-19.4	-19.4	20.3	-18.6	-22.5	-22.5	22.0
	12:12	-13.8	-16.7	-16.7	17.7	-16.0	-19.4	-19.4	19.2	-18.6	-22.5	-22.5	20.9
Exposure Category D	1:12	-16.5	-30.7	-48.5	35.1	-18.7	-34.8	-54.8	35.1	-21.3	-39.4	-62.1	35.1
	2:12	-14.7	-29.0	-45.0	32.4	-16.8	-32.8	-50.8	32.7	-19.1	-37.2	-57.5	33.7
	3:12	-14.8	-29.0	-45.0	30.1	-16.8	-32.8	-50.8	30.4	-19.1	-37.2	-57.6	31.4
	4:12	-14.8	-29.0	-45.0	27.7	-16.8	-32.8	-50.9	28.0	-19.1	-37.2	-57.6	29.0
	5:12	-14.8	-29.0	-45.1	25.4	-16.8	-32.9	-50.9	25.7	-19.2	-37.3	-57.6	26.7
	6:12	-14.9	-29.1	-45.1	23.3	-16.9	-32.9	-50.9	23.6	-19.2	-37.3	-57.7	24.6
	7:12	-16.7	-20.2	-20.2	26.1	-18.9	-22.9	-22.9	27.6	-21.5	-26.0	-26.0	29.4
	8:12	-16.7	-20.3	-20.3	24.3	-19.0	-23.0	-23.0	25.9	-21.6	-26.1	-26.1	27.6
	9:12	-16.8	-20.3	-20.3	22.8	-19.0	-23.0	-23.0	24.3	-21.6	-26.1	-26.1	26.1
	10:12	-16.8	-20.4	-20.4	21.4	-19.0	-23.0	-23.0	23.0	-21.6	-26.2	-26.2	24.7
	11:12	-16.8	-20.4	-20.4	20.3	-19.1	-23.1	-23.1	21.8	-21.7	-26.2	-26.2	23.5
	12:12	-16.9	-20.4	-20.4	19.3	-19.1	-23.1	-23.1	20.8	-21.7	-26.2	-26.2	23.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
	2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
	3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
	4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
	5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
	6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
	7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
	8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
	9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
	10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
	11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
115 mph
Ground Snow Load
50 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-10.8	-20.5	-32.6	45.5	-10.8	-20.5	-32.6	45.5	-13.4	-25.1	-39.8	45.5
	2:12	-9.6	-19.3	-30.2	41.9	-9.6	-19.3	-30.2	41.9	-11.9	-23.7	-36.9	41.9
	3:12	-9.6	-19.3	-30.2	37.8	-9.6	-19.3	-30.2	37.8	-12.0	-23.7	-36.9	37.8
	4:12	-9.7	-19.3	-30.2	33.6	-9.7	-19.3	-30.2	33.6	-12.0	-23.7	-36.9	33.6
	5:12	-9.7	-19.4	-30.2	30.3	-9.7	-19.4	-30.2	30.3	-12.0	-23.8	-37.0	30.3
	6:12	-9.7	-19.4	-30.3	27.5	-9.7	-19.4	-30.3	27.5	-12.1	-23.8	-37.0	27.5
	7:12	-11.0	-13.4	-13.4	25.9	-11.0	-13.4	-13.4	25.9	-13.6	-16.5	-16.5	27.6
	8:12	-11.0	-13.4	-13.4	23.5	-11.0	-13.4	-13.4	23.5	-13.6	-16.5	-16.5	25.3
	9:12	-11.1	-13.5	-13.5	21.5	-11.1	-13.5	-13.5	21.5	-13.6	-16.6	-16.6	23.3
	10:12	-11.1	-13.5	-13.5	19.7	-11.1	-13.5	-13.5	19.7	-13.7	-16.6	-16.6	21.5
	11:12	-11.1	-13.6	-13.6	18.2	-11.1	-13.6	-13.6	18.2	-13.7	-16.7	-16.7	20.0
	12:12	-11.2	-13.6	-13.6	16.9	-11.2	-13.6	-13.6	16.9	-13.8	-16.7	-16.7	18.7
Exposure Category C	1:12	-13.4	-25.1	-39.8	45.5	-15.6	-29.2	-46.1	45.5	-18.2	-33.8	-53.4	45.5
	2:12	-11.9	-23.7	-36.9	41.9	-14.0	-27.5	-42.7	41.9	-16.3	-31.9	-49.5	41.9
	3:12	-12.0	-23.7	-36.9	37.8	-14.0	-27.5	-42.7	37.8	-16.3	-31.9	-49.5	37.8
	4:12	-12.0	-23.7	-36.9	33.6	-14.0	-27.5	-42.8	33.6	-16.3	-32.0	-49.5	33.6
	5:12	-12.0	-23.8	-37.0	30.3	-14.0	-27.6	-42.8	30.3	-16.4	-32.0	-49.5	30.4
	6:12	-12.1	-23.8	-37.0	27.5	-14.1	-27.6	-42.8	27.5	-16.4	-32.0	-49.6	27.6
	7:12	-13.6	-16.5	-16.5	27.6	-15.8	-19.2	-19.2	29.1	-18.4	-22.3	-22.3	30.9
	8:12	-13.6	-16.5	-16.5	25.3	-15.9	-19.2	-19.2	26.8	-18.4	-22.3	-22.3	28.6
	9:12	-13.6	-16.6	-16.6	23.3	-15.9	-19.3	-19.3	24.8	-18.5	-22.4	-22.4	26.5
	10:12	-13.7	-16.6	-16.6	21.5	-15.9	-19.3	-19.3	23.0	-18.5	-22.4	-22.4	24.8
	11:12	-13.7	-16.7	-16.7	20.0	-16.0	-19.4	-19.4	21.5	-18.6	-22.5	-22.5	23.2
	12:12	-13.8	-16.7	-16.7	18.7	-16.0	-19.4	-19.4	20.2	-18.6	-22.5	-22.5	21.9
Exposure Category D	1:12	-16.5	-30.7	-48.5	41.4	-18.7	-34.8	-54.8	41.4	-21.3	-39.4	-62.1	41.4
	2:12	-14.7	-29.0	-45.0	38.0	-16.8	-32.8	-50.8	38.0	-19.1	-37.2	-57.5	38.0
	3:12	-14.8	-29.0	-45.0	34.4	-16.8	-32.8	-50.8	34.4	-19.1	-37.2	-57.6	35.2
	4:12	-14.8	-29.0	-45.0	31.1	-16.8	-32.8	-50.9	31.4	-19.1	-37.2	-57.6	32.4
	5:12	-14.8	-29.0	-45.1	28.4	-16.8	-32.9	-50.9	28.7	-19.2	-37.3	-57.6	29.6
	6:12	-14.9	-29.1	-45.1	25.8	-16.9	-32.9	-50.9	26.1	-19.2	-37.3	-57.7	27.1
	7:12	-16.7	-20.2	-20.2	28.3	-18.9	-22.9	-22.9	29.8	-21.5	-26.0	-26.0	31.5
	8:12	-16.7	-20.3	-20.3	26.2	-19.0	-23.0	-23.0	27.7	-21.6	-26.1	-26.1	29.4
	9:12	-16.8	-20.3	-20.3	24.3	-19.0	-23.0	-23.0	25.8	-21.6	-26.1	-26.1	27.6
	10:12	-16.8	-20.4	-20.4	22.7	-19.0	-23.0	-23.0	24.2	-21.6	-26.2	-26.2	26.0
	11:12	-16.8	-20.4	-20.4	21.4	-19.1	-23.1	-23.1	22.9	-21.7	-26.2	-26.2	24.6
	12:12	-16.9	-20.4	-20.4	20.2	-19.1	-23.1	-23.1	21.7	-21.7	-26.2	-26.2	23.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
	2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
	3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
	4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
	5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
	6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
	7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
	8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
	9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
	10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
115 mph

Ground Snow Load
60 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-10.8	-20.5	-32.6	52.5	-10.8	-20.5	-32.6	52.5	-13.4	-25.1	-39.8	52.5
2:12	-9.6	-19.3	-30.2	48.2	-9.6	-19.3	-30.2	48.2	-11.9	-23.7	-36.9	48.2
3:12	-9.6	-19.3	-30.2	43.4	-9.6	-19.3	-30.2	43.4	-12.0	-23.7	-36.9	43.4
4:12	-9.7	-19.3	-30.2	38.6	-9.7	-19.3	-30.2	38.6	-12.0	-23.7	-36.9	38.6
5:12	-9.7	-19.4	-30.2	34.0	-9.7	-19.4	-30.2	34.0	-12.0	-23.8	-37.0	34.0
6:12	-9.7	-19.4	-30.3	30.3	-9.7	-19.4	-30.3	30.3	-12.1	-23.8	-37.0	30.3
7:12	-11.0	-13.4	-13.4	28.2	-11.0	-13.4	-13.4	28.2	-13.6	-16.5	-16.5	30.0
8:12	-11.0	-13.4	-13.4	25.6	-11.0	-13.4	-13.4	25.6	-13.6	-16.5	-16.5	27.3
9:12	-11.1	-13.5	-13.5	23.2	-11.1	-13.5	-13.5	23.2	-13.6	-16.6	-16.6	25.0
10:12	-11.1	-13.5	-13.5	21.2	-11.1	-13.5	-13.5	21.2	-13.7	-16.6	-16.6	22.9
11:12	-11.1	-13.6	-13.6	19.4	-11.1	-13.6	-13.6	19.4	-13.7	-16.7	-16.7	21.2
12:12	-11.2	-13.6	-13.6	17.9	-11.2	-13.6	-13.6	17.9	-13.8	-16.7	-16.7	19.7
Exposure Category C												
1:12	-13.4	-25.1	-39.8	52.5	-15.6	-29.2	-46.1	52.5	-18.2	-33.8	-53.4	52.5
2:12	-11.9	-23.7	-36.9	48.2	-14.0	-27.5	-42.7	48.2	-16.3	-31.9	-49.5	48.2
3:12	-12.0	-23.7	-36.9	43.4	-14.0	-27.5	-42.7	43.4	-16.3	-31.9	-49.5	43.4
4:12	-12.0	-23.7	-36.9	38.6	-14.0	-27.5	-42.8	38.6	-16.3	-32.0	-49.5	38.6
5:12	-12.0	-23.8	-37.0	34.0	-14.0	-27.6	-42.8	34.0	-16.4	-32.0	-49.5	34.0
6:12	-12.1	-23.8	-37.0	30.3	-14.1	-27.6	-42.8	30.3	-16.4	-32.0	-49.6	30.4
7:12	-13.6	-16.5	-16.5	30.0	-15.8	-19.2	-19.2	31.5	-18.4	-22.3	-22.3	33.3
8:12	-13.6	-16.5	-16.5	27.3	-15.9	-19.2	-19.2	28.8	-18.4	-22.3	-22.3	30.6
9:12	-13.6	-16.6	-16.6	25.0	-15.9	-19.3	-19.3	26.5	-18.5	-22.4	-22.4	28.2
10:12	-13.7	-16.6	-16.6	22.9	-15.9	-19.3	-19.3	24.5	-18.5	-22.4	-22.4	26.2
11:12	-13.7	-16.7	-16.7	21.2	-16.0	-19.4	-19.4	22.7	-18.6	-22.5	-22.5	24.5
12:12	-13.8	-16.7	-16.7	19.7	-16.0	-19.4	-19.4	21.2	-18.6	-22.5	-22.5	23.0
Exposure Category D												
1:12	-16.5	-30.7	-48.5	47.6	-18.7	-34.8	-54.8	47.6	-21.3	-39.4	-62.1	47.6
2:12	-14.7	-29.0	-45.0	43.8	-16.8	-32.8	-50.8	43.8	-19.1	-37.2	-57.5	43.8
3:12	-14.8	-29.0	-45.0	39.5	-16.8	-32.8	-50.8	39.5	-19.1	-37.2	-57.6	39.5
4:12	-14.8	-29.0	-45.0	35.1	-16.8	-32.8	-50.9	35.1	-19.1	-37.2	-57.6	35.7
5:12	-14.8	-29.0	-45.1	31.3	-16.8	-32.9	-50.9	31.6	-19.2	-37.3	-57.6	32.6
6:12	-14.9	-29.1	-45.1	28.3	-16.9	-32.9	-50.9	28.6	-19.2	-37.3	-57.7	29.6
7:12	-16.7	-20.2	-20.2	30.4	-18.9	-22.9	-22.9	31.9	-21.5	-26.0	-26.0	33.7
8:12	-16.7	-20.3	-20.3	28.0	-19.0	-23.0	-23.0	29.5	-21.6	-26.1	-26.1	31.3
9:12	-16.8	-20.3	-20.3	25.9	-19.0	-23.0	-23.0	27.4	-21.6	-26.1	-26.1	29.1
10:12	-16.8	-20.4	-20.4	24.0	-19.0	-23.0	-23.0	25.5	-21.6	-26.2	-26.2	27.3
11:12	-16.8	-20.4	-20.4	22.4	-19.1	-23.1	-23.1	24.0	-21.7	-26.2	-26.2	25.7
12:12	-16.9	-20.4	-20.4	21.1	-19.1	-23.1	-23.1	22.6	-21.7	-26.2	-26.2	24.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **115 mph**

Ground Snow Load **70 psf**

Up and Down (psf)

Basic Wind Speed
115 mph
Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-10.8	-20.5	-32.6	59.4	-10.8	-20.5	-32.6	59.4	-13.4	-25.1	-39.8	59.4
2:12	-9.6	-19.3	-30.2	54.5	-9.6	-19.3	-30.2	54.5	-11.9	-23.7	-36.9	54.5
3:12	-9.6	-19.3	-30.2	49.1	-9.6	-19.3	-30.2	49.1	-12.0	-23.7	-36.9	49.1
4:12	-9.7	-19.3	-30.2	43.6	-9.7	-19.3	-30.2	43.6	-12.0	-23.7	-36.9	43.6
5:12	-9.7	-19.4	-30.2	38.3	-9.7	-19.4	-30.2	38.3	-12.0	-23.8	-37.0	38.3
6:12	-9.7	-19.4	-30.3	33.4	-9.7	-19.4	-30.3	33.4	-12.1	-23.8	-37.0	33.4
7:12	-11.0	-13.4	-13.4	30.6	-11.0	-13.4	-13.4	30.6	-13.6	-16.5	-16.5	32.4
8:12	-11.0	-13.4	-13.4	27.6	-11.0	-13.4	-13.4	27.6	-13.6	-16.5	-16.5	29.4
9:12	-11.1	-13.5	-13.5	24.9	-11.1	-13.5	-13.5	24.9	-13.6	-16.6	-16.6	26.7
10:12	-11.1	-13.5	-13.5	22.6	-11.1	-13.5	-13.5	22.6	-13.7	-16.6	-16.6	24.4
11:12	-11.1	-13.6	-13.6	20.6	-11.1	-13.6	-13.6	20.6	-13.7	-16.7	-16.7	22.4
12:12	-11.2	-13.6	-13.6	19.0	-11.2	-13.6	-13.6	19.0	-13.8	-16.7	-16.7	20.7
Exposure Category C												
1:12	-13.4	-25.1	-39.8	59.4	-15.6	-29.2	-46.1	59.4	-18.2	-33.8	-53.4	59.4
2:12	-11.9	-23.7	-36.9	54.5	-14.0	-27.5	-42.7	54.5	-16.3	-31.9	-49.5	54.5
3:12	-12.0	-23.7	-36.9	49.1	-14.0	-27.5	-42.7	49.1	-16.3	-31.9	-49.5	49.1
4:12	-12.0	-23.7	-36.9	43.6	-14.0	-27.5	-42.8	43.6	-16.3	-32.0	-49.5	43.6
5:12	-12.0	-23.8	-37.0	38.3	-14.0	-27.6	-42.8	38.3	-16.4	-32.0	-49.5	38.3
6:12	-12.1	-23.8	-37.0	33.4	-14.1	-27.6	-42.8	33.4	-16.4	-32.0	-49.6	33.4
7:12	-13.6	-16.5	-16.5	32.4	-15.8	-19.2	-19.2	33.9	-18.4	-22.3	-22.3	35.7
8:12	-13.6	-16.5	-16.5	29.4	-15.9	-19.2	-19.2	30.9	-18.4	-22.3	-22.3	32.6
9:12	-13.6	-16.6	-16.6	26.7	-15.9	-19.3	-19.3	28.2	-18.5	-22.4	-22.4	29.9
10:12	-13.7	-16.6	-16.6	24.4	-15.9	-19.3	-19.3	25.9	-18.5	-22.4	-22.4	27.6
11:12	-13.7	-16.7	-16.7	22.4	-16.0	-19.4	-19.4	23.9	-18.6	-22.5	-22.5	25.7
12:12	-13.8	-16.7	-16.7	20.7	-16.0	-19.4	-19.4	22.2	-18.6	-22.5	-22.5	24.0
Exposure Category D												
1:12	-16.5	-30.7	-48.5	53.9	-18.7	-34.8	-54.8	53.9	-21.3	-39.4	-62.1	53.9
2:12	-14.7	-29.0	-45.0	49.5	-16.8	-32.8	-50.8	49.5	-19.1	-37.2	-57.5	49.5
3:12	-14.8	-29.0	-45.0	44.6	-16.8	-32.8	-50.8	44.6	-19.1	-37.2	-57.6	44.6
4:12	-14.8	-29.0	-45.0	39.6	-16.8	-32.8	-50.9	39.6	-19.1	-37.2	-57.6	39.6
5:12	-14.8	-29.0	-45.1	34.9	-16.8	-32.9	-50.9	34.9	-19.2	-37.3	-57.6	35.5
6:12	-14.9	-29.1	-45.1	30.8	-16.9	-32.9	-50.9	31.2	-19.2	-37.3	-57.7	32.1
7:12	-16.7	-20.2	-20.2	32.6	-18.9	-22.9	-22.9	34.1	-21.5	-26.0	-26.0	35.8
8:12	-16.7	-20.3	-20.3	29.8	-19.0	-23.0	-23.0	31.3	-21.6	-26.1	-26.1	33.1
9:12	-16.8	-20.3	-20.3	27.4	-19.0	-23.0	-23.0	28.9	-21.6	-26.1	-26.1	30.7
10:12	-16.8	-20.4	-20.4	25.3	-19.0	-23.0	-23.0	26.8	-21.6	-26.2	-26.2	28.6
11:12	-16.8	-20.4	-20.4	23.5	-19.1	-23.1	-23.1	25.0	-21.7	-26.2	-26.2	26.8
12:12	-16.9	-20.4	-20.4	22.0	-19.1	-23.1	-23.1	23.5	-21.7	-26.2	-26.2	25.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-10.8	-20.5	-32.6	66.4	-10.8	-20.5	-32.6	66.4	-13.4	-25.1	-39.8	66.4
	2:12	-9.6	-19.3	-30.2	60.9	-9.6	-19.3	-30.2	60.9	-11.9	-23.7	-36.9	60.9
	3:12	-9.6	-19.3	-30.2	54.8	-9.6	-19.3	-30.2	54.8	-12.0	-23.7	-36.9	54.8
	4:12	-9.7	-19.3	-30.2	48.6	-9.7	-19.3	-30.2	48.6	-12.0	-23.7	-36.9	48.6
	5:12	-9.7	-19.4	-30.2	42.7	-9.7	-19.4	-30.2	42.7	-12.0	-23.8	-37.0	42.7
	6:12	-9.7	-19.4	-30.3	37.1	-9.7	-19.4	-30.3	37.1	-12.1	-23.8	-37.0	37.1
	7:12	-11.0	-13.4	-13.4	33.0	-11.0	-13.4	-13.4	33.0	-13.6	-16.5	-16.5	34.8
	8:12	-11.0	-13.4	-13.4	29.6	-11.0	-13.4	-13.4	29.6	-13.6	-16.5	-16.5	31.4
	9:12	-11.1	-13.5	-13.5	26.6	-11.1	-13.5	-13.5	26.6	-13.6	-16.6	-16.6	28.4
	10:12	-11.1	-13.5	-13.5	24.1	-11.1	-13.5	-13.5	24.1	-13.7	-16.6	-16.6	25.8
	11:12	-11.1	-13.6	-13.6	21.9	-11.1	-13.6	-13.6	21.9	-13.7	-16.7	-16.7	23.6
	12:12	-11.2	-13.6	-13.6	20.0	-11.2	-13.6	-13.6	20.0	-13.8	-16.7	-16.7	21.7
Exposure Category C	1:12	-13.4	-25.1	-39.8	66.4	-15.6	-29.2	-46.1	66.4	-18.2	-33.8	-53.4	66.4
	2:12	-11.9	-23.7	-36.9	60.9	-14.0	-27.5	-42.7	60.9	-16.3	-31.9	-49.5	60.9
	3:12	-12.0	-23.7	-36.9	54.8	-14.0	-27.5	-42.7	54.8	-16.3	-31.9	-49.5	54.8
	4:12	-12.0	-23.7	-36.9	48.6	-14.0	-27.5	-42.8	48.6	-16.3	-32.0	-49.5	48.6
	5:12	-12.0	-23.8	-37.0	42.7	-14.0	-27.6	-42.8	42.7	-16.4	-32.0	-49.5	42.7
	6:12	-12.1	-23.8	-37.0	37.1	-14.1	-27.6	-42.8	37.1	-16.4	-32.0	-49.6	37.1
	7:12	-13.6	-16.5	-16.5	34.8	-15.8	-19.2	-19.2	36.3	-18.4	-22.3	-22.3	38.0
	8:12	-13.6	-16.5	-16.5	31.4	-15.9	-19.2	-19.2	32.9	-18.4	-22.3	-22.3	34.6
	9:12	-13.6	-16.6	-16.6	28.4	-15.9	-19.3	-19.3	29.9	-18.5	-22.4	-22.4	31.7
	10:12	-13.7	-16.6	-16.6	25.8	-15.9	-19.3	-19.3	27.3	-18.5	-22.4	-22.4	29.1
	11:12	-13.7	-16.7	-16.7	23.6	-16.0	-19.4	-19.4	25.1	-18.6	-22.5	-22.5	26.9
	12:12	-13.8	-16.7	-16.7	21.7	-16.0	-19.4	-19.4	23.2	-18.6	-22.5	-22.5	25.0
Exposure Category D	1:12	-16.5	-30.7	-48.5	60.1	-18.7	-34.8	-54.8	60.1	-21.3	-39.4	-62.1	60.1
	2:12	-14.7	-29.0	-45.0	55.2	-16.8	-32.8	-50.8	55.2	-19.1	-37.2	-57.5	55.2
	3:12	-14.8	-29.0	-45.0	49.7	-16.8	-32.8	-50.8	49.7	-19.1	-37.2	-57.6	49.7
	4:12	-14.8	-29.0	-45.0	44.1	-16.8	-32.8	-50.9	44.1	-19.1	-37.2	-57.6	44.1
	5:12	-14.8	-29.0	-45.1	38.8	-16.8	-32.9	-50.9	38.8	-19.2	-37.3	-57.6	38.8
	6:12	-14.9	-29.1	-45.1	33.8	-16.9	-32.9	-50.9	33.8	-19.2	-37.3	-57.7	34.7
	7:12	-16.7	-20.2	-20.2	34.7	-18.9	-22.9	-22.9	36.2	-21.5	-26.0	-26.0	38.0
	8:12	-16.7	-20.3	-20.3	31.7	-19.0	-23.0	-23.0	33.2	-21.6	-26.1	-26.1	34.9
	9:12	-16.8	-20.3	-20.3	29.0	-19.0	-23.0	-23.0	30.5	-21.6	-26.1	-26.1	32.2
	10:12	-16.8	-20.4	-20.4	26.6	-19.0	-23.0	-23.0	28.1	-21.6	-26.2	-26.2	29.9
	11:12	-16.8	-20.4	-20.4	24.6	-19.1	-23.1	-23.1	26.1	-21.7	-26.2	-26.2	27.9
	12:12	-16.9	-20.4	-20.4	22.9	-19.1	-23.1	-23.1	24.4	-21.7	-26.2	-26.2	26.2
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
	2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
	3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
	4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
	6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
	7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
	8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
	9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
	10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
	11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
115 mph

Ground Snow Load
90 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-10.8	-20.5	-32.6	73.4	-10.8	-20.5	-32.6	73.4	-13.4	-25.1	-39.8	73.4
2:12	-9.6	-19.3	-30.2	67.2	-9.6	-19.3	-30.2	67.2	-11.9	-23.7	-36.9	67.2
3:12	-9.6	-19.3	-30.2	60.5	-9.6	-19.3	-30.2	60.5	-12.0	-23.7	-36.9	60.5
4:12	-9.7	-19.3	-30.2	53.6	-9.7	-19.3	-30.2	53.6	-12.0	-23.7	-36.9	53.6
5:12	-9.7	-19.4	-30.2	47.0	-9.7	-19.4	-30.2	47.0	-12.0	-23.8	-37.0	47.0
6:12	-9.7	-19.4	-30.3	40.9	-9.7	-19.4	-30.3	40.9	-12.1	-23.8	-37.0	40.9
7:12	-11.0	-13.4	-13.4	35.4	-11.0	-13.4	-13.4	35.4	-13.6	-16.5	-16.5	37.2
8:12	-11.0	-13.4	-13.4	31.7	-11.0	-13.4	-13.4	31.7	-13.6	-16.5	-16.5	33.4
9:12	-11.1	-13.5	-13.5	28.4	-11.1	-13.5	-13.5	28.4	-13.6	-16.6	-16.6	30.1
10:12	-11.1	-13.5	-13.5	25.5	-11.1	-13.5	-13.5	25.5	-13.7	-16.6	-16.6	27.3
11:12	-11.1	-13.6	-13.6	23.1	-11.1	-13.6	-13.6	23.1	-13.7	-16.7	-16.7	24.8
12:12	-11.2	-13.6	-13.6	21.0	-11.2	-13.6	-13.6	21.0	-13.8	-16.7	-16.7	22.7
Exposure Category C												
1:12	-13.4	-25.1	-39.8	73.4	-15.6	-29.2	-46.1	73.4	-18.2	-33.8	-53.4	73.4
2:12	-11.9	-23.7	-36.9	67.2	-14.0	-27.5	-42.7	67.2	-16.3	-31.9	-49.5	67.2
3:12	-12.0	-23.7	-36.9	60.5	-14.0	-27.5	-42.7	60.5	-16.3	-31.9	-49.5	60.5
4:12	-12.0	-23.7	-36.9	53.6	-14.0	-27.5	-42.8	53.6	-16.3	-32.0	-49.5	53.6
5:12	-12.0	-23.8	-37.0	47.0	-14.0	-27.6	-42.8	47.0	-16.4	-32.0	-49.5	47.0
6:12	-12.1	-23.8	-37.0	40.9	-14.1	-27.6	-42.8	40.9	-16.4	-32.0	-49.6	40.9
7:12	-13.6	-16.5	-16.5	37.2	-15.8	-19.2	-19.2	38.7	-18.4	-22.3	-22.3	40.4
8:12	-13.6	-16.5	-16.5	33.4	-15.9	-19.2	-19.2	34.9	-18.4	-22.3	-22.3	36.7
9:12	-13.6	-16.6	-16.6	30.1	-15.9	-19.3	-19.3	31.6	-18.5	-22.4	-22.4	33.4
10:12	-13.7	-16.6	-16.6	27.3	-15.9	-19.3	-19.3	28.8	-18.5	-22.4	-22.4	30.5
11:12	-13.7	-16.7	-16.7	24.8	-16.0	-19.4	-19.4	26.3	-18.6	-22.5	-22.5	28.1
12:12	-13.8	-16.7	-16.7	22.7	-16.0	-19.4	-19.4	24.2	-18.6	-22.5	-22.5	26.0
Exposure Category D												
1:12	-16.5	-30.7	-48.5	66.4	-18.7	-34.8	-54.8	66.4	-21.3	-39.4	-62.1	66.4
2:12	-14.7	-29.0	-45.0	60.9	-16.8	-32.8	-50.8	60.9	-19.1	-37.2	-57.5	60.9
3:12	-14.8	-29.0	-45.0	54.8	-16.8	-32.8	-50.8	54.8	-19.1	-37.2	-57.6	54.8
4:12	-14.8	-29.0	-45.0	48.6	-16.8	-32.8	-50.9	48.6	-19.1	-37.2	-57.6	48.6
5:12	-14.8	-29.0	-45.1	42.7	-16.8	-32.9	-50.9	42.7	-19.2	-37.3	-57.6	42.7
6:12	-14.9	-29.1	-45.1	37.1	-16.9	-32.9	-50.9	37.1	-19.2	-37.3	-57.7	37.2
7:12	-16.7	-20.2	-20.2	36.9	-18.9	-22.9	-22.9	38.4	-21.5	-26.0	-26.0	40.1
8:12	-16.7	-20.3	-20.3	33.5	-19.0	-23.0	-23.0	35.0	-21.6	-26.1	-26.1	36.7
9:12	-16.8	-20.3	-20.3	30.5	-19.0	-23.0	-23.0	32.0	-21.6	-26.1	-26.1	33.8
10:12	-16.8	-20.4	-20.4	27.9	-19.0	-23.0	-23.0	29.4	-21.6	-26.2	-26.2	31.2
11:12	-16.8	-20.4	-20.4	25.7	-19.1	-23.1	-23.1	27.2	-21.7	-26.2	-26.2	29.0
12:12	-16.9	-20.4	-20.4	23.8	-19.1	-23.1	-23.1	25.3	-21.7	-26.2	-26.2	27.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
115 mph

Ground Snow Load
100 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	13.4	-11.9	-22.4	-35.6	13.4	-14.7	-27.5	-43.5	13.4
2:12	-10.6	-21.1	-33.0	13.4	-10.6	-21.1	-33.0	13.4	-13.1	-25.9	-40.3	13.4
3:12	-10.6	-21.1	-33.0	13.3	-10.6	-21.1	-33.0	13.3	-13.1	-25.9	-40.3	13.3
4:12	-10.6	-21.2	-33.0	13.2	-10.6	-21.2	-33.0	13.2	-13.2	-25.9	-40.3	13.2
5:12	-10.7	-21.2	-33.0	13.2	-10.7	-21.2	-33.0	13.2	-13.2	-26.0	-40.4	13.2
6:12	-10.7	-21.2	-33.1	13.0	-10.7	-21.2	-33.1	13.0	-13.2	-26.0	-40.4	13.0
7:12	-12.1	-14.7	-14.7	15.2	-12.1	-14.7	-14.7	15.2	-14.9	-18.1	-18.1	17.7
8:12	-12.1	-14.7	-14.7	15.0	-12.1	-14.7	-14.7	15.0	-14.9	-18.1	-18.1	17.6
9:12	-12.1	-14.8	-14.8	14.9	-12.1	-14.8	-14.8	14.9	-15.0	-18.1	-18.1	17.5
10:12	-12.2	-14.8	-14.8	14.8	-12.2	-14.8	-14.8	14.8	-15.0	-18.2	-18.2	17.3
11:12	-12.2	-14.8	-14.8	14.7	-12.2	-14.8	-14.8	14.7	-15.0	-18.2	-18.2	17.2
12:12	-12.3	-14.9	-14.9	14.6	-12.3	-14.9	-14.9	14.6	-15.1	-18.3	-18.3	17.1
Exposure Category C												
1:12	-14.7	-27.5	-43.5	13.4	-17.1	-31.9	-50.3	13.4	-20.0	-37.0	-58.2	13.4
2:12	-13.1	-25.9	-40.3	13.4	-15.3	-30.1	-46.6	13.4	-17.9	-34.8	-54.0	14.4
3:12	-13.1	-25.9	-40.3	13.3	-15.3	-30.1	-46.7	13.3	-17.9	-34.9	-54.0	14.4
4:12	-13.2	-25.9	-40.3	13.2	-15.4	-30.1	-46.7	13.2	-17.9	-34.9	-54.0	14.3
5:12	-13.2	-26.0	-40.4	13.2	-15.4	-30.1	-46.7	13.2	-17.9	-34.9	-54.1	14.2
6:12	-13.2	-26.0	-40.4	13.0	-15.4	-30.2	-46.8	13.0	-18.0	-35.0	-54.1	14.1
7:12	-14.9	-18.1	-18.1	17.7	-17.3	-21.0	-21.0	19.9	-20.1	-24.4	-24.4	22.4
8:12	-14.9	-18.1	-18.1	17.6	-17.4	-21.0	-21.0	19.8	-20.2	-24.4	-24.4	22.3
9:12	-15.0	-18.1	-18.1	17.5	-17.4	-21.1	-21.1	19.7	-20.2	-24.5	-24.5	22.2
10:12	-15.0	-18.2	-18.2	17.3	-17.4	-21.1	-21.1	19.5	-20.3	-24.5	-24.5	22.1
11:12	-15.0	-18.2	-18.2	17.2	-17.5	-21.2	-21.2	19.4	-20.3	-24.5	-24.5	22.0
12:12	-15.1	-18.3	-18.3	17.1	-17.5	-21.2	-21.2	19.3	-20.3	-24.6	-24.6	21.8
Exposure Category D												
1:12	-18.1	-33.6	-52.9	13.4	-20.5	-38.0	-59.8	13.4	-23.3	-43.1	-67.7	13.4
2:12	-16.2	-31.7	-49.1	13.5	-18.4	-35.8	-55.4	14.7	-20.9	-40.6	-62.8	16.1
3:12	-16.2	-31.7	-49.1	13.4	-18.4	-35.8	-55.5	14.6	-20.9	-40.6	-62.8	16.0
4:12	-16.2	-31.7	-49.1	13.3	-18.4	-35.9	-55.5	14.6	-20.9	-40.7	-62.8	16.0
5:12	-16.2	-31.7	-49.2	13.2	-18.4	-35.9	-55.5	14.5	-21.0	-40.7	-62.8	15.9
6:12	-16.3	-31.8	-49.2	13.1	-18.5	-35.9	-55.6	14.3	-21.0	-40.7	-62.9	15.8
7:12	-18.3	-22.1	-22.1	20.8	-20.7	-25.1	-25.1	23.0	-23.5	-28.4	-28.4	25.5
8:12	-18.3	-22.2	-22.2	20.6	-20.7	-25.1	-25.1	22.8	-23.6	-28.5	-28.5	25.4
9:12	-18.3	-22.2	-22.2	20.5	-20.8	-25.1	-25.1	22.7	-23.6	-28.5	-28.5	25.2
10:12	-18.4	-22.3	-22.3	20.4	-20.8	-25.2	-25.2	22.6	-23.6	-28.6	-28.6	25.1
11:12	-18.4	-22.3	-22.3	20.3	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **120 mph**

Ground Snow Load **0 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

120 mph

Ground Snow Load

5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	14.8	-11.9	-22.4	-35.6	14.8	-14.7	-27.5	-43.5	14.8
2:12	-10.6	-21.1	-33.0	14.4	-10.6	-21.1	-33.0	14.4	-13.1	-25.9	-40.3	14.4
3:12	-10.6	-21.1	-33.0	14.0	-10.6	-21.1	-33.0	14.0	-13.1	-25.9	-40.3	14.0
4:12	-10.6	-21.2	-33.0	13.2	-10.6	-21.2	-33.0	13.2	-13.2	-25.9	-40.3	13.2
5:12	-10.7	-21.2	-33.0	13.2	-10.7	-21.2	-33.0	13.2	-13.2	-26.0	-40.4	13.2
6:12	-10.7	-21.2	-33.1	13.0	-10.7	-21.2	-33.1	13.0	-13.2	-26.0	-40.4	13.0
7:12	-12.1	-14.7	-14.7	15.2	-12.1	-14.7	-14.7	15.2	-14.9	-18.1	-18.1	17.7
8:12	-12.1	-14.7	-14.7	15.0	-12.1	-14.7	-14.7	15.0	-14.9	-18.1	-18.1	17.6
9:12	-12.1	-14.8	-14.8	14.9	-12.1	-14.8	-14.8	14.9	-15.0	-18.1	-18.1	17.5
10:12	-12.2	-14.8	-14.8	14.8	-12.2	-14.8	-14.8	14.8	-15.0	-18.2	-18.2	17.3
11:12	-12.2	-14.8	-14.8	14.7	-12.2	-14.8	-14.8	14.7	-15.0	-18.2	-18.2	17.2
12:12	-12.3	-14.9	-14.9	14.6	-12.3	-14.9	-14.9	14.6	-15.1	-18.3	-18.3	17.1
Exposure Category C												
1:12	-14.7	-27.5	-43.5	14.8	-17.1	-31.9	-50.3	14.8	-20.0	-37.0	-58.2	14.8
2:12	-13.1	-25.9	-40.3	14.4	-15.3	-30.1	-46.6	14.4	-17.9	-34.8	-54.0	15.2
3:12	-13.1	-25.9	-40.3	14.0	-15.3	-30.1	-46.7	14.0	-17.9	-34.9	-54.0	14.7
4:12	-13.2	-25.9	-40.3	13.2	-15.4	-30.1	-46.7	13.2	-17.9	-34.9	-54.0	14.3
5:12	-13.2	-26.0	-40.4	13.2	-15.4	-30.1	-46.7	13.2	-17.9	-34.9	-54.1	14.2
6:12	-13.2	-26.0	-40.4	13.0	-15.4	-30.2	-46.8	13.0	-18.0	-35.0	-54.1	14.1
7:12	-14.9	-18.1	-18.1	17.7	-17.3	-21.0	-21.0	19.9	-20.1	-24.4	-24.4	22.4
8:12	-14.9	-18.1	-18.1	17.6	-17.4	-21.0	-21.0	19.8	-20.2	-24.4	-24.4	22.3
9:12	-15.0	-18.1	-18.1	17.5	-17.4	-21.1	-21.1	19.7	-20.2	-24.5	-24.5	22.2
10:12	-15.0	-18.2	-18.2	17.3	-17.4	-21.1	-21.1	19.5	-20.3	-24.5	-24.5	22.1
11:12	-15.0	-18.2	-18.2	17.2	-17.5	-21.2	-21.2	19.4	-20.3	-24.5	-24.5	22.0
12:12	-15.1	-18.3	-18.3	17.1	-17.5	-21.2	-21.2	19.3	-20.3	-24.6	-24.6	21.8
Exposure Category D												
1:12	-18.1	-33.6	-52.9	14.8	-20.5	-38.0	-59.8	14.8	-23.3	-43.1	-67.7	14.8
2:12	-16.2	-31.7	-49.1	14.5	-18.4	-35.8	-55.4	15.4	-20.9	-40.6	-62.8	16.4
3:12	-16.2	-31.7	-49.1	14.0	-18.4	-35.8	-55.5	14.9	-20.9	-40.6	-62.8	16.0
4:12	-16.2	-31.7	-49.1	13.3	-18.4	-35.9	-55.5	14.6	-20.9	-40.7	-62.8	16.0
5:12	-16.2	-31.7	-49.2	13.2	-18.4	-35.9	-55.5	14.5	-21.0	-40.7	-62.8	15.9
6:12	-16.3	-31.8	-49.2	13.1	-18.5	-35.9	-55.6	14.3	-21.0	-40.7	-62.9	15.8
7:12	-18.3	-22.1	-22.1	20.8	-20.7	-25.1	-25.1	23.0	-23.5	-28.4	-28.4	25.5
8:12	-18.3	-22.2	-22.2	20.6	-20.7	-25.1	-25.1	22.8	-23.6	-28.5	-28.5	25.4
9:12	-18.3	-22.2	-22.2	20.5	-20.8	-25.1	-25.1	22.7	-23.6	-28.5	-28.5	25.2
10:12	-18.4	-22.3	-22.3	20.4	-20.8	-25.2	-25.2	22.6	-23.6	-28.6	-28.6	25.1
11:12	-18.4	-22.3	-22.3	20.3	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	18.5	-11.9	-22.4	-35.6	18.5	-14.7	-27.5	-43.5	18.5
2:12	-10.6	-21.1	-33.0	17.8	-10.6	-21.1	-33.0	17.8	-13.1	-25.9	-40.3	17.8
3:12	-10.6	-21.1	-33.0	17.0	-10.6	-21.1	-33.0	17.0	-13.1	-25.9	-40.3	17.0
4:12	-10.6	-21.2	-33.0	14.6	-10.6	-21.2	-33.0	14.6	-13.2	-25.9	-40.3	14.6
5:12	-10.7	-21.2	-33.0	14.0	-10.7	-21.2	-33.0	14.0	-13.2	-26.0	-40.4	14.0
6:12	-10.7	-21.2	-33.1	13.4	-10.7	-21.2	-33.1	13.4	-13.2	-26.0	-40.4	13.4
7:12	-12.1	-14.7	-14.7	15.2	-12.1	-14.7	-14.7	15.2	-14.9	-18.1	-18.1	17.7
8:12	-12.1	-14.7	-14.7	15.0	-12.1	-14.7	-14.7	15.0	-14.9	-18.1	-18.1	17.6
9:12	-12.1	-14.8	-14.8	14.9	-12.1	-14.8	-14.8	14.9	-15.0	-18.1	-18.1	17.5
10:12	-12.2	-14.8	-14.8	14.8	-12.2	-14.8	-14.8	14.8	-15.0	-18.2	-18.2	17.3
11:12	-12.2	-14.8	-14.8	14.7	-12.2	-14.8	-14.8	14.7	-15.0	-18.2	-18.2	17.2
12:12	-12.3	-14.9	-14.9	14.6	-12.3	-14.9	-14.9	14.6	-15.1	-18.3	-18.3	17.1
Exposure Category C												
1:12	-14.7	-27.5	-43.5	18.5	-17.1	-31.9	-50.3	18.5	-20.0	-37.0	-58.2	18.5
2:12	-13.1	-25.9	-40.3	17.8	-15.3	-30.1	-46.6	17.8	-17.9	-34.8	-54.0	18.6
3:12	-13.1	-25.9	-40.3	17.0	-15.3	-30.1	-46.7	17.0	-17.9	-34.9	-54.0	17.8
4:12	-13.2	-25.9	-40.3	14.6	-15.4	-30.1	-46.7	14.6	-17.9	-34.9	-54.0	15.4
5:12	-13.2	-26.0	-40.4	14.0	-15.4	-30.1	-46.7	14.0	-17.9	-34.9	-54.1	14.8
6:12	-13.2	-26.0	-40.4	13.4	-15.4	-30.2	-46.8	13.4	-18.0	-35.0	-54.1	14.2
7:12	-14.9	-18.1	-18.1	17.7	-17.3	-21.0	-21.0	19.9	-20.1	-24.4	-24.4	22.4
8:12	-14.9	-18.1	-18.1	17.6	-17.4	-21.0	-21.0	19.8	-20.2	-24.4	-24.4	22.3
9:12	-15.0	-18.1	-18.1	17.5	-17.4	-21.1	-21.1	19.7	-20.2	-24.5	-24.5	22.2
10:12	-15.0	-18.2	-18.2	17.3	-17.4	-21.1	-21.1	19.5	-20.3	-24.5	-24.5	22.1
11:12	-15.0	-18.2	-18.2	17.2	-17.5	-21.2	-21.2	19.4	-20.3	-24.5	-24.5	22.0
12:12	-15.1	-18.3	-18.3	17.1	-17.5	-21.2	-21.2	19.3	-20.3	-24.6	-24.6	21.8
Exposure Category D												
1:12	-18.1	-33.6	-52.9	18.5	-20.5	-38.0	-59.8	18.5	-23.3	-43.1	-67.7	18.5
2:12	-16.2	-31.7	-49.1	17.9	-18.4	-35.8	-55.4	18.8	-20.9	-40.6	-62.8	19.8
3:12	-16.2	-31.7	-49.1	17.1	-18.4	-35.8	-55.5	18.0	-20.9	-40.6	-62.8	19.0
4:12	-16.2	-31.7	-49.1	14.3	-18.4	-35.9	-55.5	15.2	-20.9	-40.7	-62.8	16.3
5:12	-16.2	-31.7	-49.2	13.7	-18.4	-35.9	-55.5	14.7	-21.0	-40.7	-62.8	15.9
6:12	-16.3	-31.8	-49.2	13.2	-18.5	-35.9	-55.6	14.3	-21.0	-40.7	-62.9	15.8
7:12	-18.3	-22.1	-22.1	20.8	-20.7	-25.1	-25.1	23.0	-23.5	-28.4	-28.4	25.5
8:12	-18.3	-22.2	-22.2	20.6	-20.7	-25.1	-25.1	22.8	-23.6	-28.5	-28.5	25.4
9:12	-18.3	-22.2	-22.2	20.5	-20.8	-25.1	-25.1	22.7	-23.6	-28.5	-28.5	25.2
10:12	-18.4	-22.3	-22.3	20.4	-20.8	-25.2	-25.2	22.6	-23.6	-28.6	-28.6	25.1
11:12	-18.4	-22.3	-22.3	20.3	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

120 mph

Ground Snow Load

10 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	22.2	-11.9	-22.4	-35.6	22.2	-14.7	-27.5	-43.5	22.2
2:12	-10.6	-21.1	-33.0	21.2	-10.6	-21.1	-33.0	21.2	-13.1	-25.9	-40.3	21.2
3:12	-10.6	-21.1	-33.0	20.0	-10.6	-21.1	-33.0	20.0	-13.1	-25.9	-40.3	20.0
4:12	-10.6	-21.2	-33.0	16.5	-10.6	-21.2	-33.0	16.5	-13.2	-25.9	-40.3	16.5
5:12	-10.7	-21.2	-33.0	15.6	-10.7	-21.2	-33.0	15.6	-13.2	-26.0	-40.4	15.6
6:12	-10.7	-21.2	-33.1	14.9	-10.7	-21.2	-33.1	14.9	-13.2	-26.0	-40.4	14.9
7:12	-12.1	-14.7	-14.7	15.8	-12.1	-14.7	-14.7	15.8	-14.9	-18.1	-18.1	17.7
8:12	-12.1	-14.7	-14.7	15.1	-12.1	-14.7	-14.7	15.1	-14.9	-18.1	-18.1	17.6
9:12	-12.1	-14.8	-14.8	14.9	-12.1	-14.8	-14.8	14.9	-15.0	-18.1	-18.1	17.5
10:12	-12.2	-14.8	-14.8	14.8	-12.2	-14.8	-14.8	14.8	-15.0	-18.2	-18.2	17.3
11:12	-12.2	-14.8	-14.8	14.7	-12.2	-14.8	-14.8	14.7	-15.0	-18.2	-18.2	17.2
12:12	-12.3	-14.9	-14.9	14.6	-12.3	-14.9	-14.9	14.6	-15.1	-18.3	-18.3	17.1
Exposure Category C												
1:12	-14.7	-27.5	-43.5	22.2	-17.1	-31.9	-50.3	22.2	-20.0	-37.0	-58.2	22.2
2:12	-13.1	-25.9	-40.3	21.2	-15.3	-30.1	-46.6	21.2	-17.9	-34.8	-54.0	22.0
3:12	-13.1	-25.9	-40.3	20.0	-15.3	-30.1	-46.7	20.0	-17.9	-34.9	-54.0	20.8
4:12	-13.2	-25.9	-40.3	16.5	-15.4	-30.1	-46.7	16.5	-17.9	-34.9	-54.0	17.2
5:12	-13.2	-26.0	-40.4	15.6	-15.4	-30.1	-46.7	15.6	-17.9	-34.9	-54.1	16.4
6:12	-13.2	-26.0	-40.4	14.9	-15.4	-30.2	-46.8	14.9	-18.0	-35.0	-54.1	15.6
7:12	-14.9	-18.1	-18.1	17.7	-17.3	-21.0	-21.0	19.9	-20.1	-24.4	-24.4	22.4
8:12	-14.9	-18.1	-18.1	17.6	-17.4	-21.0	-21.0	19.8	-20.2	-24.4	-24.4	22.3
9:12	-15.0	-18.1	-18.1	17.5	-17.4	-21.1	-21.1	19.7	-20.2	-24.5	-24.5	22.2
10:12	-15.0	-18.2	-18.2	17.3	-17.4	-21.1	-21.1	19.5	-20.3	-24.5	-24.5	22.1
11:12	-15.0	-18.2	-18.2	17.2	-17.5	-21.2	-21.2	19.4	-20.3	-24.5	-24.5	22.0
12:12	-15.1	-18.3	-18.3	17.1	-17.5	-21.2	-21.2	19.3	-20.3	-24.6	-24.6	21.8
Exposure Category D												
1:12	-18.1	-33.6	-52.9	22.2	-20.5	-38.0	-59.8	22.2	-23.3	-43.1	-67.7	22.2
2:12	-16.2	-31.7	-49.1	21.3	-18.4	-35.8	-55.4	22.2	-20.9	-40.6	-62.8	23.2
3:12	-16.2	-31.7	-49.1	20.1	-18.4	-35.8	-55.5	21.0	-20.9	-40.6	-62.8	22.1
4:12	-16.2	-31.7	-49.1	16.0	-18.4	-35.9	-55.5	16.9	-20.9	-40.7	-62.8	17.9
5:12	-16.2	-31.7	-49.2	15.2	-18.4	-35.9	-55.5	16.1	-21.0	-40.7	-62.8	17.2
6:12	-16.3	-31.8	-49.2	14.5	-18.5	-35.9	-55.6	15.4	-21.0	-40.7	-62.9	16.5
7:12	-18.3	-22.1	-22.1	20.8	-20.7	-25.1	-25.1	23.0	-23.5	-28.4	-28.4	25.5
8:12	-18.3	-22.2	-22.2	20.6	-20.7	-25.1	-25.1	22.8	-23.6	-28.5	-28.5	25.4
9:12	-18.3	-22.2	-22.2	20.5	-20.8	-25.1	-25.1	22.7	-23.6	-28.5	-28.5	25.2
10:12	-18.4	-22.3	-22.3	20.4	-20.8	-25.2	-25.2	22.6	-23.6	-28.6	-28.6	25.1
11:12	-18.4	-22.3	-22.3	20.3	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **120 mph**

Ground Snow Load **15 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	25.9	-11.9	-22.4	-35.6	25.9	-14.7	-27.5	-43.5	25.9
2:12	-10.6	-21.1	-33.0	24.6	-10.6	-21.1	-33.0	24.6	-13.1	-25.9	-40.3	24.6
3:12	-10.6	-21.1	-33.0	23.1	-10.6	-21.1	-33.0	23.1	-13.1	-25.9	-40.3	23.1
4:12	-10.6	-21.2	-33.0	18.3	-10.6	-21.2	-33.0	18.3	-13.2	-25.9	-40.3	18.3
5:12	-10.7	-21.2	-33.0	17.3	-10.7	-21.2	-33.0	17.3	-13.2	-26.0	-40.4	17.3
6:12	-10.7	-21.2	-33.1	16.3	-10.7	-21.2	-33.1	16.3	-13.2	-26.0	-40.4	16.3
7:12	-12.1	-14.7	-14.7	17.0	-12.1	-14.7	-14.7	17.0	-14.9	-18.1	-18.1	18.9
8:12	-12.1	-14.7	-14.7	16.1	-12.1	-14.7	-14.7	16.1	-14.9	-18.1	-18.1	18.0
9:12	-12.1	-14.8	-14.8	15.4	-12.1	-14.8	-14.8	15.4	-15.0	-18.1	-18.1	17.5
10:12	-12.2	-14.8	-14.8	14.8	-12.2	-14.8	-14.8	14.8	-15.0	-18.2	-18.2	17.3
11:12	-12.2	-14.8	-14.8	14.7	-12.2	-14.8	-14.8	14.7	-15.0	-18.2	-18.2	17.2
12:12	-12.3	-14.9	-14.9	14.6	-12.3	-14.9	-14.9	14.6	-15.1	-18.3	-18.3	17.1
Exposure Category C												
1:12	-14.7	-27.5	-43.5	25.9	-17.1	-31.9	-50.3	25.9	-20.0	-37.0	-58.2	25.9
2:12	-13.1	-25.9	-40.3	24.6	-15.3	-30.1	-46.6	24.6	-17.9	-34.8	-54.0	25.4
3:12	-13.1	-25.9	-40.3	23.1	-15.3	-30.1	-46.7	23.1	-17.9	-34.9	-54.0	23.9
4:12	-13.2	-25.9	-40.3	18.3	-15.4	-30.1	-46.7	18.3	-17.9	-34.9	-54.0	19.1
5:12	-13.2	-26.0	-40.4	17.3	-15.4	-30.1	-46.7	17.3	-17.9	-34.9	-54.1	18.0
6:12	-13.2	-26.0	-40.4	16.3	-15.4	-30.2	-46.8	16.3	-18.0	-35.0	-54.1	17.0
7:12	-14.9	-18.1	-18.1	18.9	-17.3	-21.0	-21.0	20.6	-20.1	-24.4	-24.4	22.5
8:12	-14.9	-18.1	-18.1	18.0	-17.4	-21.0	-21.0	19.8	-20.2	-24.4	-24.4	22.3
9:12	-15.0	-18.1	-18.1	17.5	-17.4	-21.1	-21.1	19.7	-20.2	-24.5	-24.5	22.2
10:12	-15.0	-18.2	-18.2	17.3	-17.4	-21.1	-21.1	19.5	-20.3	-24.5	-24.5	22.1
11:12	-15.0	-18.2	-18.2	17.2	-17.5	-21.2	-21.2	19.4	-20.3	-24.5	-24.5	22.0
12:12	-15.1	-18.3	-18.3	17.1	-17.5	-21.2	-21.2	19.3	-20.3	-24.6	-24.6	21.8
Exposure Category D												
1:12	-18.1	-33.6	-52.9	25.9	-20.5	-38.0	-59.8	25.9	-23.3	-43.1	-67.7	25.9
2:12	-16.2	-31.7	-49.1	24.6	-18.4	-35.8	-55.4	25.6	-20.9	-40.6	-62.8	26.6
3:12	-16.2	-31.7	-49.1	23.1	-18.4	-35.8	-55.5	24.1	-20.9	-40.6	-62.8	25.1
4:12	-16.2	-31.7	-49.1	17.7	-18.4	-35.9	-55.5	18.6	-20.9	-40.7	-62.8	19.6
5:12	-16.2	-31.7	-49.2	16.7	-18.4	-35.9	-55.5	17.6	-21.0	-40.7	-62.8	18.7
6:12	-16.3	-31.8	-49.2	15.8	-18.5	-35.9	-55.6	16.7	-21.0	-40.7	-62.9	17.7
7:12	-18.3	-22.1	-22.1	20.8	-20.7	-25.1	-25.1	23.0	-23.5	-28.4	-28.4	25.5
8:12	-18.3	-22.2	-22.2	20.6	-20.7	-25.1	-25.1	22.8	-23.6	-28.5	-28.5	25.4
9:12	-18.3	-22.2	-22.2	20.5	-20.8	-25.1	-25.1	22.7	-23.6	-28.5	-28.5	25.2
10:12	-18.4	-22.3	-22.3	20.4	-20.8	-25.2	-25.2	22.6	-23.6	-28.6	-28.6	25.1
11:12	-18.4	-22.3	-22.3	20.3	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9

Basic Wind Speed **120 mph**
Ground Snow Load **20 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	25.9	-11.9	-22.4	-35.6	25.9	-14.7	-27.5	-43.5	25.9
2:12	-10.6	-21.1	-33.0	24.6	-10.6	-21.1	-33.0	24.6	-13.1	-25.9	-40.3	24.6
3:12	-10.6	-21.1	-33.0	23.1	-10.6	-21.1	-33.0	23.1	-13.1	-25.9	-40.3	23.1
4:12	-10.6	-21.2	-33.0	20.2	-10.6	-21.2	-33.0	20.2	-13.2	-25.9	-40.3	20.2
5:12	-10.7	-21.2	-33.0	18.9	-10.7	-21.2	-33.0	18.9	-13.2	-26.0	-40.4	18.9
6:12	-10.7	-21.2	-33.1	17.7	-10.7	-21.2	-33.1	17.7	-13.2	-26.0	-40.4	17.7
7:12	-12.1	-14.7	-14.7	18.2	-12.1	-14.7	-14.7	18.2	-14.9	-18.1	-18.1	20.1
8:12	-12.1	-14.7	-14.7	17.2	-12.1	-14.7	-14.7	17.2	-14.9	-18.1	-18.1	19.1
9:12	-12.1	-14.8	-14.8	16.2	-12.1	-14.8	-14.8	16.2	-15.0	-18.1	-18.1	18.1
10:12	-12.2	-14.8	-14.8	15.4	-12.2	-14.8	-14.8	15.4	-15.0	-18.2	-18.2	17.3
11:12	-12.2	-14.8	-14.8	14.7	-12.2	-14.8	-14.8	14.7	-15.0	-18.2	-18.2	17.2
12:12	-12.3	-14.9	-14.9	14.6	-12.3	-14.9	-14.9	14.6	-15.1	-18.3	-18.3	17.1
Exposure Category C												
1:12	-14.7	-27.5	-43.5	25.9	-17.1	-31.9	-50.3	25.9	-20.0	-37.0	-58.2	25.9
2:12	-13.1	-25.9	-40.3	24.6	-15.3	-30.1	-46.6	24.6	-17.9	-34.8	-54.0	25.4
3:12	-13.1	-25.9	-40.3	23.1	-15.3	-30.1	-46.7	23.1	-17.9	-34.9	-54.0	23.9
4:12	-13.2	-25.9	-40.3	20.2	-15.4	-30.1	-46.7	20.2	-17.9	-34.9	-54.0	21.0
5:12	-13.2	-26.0	-40.4	18.9	-15.4	-30.1	-46.7	18.9	-17.9	-34.9	-54.1	19.7
6:12	-13.2	-26.0	-40.4	17.7	-15.4	-30.2	-46.8	17.7	-18.0	-35.0	-54.1	18.4
7:12	-14.9	-18.1	-18.1	20.1	-17.3	-21.0	-21.0	21.7	-20.1	-24.4	-24.4	23.7
8:12	-14.9	-18.1	-18.1	19.1	-17.4	-21.0	-21.0	20.7	-20.2	-24.4	-24.4	22.6
9:12	-15.0	-18.1	-18.1	18.1	-17.4	-21.1	-21.1	19.8	-20.2	-24.5	-24.5	22.2
10:12	-15.0	-18.2	-18.2	17.3	-17.4	-21.1	-21.1	19.5	-20.3	-24.5	-24.5	22.1
11:12	-15.0	-18.2	-18.2	17.2	-17.5	-21.2	-21.2	19.4	-20.3	-24.5	-24.5	22.0
12:12	-15.1	-18.3	-18.3	17.1	-17.5	-21.2	-21.2	19.3	-20.3	-24.6	-24.6	21.8
Exposure Category D												
1:12	-18.1	-33.6	-52.9	25.9	-20.5	-38.0	-59.8	25.9	-23.3	-43.1	-67.7	25.9
2:12	-16.2	-31.7	-49.1	24.6	-18.4	-35.8	-55.4	25.6	-20.9	-40.6	-62.8	26.6
3:12	-16.2	-31.7	-49.1	23.1	-18.4	-35.8	-55.5	24.1	-20.9	-40.6	-62.8	25.1
4:12	-16.2	-31.7	-49.1	19.3	-18.4	-35.9	-55.5	20.3	-20.9	-40.7	-62.8	21.3
5:12	-16.2	-31.7	-49.2	18.1	-18.4	-35.9	-55.5	19.1	-21.0	-40.7	-62.8	20.1
6:12	-16.3	-31.8	-49.2	17.0	-18.5	-35.9	-55.6	17.9	-21.0	-40.7	-62.9	19.0
7:12	-18.3	-22.1	-22.1	21.8	-20.7	-25.1	-25.1	23.4	-23.5	-28.4	-28.4	25.5
8:12	-18.3	-22.2	-22.2	20.8	-20.7	-25.1	-25.1	22.8	-23.6	-28.5	-28.5	25.4
9:12	-18.3	-22.2	-22.2	20.5	-20.8	-25.1	-25.1	22.7	-23.6	-28.5	-28.5	25.2
10:12	-18.4	-22.3	-22.3	20.4	-20.8	-25.2	-25.2	22.6	-23.6	-28.6	-28.6	25.1
11:12	-18.4	-22.3	-22.3	20.3	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **120 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-11.9	-22.4	-35.6	26.7	-11.9	-22.4	-35.6	26.7	-14.7	-27.5	-43.5	26.7
	2:12	-10.6	-21.1	-33.0	25.3	-10.6	-21.1	-33.0	25.3	-13.1	-25.9	-40.3	25.3
	3:12	-10.6	-21.1	-33.0	23.7	-10.6	-21.1	-33.0	23.7	-13.1	-25.9	-40.3	23.7
	4:12	-10.6	-21.2	-33.0	22.1	-10.6	-21.2	-33.0	22.1	-13.2	-25.9	-40.3	22.1
	5:12	-10.7	-21.2	-33.0	20.5	-10.7	-21.2	-33.0	20.5	-13.2	-26.0	-40.4	20.5
	6:12	-10.7	-21.2	-33.1	19.1	-10.7	-21.2	-33.1	19.1	-13.2	-26.0	-40.4	19.1
	7:12	-12.1	-14.7	-14.7	19.4	-12.1	-14.7	-14.7	19.4	-14.9	-18.1	-18.1	21.3
	8:12	-12.1	-14.7	-14.7	18.2	-12.1	-14.7	-14.7	18.2	-14.9	-18.1	-18.1	20.1
	9:12	-12.1	-14.8	-14.8	17.1	-12.1	-14.8	-14.8	17.1	-15.0	-18.1	-18.1	19.0
	10:12	-12.2	-14.8	-14.8	16.2	-12.2	-14.8	-14.8	16.2	-15.0	-18.2	-18.2	18.1
	11:12	-12.2	-14.8	-14.8	15.3	-12.2	-14.8	-14.8	15.3	-15.0	-18.2	-18.2	17.2
	12:12	-12.3	-14.9	-14.9	14.6	-12.3	-14.9	-14.9	14.6	-15.1	-18.3	-18.3	17.1
Exposure Category C	1:12	-14.7	-27.5	-43.5	26.7	-17.1	-31.9	-50.3	26.7	-20.0	-37.0	-58.2	26.7
	2:12	-13.1	-25.9	-40.3	25.3	-15.3	-30.1	-46.6	25.3	-17.9	-34.8	-54.0	26.0
	3:12	-13.1	-25.9	-40.3	23.7	-15.3	-30.1	-46.7	23.7	-17.9	-34.9	-54.0	24.5
	4:12	-13.2	-25.9	-40.3	22.1	-15.4	-30.1	-46.7	22.1	-17.9	-34.9	-54.0	22.9
	5:12	-13.2	-26.0	-40.4	20.5	-15.4	-30.1	-46.7	20.5	-17.9	-34.9	-54.1	21.3
	6:12	-13.2	-26.0	-40.4	19.1	-15.4	-30.2	-46.8	19.1	-18.0	-35.0	-54.1	19.8
	7:12	-14.9	-18.1	-18.1	21.3	-17.3	-21.0	-21.0	22.9	-20.1	-24.4	-24.4	24.8
	8:12	-14.9	-18.1	-18.1	20.1	-17.4	-21.0	-21.0	21.7	-20.2	-24.4	-24.4	23.6
	9:12	-15.0	-18.1	-18.1	19.0	-17.4	-21.1	-21.1	20.7	-20.2	-24.5	-24.5	22.6
	10:12	-15.0	-18.2	-18.2	18.1	-17.4	-21.1	-21.1	19.7	-20.3	-24.5	-24.5	22.1
	11:12	-15.0	-18.2	-18.2	17.2	-17.5	-21.2	-21.2	19.4	-20.3	-24.5	-24.5	22.0
	12:12	-15.1	-18.3	-18.3	17.1	-17.5	-21.2	-21.2	19.3	-20.3	-24.6	-24.6	21.8
Exposure Category D	1:12	-18.1	-33.6	-52.9	25.9	-20.5	-38.0	-59.8	25.9	-23.3	-43.1	-67.7	25.9
	2:12	-16.2	-31.7	-49.1	24.6	-18.4	-35.8	-55.4	25.6	-20.9	-40.6	-62.8	26.6
	3:12	-16.2	-31.7	-49.1	23.1	-18.4	-35.8	-55.5	24.1	-20.9	-40.6	-62.8	25.1
	4:12	-16.2	-31.7	-49.1	21.0	-18.4	-35.9	-55.5	21.9	-20.9	-40.7	-62.8	23.0
	5:12	-16.2	-31.7	-49.2	19.6	-18.4	-35.9	-55.5	20.5	-21.0	-40.7	-62.8	21.6
	6:12	-16.3	-31.8	-49.2	18.3	-18.5	-35.9	-55.6	19.2	-21.0	-40.7	-62.9	20.3
	7:12	-18.3	-22.1	-22.1	22.9	-20.7	-25.1	-25.1	24.5	-23.5	-28.4	-28.4	26.4
	8:12	-18.3	-22.2	-22.2	21.8	-20.7	-25.1	-25.1	23.4	-23.6	-28.5	-28.5	25.4
	9:12	-18.3	-22.2	-22.2	20.8	-20.8	-25.1	-25.1	22.7	-23.6	-28.5	-28.5	25.2
	10:12	-18.4	-22.3	-22.3	20.4	-20.8	-25.2	-25.2	22.6	-23.6	-28.6	-28.6	25.1
	11:12	-18.4	-22.3	-22.3	20.3	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
	12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
	2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
	3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
	4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
	5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
	6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
	7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
	8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
	9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
	10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
	11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
120 mph

Ground Snow Load
30 psf

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

120 mph

Ground Snow Load

35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	29.3	-11.9	-22.4	-35.6	29.3	-14.7	-27.5	-43.5	29.3
2:12	-10.6	-21.1	-33.0	27.6	-10.6	-21.1	-33.0	27.6	-13.1	-25.9	-40.3	27.6
3:12	-10.6	-21.1	-33.0	25.8	-10.6	-21.1	-33.0	25.8	-13.1	-25.9	-40.3	25.8
4:12	-10.6	-21.2	-33.0	24.0	-10.6	-21.2	-33.0	24.0	-13.2	-25.9	-40.3	24.0
5:12	-10.7	-21.2	-33.0	22.2	-10.7	-21.2	-33.0	22.2	-13.2	-26.0	-40.4	22.2
6:12	-10.7	-21.2	-33.1	20.5	-10.7	-21.2	-33.1	20.5	-13.2	-26.0	-40.4	20.5
7:12	-12.1	-14.7	-14.7	20.6	-12.1	-14.7	-14.7	20.6	-14.9	-18.1	-18.1	22.5
8:12	-12.1	-14.7	-14.7	19.2	-12.1	-14.7	-14.7	19.2	-14.9	-18.1	-18.1	21.1
9:12	-12.1	-14.8	-14.8	18.0	-12.1	-14.8	-14.8	18.0	-15.0	-18.1	-18.1	19.9
10:12	-12.2	-14.8	-14.8	16.9	-12.2	-14.8	-14.8	16.9	-15.0	-18.2	-18.2	18.8
11:12	-12.2	-14.8	-14.8	15.9	-12.2	-14.8	-14.8	15.9	-15.0	-18.2	-18.2	17.8
12:12	-12.3	-14.9	-14.9	15.1	-12.3	-14.9	-14.9	15.1	-15.1	-18.3	-18.3	17.1
Exposure Category C												
1:12	-14.7	-27.5	-43.5	29.3	-17.1	-31.9	-50.3	29.3	-20.0	-37.0	-58.2	29.3
2:12	-13.1	-25.9	-40.3	27.6	-15.3	-30.1	-46.6	27.6	-17.9	-34.8	-54.0	28.4
3:12	-13.1	-25.9	-40.3	25.8	-15.3	-30.1	-46.7	25.8	-17.9	-34.9	-54.0	26.6
4:12	-13.2	-25.9	-40.3	24.0	-15.4	-30.1	-46.7	24.0	-17.9	-34.9	-54.0	24.7
5:12	-13.2	-26.0	-40.4	22.2	-15.4	-30.1	-46.7	22.2	-17.9	-34.9	-54.1	22.9
6:12	-13.2	-26.0	-40.4	20.5	-15.4	-30.2	-46.8	20.5	-18.0	-35.0	-54.1	21.2
7:12	-14.9	-18.1	-18.1	22.5	-17.3	-21.0	-21.0	24.1	-20.1	-24.4	-24.4	26.0
8:12	-14.9	-18.1	-18.1	21.1	-17.4	-21.0	-21.0	22.7	-20.2	-24.4	-24.4	24.6
9:12	-15.0	-18.1	-18.1	19.9	-17.4	-21.1	-21.1	21.5	-20.2	-24.5	-24.5	23.4
10:12	-15.0	-18.2	-18.2	18.8	-17.4	-21.1	-21.1	20.4	-20.3	-24.5	-24.5	22.3
11:12	-15.0	-18.2	-18.2	17.8	-17.5	-21.2	-21.2	19.5	-20.3	-24.5	-24.5	22.0
12:12	-15.1	-18.3	-18.3	17.1	-17.5	-21.2	-21.2	19.3	-20.3	-24.6	-24.6	21.8
Exposure Category D												
1:12	-18.1	-33.6	-52.9	27.5	-20.5	-38.0	-59.8	27.5	-23.3	-43.1	-67.7	27.5
2:12	-16.2	-31.7	-49.1	26.0	-18.4	-35.8	-55.4	27.0	-20.9	-40.6	-62.8	28.0
3:12	-16.2	-31.7	-49.1	24.4	-18.4	-35.8	-55.5	25.3	-20.9	-40.6	-62.8	26.4
4:12	-16.2	-31.7	-49.1	22.7	-18.4	-35.9	-55.5	23.6	-20.9	-40.7	-62.8	24.7
5:12	-16.2	-31.7	-49.2	21.1	-18.4	-35.9	-55.5	22.0	-21.0	-40.7	-62.8	23.1
6:12	-16.3	-31.8	-49.2	19.5	-18.5	-35.9	-55.6	20.5	-21.0	-40.7	-62.9	21.5
7:12	-18.3	-22.1	-22.1	23.9	-20.7	-25.1	-25.1	25.6	-23.5	-28.4	-28.4	27.5
8:12	-18.3	-22.2	-22.2	22.7	-20.7	-25.1	-25.1	24.3	-23.6	-28.5	-28.5	26.2
9:12	-18.3	-22.2	-22.2	21.5	-20.8	-25.1	-25.1	23.2	-23.6	-28.5	-28.5	25.2
10:12	-18.4	-22.3	-22.3	20.6	-20.8	-25.2	-25.2	22.6	-23.6	-28.6	-28.6	25.1
11:12	-18.4	-22.3	-22.3	20.3	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	31.9	-11.9	-22.4	-35.6	31.9	-14.7	-27.5	-43.5	31.9
2:12	-10.6	-21.1	-33.0	30.0	-10.6	-21.1	-33.0	30.0	-13.1	-25.9	-40.3	30.0
3:12	-10.6	-21.1	-33.0	27.9	-10.6	-21.1	-33.0	27.9	-13.1	-25.9	-40.3	27.9
4:12	-10.6	-21.2	-33.0	25.8	-10.6	-21.2	-33.0	25.8	-13.2	-25.9	-40.3	25.8
5:12	-10.7	-21.2	-33.0	23.8	-10.7	-21.2	-33.0	23.8	-13.2	-26.0	-40.4	23.8
6:12	-10.7	-21.2	-33.1	21.9	-10.7	-21.2	-33.1	21.9	-13.2	-26.0	-40.4	21.9
7:12	-12.1	-14.7	-14.7	21.8	-12.1	-14.7	-14.7	21.8	-14.9	-18.1	-18.1	23.7
8:12	-12.1	-14.7	-14.7	20.2	-12.1	-14.7	-14.7	20.2	-14.9	-18.1	-18.1	22.1
9:12	-12.1	-14.8	-14.8	18.8	-12.1	-14.8	-14.8	18.8	-15.0	-18.1	-18.1	20.7
10:12	-12.2	-14.8	-14.8	17.6	-12.2	-14.8	-14.8	17.6	-15.0	-18.2	-18.2	19.5
11:12	-12.2	-14.8	-14.8	16.5	-12.2	-14.8	-14.8	16.5	-15.0	-18.2	-18.2	18.4
12:12	-12.3	-14.9	-14.9	15.6	-12.3	-14.9	-14.9	15.6	-15.1	-18.3	-18.3	17.5
Exposure Category C												
1:12	-14.7	-27.5	-43.5	31.9	-17.1	-31.9	-50.3	31.9	-20.0	-37.0	-58.2	31.9
2:12	-13.1	-25.9	-40.3	30.0	-15.3	-30.1	-46.6	30.0	-17.9	-34.8	-54.0	30.8
3:12	-13.1	-25.9	-40.3	27.9	-15.3	-30.1	-46.7	27.9	-17.9	-34.9	-54.0	28.7
4:12	-13.2	-25.9	-40.3	25.8	-15.4	-30.1	-46.7	25.8	-17.9	-34.9	-54.0	26.6
5:12	-13.2	-26.0	-40.4	23.8	-15.4	-30.1	-46.7	23.8	-17.9	-34.9	-54.1	24.6
6:12	-13.2	-26.0	-40.4	21.9	-15.4	-30.2	-46.8	21.9	-18.0	-35.0	-54.1	22.6
7:12	-14.9	-18.1	-18.1	23.7	-17.3	-21.0	-21.0	25.3	-20.1	-24.4	-24.4	27.2
8:12	-14.9	-18.1	-18.1	22.1	-17.4	-21.0	-21.0	23.8	-20.2	-24.4	-24.4	25.7
9:12	-15.0	-18.1	-18.1	20.7	-17.4	-21.1	-21.1	22.4	-20.2	-24.5	-24.5	24.3
10:12	-15.0	-18.2	-18.2	19.5	-17.4	-21.1	-21.1	21.1	-20.3	-24.5	-24.5	23.1
11:12	-15.0	-18.2	-18.2	18.4	-17.5	-21.2	-21.2	20.1	-20.3	-24.5	-24.5	22.0
12:12	-15.1	-18.3	-18.3	17.5	-17.5	-21.2	-21.2	19.3	-20.3	-24.6	-24.6	21.8
Exposure Category D												
1:12	-18.1	-33.6	-52.9	29.8	-20.5	-38.0	-59.8	29.8	-23.3	-43.1	-67.7	29.8
2:12	-16.2	-31.7	-49.1	28.2	-18.4	-35.8	-55.4	29.1	-20.9	-40.6	-62.8	30.2
3:12	-16.2	-31.7	-49.1	26.3	-18.4	-35.8	-55.5	27.2	-20.9	-40.6	-62.8	28.3
4:12	-16.2	-31.7	-49.1	24.4	-18.4	-35.9	-55.5	25.3	-20.9	-40.7	-62.8	26.4
5:12	-16.2	-31.7	-49.2	22.6	-18.4	-35.9	-55.5	23.5	-21.0	-40.7	-62.8	24.5
6:12	-16.3	-31.8	-49.2	20.8	-18.5	-35.9	-55.6	21.7	-21.0	-40.7	-62.9	22.8
7:12	-18.3	-22.1	-22.1	25.0	-20.7	-25.1	-25.1	26.7	-23.5	-28.4	-28.4	28.6
8:12	-18.3	-22.2	-22.2	23.6	-20.7	-25.1	-25.1	25.2	-23.6	-28.5	-28.5	27.1
9:12	-18.3	-22.2	-22.2	22.3	-20.8	-25.1	-25.1	24.0	-23.6	-28.5	-28.5	25.9
10:12	-18.4	-22.3	-22.3	21.2	-20.8	-25.2	-25.2	22.9	-23.6	-28.6	-28.6	25.1
11:12	-18.4	-22.3	-22.3	20.3	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
120 mph

Ground Snow Load
40 psf

Up and Down (psf)

Basic Wind Speed
120 mph
Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.9	-22.4	-35.6	35.1	-11.9	-22.4	-35.6	35.1	-14.7	-27.5	-43.5	35.1
2:12	-10.6	-21.1	-33.0	32.4	-10.6	-21.1	-33.0	32.4	-13.1	-25.9	-40.3	32.4
3:12	-10.6	-21.1	-33.0	30.1	-10.6	-21.1	-33.0	30.1	-13.1	-25.9	-40.3	30.1
4:12	-10.6	-21.2	-33.0	27.7	-10.6	-21.2	-33.0	27.7	-13.2	-25.9	-40.3	27.7
5:12	-10.7	-21.2	-33.0	25.4	-10.7	-21.2	-33.0	25.4	-13.2	-26.0	-40.4	25.4
6:12	-10.7	-21.2	-33.1	23.3	-10.7	-21.2	-33.1	23.3	-13.2	-26.0	-40.4	23.3
7:12	-12.1	-14.7	-14.7	23.0	-12.1	-14.7	-14.7	23.0	-14.9	-18.1	-18.1	24.9
8:12	-12.1	-14.7	-14.7	21.2	-12.1	-14.7	-14.7	21.2	-14.9	-18.1	-18.1	23.1
9:12	-12.1	-14.8	-14.8	19.7	-12.1	-14.8	-14.8	19.7	-15.0	-18.1	-18.1	21.6
10:12	-12.2	-14.8	-14.8	18.3	-12.2	-14.8	-14.8	18.3	-15.0	-18.2	-18.2	20.2
11:12	-12.2	-14.8	-14.8	17.1	-12.2	-14.8	-14.8	17.1	-15.0	-18.2	-18.2	19.1
12:12	-12.3	-14.9	-14.9	16.1	-12.3	-14.9	-14.9	16.1	-15.1	-18.3	-18.3	18.1
1:12	-14.7	-27.5	-43.5	35.1	-17.1	-31.9	-50.3	35.1	-20.0	-37.0	-58.2	35.1
2:12	-13.1	-25.9	-40.3	32.4	-15.3	-30.1	-46.6	32.4	-17.9	-34.8	-54.0	33.2
3:12	-13.1	-25.9	-40.3	30.1	-15.3	-30.1	-46.7	30.1	-17.9	-34.9	-54.0	30.8
4:12	-13.2	-25.9	-40.3	27.7	-15.4	-30.1	-46.7	27.7	-17.9	-34.9	-54.0	28.5
5:12	-13.2	-26.0	-40.4	25.4	-15.4	-30.1	-46.7	25.4	-17.9	-34.9	-54.1	26.2
6:12	-13.2	-26.0	-40.4	23.3	-15.4	-30.2	-46.8	23.3	-18.0	-35.0	-54.1	24.0
7:12	-14.9	-18.1	-18.1	24.9	-17.3	-21.0	-21.0	26.5	-20.1	-24.4	-24.4	28.4
8:12	-14.9	-18.1	-18.1	23.1	-17.4	-21.0	-21.0	24.8	-20.2	-24.4	-24.4	26.7
9:12	-15.0	-18.1	-18.1	21.6	-17.4	-21.1	-21.1	23.2	-20.2	-24.5	-24.5	25.1
10:12	-15.0	-18.2	-18.2	20.2	-17.4	-21.1	-21.1	21.9	-20.3	-24.5	-24.5	23.8
11:12	-15.0	-18.2	-18.2	19.1	-17.5	-21.2	-21.2	20.7	-20.3	-24.5	-24.5	22.6
12:12	-15.1	-18.3	-18.3	18.1	-17.5	-21.2	-21.2	19.7	-20.3	-24.6	-24.6	21.8
1:12	-18.1	-33.6	-52.9	32.1	-20.5	-38.0	-59.8	32.1	-23.3	-43.1	-67.7	32.1
2:12	-16.2	-31.7	-49.1	30.3	-18.4	-35.8	-55.4	31.2	-20.9	-40.6	-62.8	32.3
3:12	-16.2	-31.7	-49.1	28.2	-18.4	-35.8	-55.5	29.1	-20.9	-40.6	-62.8	30.2
4:12	-16.2	-31.7	-49.1	26.1	-18.4	-35.9	-55.5	27.0	-20.9	-40.7	-62.8	28.1
5:12	-16.2	-31.7	-49.2	24.0	-18.4	-35.9	-55.5	24.9	-21.0	-40.7	-62.8	26.0
6:12	-16.3	-31.8	-49.2	22.1	-18.5	-35.9	-55.6	23.0	-21.0	-40.7	-62.9	24.0
7:12	-18.3	-22.1	-22.1	26.1	-20.7	-25.1	-25.1	27.7	-23.5	-28.4	-28.4	29.6
8:12	-18.3	-22.2	-22.2	24.5	-20.7	-25.1	-25.1	26.1	-23.6	-28.5	-28.5	28.0
9:12	-18.3	-22.2	-22.2	23.1	-20.8	-25.1	-25.1	24.7	-23.6	-28.5	-28.5	26.6
10:12	-18.4	-22.3	-22.3	21.9	-20.8	-25.2	-25.2	23.5	-23.6	-28.6	-28.6	25.4
11:12	-18.4	-22.3	-22.3	20.8	-20.9	-25.2	-25.2	22.5	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.1	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-11.9	-22.4	-35.6	38.6	-11.9	-22.4	-35.6	38.6	-14.7	-27.5	-43.5	38.6
2:12	-10.6	-21.1	-33.0	35.5	-10.6	-21.1	-33.0	35.5	-13.1	-25.9	-40.3	35.5
3:12	-10.6	-21.1	-33.0	32.2	-10.6	-21.1	-33.0	32.2	-13.1	-25.9	-40.3	32.2
4:12	-10.6	-21.2	-33.0	29.6	-10.6	-21.2	-33.0	29.6	-13.2	-25.9	-40.3	29.6
5:12	-10.7	-21.2	-33.0	27.1	-10.7	-21.2	-33.0	27.1	-13.2	-26.0	-40.4	27.1
6:12	-10.7	-21.2	-33.1	24.7	-10.7	-21.2	-33.1	24.7	-13.2	-26.0	-40.4	24.7
7:12	-12.1	-14.7	-14.7	24.2	-12.1	-14.7	-14.7	24.2	-14.9	-18.1	-18.1	26.1
8:12	-12.1	-14.7	-14.7	22.2	-12.1	-14.7	-14.7	22.2	-14.9	-18.1	-18.1	24.1
9:12	-12.1	-14.8	-14.8	20.5	-12.1	-14.8	-14.8	20.5	-15.0	-18.1	-18.1	22.4
10:12	-12.2	-14.8	-14.8	19.0	-12.2	-14.8	-14.8	19.0	-15.0	-18.2	-18.2	20.9
11:12	-12.2	-14.8	-14.8	17.8	-12.2	-14.8	-14.8	17.8	-15.0	-18.2	-18.2	19.7
12:12	-12.3	-14.9	-14.9	16.7	-12.3	-14.9	-14.9	16.7	-15.1	-18.3	-18.3	18.6
1:12	-14.7	-27.5	-43.5	38.6	-17.1	-31.9	-50.3	38.6	-20.0	-37.0	-58.2	38.6
2:12	-13.1	-25.9	-40.3	35.5	-15.3	-30.1	-46.6	35.5	-17.9	-34.8	-54.0	35.5
3:12	-13.1	-25.9	-40.3	32.2	-15.3	-30.1	-46.7	32.2	-17.9	-34.9	-54.0	33.0
4:12	-13.2	-25.9	-40.3	29.6	-15.4	-30.1	-46.7	29.6	-17.9	-34.9	-54.0	30.4
5:12	-13.2	-26.0	-40.4	27.1	-15.4	-30.1	-46.7	27.1	-17.9	-34.9	-54.1	27.8
6:12	-13.2	-26.0	-40.4	24.7	-15.4	-30.2	-46.8	24.7	-18.0	-35.0	-54.1	25.4
7:12	-14.9	-18.1	-18.1	26.1	-17.3	-21.0	-21.0	27.7	-20.1	-24.4	-24.4	29.6
8:12	-14.9	-18.1	-18.1	24.1	-17.4	-21.0	-21.0	25.8	-20.2	-24.4	-24.4	27.7
9:12	-15.0	-18.1	-18.1	22.4	-17.4	-21.1	-21.1	24.1	-20.2	-24.5	-24.5	26.0
10:12	-15.0	-18.2	-18.2	20.9	-17.4	-21.1	-21.1	22.6	-20.3	-24.5	-24.5	24.5
11:12	-15.0	-18.2	-18.2	19.7	-17.5	-21.2	-21.2	21.3	-20.3	-24.5	-24.5	23.2
12:12	-15.1	-18.3	-18.3	18.6	-17.5	-21.2	-21.2	20.2	-20.3	-24.6	-24.6	22.1
1:12	-18.1	-33.6	-52.9	35.1	-20.5	-38.0	-59.8	35.1	-23.3	-43.1	-67.7	35.1
2:12	-16.2	-31.7	-49.1	32.5	-18.4	-35.8	-55.4	33.4	-20.9	-40.6	-62.8	34.4
3:12	-16.2	-31.7	-49.1	30.1	-18.4	-35.8	-55.5	31.1	-20.9	-40.6	-62.8	32.1
4:12	-16.2	-31.7	-49.1	27.8	-18.4	-35.9	-55.5	28.7	-20.9	-40.7	-62.8	29.8
5:12	-16.2	-31.7	-49.2	25.5	-18.4	-35.9	-55.5	26.4	-21.0	-40.7	-62.8	27.5
6:12	-16.3	-31.8	-49.2	23.3	-18.5	-35.9	-55.6	24.2	-21.0	-40.7	-62.9	25.3
7:12	-18.3	-22.1	-22.1	27.2	-20.7	-25.1	-25.1	28.8	-23.5	-28.4	-28.4	30.7
8:12	-18.3	-22.2	-22.2	25.4	-20.7	-25.1	-25.1	27.1	-23.6	-28.5	-28.5	29.0
9:12	-18.3	-22.2	-22.2	23.9	-20.8	-25.1	-25.1	25.5	-23.6	-28.5	-28.5	27.4
10:12	-18.4	-22.3	-22.3	22.5	-20.8	-25.2	-25.2	24.2	-23.6	-28.6	-28.6	26.1
11:12	-18.4	-22.3	-22.3	21.3	-20.9	-25.2	-25.2	23.0	-23.7	-28.6	-28.6	25.0
12:12	-18.5	-22.3	-22.3	20.3	-20.9	-25.3	-25.3	22.3	-23.7	-28.6	-28.6	24.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
120 mph
Ground Snow Load
50 psf

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	45.5	-11.9	-22.4	-35.6	45.5	-14.7	-27.5	-43.5	45.5
2:12	-10.6	-21.1	-33.0	41.9	-10.6	-21.1	-33.0	41.9	-13.1	-25.9	-40.3	41.9
3:12	-10.6	-21.1	-33.0	37.8	-10.6	-21.1	-33.0	37.8	-13.1	-25.9	-40.3	37.8
4:12	-10.6	-21.2	-33.0	33.6	-10.6	-21.2	-33.0	33.6	-13.2	-25.9	-40.3	33.6
5:12	-10.7	-21.2	-33.0	30.3	-10.7	-21.2	-33.0	30.3	-13.2	-26.0	-40.4	30.3
6:12	-10.7	-21.2	-33.1	27.5	-10.7	-21.2	-33.1	27.5	-13.2	-26.0	-40.4	27.5
7:12	-12.1	-14.7	-14.7	26.6	-12.1	-14.7	-14.7	26.6	-14.9	-18.1	-18.1	28.5
8:12	-12.1	-14.7	-14.7	24.3	-12.1	-14.7	-14.7	24.3	-14.9	-18.1	-18.1	26.2
9:12	-12.1	-14.8	-14.8	22.2	-12.1	-14.8	-14.8	22.2	-15.0	-18.1	-18.1	24.1
10:12	-12.2	-14.8	-14.8	20.5	-12.2	-14.8	-14.8	20.5	-15.0	-18.2	-18.2	22.4
11:12	-12.2	-14.8	-14.8	19.0	-12.2	-14.8	-14.8	19.0	-15.0	-18.2	-18.2	20.9
12:12	-12.3	-14.9	-14.9	17.7	-12.3	-14.9	-14.9	17.7	-15.1	-18.3	-18.3	19.6
Exposure Category C												
1:12	-14.7	-27.5	-43.5	45.5	-17.1	-31.9	-50.3	45.5	-20.0	-37.0	-58.2	45.5
2:12	-13.1	-25.9	-40.3	41.9	-15.3	-30.1	-46.6	41.9	-17.9	-34.8	-54.0	41.9
3:12	-13.1	-25.9	-40.3	37.8	-15.3	-30.1	-46.7	37.8	-17.9	-34.9	-54.0	37.8
4:12	-13.2	-25.9	-40.3	33.6	-15.4	-30.1	-46.7	33.6	-17.9	-34.9	-54.0	34.1
5:12	-13.2	-26.0	-40.4	30.3	-15.4	-30.1	-46.7	30.3	-17.9	-34.9	-54.1	31.1
6:12	-13.2	-26.0	-40.4	27.5	-15.4	-30.2	-46.8	27.5	-18.0	-35.0	-54.1	28.2
7:12	-14.9	-18.1	-18.1	28.5	-17.3	-21.0	-21.0	30.1	-20.1	-24.4	-24.4	32.0
8:12	-14.9	-18.1	-18.1	26.2	-17.4	-21.0	-21.0	27.8	-20.2	-24.4	-24.4	29.7
9:12	-15.0	-18.1	-18.1	24.1	-17.4	-21.1	-21.1	25.8	-20.2	-24.5	-24.5	27.7
10:12	-15.0	-18.2	-18.2	22.4	-17.4	-21.1	-21.1	24.0	-20.3	-24.5	-24.5	25.9
11:12	-15.0	-18.2	-18.2	20.9	-17.5	-21.2	-21.2	22.5	-20.3	-24.5	-24.5	24.4
12:12	-15.1	-18.3	-18.3	19.6	-17.5	-21.2	-21.2	21.2	-20.3	-24.6	-24.6	23.1
Exposure Category D												
1:12	-18.1	-33.6	-52.9	41.4	-20.5	-38.0	-59.8	41.4	-23.3	-43.1	-67.7	41.4
2:12	-16.2	-31.7	-49.1	38.0	-18.4	-35.8	-55.4	38.0	-20.9	-40.6	-62.8	38.7
3:12	-16.2	-31.7	-49.1	34.4	-18.4	-35.8	-55.5	34.9	-20.9	-40.6	-62.8	35.9
4:12	-16.2	-31.7	-49.1	31.2	-18.4	-35.9	-55.5	32.1	-20.9	-40.7	-62.8	33.1
5:12	-16.2	-31.7	-49.2	28.4	-18.4	-35.9	-55.5	29.3	-21.0	-40.7	-62.8	30.4
6:12	-16.3	-31.8	-49.2	25.9	-18.5	-35.9	-55.6	26.8	-21.0	-40.7	-62.9	27.8
7:12	-18.3	-22.1	-22.1	29.3	-20.7	-25.1	-25.1	31.0	-23.5	-28.4	-28.4	32.9
8:12	-18.3	-22.2	-22.2	27.2	-20.7	-25.1	-25.1	28.9	-23.6	-28.5	-28.5	30.8
9:12	-18.3	-22.2	-22.2	25.4	-20.8	-25.1	-25.1	27.0	-23.6	-28.5	-28.5	29.0
10:12	-18.4	-22.3	-22.3	23.8	-20.8	-25.2	-25.2	25.4	-23.6	-28.6	-28.6	27.4
11:12	-18.4	-22.3	-22.3	22.4	-20.9	-25.2	-25.2	24.1	-23.7	-28.6	-28.6	26.0
12:12	-18.5	-22.3	-22.3	21.2	-20.9	-25.3	-25.3	22.9	-23.7	-28.6	-28.6	24.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
120 mph

Ground Snow Load
60 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-11.9	-22.4	-35.6	52.5	-11.9	-22.4	-35.6	52.5	-14.7	-27.5	-43.5	52.5
2:12	-10.6	-21.1	-33.0	48.2	-10.6	-21.1	-33.0	48.2	-13.1	-25.9	-40.3	48.2
3:12	-10.6	-21.1	-33.0	43.4	-10.6	-21.1	-33.0	43.4	-13.1	-25.9	-40.3	43.4
4:12	-10.6	-21.2	-33.0	38.6	-10.6	-21.2	-33.0	38.6	-13.2	-25.9	-40.3	38.6
5:12	-10.7	-21.2	-33.0	34.0	-10.7	-21.2	-33.0	34.0	-13.2	-26.0	-40.4	34.0
6:12	-10.7	-21.2	-33.1	30.3	-10.7	-21.2	-33.1	30.3	-13.2	-26.0	-40.4	30.3
7:12	-12.1	-14.7	-14.7	29.0	-12.1	-14.7	-14.7	29.0	-14.9	-18.1	-18.1	30.9
8:12	-12.1	-14.7	-14.7	26.3	-12.1	-14.7	-14.7	26.3	-14.9	-18.1	-18.1	28.2
9:12	-12.1	-14.8	-14.8	23.9	-12.1	-14.8	-14.8	23.9	-15.0	-18.1	-18.1	25.9
10:12	-12.2	-14.8	-14.8	21.9	-12.2	-14.8	-14.8	21.9	-15.0	-18.2	-18.2	23.8
11:12	-12.2	-14.8	-14.8	20.2	-12.2	-14.8	-14.8	20.2	-15.0	-18.2	-18.2	22.1
12:12	-12.3	-14.9	-14.9	18.7	-12.3	-14.9	-14.9	18.7	-15.1	-18.3	-18.3	20.6
Exposure Category C												
1:12	-14.7	-27.5	-43.5	52.5	-17.1	-31.9	-50.3	52.5	-20.0	-37.0	-58.2	52.5
2:12	-13.1	-25.9	-40.3	48.2	-15.3	-30.1	-46.6	48.2	-17.9	-34.8	-54.0	48.2
3:12	-13.1	-25.9	-40.3	43.4	-15.3	-30.1	-46.7	43.4	-17.9	-34.9	-54.0	43.4
4:12	-13.2	-25.9	-40.3	38.6	-15.4	-30.1	-46.7	38.6	-17.9	-34.9	-54.0	38.6
5:12	-13.2	-26.0	-40.4	34.0	-15.4	-30.1	-46.7	34.0	-17.9	-34.9	-54.1	34.3
6:12	-13.2	-26.0	-40.4	30.3	-15.4	-30.2	-46.8	30.3	-18.0	-35.0	-54.1	31.1
7:12	-14.9	-18.1	-18.1	30.9	-17.3	-21.0	-21.0	32.5	-20.1	-24.4	-24.4	34.4
8:12	-14.9	-18.1	-18.1	28.2	-17.4	-21.0	-21.0	29.9	-20.2	-24.4	-24.4	31.8
9:12	-15.0	-18.1	-18.1	25.9	-17.4	-21.1	-21.1	27.5	-20.2	-24.5	-24.5	29.4
10:12	-15.0	-18.2	-18.2	23.8	-17.4	-21.1	-21.1	25.5	-20.3	-24.5	-24.5	27.4
11:12	-15.0	-18.2	-18.2	22.1	-17.5	-21.2	-21.2	23.7	-20.3	-24.5	-24.5	25.6
12:12	-15.1	-18.3	-18.3	20.6	-17.5	-21.2	-21.2	22.2	-20.3	-24.6	-24.6	24.1
Exposure Category D												
1:12	-18.1	-33.6	-52.9	47.6	-20.5	-38.0	-59.8	47.6	-23.3	-43.1	-67.7	47.6
2:12	-16.2	-31.7	-49.1	43.8	-18.4	-35.8	-55.4	43.8	-20.9	-40.6	-62.8	43.8
3:12	-16.2	-31.7	-49.1	39.5	-18.4	-35.8	-55.5	39.5	-20.9	-40.6	-62.8	39.8
4:12	-16.2	-31.7	-49.1	35.1	-18.4	-35.9	-55.5	35.4	-20.9	-40.7	-62.8	36.5
5:12	-16.2	-31.7	-49.2	31.4	-18.4	-35.9	-55.5	32.3	-21.0	-40.7	-62.8	33.3
6:12	-16.3	-31.8	-49.2	28.4	-18.5	-35.9	-55.6	29.3	-21.0	-40.7	-62.9	30.4
7:12	-18.3	-22.1	-22.1	31.5	-20.7	-25.1	-25.1	33.1	-23.5	-28.4	-28.4	35.0
8:12	-18.3	-22.2	-22.2	29.1	-20.7	-25.1	-25.1	30.7	-23.6	-28.5	-28.5	32.6
9:12	-18.3	-22.2	-22.2	26.9	-20.8	-25.1	-25.1	28.6	-23.6	-28.5	-28.5	30.5
10:12	-18.4	-22.3	-22.3	25.1	-20.8	-25.2	-25.2	26.7	-23.6	-28.6	-28.6	28.6
11:12	-18.4	-22.3	-22.3	23.5	-20.9	-25.2	-25.2	25.2	-23.7	-28.6	-28.6	27.1
12:12	-18.5	-22.3	-22.3	22.2	-20.9	-25.3	-25.3	23.8	-23.7	-28.6	-28.6	25.7

Basic Wind Speed **120 mph**
Ground Snow Load **70 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Basic Wind Speed
120 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-11.9	-22.4	-35.6	59.4	-11.9	-22.4	-35.6	59.4	-14.7	-27.5	-43.5	59.4
	2:12	-10.6	-21.1	-33.0	54.5	-10.6	-21.1	-33.0	54.5	-13.1	-25.9	-40.3	54.5
	3:12	-10.6	-21.1	-33.0	49.1	-10.6	-21.1	-33.0	49.1	-13.1	-25.9	-40.3	49.1
	4:12	-10.6	-21.2	-33.0	43.6	-10.6	-21.2	-33.0	43.6	-13.2	-25.9	-40.3	43.6
	5:12	-10.7	-21.2	-33.0	38.3	-10.7	-21.2	-33.0	38.3	-13.2	-26.0	-40.4	38.3
	6:12	-10.7	-21.2	-33.1	33.4	-10.7	-21.2	-33.1	33.4	-13.2	-26.0	-40.4	33.4
	7:12	-12.1	-14.7	-14.7	31.4	-12.1	-14.7	-14.7	31.4	-14.9	-18.1	-18.1	33.3
	8:12	-12.1	-14.7	-14.7	28.3	-12.1	-14.7	-14.7	28.3	-14.9	-18.1	-18.1	30.2
	9:12	-12.1	-14.8	-14.8	25.7	-12.1	-14.8	-14.8	25.7	-15.0	-18.1	-18.1	27.6
	10:12	-12.2	-14.8	-14.8	23.4	-12.2	-14.8	-14.8	23.4	-15.0	-18.2	-18.2	25.3
	11:12	-12.2	-14.8	-14.8	21.4	-12.2	-14.8	-14.8	21.4	-15.0	-18.2	-18.2	23.3
	12:12	-12.3	-14.9	-14.9	19.7	-12.3	-14.9	-14.9	19.7	-15.1	-18.3	-18.3	21.6
Exposure Category C	1:12	-14.7	-27.5	-43.5	59.4	-17.1	-31.9	-50.3	59.4	-20.0	-37.0	-58.2	59.4
	2:12	-13.1	-25.9	-40.3	54.5	-15.3	-30.1	-46.6	54.5	-17.9	-34.8	-54.0	54.5
	3:12	-13.1	-25.9	-40.3	49.1	-15.3	-30.1	-46.7	49.1	-17.9	-34.9	-54.0	49.1
	4:12	-13.2	-25.9	-40.3	43.6	-15.4	-30.1	-46.7	43.6	-17.9	-34.9	-54.0	43.6
	5:12	-13.2	-26.0	-40.4	38.3	-15.4	-30.1	-46.7	38.3	-17.9	-34.9	-54.1	38.3
	6:12	-13.2	-26.0	-40.4	33.4	-15.4	-30.2	-46.8	33.4	-18.0	-35.0	-54.1	33.9
	7:12	-14.9	-18.1	-18.1	33.3	-17.3	-21.0	-21.0	34.9	-20.1	-24.4	-24.4	36.8
	8:12	-14.9	-18.1	-18.1	30.2	-17.4	-21.0	-21.0	31.9	-20.2	-24.4	-24.4	33.8
	9:12	-15.0	-18.1	-18.1	27.6	-17.4	-21.1	-21.1	29.2	-20.2	-24.5	-24.5	31.1
	10:12	-15.0	-18.2	-18.2	25.3	-17.4	-21.1	-21.1	26.9	-20.3	-24.5	-24.5	28.8
	11:12	-15.0	-18.2	-18.2	23.3	-17.5	-21.2	-21.2	24.9	-20.3	-24.5	-24.5	26.8
	12:12	-15.1	-18.3	-18.3	21.6	-17.5	-21.2	-21.2	23.2	-20.3	-24.6	-24.6	25.1
Exposure Category D	1:12	-18.1	-33.6	-52.9	53.9	-20.5	-38.0	-59.8	53.9	-23.3	-43.1	-67.7	53.9
	2:12	-16.2	-31.7	-49.1	49.5	-18.4	-35.8	-55.4	49.5	-20.9	-40.6	-62.8	49.5
	3:12	-16.2	-31.7	-49.1	44.6	-18.4	-35.8	-55.5	44.6	-20.9	-40.6	-62.8	44.6
	4:12	-16.2	-31.7	-49.1	39.6	-18.4	-35.9	-55.5	39.6	-20.9	-40.7	-62.8	39.9
	5:12	-16.2	-31.7	-49.2	34.9	-18.4	-35.9	-55.5	35.2	-21.0	-40.7	-62.8	36.3
	6:12	-16.3	-31.8	-49.2	30.9	-18.5	-35.9	-55.6	31.8	-21.0	-40.7	-62.9	32.9
	7:12	-18.3	-22.1	-22.1	33.6	-20.7	-25.1	-25.1	35.3	-23.5	-28.4	-28.4	37.2
	8:12	-18.3	-22.2	-22.2	30.9	-20.7	-25.1	-25.1	32.5	-23.6	-28.5	-28.5	34.4
	9:12	-18.3	-22.2	-22.2	28.5	-20.8	-25.1	-25.1	30.1	-23.6	-28.5	-28.5	32.0
	10:12	-18.4	-22.3	-22.3	26.4	-20.8	-25.2	-25.2	28.0	-23.6	-28.6	-28.6	29.9
	11:12	-18.4	-22.3	-22.3	24.6	-20.9	-25.2	-25.2	26.2	-23.7	-28.6	-28.6	28.1
	12:12	-18.5	-22.3	-22.3	23.1	-20.9	-25.3	-25.3	24.7	-23.7	-28.6	-28.6	26.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
	2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
	3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
	4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
	5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
	6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
	7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
	8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
	9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
	10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
	11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-11.9	-22.4	-35.6	66.4	-11.9	-22.4	-35.6	66.4	-14.7	-27.5	-43.5	66.4
	2:12	-10.6	-21.1	-33.0	60.9	-10.6	-21.1	-33.0	60.9	-13.1	-25.9	-40.3	60.9
	3:12	-10.6	-21.1	-33.0	54.8	-10.6	-21.1	-33.0	54.8	-13.1	-25.9	-40.3	54.8
	4:12	-10.6	-21.2	-33.0	48.6	-10.6	-21.2	-33.0	48.6	-13.2	-25.9	-40.3	48.6
	5:12	-10.7	-21.2	-33.0	42.7	-10.7	-21.2	-33.0	42.7	-13.2	-26.0	-40.4	42.7
	6:12	-10.7	-21.2	-33.1	37.1	-10.7	-21.2	-33.1	37.1	-13.2	-26.0	-40.4	37.1
	7:12	-12.1	-14.7	-14.7	33.8	-12.1	-14.7	-14.7	33.8	-14.9	-18.1	-18.1	35.7
	8:12	-12.1	-14.7	-14.7	30.4	-12.1	-14.7	-14.7	30.4	-14.9	-18.1	-18.1	32.3
	9:12	-12.1	-14.8	-14.8	27.4	-12.1	-14.8	-14.8	27.4	-15.0	-18.1	-18.1	29.3
	10:12	-12.2	-14.8	-14.8	24.8	-12.2	-14.8	-14.8	24.8	-15.0	-18.2	-18.2	26.7
	11:12	-12.2	-14.8	-14.8	22.6	-12.2	-14.8	-14.8	22.6	-15.0	-18.2	-18.2	24.5
	12:12	-12.3	-14.9	-14.9	20.7	-12.3	-14.9	-14.9	20.7	-15.1	-18.3	-18.3	22.6
Exposure Category C	1:12	-14.7	-27.5	-43.5	66.4	-17.1	-31.9	-50.3	66.4	-20.0	-37.0	-58.2	66.4
	2:12	-13.1	-25.9	-40.3	60.9	-15.3	-30.1	-46.6	60.9	-17.9	-34.8	-54.0	60.9
	3:12	-13.1	-25.9	-40.3	54.8	-15.3	-30.1	-46.7	54.8	-17.9	-34.9	-54.0	54.8
	4:12	-13.2	-25.9	-40.3	48.6	-15.4	-30.1	-46.7	48.6	-17.9	-34.9	-54.0	48.6
	5:12	-13.2	-26.0	-40.4	42.7	-15.4	-30.1	-46.7	42.7	-17.9	-34.9	-54.1	42.7
	6:12	-13.2	-26.0	-40.4	37.1	-15.4	-30.2	-46.8	37.1	-18.0	-35.0	-54.1	37.1
	7:12	-14.9	-18.1	-18.1	35.7	-17.3	-21.0	-21.0	37.3	-20.1	-24.4	-24.4	39.2
	8:12	-14.9	-18.1	-18.1	32.3	-17.4	-21.0	-21.0	33.9	-20.2	-24.4	-24.4	35.8
	9:12	-15.0	-18.1	-18.1	29.3	-17.4	-21.1	-21.1	30.9	-20.2	-24.5	-24.5	32.8
	10:12	-15.0	-18.2	-18.2	26.7	-17.4	-21.1	-21.1	28.3	-20.3	-24.5	-24.5	30.2
	11:12	-15.0	-18.2	-18.2	24.5	-17.5	-21.2	-21.2	26.1	-20.3	-24.5	-24.5	28.0
	12:12	-15.1	-18.3	-18.3	22.6	-17.5	-21.2	-21.2	24.2	-20.3	-24.6	-24.6	26.1
Exposure Category D	1:12	-18.1	-33.6	-52.9	60.1	-20.5	-38.0	-59.8	60.1	-23.3	-43.1	-67.7	60.1
	2:12	-16.2	-31.7	-49.1	55.2	-18.4	-35.8	-55.4	55.2	-20.9	-40.6	-62.8	55.2
	3:12	-16.2	-31.7	-49.1	49.7	-18.4	-35.8	-55.5	49.7	-20.9	-40.6	-62.8	49.7
	4:12	-16.2	-31.7	-49.1	44.1	-18.4	-35.9	-55.5	44.1	-20.9	-40.7	-62.8	44.1
	5:12	-16.2	-31.7	-49.2	38.8	-18.4	-35.9	-55.5	38.8	-21.0	-40.7	-62.8	39.2
	6:12	-16.3	-31.8	-49.2	33.8	-18.5	-35.9	-55.6	34.4	-21.0	-40.7	-62.9	35.4
	7:12	-18.3	-22.1	-22.1	35.8	-20.7	-25.1	-25.1	37.4	-23.5	-28.4	-28.4	39.3
	8:12	-18.3	-22.2	-22.2	32.7	-20.7	-25.1	-25.1	34.4	-23.6	-28.5	-28.5	36.3
	9:12	-18.3	-22.2	-22.2	30.0	-20.8	-25.1	-25.1	31.7	-23.6	-28.5	-28.5	33.6
	10:12	-18.4	-22.3	-22.3	27.7	-20.8	-25.2	-25.2	29.3	-23.6	-28.6	-28.6	31.2
	11:12	-18.4	-22.3	-22.3	25.7	-20.9	-25.2	-25.2	27.3	-23.7	-28.6	-28.6	29.2
	12:12	-18.5	-22.3	-22.3	24.0	-20.9	-25.3	-25.3	25.6	-23.7	-28.6	-28.6	27.5
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
	2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
	3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
	4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
	6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
	7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
	8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
	9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
	10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
	11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
120 mph

Ground Snow Load
90 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-11.9	-22.4	-35.6	73.4	-11.9	-22.4	-35.6	73.4	-14.7	-27.5	-43.5	73.4
	2:12	-10.6	-21.1	-33.0	67.2	-10.6	-21.1	-33.0	67.2	-13.1	-25.9	-40.3	67.2
	3:12	-10.6	-21.1	-33.0	60.5	-10.6	-21.1	-33.0	60.5	-13.1	-25.9	-40.3	60.5
	4:12	-10.6	-21.2	-33.0	53.6	-10.6	-21.2	-33.0	53.6	-13.2	-25.9	-40.3	53.6
	5:12	-10.7	-21.2	-33.0	47.0	-10.7	-21.2	-33.0	47.0	-13.2	-26.0	-40.4	47.0
	6:12	-10.7	-21.2	-33.1	40.9	-10.7	-21.2	-33.1	40.9	-13.2	-26.0	-40.4	40.9
	7:12	-12.1	-14.7	-14.7	36.2	-12.1	-14.7	-14.7	36.2	-14.9	-18.1	-18.1	38.1
	8:12	-12.1	-14.7	-14.7	32.4	-12.1	-14.7	-14.7	32.4	-14.9	-18.1	-18.1	34.3
	9:12	-12.1	-14.8	-14.8	29.1	-12.1	-14.8	-14.8	29.1	-15.0	-18.1	-18.1	31.0
	10:12	-12.2	-14.8	-14.8	26.2	-12.2	-14.8	-14.8	26.2	-15.0	-18.2	-18.2	28.1
	11:12	-12.2	-14.8	-14.8	23.8	-12.2	-14.8	-14.8	23.8	-15.0	-18.2	-18.2	25.7
	12:12	-12.3	-14.9	-14.9	21.7	-12.3	-14.9	-14.9	21.7	-15.1	-18.3	-18.3	23.6
Exposure Category C	1:12	-14.7	-27.5	-43.5	73.4	-17.1	-31.9	-50.3	73.4	-20.0	-37.0	-58.2	73.4
	2:12	-13.1	-25.9	-40.3	67.2	-15.3	-30.1	-46.6	67.2	-17.9	-34.8	-54.0	67.2
	3:12	-13.1	-25.9	-40.3	60.5	-15.3	-30.1	-46.7	60.5	-17.9	-34.9	-54.0	60.5
	4:12	-13.2	-25.9	-40.3	53.6	-15.4	-30.1	-46.7	53.6	-17.9	-34.9	-54.0	53.6
	5:12	-13.2	-26.0	-40.4	47.0	-15.4	-30.1	-46.7	47.0	-17.9	-34.9	-54.1	47.0
	6:12	-13.2	-26.0	-40.4	40.9	-15.4	-30.2	-46.8	40.9	-18.0	-35.0	-54.1	40.9
	7:12	-14.9	-18.1	-18.1	38.1	-17.3	-21.0	-21.0	39.7	-20.1	-24.4	-24.4	41.6
	8:12	-14.9	-18.1	-18.1	34.3	-17.4	-21.0	-21.0	35.9	-20.2	-24.4	-24.4	37.8
	9:12	-15.0	-18.1	-18.1	31.0	-17.4	-21.1	-21.1	32.6	-20.2	-24.5	-24.5	34.5
	10:12	-15.0	-18.2	-18.2	28.1	-17.4	-21.1	-21.1	29.8	-20.3	-24.5	-24.5	31.7
	11:12	-15.0	-18.2	-18.2	25.7	-17.5	-21.2	-21.2	27.3	-20.3	-24.5	-24.5	29.2
	12:12	-15.1	-18.3	-18.3	23.6	-17.5	-21.2	-21.2	25.3	-20.3	-24.6	-24.6	27.2
Exposure Category D	1:12	-18.1	-33.6	-52.9	66.4	-20.5	-38.0	-59.8	66.4	-23.3	-43.1	-67.7	66.4
	2:12	-16.2	-31.7	-49.1	60.9	-18.4	-35.8	-55.4	60.9	-20.9	-40.6	-62.8	60.9
	3:12	-16.2	-31.7	-49.1	54.8	-18.4	-35.8	-55.5	54.8	-20.9	-40.6	-62.8	54.8
	4:12	-16.2	-31.7	-49.1	48.6	-18.4	-35.9	-55.5	48.6	-20.9	-40.7	-62.8	48.6
	5:12	-16.2	-31.7	-49.2	42.7	-18.4	-35.9	-55.5	42.7	-21.0	-40.7	-62.8	42.7
	6:12	-16.3	-31.8	-49.2	37.1	-18.5	-35.9	-55.6	37.1	-21.0	-40.7	-62.9	37.9
	7:12	-18.3	-22.1	-22.1	38.0	-20.7	-25.1	-25.1	39.6	-23.5	-28.4	-28.4	41.5
	8:12	-18.3	-22.2	-22.2	34.5	-20.7	-25.1	-25.1	36.2	-23.6	-28.5	-28.5	38.1
	9:12	-18.3	-22.2	-22.2	31.6	-20.8	-25.1	-25.1	33.2	-23.6	-28.5	-28.5	35.1
	10:12	-18.4	-22.3	-22.3	29.0	-20.8	-25.2	-25.2	30.6	-23.6	-28.6	-28.6	32.5
	11:12	-18.4	-22.3	-22.3	26.8	-20.9	-25.2	-25.2	28.4	-23.7	-28.6	-28.6	30.3
	12:12	-18.5	-22.3	-22.3	24.9	-20.9	-25.3	-25.3	26.5	-23.7	-28.6	-28.6	28.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
	2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
	3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
	4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
	5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
	6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
	7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
	8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
	9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
	10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
	11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
120 mph

Ground Snow Load
100 psf

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-13.0	-24.4	-38.7	13.4	-13.0	-24.4	-38.7	13.4	-16.1	-29.9	-47.3	13.4
2:12	-11.6	-23.0	-35.9	13.4	-11.6	-23.0	-35.9	13.4	-14.3	-28.2	-43.8	13.4
3:12	-11.6	-23.0	-35.9	13.3	-11.6	-23.0	-35.9	13.3	-14.4	-28.2	-43.8	13.3
4:12	-11.6	-23.1	-35.9	13.2	-11.6	-23.1	-35.9	13.2	-14.4	-28.3	-43.9	13.2
5:12	-11.7	-23.1	-35.9	13.2	-11.7	-23.1	-35.9	13.2	-14.4	-28.3	-43.9	13.2
6:12	-11.7	-23.1	-36.0	13.0	-11.7	-23.1	-36.0	13.0	-14.5	-28.3	-43.9	13.0
7:12	-13.2	-16.0	-16.0	16.2	-13.2	-16.0	-16.0	16.2	-16.2	-19.7	-19.7	18.9
8:12	-13.2	-16.1	-16.1	16.1	-13.2	-16.1	-16.1	16.1	-16.3	-19.7	-19.7	18.8
9:12	-13.3	-16.1	-16.1	15.9	-13.3	-16.1	-16.1	15.9	-16.3	-19.8	-19.8	18.7
10:12	-13.3	-16.1	-16.1	15.8	-13.3	-16.1	-16.1	15.8	-16.4	-19.8	-19.8	18.6
11:12	-13.3	-16.2	-16.2	15.7	-13.3	-16.2	-16.2	15.7	-16.4	-19.9	-19.9	18.4
12:12	-13.4	-16.2	-16.2	15.6	-13.4	-16.2	-16.2	15.6	-16.4	-19.9	-19.9	18.3
Exposure Category C												
1:12	-16.1	-29.9	-47.3	13.4	-18.7	-34.7	-54.7	13.4	-21.8	-40.2	-63.3	13.4
2:12	-14.3	-28.2	-43.8	13.4	-16.7	-32.7	-50.7	13.8	-19.5	-37.9	-58.7	15.3
3:12	-14.4	-28.2	-43.8	13.3	-16.7	-32.7	-50.7	13.7	-19.5	-37.9	-58.7	15.3
4:12	-14.4	-28.3	-43.9	13.2	-16.8	-32.8	-50.8	13.6	-19.5	-38.0	-58.7	15.2
5:12	-14.4	-28.3	-43.9	13.2	-16.8	-32.8	-50.8	13.5	-19.6	-38.0	-58.7	15.1
6:12	-14.5	-28.3	-43.9	13.0	-16.8	-32.8	-50.8	13.4	-19.6	-38.0	-58.8	15.0
7:12	-16.2	-19.7	-19.7	18.9	-18.9	-22.9	-22.9	21.3	-21.9	-26.6	-26.6	24.1
8:12	-16.3	-19.7	-19.7	18.8	-18.9	-22.9	-22.9	21.2	-22.0	-26.6	-26.6	23.9
9:12	-16.3	-19.8	-19.8	18.7	-19.0	-23.0	-23.0	21.1	-22.0	-26.6	-26.6	23.8
10:12	-16.4	-19.8	-19.8	18.6	-19.0	-23.0	-23.0	20.9	-22.1	-26.7	-26.7	23.7
11:12	-16.4	-19.9	-19.9	18.4	-19.0	-23.0	-23.0	20.8	-22.1	-26.7	-26.7	23.6
12:12	-16.4	-19.9	-19.9	18.3	-19.1	-23.1	-23.1	20.7	-22.1	-26.8	-26.8	23.5
Exposure Category D												
1:12	-19.7	-36.5	-57.6	13.4	-22.4	-41.3	-65.0	13.4	-25.4	-46.8	-73.5	13.4
2:12	-17.6	-34.5	-53.4	14.3	-20.0	-39.0	-60.3	15.6	-22.8	-44.2	-68.2	17.2
3:12	-17.7	-34.5	-53.4	14.2	-20.1	-39.0	-60.3	15.6	-22.8	-44.2	-68.2	17.1
4:12	-17.7	-34.5	-53.4	14.2	-20.1	-39.0	-60.3	15.5	-22.8	-44.2	-68.3	17.0
5:12	-17.7	-34.5	-53.4	14.1	-20.1	-39.0	-60.3	15.4	-22.9	-44.2	-68.3	16.9
6:12	-17.8	-34.6	-53.5	13.9	-20.1	-39.1	-60.4	15.3	-22.9	-44.3	-68.3	16.8
7:12	-19.9	-24.1	-24.1	22.2	-22.6	-27.3	-27.3	24.6	-25.6	-31.0	-31.0	27.4
8:12	-19.9	-24.1	-24.1	22.1	-22.6	-27.3	-27.3	24.5	-25.7	-31.0	-31.0	27.3
9:12	-20.0	-24.2	-24.2	22.0	-22.6	-27.4	-27.4	24.4	-25.7	-31.0	-31.0	27.1
10:12	-20.0	-24.2	-24.2	21.9	-22.7	-27.4	-27.4	24.3	-25.7	-31.1	-31.1	27.0
11:12	-20.1	-24.3	-24.3	21.7	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **125 mph**

Ground Snow Load **0 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-13.0	-24.4	-38.7	14.8	-13.0	-24.4	-38.7	14.8	-16.1	-29.9	-47.3	14.8
2:12	-11.6	-23.0	-35.9	14.4	-11.6	-23.0	-35.9	14.4	-14.3	-28.2	-43.8	14.4
3:12	-11.6	-23.0	-35.9	14.0	-11.6	-23.0	-35.9	14.0	-14.4	-28.2	-43.8	14.0
4:12	-11.6	-23.1	-35.9	13.2	-11.6	-23.1	-35.9	13.2	-14.4	-28.3	-43.9	13.2
5:12	-11.7	-23.1	-35.9	13.2	-11.7	-23.1	-35.9	13.2	-14.4	-28.3	-43.9	13.2
6:12	-11.7	-23.1	-36.0	13.0	-11.7	-23.1	-36.0	13.0	-14.5	-28.3	-43.9	13.0
7:12	-13.2	-16.0	-16.0	16.2	-13.2	-16.0	-16.0	16.2	-16.2	-19.7	-19.7	18.9
8:12	-13.2	-16.1	-16.1	16.1	-13.2	-16.1	-16.1	16.1	-16.3	-19.7	-19.7	18.8
9:12	-13.3	-16.1	-16.1	15.9	-13.3	-16.1	-16.1	15.9	-16.3	-19.8	-19.8	18.7
10:12	-13.3	-16.1	-16.1	15.8	-13.3	-16.1	-16.1	15.8	-16.4	-19.8	-19.8	18.6
11:12	-13.3	-16.2	-16.2	15.7	-13.3	-16.2	-16.2	15.7	-16.4	-19.9	-19.9	18.4
12:12	-13.4	-16.2	-16.2	15.6	-13.4	-16.2	-16.2	15.6	-16.4	-19.9	-19.9	18.3
1:12	-16.1	-29.9	-47.3	14.8	-18.7	-34.7	-54.7	14.8	-21.8	-40.2	-63.3	14.8
2:12	-14.3	-28.2	-43.8	14.4	-16.7	-32.7	-50.7	14.7	-19.5	-37.9	-58.7	15.8
3:12	-14.4	-28.2	-43.8	14.0	-16.7	-32.7	-50.7	14.3	-19.5	-37.9	-58.7	15.4
4:12	-14.4	-28.3	-43.9	13.2	-16.8	-32.8	-50.8	13.6	-19.5	-38.0	-58.7	15.2
5:12	-14.4	-28.3	-43.9	13.2	-16.8	-32.8	-50.8	13.5	-19.6	-38.0	-58.7	15.1
6:12	-14.5	-28.3	-43.9	13.0	-16.8	-32.8	-50.8	13.4	-19.6	-38.0	-58.8	15.0
7:12	-16.2	-19.7	-19.7	18.9	-18.9	-22.9	-22.9	21.3	-21.9	-26.6	-26.6	24.1
8:12	-16.3	-19.7	-19.7	18.8	-18.9	-22.9	-22.9	21.2	-22.0	-26.6	-26.6	23.9
9:12	-16.3	-19.8	-19.8	18.7	-19.0	-23.0	-23.0	21.1	-22.0	-26.6	-26.6	23.8
10:12	-16.4	-19.8	-19.8	18.6	-19.0	-23.0	-23.0	20.9	-22.1	-26.7	-26.7	23.7
11:12	-16.4	-19.9	-19.9	18.4	-19.0	-23.0	-23.0	20.8	-22.1	-26.7	-26.7	23.6
12:12	-16.4	-19.9	-19.9	18.3	-19.1	-23.1	-23.1	20.7	-22.1	-26.8	-26.8	23.5
1:12	-19.7	-36.5	-57.6	14.8	-22.4	-41.3	-65.0	14.8	-25.4	-46.8	-73.5	14.8
2:12	-17.6	-34.5	-53.4	15.1	-20.0	-39.0	-60.3	16.1	-22.8	-44.2	-68.2	17.2
3:12	-17.7	-34.5	-53.4	14.7	-20.1	-39.0	-60.3	15.6	-22.8	-44.2	-68.2	17.1
4:12	-17.7	-34.5	-53.4	14.2	-20.1	-39.0	-60.3	15.5	-22.8	-44.2	-68.3	17.0
5:12	-17.7	-34.5	-53.4	14.1	-20.1	-39.0	-60.3	15.4	-22.9	-44.2	-68.3	16.9
6:12	-17.8	-34.6	-53.5	13.9	-20.1	-39.1	-60.4	15.3	-22.9	-44.3	-68.3	16.8
7:12	-19.9	-24.1	-24.1	22.2	-22.6	-27.3	-27.3	24.6	-25.6	-31.0	-31.0	27.4
8:12	-19.9	-24.1	-24.1	22.1	-22.6	-27.3	-27.3	24.5	-25.7	-31.0	-31.0	27.3
9:12	-20.0	-24.2	-24.2	22.0	-22.6	-27.4	-27.4	24.4	-25.7	-31.0	-31.0	27.1
10:12	-20.0	-24.2	-24.2	21.9	-22.7	-27.4	-27.4	24.3	-25.7	-31.1	-31.1	27.0
11:12	-20.1	-24.3	-24.3	21.7	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **125 mph**

Ground Snow Load **5 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-13.0	-24.4	-38.7	18.5	-13.0	-24.4	-38.7	18.5	-16.1	-29.9	-47.3	18.5
2:12	-11.6	-23.0	-35.9	17.8	-11.6	-23.0	-35.9	17.8	-14.3	-28.2	-43.8	17.8
3:12	-11.6	-23.0	-35.9	17.0	-11.6	-23.0	-35.9	17.0	-14.4	-28.2	-43.8	17.0
4:12	-11.6	-23.1	-35.9	14.6	-11.6	-23.1	-35.9	14.6	-14.4	-28.3	-43.9	14.6
5:12	-11.7	-23.1	-35.9	14.0	-11.7	-23.1	-35.9	14.0	-14.4	-28.3	-43.9	14.0
6:12	-11.7	-23.1	-36.0	13.4	-11.7	-23.1	-36.0	13.4	-14.5	-28.3	-43.9	13.4
7:12	-13.2	-16.0	-16.0	16.2	-13.2	-16.0	-16.0	16.2	-16.2	-19.7	-19.7	18.9
8:12	-13.2	-16.1	-16.1	16.1	-13.2	-16.1	-16.1	16.1	-16.3	-19.7	-19.7	18.8
9:12	-13.3	-16.1	-16.1	15.9	-13.3	-16.1	-16.1	15.9	-16.3	-19.8	-19.8	18.7
10:12	-13.3	-16.1	-16.1	15.8	-13.3	-16.1	-16.1	15.8	-16.4	-19.8	-19.8	18.6
11:12	-13.3	-16.2	-16.2	15.7	-13.3	-16.2	-16.2	15.7	-16.4	-19.9	-19.9	18.4
12:12	-13.4	-16.2	-16.2	15.6	-13.4	-16.2	-16.2	15.6	-16.4	-19.9	-19.9	18.3
1:12	-16.1	-29.9	-47.3	18.5	-18.7	-34.7	-54.7	18.5	-21.8	-40.2	-63.3	18.5
2:12	-14.3	-28.2	-43.8	17.8	-16.7	-32.7	-50.7	18.1	-19.5	-37.9	-58.7	19.2
3:12	-14.4	-28.2	-43.8	17.0	-16.7	-32.7	-50.7	17.3	-19.5	-37.9	-58.7	18.5
4:12	-14.4	-28.3	-43.9	14.6	-16.8	-32.8	-50.8	14.9	-19.5	-38.0	-58.7	16.0
5:12	-14.4	-28.3	-43.9	14.0	-16.8	-32.8	-50.8	14.3	-19.6	-38.0	-58.7	15.5
6:12	-14.5	-28.3	-43.9	13.4	-16.8	-32.8	-50.8	13.7	-19.6	-38.0	-58.8	15.0
7:12	-16.2	-19.7	-19.7	18.9	-18.9	-22.9	-22.9	21.3	-21.9	-26.6	-26.6	24.1
8:12	-16.3	-19.7	-19.7	18.8	-18.9	-22.9	-22.9	21.2	-22.0	-26.6	-26.6	23.9
9:12	-16.3	-19.8	-19.8	18.7	-19.0	-23.0	-23.0	21.1	-22.0	-26.6	-26.6	23.8
10:12	-16.4	-19.8	-19.8	18.6	-19.0	-23.0	-23.0	20.9	-22.1	-26.7	-26.7	23.7
11:12	-16.4	-19.9	-19.9	18.4	-19.0	-23.0	-23.0	20.8	-22.1	-26.7	-26.7	23.6
12:12	-16.4	-19.9	-19.9	18.3	-19.1	-23.1	-23.1	20.7	-22.1	-26.8	-26.8	23.5
1:12	-19.7	-36.5	-57.6	18.5	-22.4	-41.3	-65.0	18.5	-25.4	-46.8	-73.5	18.5
2:12	-17.6	-34.5	-53.4	18.5	-20.0	-39.0	-60.3	19.5	-22.8	-44.2	-68.2	20.6
3:12	-17.7	-34.5	-53.4	17.7	-20.1	-39.0	-60.3	18.7	-22.8	-44.2	-68.2	19.8
4:12	-17.7	-34.5	-53.4	14.9	-20.1	-39.0	-60.3	15.9	-22.8	-44.2	-68.3	17.0
5:12	-17.7	-34.5	-53.4	14.4	-20.1	-39.0	-60.3	15.4	-22.9	-44.2	-68.3	16.9
6:12	-17.8	-34.6	-53.5	13.9	-20.1	-39.1	-60.4	15.3	-22.9	-44.3	-68.3	16.8
7:12	-19.9	-24.1	-24.1	22.2	-22.6	-27.3	-27.3	24.6	-25.6	-31.0	-31.0	27.4
8:12	-19.9	-24.1	-24.1	22.1	-22.6	-27.3	-27.3	24.5	-25.7	-31.0	-31.0	27.3
9:12	-20.0	-24.2	-24.2	22.0	-22.6	-27.4	-27.4	24.4	-25.7	-31.0	-31.0	27.1
10:12	-20.0	-24.2	-24.2	21.9	-22.7	-27.4	-27.4	24.3	-25.7	-31.1	-31.1	27.0
11:12	-20.1	-24.3	-24.3	21.7	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **125 mph**
Ground Snow Load **10 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-13.0	-24.4	-38.7	22.2	-13.0	-24.4	-38.7	22.2	-16.1	-29.9	-47.3	22.2
2:12	-11.6	-23.0	-35.9	21.2	-11.6	-23.0	-35.9	21.2	-14.3	-28.2	-43.8	21.2
3:12	-11.6	-23.0	-35.9	20.0	-11.6	-23.0	-35.9	20.0	-14.4	-28.2	-43.8	20.0
4:12	-11.6	-23.1	-35.9	16.5	-11.6	-23.1	-35.9	16.5	-14.4	-28.3	-43.9	16.5
5:12	-11.7	-23.1	-35.9	15.6	-11.7	-23.1	-35.9	15.6	-14.4	-28.3	-43.9	15.6
6:12	-11.7	-23.1	-36.0	14.9	-11.7	-23.1	-36.0	14.9	-14.5	-28.3	-43.9	14.9
7:12	-13.2	-16.0	-16.0	16.6	-13.2	-16.0	-16.0	16.6	-16.2	-19.7	-19.7	18.9
8:12	-13.2	-16.1	-16.1	16.1	-13.2	-16.1	-16.1	16.1	-16.3	-19.7	-19.7	18.8
9:12	-13.3	-16.1	-16.1	15.9	-13.3	-16.1	-16.1	15.9	-16.3	-19.8	-19.8	18.7
10:12	-13.3	-16.1	-16.1	15.8	-13.3	-16.1	-16.1	15.8	-16.4	-19.8	-19.8	18.6
11:12	-13.3	-16.2	-16.2	15.7	-13.3	-16.2	-16.2	15.7	-16.4	-19.9	-19.9	18.4
12:12	-13.4	-16.2	-16.2	15.6	-13.4	-16.2	-16.2	15.6	-16.4	-19.9	-19.9	18.3
Exposure Category C												
1:12	-16.1	-29.9	-47.3	22.2	-18.7	-34.7	-54.7	22.2	-21.8	-40.2	-63.3	22.2
2:12	-14.3	-28.2	-43.8	21.2	-16.7	-32.7	-50.7	21.5	-19.5	-37.9	-58.7	22.6
3:12	-14.4	-28.2	-43.8	20.0	-16.7	-32.7	-50.7	20.3	-19.5	-37.9	-58.7	21.5
4:12	-14.4	-28.3	-43.9	16.5	-16.8	-32.8	-50.8	16.8	-19.5	-38.0	-58.7	17.9
5:12	-14.4	-28.3	-43.9	15.6	-16.8	-32.8	-50.8	15.9	-19.6	-38.0	-58.7	17.1
6:12	-14.5	-28.3	-43.9	14.9	-16.8	-32.8	-50.8	15.1	-19.6	-38.0	-58.8	16.3
7:12	-16.2	-19.7	-19.7	18.9	-18.9	-22.9	-22.9	21.3	-21.9	-26.6	-26.6	24.1
8:12	-16.3	-19.7	-19.7	18.8	-18.9	-22.9	-22.9	21.2	-22.0	-26.6	-26.6	23.9
9:12	-16.3	-19.8	-19.8	18.7	-19.0	-23.0	-23.0	21.1	-22.0	-26.6	-26.6	23.8
10:12	-16.4	-19.8	-19.8	18.6	-19.0	-23.0	-23.0	20.9	-22.1	-26.7	-26.7	23.7
11:12	-16.4	-19.9	-19.9	18.4	-19.0	-23.0	-23.0	20.8	-22.1	-26.7	-26.7	23.6
12:12	-16.4	-19.9	-19.9	18.3	-19.1	-23.1	-23.1	20.7	-22.1	-26.8	-26.8	23.5
Exposure Category D												
1:12	-19.7	-36.5	-57.6	22.2	-22.4	-41.3	-65.0	22.2	-25.4	-46.8	-73.5	22.2
2:12	-17.6	-34.5	-53.4	21.9	-20.0	-39.0	-60.3	22.9	-22.8	-44.2	-68.2	24.0
3:12	-17.7	-34.5	-53.4	20.7	-20.1	-39.0	-60.3	21.7	-22.8	-44.2	-68.2	22.9
4:12	-17.7	-34.5	-53.4	16.6	-20.1	-39.0	-60.3	17.6	-22.8	-44.2	-68.3	18.7
5:12	-17.7	-34.5	-53.4	15.8	-20.1	-39.0	-60.3	16.8	-22.9	-44.2	-68.3	18.0
6:12	-17.8	-34.6	-53.5	15.1	-20.1	-39.1	-60.4	16.1	-22.9	-44.3	-68.3	17.3
7:12	-19.9	-24.1	-24.1	22.2	-22.6	-27.3	-27.3	24.6	-25.6	-31.0	-31.0	27.4
8:12	-19.9	-24.1	-24.1	22.1	-22.6	-27.3	-27.3	24.5	-25.7	-31.0	-31.0	27.3
9:12	-20.0	-24.2	-24.2	22.0	-22.6	-27.4	-27.4	24.4	-25.7	-31.0	-31.0	27.1
10:12	-20.0	-24.2	-24.2	21.9	-22.7	-27.4	-27.4	24.3	-25.7	-31.1	-31.1	27.0
11:12	-20.1	-24.3	-24.3	21.7	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **125 mph**

Ground Snow Load **15 psf**

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-13.0	-24.4	-38.7	25.9	-13.0	-24.4	-38.7	25.9	-16.1	-29.9	-47.3	25.9
	2:12	-11.6	-23.0	-35.9	24.6	-11.6	-23.0	-35.9	24.6	-14.3	-28.2	-43.8	24.6
	3:12	-11.6	-23.0	-35.9	23.1	-11.6	-23.0	-35.9	23.1	-14.4	-28.2	-43.8	23.1
	4:12	-11.6	-23.1	-35.9	18.3	-11.6	-23.1	-35.9	18.3	-14.4	-28.3	-43.9	18.3
	5:12	-11.7	-23.1	-35.9	17.3	-11.7	-23.1	-35.9	17.3	-14.4	-28.3	-43.9	17.3
	6:12	-11.7	-23.1	-36.0	16.3	-11.7	-23.1	-36.0	16.3	-14.5	-28.3	-43.9	16.3
	7:12	-13.2	-16.0	-16.0	17.8	-13.2	-16.0	-16.0	17.8	-16.2	-19.7	-19.7	19.8
	8:12	-13.2	-16.1	-16.1	16.9	-13.2	-16.1	-16.1	16.9	-16.3	-19.7	-19.7	19.0
	9:12	-13.3	-16.1	-16.1	16.1	-13.3	-16.1	-16.1	16.1	-16.3	-19.8	-19.8	18.7
	10:12	-13.3	-16.1	-16.1	15.8	-13.3	-16.1	-16.1	15.8	-16.4	-19.8	-19.8	18.6
	11:12	-13.3	-16.2	-16.2	15.7	-13.3	-16.2	-16.2	15.7	-16.4	-19.9	-19.9	18.4
	12:12	-13.4	-16.2	-16.2	15.6	-13.4	-16.2	-16.2	15.6	-16.4	-19.9	-19.9	18.3
Exposure Category C	1:12	-16.1	-29.9	-47.3	25.9	-18.7	-34.7	-54.7	25.9	-21.8	-40.2	-63.3	25.9
	2:12	-14.3	-28.2	-43.8	24.6	-16.7	-32.7	-50.7	24.9	-19.5	-37.9	-58.7	26.0
	3:12	-14.4	-28.2	-43.8	23.1	-16.7	-32.7	-50.7	23.4	-19.5	-37.9	-58.7	24.5
	4:12	-14.4	-28.3	-43.9	18.3	-16.8	-32.8	-50.8	18.6	-19.5	-38.0	-58.7	19.8
	5:12	-14.4	-28.3	-43.9	17.3	-16.8	-32.8	-50.8	17.6	-19.6	-38.0	-58.7	18.7
	6:12	-14.5	-28.3	-43.9	16.3	-16.8	-32.8	-50.8	16.6	-19.6	-38.0	-58.8	17.7
	7:12	-16.2	-19.7	-19.7	19.8	-18.9	-22.9	-22.9	21.6	-21.9	-26.6	-26.6	24.1
	8:12	-16.3	-19.7	-19.7	19.0	-18.9	-22.9	-22.9	21.2	-22.0	-26.6	-26.6	23.9
	9:12	-16.3	-19.8	-19.8	18.7	-19.0	-23.0	-23.0	21.1	-22.0	-26.6	-26.6	23.8
	10:12	-16.4	-19.8	-19.8	18.6	-19.0	-23.0	-23.0	20.9	-22.1	-26.7	-26.7	23.7
	11:12	-16.4	-19.9	-19.9	18.4	-19.0	-23.0	-23.0	20.8	-22.1	-26.7	-26.7	23.6
	12:12	-16.4	-19.9	-19.9	18.3	-19.1	-23.1	-23.1	20.7	-22.1	-26.8	-26.8	23.5
Exposure Category D	1:12	-19.7	-36.5	-57.6	25.9	-22.4	-41.3	-65.0	25.9	-25.4	-46.8	-73.5	25.9
	2:12	-17.6	-34.5	-53.4	25.3	-20.0	-39.0	-60.3	26.3	-22.8	-44.2	-68.2	27.4
	3:12	-17.7	-34.5	-53.4	23.8	-20.1	-39.0	-60.3	24.8	-22.8	-44.2	-68.2	25.9
	4:12	-17.7	-34.5	-53.4	18.3	-20.1	-39.0	-60.3	19.3	-22.8	-44.2	-68.3	20.4
	5:12	-17.7	-34.5	-53.4	17.3	-20.1	-39.0	-60.3	18.3	-22.9	-44.2	-68.3	19.4
	6:12	-17.8	-34.6	-53.5	16.4	-20.1	-39.1	-60.4	17.4	-22.9	-44.3	-68.3	18.5
	7:12	-19.9	-24.1	-24.1	22.2	-22.6	-27.3	-27.3	24.6	-25.6	-31.0	-31.0	27.4
	8:12	-19.9	-24.1	-24.1	22.1	-22.6	-27.3	-27.3	24.5	-25.7	-31.0	-31.0	27.3
	9:12	-20.0	-24.2	-24.2	22.0	-22.6	-27.4	-27.4	24.4	-25.7	-31.0	-31.0	27.1
	10:12	-20.0	-24.2	-24.2	21.9	-22.7	-27.4	-27.4	24.3	-25.7	-31.1	-31.1	27.0
	11:12	-20.1	-24.3	-24.3	21.7	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
	12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **125 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-13.0	-24.4	-38.7	25.9	-13.0	-24.4	-38.7	25.9	-16.1	-29.9	-47.3	25.9
2:12	-11.6	-23.0	-35.9	24.6	-11.6	-23.0	-35.9	24.6	-14.3	-28.2	-43.8	24.6
3:12	-11.6	-23.0	-35.9	23.1	-11.6	-23.0	-35.9	23.1	-14.4	-28.2	-43.8	23.1
4:12	-11.6	-23.1	-35.9	20.2	-11.6	-23.1	-35.9	20.2	-14.4	-28.3	-43.9	20.2
5:12	-11.7	-23.1	-35.9	18.9	-11.7	-23.1	-35.9	18.9	-14.4	-28.3	-43.9	18.9
6:12	-11.7	-23.1	-36.0	17.7	-11.7	-23.1	-36.0	17.7	-14.5	-28.3	-43.9	17.7
7:12	-13.2	-16.0	-16.0	18.9	-13.2	-16.0	-16.0	18.9	-16.2	-19.7	-19.7	21.0
8:12	-13.2	-16.1	-16.1	17.9	-13.2	-16.1	-16.1	17.9	-16.3	-19.7	-19.7	20.0
9:12	-13.3	-16.1	-16.1	17.0	-13.3	-16.1	-16.1	17.0	-16.3	-19.8	-19.8	19.1
10:12	-13.3	-16.1	-16.1	16.2	-13.3	-16.1	-16.1	16.2	-16.4	-19.8	-19.8	18.6
11:12	-13.3	-16.2	-16.2	15.7	-13.3	-16.2	-16.2	15.7	-16.4	-19.9	-19.9	18.4
12:12	-13.4	-16.2	-16.2	15.6	-13.4	-16.2	-16.2	15.6	-16.4	-19.9	-19.9	18.3
1:12	-16.1	-29.9	-47.3	25.9	-18.7	-34.7	-54.7	25.9	-21.8	-40.2	-63.3	25.9
2:12	-14.3	-28.2	-43.8	24.6	-16.7	-32.7	-50.7	24.9	-19.5	-37.9	-58.7	26.0
3:12	-14.4	-28.2	-43.8	23.1	-16.7	-32.7	-50.7	23.4	-19.5	-37.9	-58.7	24.5
4:12	-14.4	-28.3	-43.9	20.2	-16.8	-32.8	-50.8	20.5	-19.5	-38.0	-58.7	21.7
5:12	-14.4	-28.3	-43.9	18.9	-16.8	-32.8	-50.8	19.2	-19.6	-38.0	-58.7	20.3
6:12	-14.5	-28.3	-43.9	17.7	-16.8	-32.8	-50.8	18.0	-19.6	-38.0	-58.8	19.1
7:12	-16.2	-19.7	-19.7	21.0	-18.9	-22.9	-22.9	22.8	-21.9	-26.6	-26.6	24.9
8:12	-16.3	-19.7	-19.7	20.0	-18.9	-22.9	-22.9	21.8	-22.0	-26.6	-26.6	23.9
9:12	-16.3	-19.8	-19.8	19.1	-19.0	-23.0	-23.0	21.1	-22.0	-26.6	-26.6	23.8
10:12	-16.4	-19.8	-19.8	18.6	-19.0	-23.0	-23.0	20.9	-22.1	-26.7	-26.7	23.7
11:12	-16.4	-19.9	-19.9	18.4	-19.0	-23.0	-23.0	20.8	-22.1	-26.7	-26.7	23.6
12:12	-16.4	-19.9	-19.9	18.3	-19.1	-23.1	-23.1	20.7	-22.1	-26.8	-26.8	23.5
1:12	-19.7	-36.5	-57.6	25.9	-22.4	-41.3	-65.0	25.9	-25.4	-46.8	-73.5	25.9
2:12	-17.6	-34.5	-53.4	25.3	-20.0	-39.0	-60.3	26.3	-22.8	-44.2	-68.2	27.4
3:12	-17.7	-34.5	-53.4	23.8	-20.1	-39.0	-60.3	24.8	-22.8	-44.2	-68.2	25.9
4:12	-17.7	-34.5	-53.4	20.0	-20.1	-39.0	-60.3	21.0	-22.8	-44.2	-68.3	22.1
5:12	-17.7	-34.5	-53.4	18.8	-20.1	-39.0	-60.3	19.8	-22.9	-44.2	-68.3	20.9
6:12	-17.8	-34.6	-53.5	17.6	-20.1	-39.1	-60.4	18.6	-22.9	-44.3	-68.3	19.8
7:12	-19.9	-24.1	-24.1	22.9	-22.6	-27.3	-27.3	24.7	-25.6	-31.0	-31.0	27.4
8:12	-19.9	-24.1	-24.1	22.1	-22.6	-27.3	-27.3	24.5	-25.7	-31.0	-31.0	27.3
9:12	-20.0	-24.2	-24.2	22.0	-22.6	-27.4	-27.4	24.4	-25.7	-31.0	-31.0	27.1
10:12	-20.0	-24.2	-24.2	21.9	-22.7	-27.4	-27.4	24.3	-25.7	-31.1	-31.1	27.0
11:12	-20.1	-24.3	-24.3	21.7	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
125 mph

Ground Snow Load
25 psf

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-13.0	-24.4	-38.7	26.7	-13.0	-24.4	-38.7	26.7	-16.1	-29.9	-47.3	26.7
	2:12	-11.6	-23.0	-35.9	25.3	-11.6	-23.0	-35.9	25.3	-14.3	-28.2	-43.8	25.3
	3:12	-11.6	-23.0	-35.9	23.7	-11.6	-23.0	-35.9	23.7	-14.4	-28.2	-43.8	23.7
	4:12	-11.6	-23.1	-35.9	22.1	-11.6	-23.1	-35.9	22.1	-14.4	-28.3	-43.9	22.1
	5:12	-11.7	-23.1	-35.9	20.5	-11.7	-23.1	-35.9	20.5	-14.4	-28.3	-43.9	20.5
	6:12	-11.7	-23.1	-36.0	19.1	-11.7	-23.1	-36.0	19.1	-14.5	-28.3	-43.9	19.1
	7:12	-13.2	-16.0	-16.0	20.1	-13.2	-16.0	-16.0	20.1	-16.2	-19.7	-19.7	22.2
	8:12	-13.2	-16.1	-16.1	18.9	-13.2	-16.1	-16.1	18.9	-16.3	-19.7	-19.7	21.0
	9:12	-13.3	-16.1	-16.1	17.9	-13.3	-16.1	-16.1	17.9	-16.3	-19.8	-19.8	19.9
	10:12	-13.3	-16.1	-16.1	16.9	-13.3	-16.1	-16.1	16.9	-16.4	-19.8	-19.8	19.0
	11:12	-13.3	-16.2	-16.2	16.1	-13.3	-16.2	-16.2	16.1	-16.4	-19.9	-19.9	18.4
	12:12	-13.4	-16.2	-16.2	15.6	-13.4	-16.2	-16.2	15.6	-16.4	-19.9	-19.9	18.3
Exposure Category C	1:12	-16.1	-29.9	-47.3	26.7	-18.7	-34.7	-54.7	26.7	-21.8	-40.2	-63.3	26.7
	2:12	-14.3	-28.2	-43.8	25.3	-16.7	-32.7	-50.7	25.6	-19.5	-37.9	-58.7	26.7
	3:12	-14.4	-28.2	-43.8	23.7	-16.7	-32.7	-50.7	24.0	-19.5	-37.9	-58.7	25.1
	4:12	-14.4	-28.3	-43.9	22.1	-16.8	-32.8	-50.8	22.4	-19.5	-38.0	-58.7	23.5
	5:12	-14.4	-28.3	-43.9	20.5	-16.8	-32.8	-50.8	20.8	-19.6	-38.0	-58.7	22.0
	6:12	-14.5	-28.3	-43.9	19.1	-16.8	-32.8	-50.8	19.4	-19.6	-38.0	-58.8	20.5
	7:12	-16.2	-19.7	-19.7	22.2	-18.9	-22.9	-22.9	24.0	-21.9	-26.6	-26.6	26.1
	8:12	-16.3	-19.7	-19.7	21.0	-18.9	-22.9	-22.9	22.8	-22.0	-26.6	-26.6	24.9
	9:12	-16.3	-19.8	-19.8	19.9	-19.0	-23.0	-23.0	21.7	-22.0	-26.6	-26.6	23.8
	10:12	-16.4	-19.8	-19.8	19.0	-19.0	-23.0	-23.0	20.9	-22.1	-26.7	-26.7	23.7
	11:12	-16.4	-19.9	-19.9	18.4	-19.0	-23.0	-23.0	20.8	-22.1	-26.7	-26.7	23.6
	12:12	-16.4	-19.9	-19.9	18.3	-19.1	-23.1	-23.1	20.7	-22.1	-26.8	-26.8	23.5
Exposure Category D	1:12	-19.7	-36.5	-57.6	25.9	-22.4	-41.3	-65.0	25.9	-25.4	-46.8	-73.5	25.9
	2:12	-17.6	-34.5	-53.4	25.3	-20.0	-39.0	-60.3	26.3	-22.8	-44.2	-68.2	27.4
	3:12	-17.7	-34.5	-53.4	23.8	-20.1	-39.0	-60.3	24.8	-22.8	-44.2	-68.2	25.9
	4:12	-17.7	-34.5	-53.4	21.7	-20.1	-39.0	-60.3	22.6	-22.8	-44.2	-68.3	23.8
	5:12	-17.7	-34.5	-53.4	20.2	-20.1	-39.0	-60.3	21.2	-22.9	-44.2	-68.3	22.4
	6:12	-17.8	-34.6	-53.5	18.9	-20.1	-39.1	-60.4	19.9	-22.9	-44.3	-68.3	21.0
	7:12	-19.9	-24.1	-24.1	24.0	-22.6	-27.3	-27.3	25.8	-25.6	-31.0	-31.0	27.8
	8:12	-19.9	-24.1	-24.1	22.9	-22.6	-27.3	-27.3	24.7	-25.7	-31.0	-31.0	27.3
	9:12	-20.0	-24.2	-24.2	22.0	-22.6	-27.4	-27.4	24.4	-25.7	-31.0	-31.0	27.1
	10:12	-20.0	-24.2	-24.2	21.9	-22.7	-27.4	-27.4	24.3	-25.7	-31.1	-31.1	27.0
	11:12	-20.1	-24.3	-24.3	21.7	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
	12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
	2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
	3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
	4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
	5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
	6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
	7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
	8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
	9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
	10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
	11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
125 mph

Ground Snow Load
30 psf

Up and Down (psf)

Basic Wind Speed
125 mph

Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-13.0	-24.4	-38.7	29.3	-13.0	-24.4	-38.7	29.3	-16.1	-29.9	-47.3	29.3
2:12	-11.6	-23.0	-35.9	27.6	-11.6	-23.0	-35.9	27.6	-14.3	-28.2	-43.8	27.6
3:12	-11.6	-23.0	-35.9	25.8	-11.6	-23.0	-35.9	25.8	-14.4	-28.2	-43.8	25.8
4:12	-11.6	-23.1	-35.9	24.0	-11.6	-23.1	-35.9	24.0	-14.4	-28.3	-43.9	24.0
5:12	-11.7	-23.1	-35.9	22.2	-11.7	-23.1	-35.9	22.2	-14.4	-28.3	-43.9	22.2
6:12	-11.7	-23.1	-36.0	20.5	-11.7	-23.1	-36.0	20.5	-14.5	-28.3	-43.9	20.5
7:12	-13.2	-16.0	-16.0	21.3	-13.2	-16.0	-16.0	21.3	-16.2	-19.7	-19.7	23.4
8:12	-13.2	-16.1	-16.1	19.9	-13.2	-16.1	-16.1	19.9	-16.3	-19.7	-19.7	22.0
9:12	-13.3	-16.1	-16.1	18.7	-13.3	-16.1	-16.1	18.7	-16.3	-19.8	-19.8	20.8
10:12	-13.3	-16.1	-16.1	17.6	-13.3	-16.1	-16.1	17.6	-16.4	-19.8	-19.8	19.7
11:12	-13.3	-16.2	-16.2	16.7	-13.3	-16.2	-16.2	16.7	-16.4	-19.9	-19.9	18.8
12:12	-13.4	-16.2	-16.2	15.9	-13.4	-16.2	-16.2	15.9	-16.4	-19.9	-19.9	18.3
1:12	-16.1	-29.9	-47.3	29.3	-18.7	-34.7	-54.7	29.3	-21.8	-40.2	-63.3	29.3
2:12	-14.3	-28.2	-43.8	27.6	-16.7	-32.7	-50.7	27.9	-19.5	-37.9	-58.7	29.1
3:12	-14.4	-28.2	-43.8	25.8	-16.7	-32.7	-50.7	26.1	-19.5	-37.9	-58.7	27.3
4:12	-14.4	-28.3	-43.9	24.0	-16.8	-32.8	-50.8	24.3	-19.5	-38.0	-58.7	25.4
5:12	-14.4	-28.3	-43.9	22.2	-16.8	-32.8	-50.8	22.5	-19.6	-38.0	-58.7	23.6
6:12	-14.5	-28.3	-43.9	20.5	-16.8	-32.8	-50.8	20.8	-19.6	-38.0	-58.8	21.9
7:12	-16.2	-19.7	-19.7	23.4	-18.9	-22.9	-22.9	25.2	-21.9	-26.6	-26.6	27.3
8:12	-16.3	-19.7	-19.7	22.0	-18.9	-22.9	-22.9	23.8	-22.0	-26.6	-26.6	25.9
9:12	-16.3	-19.8	-19.8	20.8	-19.0	-23.0	-23.0	22.6	-22.0	-26.6	-26.6	24.6
10:12	-16.4	-19.8	-19.8	19.7	-19.0	-23.0	-23.0	21.5	-22.1	-26.7	-26.7	23.7
11:12	-16.4	-19.9	-19.9	18.8	-19.0	-23.0	-23.0	20.8	-22.1	-26.7	-26.7	23.6
12:12	-16.4	-19.9	-19.9	18.3	-19.1	-23.1	-23.1	20.7	-22.1	-26.8	-26.8	23.5
1:12	-19.7	-36.5	-57.6	27.5	-22.4	-41.3	-65.0	27.5	-25.4	-46.8	-73.5	27.5
2:12	-17.6	-34.5	-53.4	26.7	-20.0	-39.0	-60.3	27.7	-22.8	-44.2	-68.2	28.8
3:12	-17.7	-34.5	-53.4	25.0	-20.1	-39.0	-60.3	26.0	-22.8	-44.2	-68.2	27.2
4:12	-17.7	-34.5	-53.4	23.3	-20.1	-39.0	-60.3	24.3	-22.8	-44.2	-68.3	25.5
5:12	-17.7	-34.5	-53.4	21.7	-20.1	-39.0	-60.3	22.7	-22.9	-44.2	-68.3	23.8
6:12	-17.8	-34.6	-53.5	20.2	-20.1	-39.1	-60.4	21.2	-22.9	-44.3	-68.3	22.3
7:12	-19.9	-24.1	-24.1	25.1	-22.6	-27.3	-27.3	26.8	-25.6	-31.0	-31.0	28.9
8:12	-19.9	-24.1	-24.1	23.8	-22.6	-27.3	-27.3	25.6	-25.7	-31.0	-31.0	27.6
9:12	-20.0	-24.2	-24.2	22.7	-22.6	-27.4	-27.4	24.4	-25.7	-31.0	-31.0	27.1
10:12	-20.0	-24.2	-24.2	21.9	-22.7	-27.4	-27.4	24.3	-25.7	-31.1	-31.1	27.0
11:12	-20.1	-24.3	-24.3	21.7	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
125 mph
Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-13.0	-24.4	-38.7	31.9	-13.0	-24.4	-38.7	31.9	-16.1	-29.9	-47.3	31.9
2:12	-11.6	-23.0	-35.9	30.0	-11.6	-23.0	-35.9	30.0	-14.3	-28.2	-43.8	30.0
3:12	-11.6	-23.0	-35.9	27.9	-11.6	-23.0	-35.9	27.9	-14.4	-28.2	-43.8	27.9
4:12	-11.6	-23.1	-35.9	25.8	-11.6	-23.1	-35.9	25.8	-14.4	-28.3	-43.9	25.8
5:12	-11.7	-23.1	-35.9	23.8	-11.7	-23.1	-35.9	23.8	-14.4	-28.3	-43.9	23.8
6:12	-11.7	-23.1	-36.0	21.9	-11.7	-23.1	-36.0	21.9	-14.5	-28.3	-43.9	21.9
7:12	-13.2	-16.0	-16.0	22.5	-13.2	-16.0	-16.0	22.5	-16.2	-19.7	-19.7	24.6
8:12	-13.2	-16.1	-16.1	21.0	-13.2	-16.1	-16.1	21.0	-16.3	-19.7	-19.7	23.0
9:12	-13.3	-16.1	-16.1	19.6	-13.3	-16.1	-16.1	19.6	-16.3	-19.8	-19.8	21.6
10:12	-13.3	-16.1	-16.1	18.4	-13.3	-16.1	-16.1	18.4	-16.4	-19.8	-19.8	20.4
11:12	-13.3	-16.2	-16.2	17.3	-13.3	-16.2	-16.2	17.3	-16.4	-19.9	-19.9	19.4
12:12	-13.4	-16.2	-16.2	16.4	-13.4	-16.2	-16.2	16.4	-16.4	-19.9	-19.9	18.5
Exposure Category C												
1:12	-16.1	-29.9	-47.3	31.9	-18.7	-34.7	-54.7	31.9	-21.8	-40.2	-63.3	31.9
2:12	-14.3	-28.2	-43.8	30.0	-16.7	-32.7	-50.7	30.3	-19.5	-37.9	-58.7	31.5
3:12	-14.4	-28.2	-43.8	27.9	-16.7	-32.7	-50.7	28.2	-19.5	-37.9	-58.7	29.4
4:12	-14.4	-28.3	-43.9	25.8	-16.8	-32.8	-50.8	26.1	-19.5	-38.0	-58.7	27.3
5:12	-14.4	-28.3	-43.9	23.8	-16.8	-32.8	-50.8	24.1	-19.6	-38.0	-58.7	25.2
6:12	-14.5	-28.3	-43.9	21.9	-16.8	-32.8	-50.8	22.2	-19.6	-38.0	-58.8	23.3
7:12	-16.2	-19.7	-19.7	24.6	-18.9	-22.9	-22.9	26.4	-21.9	-26.6	-26.6	28.5
8:12	-16.3	-19.7	-19.7	23.0	-18.9	-22.9	-22.9	24.8	-22.0	-26.6	-26.6	26.9
9:12	-16.3	-19.8	-19.8	21.6	-19.0	-23.0	-23.0	23.4	-22.0	-26.6	-26.6	25.5
10:12	-16.4	-19.8	-19.8	20.4	-19.0	-23.0	-23.0	22.2	-22.1	-26.7	-26.7	24.3
11:12	-16.4	-19.9	-19.9	19.4	-19.0	-23.0	-23.0	21.2	-22.1	-26.7	-26.7	23.6
12:12	-16.4	-19.9	-19.9	18.5	-19.1	-23.1	-23.1	20.7	-22.1	-26.8	-26.8	23.5
Exposure Category D												
1:12	-19.7	-36.5	-57.6	29.8	-22.4	-41.3	-65.0	29.8	-25.4	-46.8	-73.5	29.8
2:12	-17.6	-34.5	-53.4	28.8	-20.0	-39.0	-60.3	29.8	-22.8	-44.2	-68.2	30.9
3:12	-17.7	-34.5	-53.4	26.9	-20.1	-39.0	-60.3	27.9	-22.8	-44.2	-68.2	29.1
4:12	-17.7	-34.5	-53.4	25.0	-20.1	-39.0	-60.3	26.0	-22.8	-44.2	-68.3	27.2
5:12	-17.7	-34.5	-53.4	23.2	-20.1	-39.0	-60.3	24.2	-22.9	-44.2	-68.3	25.3
6:12	-17.8	-34.6	-53.5	21.4	-20.1	-39.1	-60.4	22.4	-22.9	-44.3	-68.3	23.6
7:12	-19.9	-24.1	-24.1	26.1	-22.6	-27.3	-27.3	27.9	-25.6	-31.0	-31.0	30.0
8:12	-19.9	-24.1	-24.1	24.7	-22.6	-27.3	-27.3	26.5	-25.7	-31.0	-31.0	28.5
9:12	-20.0	-24.2	-24.2	23.4	-22.6	-27.4	-27.4	25.2	-25.7	-31.0	-31.0	27.3
10:12	-20.0	-24.2	-24.2	22.3	-22.7	-27.4	-27.4	24.3	-25.7	-31.1	-31.1	27.0
11:12	-20.1	-24.3	-24.3	21.7	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-13.0	-24.4	-38.7	35.1	-13.0	-24.4	-38.7	35.1	-16.1	-29.9	-47.3	35.1
	2:12	-11.6	-23.0	-35.9	32.4	-11.6	-23.0	-35.9	32.4	-14.3	-28.2	-43.8	32.4
	3:12	-11.6	-23.0	-35.9	30.1	-11.6	-23.0	-35.9	30.1	-14.4	-28.2	-43.8	30.1
	4:12	-11.6	-23.1	-35.9	27.7	-11.6	-23.1	-35.9	27.7	-14.4	-28.3	-43.9	27.7
	5:12	-11.7	-23.1	-35.9	25.4	-11.7	-23.1	-35.9	25.4	-14.4	-28.3	-43.9	25.4
	6:12	-11.7	-23.1	-36.0	23.3	-11.7	-23.1	-36.0	23.3	-14.5	-28.3	-43.9	23.3
	7:12	-13.2	-16.0	-16.0	23.7	-13.2	-16.0	-16.0	23.7	-16.2	-19.7	-19.7	25.8
	8:12	-13.2	-16.1	-16.1	22.0	-13.2	-16.1	-16.1	22.0	-16.3	-19.7	-19.7	24.0
	9:12	-13.3	-16.1	-16.1	20.4	-13.3	-16.1	-16.1	20.4	-16.3	-19.8	-19.8	22.5
	10:12	-13.3	-16.1	-16.1	19.1	-13.3	-16.1	-16.1	19.1	-16.4	-19.8	-19.8	21.1
	11:12	-13.3	-16.2	-16.2	17.9	-13.3	-16.2	-16.2	17.9	-16.4	-19.9	-19.9	20.0
	12:12	-13.4	-16.2	-16.2	16.9	-13.4	-16.2	-16.2	16.9	-16.4	-19.9	-19.9	19.0
Exposure Category C	1:12	-16.1	-29.9	-47.3	35.1	-18.7	-34.7	-54.7	35.1	-21.8	-40.2	-63.3	35.1
	2:12	-14.3	-28.2	-43.8	32.4	-16.7	-32.7	-50.7	32.7	-19.5	-37.9	-58.7	33.8
	3:12	-14.4	-28.2	-43.8	30.1	-16.7	-32.7	-50.7	30.4	-19.5	-37.9	-58.7	31.5
	4:12	-14.4	-28.3	-43.9	27.7	-16.8	-32.8	-50.8	28.0	-19.5	-38.0	-58.7	29.2
	5:12	-14.4	-28.3	-43.9	25.4	-16.8	-32.8	-50.8	25.7	-19.6	-38.0	-58.7	26.9
	6:12	-14.5	-28.3	-43.9	23.3	-16.8	-32.8	-50.8	23.6	-19.6	-38.0	-58.8	24.7
	7:12	-16.2	-19.7	-19.7	25.8	-18.9	-22.9	-22.9	27.6	-21.9	-26.6	-26.6	29.7
	8:12	-16.3	-19.7	-19.7	24.0	-18.9	-22.9	-22.9	25.8	-22.0	-26.6	-26.6	27.9
	9:12	-16.3	-19.8	-19.8	22.5	-19.0	-23.0	-23.0	24.3	-22.0	-26.6	-26.6	26.3
	10:12	-16.4	-19.8	-19.8	21.1	-19.0	-23.0	-23.0	22.9	-22.1	-26.7	-26.7	25.0
	11:12	-16.4	-19.9	-19.9	20.0	-19.0	-23.0	-23.0	21.8	-22.1	-26.7	-26.7	23.8
	12:12	-16.4	-19.9	-19.9	19.0	-19.1	-23.1	-23.1	20.8	-22.1	-26.8	-26.8	23.5
Exposure Category D	1:12	-19.7	-36.5	-57.6	32.1	-22.4	-41.3	-65.0	32.1	-25.4	-46.8	-73.5	32.1
	2:12	-17.6	-34.5	-53.4	30.9	-20.0	-39.0	-60.3	31.9	-22.8	-44.2	-68.2	33.1
	3:12	-17.7	-34.5	-53.4	28.8	-20.1	-39.0	-60.3	29.8	-22.8	-44.2	-68.2	31.0
	4:12	-17.7	-34.5	-53.4	26.7	-20.1	-39.0	-60.3	27.7	-22.8	-44.2	-68.3	28.9
	5:12	-17.7	-34.5	-53.4	24.6	-20.1	-39.0	-60.3	25.6	-22.9	-44.2	-68.3	26.8
	6:12	-17.8	-34.6	-53.5	22.7	-20.1	-39.1	-60.4	23.7	-22.9	-44.3	-68.3	24.8
	7:12	-19.9	-24.1	-24.1	27.2	-22.6	-27.3	-27.3	29.0	-25.6	-31.0	-31.0	31.1
	8:12	-19.9	-24.1	-24.1	25.6	-22.6	-27.3	-27.3	27.4	-25.7	-31.0	-31.0	29.5
	9:12	-20.0	-24.2	-24.2	24.2	-22.6	-27.4	-27.4	26.0	-25.7	-31.0	-31.0	28.1
	10:12	-20.0	-24.2	-24.2	23.0	-22.7	-27.4	-27.4	24.8	-25.7	-31.1	-31.1	27.0
	11:12	-20.1	-24.3	-24.3	21.9	-22.7	-27.5	-27.5	24.1	-25.8	-31.1	-31.1	26.9
	12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
	3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
	4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
	5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
	6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
	7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
	8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
	9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
	10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
	11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	9.4	9.9	10.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **125 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-13.0	-24.4	-38.7	38.6	-13.0	-24.4	-38.7	38.6	-16.1	-29.9	-47.3	38.6
2:12	-11.6	-23.0	-35.9	35.5	-11.6	-23.0	-35.9	35.5	-14.3	-28.2	-43.8	35.5
3:12	-11.6	-23.0	-35.9	32.2	-11.6	-23.0	-35.9	32.2	-14.4	-28.2	-43.8	32.2
4:12	-11.6	-23.1	-35.9	29.6	-11.6	-23.1	-35.9	29.6	-14.4	-28.3	-43.9	29.6
5:12	-11.7	-23.1	-35.9	27.1	-11.7	-23.1	-35.9	27.1	-14.4	-28.3	-43.9	27.1
6:12	-11.7	-23.1	-36.0	24.7	-11.7	-23.1	-36.0	24.7	-14.5	-28.3	-43.9	24.7
7:12	-13.2	-16.0	-16.0	24.9	-13.2	-16.0	-16.0	24.9	-16.2	-19.7	-19.7	27.0
8:12	-13.2	-16.1	-16.1	23.0	-13.2	-16.1	-16.1	23.0	-16.3	-19.7	-19.7	25.1
9:12	-13.3	-16.1	-16.1	21.3	-13.3	-16.1	-16.1	21.3	-16.3	-19.8	-19.8	23.3
10:12	-13.3	-16.1	-16.1	19.8	-13.3	-16.1	-16.1	19.8	-16.4	-19.8	-19.8	21.9
11:12	-13.3	-16.2	-16.2	18.5	-13.3	-16.2	-16.2	18.5	-16.4	-19.9	-19.9	20.6
12:12	-13.4	-16.2	-16.2	17.4	-13.4	-16.2	-16.2	17.4	-16.4	-19.9	-19.9	19.5
Exposure Category C												
1:12	-16.1	-29.9	-47.3	38.6	-18.7	-34.7	-54.7	38.6	-21.8	-40.2	-63.3	38.6
2:12	-14.3	-28.2	-43.8	35.5	-16.7	-32.7	-50.7	35.5	-19.5	-37.9	-58.7	36.2
3:12	-14.4	-28.2	-43.8	32.2	-16.7	-32.7	-50.7	32.5	-19.5	-37.9	-58.7	33.6
4:12	-14.4	-28.3	-43.9	29.6	-16.8	-32.8	-50.8	29.9	-19.5	-38.0	-58.7	31.0
5:12	-14.4	-28.3	-43.9	27.1	-16.8	-32.8	-50.8	27.4	-19.6	-38.0	-58.7	28.5
6:12	-14.5	-28.3	-43.9	24.7	-16.8	-32.8	-50.8	25.0	-19.6	-38.0	-58.8	26.1
7:12	-16.2	-19.7	-19.7	27.0	-18.9	-22.9	-22.9	28.8	-21.9	-26.6	-26.6	30.9
8:12	-16.3	-19.7	-19.7	25.1	-18.9	-22.9	-22.9	26.8	-22.0	-26.6	-26.6	28.9
9:12	-16.3	-19.8	-19.8	23.3	-19.0	-23.0	-23.0	25.1	-22.0	-26.6	-26.6	27.2
10:12	-16.4	-19.8	-19.8	21.9	-19.0	-23.0	-23.0	23.6	-22.1	-26.7	-26.7	25.7
11:12	-16.4	-19.9	-19.9	20.6	-19.0	-23.0	-23.0	22.4	-22.1	-26.7	-26.7	24.4
12:12	-16.4	-19.9	-19.9	19.5	-19.1	-23.1	-23.1	21.3	-22.1	-26.8	-26.8	23.5
Exposure Category D												
1:12	-19.7	-36.5	-57.6	35.1	-22.4	-41.3	-65.0	35.1	-25.4	-46.8	-73.5	35.1
2:12	-17.6	-34.5	-53.4	33.1	-20.0	-39.0	-60.3	34.1	-22.8	-44.2	-68.2	35.2
3:12	-17.7	-34.5	-53.4	30.8	-20.1	-39.0	-60.3	31.8	-22.8	-44.2	-68.2	32.9
4:12	-17.7	-34.5	-53.4	28.4	-20.1	-39.0	-60.3	29.4	-22.8	-44.2	-68.3	30.5
5:12	-17.7	-34.5	-53.4	26.1	-20.1	-39.0	-60.3	27.1	-22.9	-44.2	-68.3	28.2
6:12	-17.8	-34.6	-53.5	24.0	-20.1	-39.1	-60.4	24.9	-22.9	-44.3	-68.3	26.1
7:12	-19.9	-24.1	-24.1	28.3	-22.6	-27.3	-27.3	30.1	-25.6	-31.0	-31.0	32.1
8:12	-19.9	-24.1	-24.1	26.5	-22.6	-27.3	-27.3	28.3	-25.7	-31.0	-31.0	30.4
9:12	-20.0	-24.2	-24.2	25.0	-22.6	-27.4	-27.4	26.8	-25.7	-31.0	-31.0	28.8
10:12	-20.0	-24.2	-24.2	23.6	-22.7	-27.4	-27.4	25.4	-25.7	-31.1	-31.1	27.5
11:12	-20.1	-24.3	-24.3	22.4	-22.7	-27.5	-27.5	24.2	-25.8	-31.1	-31.1	26.9
12:12	-20.1	-24.3	-24.3	21.6	-22.8	-27.5	-27.5	24.0	-25.8	-31.2	-31.2	26.8

Basic Wind Speed
125 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-13.0	-24.4	-38.7	45.5	-13.0	-24.4	-38.7	45.5	-16.1	-29.9	-47.3	45.5
2:12	-11.6	-23.0	-35.9	41.9	-11.6	-23.0	-35.9	41.9	-14.3	-28.2	-43.8	41.9
3:12	-11.6	-23.0	-35.9	37.8	-11.6	-23.0	-35.9	37.8	-14.4	-28.2	-43.8	37.8
4:12	-11.6	-23.1	-35.9	33.6	-11.6	-23.1	-35.9	33.6	-14.4	-28.3	-43.9	33.6
5:12	-11.7	-23.1	-35.9	30.3	-11.7	-23.1	-35.9	30.3	-14.4	-28.3	-43.9	30.3
6:12	-11.7	-23.1	-36.0	27.5	-11.7	-23.1	-36.0	27.5	-14.5	-28.3	-43.9	27.5
7:12	-13.2	-16.0	-16.0	27.3	-13.2	-16.0	-16.0	27.3	-16.2	-19.7	-19.7	29.4
8:12	-13.2	-16.1	-16.1	25.0	-13.2	-16.1	-16.1	25.0	-16.3	-19.7	-19.7	27.1
9:12	-13.3	-16.1	-16.1	23.0	-13.3	-16.1	-16.1	23.0	-16.3	-19.8	-19.8	25.1
10:12	-13.3	-16.1	-16.1	21.2	-13.3	-16.1	-16.1	21.2	-16.4	-19.8	-19.8	23.3
11:12	-13.3	-16.2	-16.2	19.7	-13.3	-16.2	-16.2	19.7	-16.4	-19.9	-19.9	21.8
12:12	-13.4	-16.2	-16.2	18.4	-13.4	-16.2	-16.2	18.4	-16.4	-19.9	-19.9	20.5
Exposure Category C												
1:12	-16.1	-29.9	-47.3	45.5	-18.7	-34.7	-54.7	45.5	-21.8	-40.2	-63.3	45.5
2:12	-14.3	-28.2	-43.8	41.9	-16.7	-32.7	-50.7	41.9	-19.5	-37.9	-58.7	41.9
3:12	-14.4	-28.2	-43.8	37.8	-16.7	-32.7	-50.7	37.8	-19.5	-37.9	-58.7	37.9
4:12	-14.4	-28.3	-43.9	33.6	-16.8	-32.8	-50.8	33.6	-19.5	-38.0	-58.7	34.8
5:12	-14.4	-28.3	-43.9	30.3	-16.8	-32.8	-50.8	30.6	-19.6	-38.0	-58.7	31.8
6:12	-14.5	-28.3	-43.9	27.5	-16.8	-32.8	-50.8	27.8	-19.6	-38.0	-58.8	28.9
7:12	-16.2	-19.7	-19.7	29.4	-18.9	-22.9	-22.9	31.2	-21.9	-26.6	-26.6	33.3
8:12	-16.3	-19.7	-19.7	27.1	-18.9	-22.9	-22.9	28.9	-22.0	-26.6	-26.6	30.9
9:12	-16.3	-19.8	-19.8	25.1	-19.0	-23.0	-23.0	26.8	-22.0	-26.6	-26.6	28.9
10:12	-16.4	-19.8	-19.8	23.3	-19.0	-23.0	-23.0	25.1	-22.1	-26.7	-26.7	27.2
11:12	-16.4	-19.9	-19.9	21.8	-19.0	-23.0	-23.0	23.6	-22.1	-26.7	-26.7	25.6
12:12	-16.4	-19.9	-19.9	20.5	-19.1	-23.1	-23.1	22.3	-22.1	-26.8	-26.8	24.3
Exposure Category D												
1:12	-19.7	-36.5	-57.6	41.4	-22.4	-41.3	-65.0	41.4	-25.4	-46.8	-73.5	41.4
2:12	-17.6	-34.5	-53.4	38.0	-20.0	-39.0	-60.3	38.4	-22.8	-44.2	-68.2	39.5
3:12	-17.7	-34.5	-53.4	34.6	-20.1	-39.0	-60.3	35.6	-22.8	-44.2	-68.2	36.7
4:12	-17.7	-34.5	-53.4	31.8	-20.1	-39.0	-60.3	32.8	-22.8	-44.2	-68.3	33.9
5:12	-17.7	-34.5	-53.4	29.0	-20.1	-39.0	-60.3	30.0	-22.9	-44.2	-68.3	31.2
6:12	-17.8	-34.6	-53.5	26.5	-20.1	-39.1	-60.4	27.5	-22.9	-44.3	-68.3	28.6
7:12	-19.9	-24.1	-24.1	30.4	-22.6	-27.3	-27.3	32.2	-25.6	-31.0	-31.0	34.3
8:12	-19.9	-24.1	-24.1	28.3	-22.6	-27.3	-27.3	30.1	-25.7	-31.0	-31.0	32.2
9:12	-20.0	-24.2	-24.2	26.5	-22.6	-27.4	-27.4	28.3	-25.7	-31.0	-31.0	30.4
10:12	-20.0	-24.2	-24.2	24.9	-22.7	-27.4	-27.4	26.7	-25.7	-31.1	-31.1	28.8
11:12	-20.1	-24.3	-24.3	23.5	-22.7	-27.5	-27.5	25.3	-25.8	-31.1	-31.1	27.4
12:12	-20.1	-24.3	-24.3	22.4	-22.8	-27.5	-27.5	24.1	-25.8	-31.2	-31.2	26.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

125 mph

Ground Snow Load

60 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-13.0	-24.4	-38.7	52.5	-13.0	-24.4	-38.7	52.5	-16.1	-29.9	-47.3	52.5
2:12	-11.6	-23.0	-35.9	48.2	-11.6	-23.0	-35.9	48.2	-14.3	-28.2	-43.8	48.2
3:12	-11.6	-23.0	-35.9	43.4	-11.6	-23.0	-35.9	43.4	-14.4	-28.2	-43.8	43.4
4:12	-11.6	-23.1	-35.9	38.6	-11.6	-23.1	-35.9	38.6	-14.4	-28.3	-43.9	38.6
5:12	-11.7	-23.1	-35.9	34.0	-11.7	-23.1	-35.9	34.0	-14.4	-28.3	-43.9	34.0
6:12	-11.7	-23.1	-36.0	30.3	-11.7	-23.1	-36.0	30.3	-14.5	-28.3	-43.9	30.3
7:12	-13.2	-16.0	-16.0	29.7	-13.2	-16.0	-16.0	29.7	-16.2	-19.7	-19.7	31.8
8:12	-13.2	-16.1	-16.1	27.1	-13.2	-16.1	-16.1	27.1	-16.3	-19.7	-19.7	29.1
9:12	-13.3	-16.1	-16.1	24.7	-13.3	-16.1	-16.1	24.7	-16.3	-19.8	-19.8	26.8
10:12	-13.3	-16.1	-16.1	22.7	-13.3	-16.1	-16.1	22.7	-16.4	-19.8	-19.8	24.7
11:12	-13.3	-16.2	-16.2	20.9	-13.3	-16.2	-16.2	20.9	-16.4	-19.9	-19.9	23.0
12:12	-13.4	-16.2	-16.2	19.4	-13.4	-16.2	-16.2	19.4	-16.4	-19.9	-19.9	21.5
Exposure Category C												
1:12	-16.1	-29.9	-47.3	52.5	-18.7	-34.7	-54.7	52.5	-21.8	-40.2	-63.3	52.5
2:12	-14.3	-28.2	-43.8	48.2	-16.7	-32.7	-50.7	48.2	-19.5	-37.9	-58.7	48.2
3:12	-14.4	-28.2	-43.8	43.4	-16.7	-32.7	-50.7	43.4	-19.5	-37.9	-58.7	43.4
4:12	-14.4	-28.3	-43.9	38.6	-16.8	-32.8	-50.8	38.6	-19.5	-38.0	-58.7	38.6
5:12	-14.4	-28.3	-43.9	34.0	-16.8	-32.8	-50.8	34.0	-19.6	-38.0	-58.7	35.0
6:12	-14.5	-28.3	-43.9	30.3	-16.8	-32.8	-50.8	30.6	-19.6	-38.0	-58.8	31.7
7:12	-16.2	-19.7	-19.7	31.8	-18.9	-22.9	-22.9	33.6	-21.9	-26.6	-26.6	35.6
8:12	-16.3	-19.7	-19.7	29.1	-18.9	-22.9	-22.9	30.9	-22.0	-26.6	-26.6	33.0
9:12	-16.3	-19.8	-19.8	26.8	-19.0	-23.0	-23.0	28.6	-22.0	-26.6	-26.6	30.6
10:12	-16.4	-19.8	-19.8	24.7	-19.0	-23.0	-23.0	26.5	-22.1	-26.7	-26.7	28.6
11:12	-16.4	-19.9	-19.9	23.0	-19.0	-23.0	-23.0	24.8	-22.1	-26.7	-26.7	26.8
12:12	-16.4	-19.9	-19.9	21.5	-19.1	-23.1	-23.1	23.3	-22.1	-26.8	-26.8	25.3
Exposure Category D												
1:12	-19.7	-36.5	-57.6	47.6	-22.4	-41.3	-65.0	47.6	-25.4	-46.8	-73.5	47.6
2:12	-17.6	-34.5	-53.4	43.8	-20.0	-39.0	-60.3	43.8	-22.8	-44.2	-68.2	43.8
3:12	-17.7	-34.5	-53.4	39.5	-20.1	-39.0	-60.3	39.5	-22.8	-44.2	-68.2	40.6
4:12	-17.7	-34.5	-53.4	35.1	-20.1	-39.0	-60.3	36.1	-22.8	-44.2	-68.3	37.3
5:12	-17.7	-34.5	-53.4	32.0	-20.1	-39.0	-60.3	33.0	-22.9	-44.2	-68.3	34.1
6:12	-17.8	-34.6	-53.5	29.0	-20.1	-39.1	-60.4	30.0	-22.9	-44.3	-68.3	31.1
7:12	-19.9	-24.1	-24.1	32.6	-22.6	-27.3	-27.3	34.4	-25.6	-31.0	-31.0	36.5
8:12	-19.9	-24.1	-24.1	30.2	-22.6	-27.3	-27.3	32.0	-25.7	-31.0	-31.0	34.0
9:12	-20.0	-24.2	-24.2	28.1	-22.6	-27.4	-27.4	29.8	-25.7	-31.0	-31.0	31.9
10:12	-20.0	-24.2	-24.2	26.2	-22.7	-27.4	-27.4	28.0	-25.7	-31.1	-31.1	30.1
11:12	-20.1	-24.3	-24.3	24.6	-22.7	-27.5	-27.5	26.4	-25.8	-31.1	-31.1	28.5
12:12	-20.1	-24.3	-24.3	23.3	-22.8	-27.5	-27.5	25.1	-25.8	-31.2	-31.2	27.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **125 mph**

Ground Snow Load **70 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-13.0	-24.4	-38.7	59.4	-13.0	-24.4	-38.7	59.4	-16.1	-29.9	-47.3	59.4
2:12	-11.6	-23.0	-35.9	54.5	-11.6	-23.0	-35.9	54.5	-14.3	-28.2	-43.8	54.5
3:12	-11.6	-23.0	-35.9	49.1	-11.6	-23.0	-35.9	49.1	-14.4	-28.2	-43.8	49.1
4:12	-11.6	-23.1	-35.9	43.6	-11.6	-23.1	-35.9	43.6	-14.4	-28.3	-43.9	43.6
5:12	-11.7	-23.1	-35.9	38.3	-11.7	-23.1	-35.9	38.3	-14.4	-28.3	-43.9	38.3
6:12	-11.7	-23.1	-36.0	33.4	-11.7	-23.1	-36.0	33.4	-14.5	-28.3	-43.9	33.4
7:12	-13.2	-16.0	-16.0	32.1	-13.2	-16.0	-16.0	32.1	-16.2	-19.7	-19.7	34.2
8:12	-13.2	-16.1	-16.1	29.1	-13.2	-16.1	-16.1	29.1	-16.3	-19.7	-19.7	31.1
9:12	-13.3	-16.1	-16.1	26.4	-13.3	-16.1	-16.1	26.4	-16.3	-19.8	-19.8	28.5
10:12	-13.3	-16.1	-16.1	24.1	-13.3	-16.1	-16.1	24.1	-16.4	-19.8	-19.8	26.2
11:12	-13.3	-16.2	-16.2	22.1	-13.3	-16.2	-16.2	22.1	-16.4	-19.9	-19.9	24.2
12:12	-13.4	-16.2	-16.2	20.4	-13.4	-16.2	-16.2	20.4	-16.4	-19.9	-19.9	22.5
Exposure Category C												
1:12	-16.1	-29.9	-47.3	59.4	-18.7	-34.7	-54.7	59.4	-21.8	-40.2	-63.3	59.4
2:12	-14.3	-28.2	-43.8	54.5	-16.7	-32.7	-50.7	54.5	-19.5	-37.9	-58.7	54.5
3:12	-14.4	-28.2	-43.8	49.1	-16.7	-32.7	-50.7	49.1	-19.5	-37.9	-58.7	49.1
4:12	-14.4	-28.3	-43.9	43.6	-16.8	-32.8	-50.8	43.6	-19.5	-38.0	-58.7	43.6
5:12	-14.4	-28.3	-43.9	38.3	-16.8	-32.8	-50.8	38.3	-19.6	-38.0	-58.7	38.3
6:12	-14.5	-28.3	-43.9	33.4	-16.8	-32.8	-50.8	33.4	-19.6	-38.0	-58.8	34.5
7:12	-16.2	-19.7	-19.7	34.2	-18.9	-22.9	-22.9	36.0	-21.9	-26.6	-26.6	38.0
8:12	-16.3	-19.7	-19.7	31.1	-18.9	-22.9	-22.9	32.9	-22.0	-26.6	-26.6	35.0
9:12	-16.3	-19.8	-19.8	28.5	-19.0	-23.0	-23.0	30.3	-22.0	-26.6	-26.6	32.3
10:12	-16.4	-19.8	-19.8	26.2	-19.0	-23.0	-23.0	28.0	-22.1	-26.7	-26.7	30.0
11:12	-16.4	-19.9	-19.9	24.2	-19.0	-23.0	-23.0	26.0	-22.1	-26.7	-26.7	28.0
12:12	-16.4	-19.9	-19.9	22.5	-19.1	-23.1	-23.1	24.3	-22.1	-26.8	-26.8	26.4
Exposure Category D												
1:12	-19.7	-36.5	-57.6	53.9	-22.4	-41.3	-65.0	53.9	-25.4	-46.8	-73.5	53.9
2:12	-17.6	-34.5	-53.4	49.5	-20.0	-39.0	-60.3	49.5	-22.8	-44.2	-68.2	49.5
3:12	-17.7	-34.5	-53.4	44.6	-20.1	-39.0	-60.3	44.6	-22.8	-44.2	-68.2	44.6
4:12	-17.7	-34.5	-53.4	39.6	-20.1	-39.0	-60.3	39.6	-22.8	-44.2	-68.3	40.7
5:12	-17.7	-34.5	-53.4	34.9	-20.1	-39.0	-60.3	35.9	-22.9	-44.2	-68.3	37.1
6:12	-17.8	-34.6	-53.5	31.5	-20.1	-39.1	-60.4	32.5	-22.9	-44.3	-68.3	33.7
7:12	-19.9	-24.1	-24.1	34.8	-22.6	-27.3	-27.3	36.5	-25.6	-31.0	-31.0	38.6
8:12	-19.9	-24.1	-24.1	32.0	-22.6	-27.3	-27.3	33.8	-25.7	-31.0	-31.0	35.9
9:12	-20.0	-24.2	-24.2	29.6	-22.6	-27.4	-27.4	31.4	-25.7	-31.0	-31.0	33.4
10:12	-20.0	-24.2	-24.2	27.5	-22.7	-27.4	-27.4	29.3	-25.7	-31.1	-31.1	31.4
11:12	-20.1	-24.3	-24.3	25.7	-22.7	-27.5	-27.5	27.5	-25.8	-31.1	-31.1	29.6
12:12	-20.1	-24.3	-24.3	24.2	-22.8	-27.5	-27.5	26.0	-25.8	-31.2	-31.2	28.0

Basic Wind Speed

125 mph

Ground Snow Load

80 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-13.0	-24.4	-38.7	66.4	-13.0	-24.4	-38.7	66.4	-16.1	-29.9	-47.3	66.4
2:12	-11.6	-23.0	-35.9	60.9	-11.6	-23.0	-35.9	60.9	-14.3	-28.2	-43.8	60.9
3:12	-11.6	-23.0	-35.9	54.8	-11.6	-23.0	-35.9	54.8	-14.4	-28.2	-43.8	54.8
4:12	-11.6	-23.1	-35.9	48.6	-11.6	-23.1	-35.9	48.6	-14.4	-28.3	-43.9	48.6
5:12	-11.7	-23.1	-35.9	42.7	-11.7	-23.1	-35.9	42.7	-14.4	-28.3	-43.9	42.7
6:12	-11.7	-23.1	-36.0	37.1	-11.7	-23.1	-36.0	37.1	-14.5	-28.3	-43.9	37.1
7:12	-13.2	-16.0	-16.0	34.5	-13.2	-16.0	-16.0	34.5	-16.2	-19.7	-19.7	36.6
8:12	-13.2	-16.1	-16.1	31.1	-13.2	-16.1	-16.1	31.1	-16.3	-19.7	-19.7	33.2
9:12	-13.3	-16.1	-16.1	28.1	-13.3	-16.1	-16.1	28.1	-16.3	-19.8	-19.8	30.2
10:12	-13.3	-16.1	-16.1	25.5	-13.3	-16.1	-16.1	25.5	-16.4	-19.8	-19.8	27.6
11:12	-13.3	-16.2	-16.2	23.3	-13.3	-16.2	-16.2	23.3	-16.4	-19.9	-19.9	25.4
12:12	-13.4	-16.2	-16.2	21.4	-13.4	-16.2	-16.2	21.4	-16.4	-19.9	-19.9	23.5
Exposure Category C												
1:12	-16.1	-29.9	-47.3	66.4	-18.7	-34.7	-54.7	66.4	-21.8	-40.2	-63.3	66.4
2:12	-14.3	-28.2	-43.8	60.9	-16.7	-32.7	-50.7	60.9	-19.5	-37.9	-58.7	60.9
3:12	-14.4	-28.2	-43.8	54.8	-16.7	-32.7	-50.7	54.8	-19.5	-37.9	-58.7	54.8
4:12	-14.4	-28.3	-43.9	48.6	-16.8	-32.8	-50.8	48.6	-19.5	-38.0	-58.7	48.6
5:12	-14.4	-28.3	-43.9	42.7	-16.8	-32.8	-50.8	42.7	-19.6	-38.0	-58.7	42.7
6:12	-14.5	-28.3	-43.9	37.1	-16.8	-32.8	-50.8	37.1	-19.6	-38.0	-58.8	37.3
7:12	-16.2	-19.7	-19.7	36.6	-18.9	-22.9	-22.9	38.4	-21.9	-26.6	-26.6	40.4
8:12	-16.3	-19.7	-19.7	33.2	-18.9	-22.9	-22.9	35.0	-22.0	-26.6	-26.6	37.0
9:12	-16.3	-19.8	-19.8	30.2	-19.0	-23.0	-23.0	32.0	-22.0	-26.6	-26.6	34.1
10:12	-16.4	-19.8	-19.8	27.6	-19.0	-23.0	-23.0	29.4	-22.1	-26.7	-26.7	31.5
11:12	-16.4	-19.9	-19.9	25.4	-19.0	-23.0	-23.0	27.2	-22.1	-26.7	-26.7	29.3
12:12	-16.4	-19.9	-19.9	23.5	-19.1	-23.1	-23.1	25.3	-22.1	-26.8	-26.8	27.4
Exposure Category D												
1:12	-19.7	-36.5	-57.6	60.1	-22.4	-41.3	-65.0	60.1	-25.4	-46.8	-73.5	60.1
2:12	-17.6	-34.5	-53.4	55.2	-20.0	-39.0	-60.3	55.2	-22.8	-44.2	-68.2	55.2
3:12	-17.7	-34.5	-53.4	49.7	-20.1	-39.0	-60.3	49.7	-22.8	-44.2	-68.2	49.7
4:12	-17.7	-34.5	-53.4	44.1	-20.1	-39.0	-60.3	44.1	-22.8	-44.2	-68.3	44.1
5:12	-17.7	-34.5	-53.4	38.8	-20.1	-39.0	-60.3	38.8	-22.9	-44.2	-68.3	40.0
6:12	-17.8	-34.6	-53.5	34.1	-20.1	-39.1	-60.4	35.0	-22.9	-44.3	-68.3	36.2
7:12	-19.9	-24.1	-24.1	36.9	-22.6	-27.3	-27.3	38.7	-25.6	-31.0	-31.0	40.8
8:12	-19.9	-24.1	-24.1	33.8	-22.6	-27.3	-27.3	35.6	-25.7	-31.0	-31.0	37.7
9:12	-20.0	-24.2	-24.2	31.1	-22.6	-27.4	-27.4	32.9	-25.7	-31.0	-31.0	35.0
10:12	-20.0	-24.2	-24.2	28.8	-22.7	-27.4	-27.4	30.6	-25.7	-31.1	-31.1	32.7
11:12	-20.1	-24.3	-24.3	26.8	-22.7	-27.5	-27.5	28.6	-25.8	-31.1	-31.1	30.6
12:12	-20.1	-24.3	-24.3	25.1	-22.8	-27.5	-27.5	26.9	-25.8	-31.2	-31.2	28.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
125 mph

Ground Snow Load
90 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-13.0	-24.4	-38.7	73.4	-13.0	-24.4	-38.7	73.4	-16.1	-29.9	-47.3	73.4
2:12	-11.6	-23.0	-35.9	67.2	-11.6	-23.0	-35.9	67.2	-14.3	-28.2	-43.8	67.2
3:12	-11.6	-23.0	-35.9	60.5	-11.6	-23.0	-35.9	60.5	-14.4	-28.2	-43.8	60.5
4:12	-11.6	-23.1	-35.9	53.6	-11.6	-23.1	-35.9	53.6	-14.4	-28.3	-43.9	53.6
5:12	-11.7	-23.1	-35.9	47.0	-11.7	-23.1	-35.9	47.0	-14.4	-28.3	-43.9	47.0
6:12	-11.7	-23.1	-36.0	40.9	-11.7	-23.1	-36.0	40.9	-14.5	-28.3	-43.9	40.9
7:12	-13.2	-16.0	-16.0	36.9	-13.2	-16.0	-16.0	36.9	-16.2	-19.7	-19.7	39.0
8:12	-13.2	-16.1	-16.1	33.1	-13.2	-16.1	-16.1	33.1	-16.3	-19.7	-19.7	35.2
9:12	-13.3	-16.1	-16.1	29.8	-13.3	-16.1	-16.1	29.8	-16.3	-19.8	-19.8	31.9
10:12	-13.3	-16.1	-16.1	27.0	-13.3	-16.1	-16.1	27.0	-16.4	-19.8	-19.8	29.1
11:12	-13.3	-16.2	-16.2	24.5	-13.3	-16.2	-16.2	24.5	-16.4	-19.9	-19.9	26.6
12:12	-13.4	-16.2	-16.2	22.5	-13.4	-16.2	-16.2	22.5	-16.4	-19.9	-19.9	24.5
1:12	-16.1	-29.9	-47.3	73.4	-18.7	-34.7	-54.7	73.4	-21.8	-40.2	-63.3	73.4
2:12	-14.3	-28.2	-43.8	67.2	-16.7	-32.7	-50.7	67.2	-19.5	-37.9	-58.7	67.2
3:12	-14.4	-28.2	-43.8	60.5	-16.7	-32.7	-50.7	60.5	-19.5	-37.9	-58.7	60.5
4:12	-14.4	-28.3	-43.9	53.6	-16.8	-32.8	-50.8	53.6	-19.5	-38.0	-58.7	53.6
5:12	-14.4	-28.3	-43.9	47.0	-16.8	-32.8	-50.8	47.0	-19.6	-38.0	-58.7	47.0
6:12	-14.5	-28.3	-43.9	40.9	-16.8	-32.8	-50.8	40.9	-19.6	-38.0	-58.8	40.9
7:12	-16.2	-19.7	-19.7	39.0	-18.9	-22.9	-22.9	40.8	-21.9	-26.6	-26.6	42.8
8:12	-16.3	-19.7	-19.7	35.2	-18.9	-22.9	-22.9	37.0	-22.0	-26.6	-26.6	39.1
9:12	-16.3	-19.8	-19.8	31.9	-19.0	-23.0	-23.0	33.7	-22.0	-26.6	-26.6	35.8
10:12	-16.4	-19.8	-19.8	29.1	-19.0	-23.0	-23.0	30.8	-22.1	-26.7	-26.7	32.9
11:12	-16.4	-19.9	-19.9	26.6	-19.0	-23.0	-23.0	28.4	-22.1	-26.7	-26.7	30.5
12:12	-16.4	-19.9	-19.9	24.5	-19.1	-23.1	-23.1	26.3	-22.1	-26.8	-26.8	28.4
1:12	-19.7	-36.5	-57.6	66.4	-22.4	-41.3	-65.0	66.4	-25.4	-46.8	-73.5	66.4
2:12	-17.6	-34.5	-53.4	60.9	-20.0	-39.0	-60.3	60.9	-22.8	-44.2	-68.2	60.9
3:12	-17.7	-34.5	-53.4	54.8	-20.1	-39.0	-60.3	54.8	-22.8	-44.2	-68.2	54.8
4:12	-17.7	-34.5	-53.4	48.6	-20.1	-39.0	-60.3	48.6	-22.8	-44.2	-68.3	48.6
5:12	-17.7	-34.5	-53.4	42.7	-20.1	-39.0	-60.3	42.7	-22.9	-44.2	-68.3	42.9
6:12	-17.8	-34.6	-53.5	37.1	-20.1	-39.1	-60.4	37.6	-22.9	-44.3	-68.3	38.7
7:12	-19.9	-24.1	-24.1	39.1	-22.6	-27.3	-27.3	40.9	-25.6	-31.0	-31.0	42.9
8:12	-19.9	-24.1	-24.1	35.7	-22.6	-27.3	-27.3	37.4	-25.7	-31.0	-31.0	39.5
9:12	-20.0	-24.2	-24.2	32.7	-22.6	-27.4	-27.4	34.5	-25.7	-31.0	-31.0	36.5
10:12	-20.0	-24.2	-24.2	30.1	-22.7	-27.4	-27.4	31.9	-25.7	-31.1	-31.1	33.9
11:12	-20.1	-24.3	-24.3	27.9	-22.7	-27.5	-27.5	29.7	-25.8	-31.1	-31.1	31.7
12:12	-20.1	-24.3	-24.3	26.0	-22.8	-27.5	-27.5	27.8	-25.8	-31.2	-31.2	29.8

Basic Wind Speed
125 mph

Ground Snow Load
100 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	13.4	-14.2	-26.5	-42.0	13.4	-17.5	-32.5	-51.2	13.4
2:12	-12.6	-25.0	-38.9	13.4	-12.6	-25.0	-38.9	13.4	-15.6	-30.6	-47.5	13.4
3:12	-12.7	-25.0	-38.9	13.3	-12.7	-25.0	-38.9	13.3	-15.6	-30.6	-47.5	13.3
4:12	-12.7	-25.0	-38.9	13.2	-12.7	-25.0	-38.9	13.2	-15.7	-30.7	-47.5	13.2
5:12	-12.7	-25.1	-39.0	13.2	-12.7	-25.1	-39.0	13.2	-15.7	-30.7	-47.6	13.2
6:12	-12.8	-25.1	-39.0	13.0	-12.8	-25.1	-39.0	13.0	-15.7	-30.7	-47.6	13.0
7:12	-14.3	-17.4	-17.4	17.2	-14.3	-17.4	-17.4	17.2	-17.6	-21.4	-21.4	20.2
8:12	-14.4	-17.5	-17.5	17.1	-14.4	-17.5	-17.5	17.1	-17.7	-21.4	-21.4	20.1
9:12	-14.4	-17.5	-17.5	17.0	-14.4	-17.5	-17.5	17.0	-17.7	-21.5	-21.5	20.0
10:12	-14.5	-17.5	-17.5	16.9	-14.5	-17.5	-17.5	16.9	-17.8	-21.5	-21.5	19.8
11:12	-14.5	-17.6	-17.6	16.7	-14.5	-17.6	-17.6	16.7	-17.8	-21.6	-21.6	19.7
12:12	-14.5	-17.6	-17.6	16.6	-14.5	-17.6	-17.6	16.6	-17.8	-21.6	-21.6	19.6
Exposure Category C												
1:12	-17.5	-32.5	-51.2	13.4	-20.3	-37.6	-59.3	13.4	-23.7	-43.6	-68.5	13.4
2:12	-15.6	-30.6	-47.5	13.4	-18.2	-35.5	-55.0	14.6	-21.2	-41.1	-63.6	16.3
3:12	-15.6	-30.6	-47.5	13.3	-18.2	-35.5	-55.0	14.5	-21.2	-41.1	-63.6	16.2
4:12	-15.7	-30.7	-47.5	13.2	-18.2	-35.5	-55.0	14.5	-21.2	-41.2	-63.6	16.1
5:12	-15.7	-30.7	-47.6	13.2	-18.3	-35.6	-55.0	14.4	-21.3	-41.2	-63.6	16.0
6:12	-15.7	-30.7	-47.6	13.0	-18.3	-35.6	-55.1	14.3	-21.3	-41.2	-63.7	15.9
7:12	-17.6	-21.4	-21.4	20.2	-20.5	-24.8	-24.8	22.8	-23.8	-28.8	-28.8	25.8
8:12	-17.7	-21.4	-21.4	20.1	-20.6	-24.9	-24.9	22.7	-23.9	-28.9	-28.9	25.6
9:12	-17.7	-21.5	-21.5	20.0	-20.6	-24.9	-24.9	22.5	-23.9	-28.9	-28.9	25.5
10:12	-17.8	-21.5	-21.5	19.8	-20.6	-25.0	-25.0	22.4	-23.9	-28.9	-28.9	25.4
11:12	-17.8	-21.6	-21.6	19.7	-20.7	-25.0	-25.0	22.3	-24.0	-29.0	-29.0	25.3
12:12	-17.8	-21.6	-21.6	19.6	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
Exposure Category D												
1:12	-21.4	-39.6	-62.4	13.4	-24.3	-44.8	-70.4	13.4	-27.6	-50.7	-79.7	13.4
2:12	-19.2	-37.4	-57.8	15.2	-21.8	-42.2	-65.3	16.6	-24.7	-47.9	-73.9	18.2
3:12	-19.2	-37.4	-57.8	15.1	-21.8	-42.3	-65.3	16.5	-24.8	-47.9	-73.9	18.2
4:12	-19.2	-37.4	-57.9	15.0	-21.8	-42.3	-65.3	16.4	-24.8	-47.9	-73.9	18.1
5:12	-19.3	-37.4	-57.9	14.9	-21.9	-42.3	-65.4	16.3	-24.8	-48.0	-74.0	18.0
6:12	-19.3	-37.5	-57.9	14.8	-21.9	-42.4	-65.4	16.2	-24.9	-48.0	-74.0	17.9
7:12	-21.6	-26.2	-26.2	23.8	-24.5	-29.6	-29.6	26.4	-27.8	-33.6	-33.6	29.3
8:12	-21.7	-26.2	-26.2	23.7	-24.5	-29.6	-29.6	26.2	-27.8	-33.6	-33.6	29.2
9:12	-21.7	-26.2	-26.2	23.5	-24.6	-29.7	-29.7	26.1	-27.9	-33.7	-33.7	29.1
10:12	-21.7	-26.3	-26.3	23.4	-24.6	-29.7	-29.7	26.0	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **130 mph**

Ground Snow Load **0 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	14.8	-14.2	-26.5	-42.0	14.8	-17.5	-32.5	-51.2	14.8
2:12	-12.6	-25.0	-38.9	14.4	-12.6	-25.0	-38.9	14.4	-15.6	-30.6	-47.5	14.4
3:12	-12.7	-25.0	-38.9	14.0	-12.7	-25.0	-38.9	14.0	-15.6	-30.6	-47.5	14.0
4:12	-12.7	-25.0	-38.9	13.2	-12.7	-25.0	-38.9	13.2	-15.7	-30.7	-47.5	13.2
5:12	-12.7	-25.1	-39.0	13.2	-12.7	-25.1	-39.0	13.2	-15.7	-30.7	-47.6	13.2
6:12	-12.8	-25.1	-39.0	13.0	-12.8	-25.1	-39.0	13.0	-15.7	-30.7	-47.6	13.0
7:12	-14.3	-17.4	-17.4	17.2	-14.3	-17.4	-17.4	17.2	-17.6	-21.4	-21.4	20.2
8:12	-14.4	-17.5	-17.5	17.1	-14.4	-17.5	-17.5	17.1	-17.7	-21.4	-21.4	20.1
9:12	-14.4	-17.5	-17.5	17.0	-14.4	-17.5	-17.5	17.0	-17.7	-21.5	-21.5	20.0
10:12	-14.5	-17.5	-17.5	16.9	-14.5	-17.5	-17.5	16.9	-17.8	-21.5	-21.5	19.8
11:12	-14.5	-17.6	-17.6	16.7	-14.5	-17.6	-17.6	16.7	-17.8	-21.6	-21.6	19.7
12:12	-14.5	-17.6	-17.6	16.6	-14.5	-17.6	-17.6	16.6	-17.8	-21.6	-21.6	19.6
Exposure Category C												
1:12	-17.5	-32.5	-51.2	14.8	-20.3	-37.6	-59.3	14.8	-23.7	-43.6	-68.5	14.8
2:12	-15.6	-30.6	-47.5	14.4	-18.2	-35.5	-55.0	15.3	-21.2	-41.1	-63.6	16.5
3:12	-15.6	-30.6	-47.5	14.0	-18.2	-35.5	-55.0	14.9	-21.2	-41.1	-63.6	16.2
4:12	-15.7	-30.7	-47.5	13.2	-18.2	-35.5	-55.0	14.5	-21.2	-41.2	-63.6	16.1
5:12	-15.7	-30.7	-47.6	13.2	-18.3	-35.6	-55.0	14.4	-21.3	-41.2	-63.6	16.0
6:12	-15.7	-30.7	-47.6	13.0	-18.3	-35.6	-55.1	14.3	-21.3	-41.2	-63.7	15.9
7:12	-17.6	-21.4	-21.4	20.2	-20.5	-24.8	-24.8	22.8	-23.8	-28.8	-28.8	25.8
8:12	-17.7	-21.4	-21.4	20.1	-20.6	-24.9	-24.9	22.7	-23.9	-28.9	-28.9	25.6
9:12	-17.7	-21.5	-21.5	20.0	-20.6	-24.9	-24.9	22.5	-23.9	-28.9	-28.9	25.5
10:12	-17.8	-21.5	-21.5	19.8	-20.6	-25.0	-25.0	22.4	-23.9	-28.9	-28.9	25.4
11:12	-17.8	-21.6	-21.6	19.7	-20.7	-25.0	-25.0	22.3	-24.0	-29.0	-29.0	25.3
12:12	-17.8	-21.6	-21.6	19.6	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
Exposure Category D												
1:12	-21.4	-39.6	-62.4	14.8	-24.3	-44.8	-70.4	14.8	-27.6	-50.7	-79.7	14.8
2:12	-19.2	-37.4	-57.8	15.7	-21.8	-42.2	-65.3	16.8	-24.7	-47.9	-73.9	18.2
3:12	-19.2	-37.4	-57.8	15.3	-21.8	-42.3	-65.3	16.5	-24.8	-47.9	-73.9	18.2
4:12	-19.2	-37.4	-57.9	15.0	-21.8	-42.3	-65.3	16.4	-24.8	-47.9	-73.9	18.1
5:12	-19.3	-37.4	-57.9	14.9	-21.9	-42.3	-65.4	16.3	-24.8	-48.0	-74.0	18.0
6:12	-19.3	-37.5	-57.9	14.8	-21.9	-42.4	-65.4	16.2	-24.9	-48.0	-74.0	17.9
7:12	-21.6	-26.2	-26.2	23.8	-24.5	-29.6	-29.6	26.4	-27.8	-33.6	-33.6	29.3
8:12	-21.7	-26.2	-26.2	23.7	-24.5	-29.6	-29.6	26.2	-27.8	-33.6	-33.6	29.2
9:12	-21.7	-26.2	-26.2	23.5	-24.6	-29.7	-29.7	26.1	-27.9	-33.7	-33.7	29.1
10:12	-21.7	-26.3	-26.3	23.4	-24.6	-29.7	-29.7	26.0	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

130 mph

Ground Snow Load

5 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	18.5	-14.2	-26.5	-42.0	18.5	-17.5	-32.5	-51.2	18.5
2:12	-12.6	-25.0	-38.9	17.8	-12.6	-25.0	-38.9	17.8	-15.6	-30.6	-47.5	17.8
3:12	-12.7	-25.0	-38.9	17.0	-12.7	-25.0	-38.9	17.0	-15.6	-30.6	-47.5	17.0
4:12	-12.7	-25.0	-38.9	14.6	-12.7	-25.0	-38.9	14.6	-15.7	-30.7	-47.5	14.6
5:12	-12.7	-25.1	-39.0	14.0	-12.7	-25.1	-39.0	14.0	-15.7	-30.7	-47.6	14.0
6:12	-12.8	-25.1	-39.0	13.4	-12.8	-25.1	-39.0	13.4	-15.7	-30.7	-47.6	13.4
7:12	-14.3	-17.4	-17.4	17.2	-14.3	-17.4	-17.4	17.2	-17.6	-21.4	-21.4	20.2
8:12	-14.4	-17.5	-17.5	17.1	-14.4	-17.5	-17.5	17.1	-17.7	-21.4	-21.4	20.1
9:12	-14.4	-17.5	-17.5	17.0	-14.4	-17.5	-17.5	17.0	-17.7	-21.5	-21.5	20.0
10:12	-14.5	-17.5	-17.5	16.9	-14.5	-17.5	-17.5	16.9	-17.8	-21.5	-21.5	19.8
11:12	-14.5	-17.6	-17.6	16.7	-14.5	-17.6	-17.6	16.7	-17.8	-21.6	-21.6	19.7
12:12	-14.5	-17.6	-17.6	16.6	-14.5	-17.6	-17.6	16.6	-17.8	-21.6	-21.6	19.6
Exposure Category C												
1:12	-17.5	-32.5	-51.2	18.5	-20.3	-37.6	-59.3	18.5	-23.7	-43.6	-68.5	18.5
2:12	-15.6	-30.6	-47.5	17.8	-18.2	-35.5	-55.0	18.7	-21.2	-41.1	-63.6	19.9
3:12	-15.6	-30.6	-47.5	17.0	-18.2	-35.5	-55.0	17.9	-21.2	-41.1	-63.6	19.2
4:12	-15.7	-30.7	-47.5	14.6	-18.2	-35.5	-55.0	15.5	-21.2	-41.2	-63.6	16.7
5:12	-15.7	-30.7	-47.6	14.0	-18.3	-35.6	-55.0	14.9	-21.3	-41.2	-63.6	16.2
6:12	-15.7	-30.7	-47.6	13.4	-18.3	-35.6	-55.1	14.4	-21.3	-41.2	-63.7	15.9
7:12	-17.6	-21.4	-21.4	20.2	-20.5	-24.8	-24.8	22.8	-23.8	-28.8	-28.8	25.8
8:12	-17.7	-21.4	-21.4	20.1	-20.6	-24.9	-24.9	22.7	-23.9	-28.9	-28.9	25.6
9:12	-17.7	-21.5	-21.5	20.0	-20.6	-24.9	-24.9	22.5	-23.9	-28.9	-28.9	25.5
10:12	-17.8	-21.5	-21.5	19.8	-20.6	-25.0	-25.0	22.4	-23.9	-28.9	-28.9	25.4
11:12	-17.8	-21.6	-21.6	19.7	-20.7	-25.0	-25.0	22.3	-24.0	-29.0	-29.0	25.3
12:12	-17.8	-21.6	-21.6	19.6	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
Exposure Category D												
1:12	-21.4	-39.6	-62.4	18.5	-24.3	-44.8	-70.4	18.5	-27.6	-50.7	-79.7	18.5
2:12	-19.2	-37.4	-57.8	19.1	-21.8	-42.2	-65.3	20.2	-24.7	-47.9	-73.9	21.4
3:12	-19.2	-37.4	-57.8	18.3	-21.8	-42.3	-65.3	19.4	-24.8	-47.9	-73.9	20.6
4:12	-19.2	-37.4	-57.9	15.5	-21.8	-42.3	-65.3	16.6	-24.8	-47.9	-73.9	18.1
5:12	-19.3	-37.4	-57.9	15.0	-21.9	-42.3	-65.4	16.3	-24.8	-48.0	-74.0	18.0
6:12	-19.3	-37.5	-57.9	14.8	-21.9	-42.4	-65.4	16.2	-24.9	-48.0	-74.0	17.9
7:12	-21.6	-26.2	-26.2	23.8	-24.5	-29.6	-29.6	26.4	-27.8	-33.6	-33.6	29.3
8:12	-21.7	-26.2	-26.2	23.7	-24.5	-29.6	-29.6	26.2	-27.8	-33.6	-33.6	29.2
9:12	-21.7	-26.2	-26.2	23.5	-24.6	-29.7	-29.7	26.1	-27.9	-33.7	-33.7	29.1
10:12	-21.7	-26.3	-26.3	23.4	-24.6	-29.7	-29.7	26.0	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

130 mph

Ground Snow Load

10 psf

Up and Down (psf)

Basic Wind Speed **130 mph**
Ground Snow Load **15 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	22.2	-14.2	-26.5	-42.0	22.2	-17.5	-32.5	-51.2	22.2
2:12	-12.6	-25.0	-38.9	21.2	-12.6	-25.0	-38.9	21.2	-15.6	-30.6	-47.5	21.2
3:12	-12.7	-25.0	-38.9	20.0	-12.7	-25.0	-38.9	20.0	-15.6	-30.6	-47.5	20.0
4:12	-12.7	-25.0	-38.9	16.5	-12.7	-25.0	-38.9	16.5	-15.7	-30.7	-47.5	16.5
5:12	-12.7	-25.1	-39.0	15.6	-12.7	-25.1	-39.0	15.6	-15.7	-30.7	-47.6	15.6
6:12	-12.8	-25.1	-39.0	14.9	-12.8	-25.1	-39.0	14.9	-15.7	-30.7	-47.6	14.9
7:12	-14.3	-17.4	-17.4	17.3	-14.3	-17.4	-17.4	17.3	-17.6	-21.4	-21.4	20.2
8:12	-14.4	-17.5	-17.5	17.1	-14.4	-17.5	-17.5	17.1	-17.7	-21.4	-21.4	20.1
9:12	-14.4	-17.5	-17.5	17.0	-14.4	-17.5	-17.5	17.0	-17.7	-21.5	-21.5	20.0
10:12	-14.5	-17.5	-17.5	16.9	-14.5	-17.5	-17.5	16.9	-17.8	-21.5	-21.5	19.8
11:12	-14.5	-17.6	-17.6	16.7	-14.5	-17.6	-17.6	16.7	-17.8	-21.6	-21.6	19.7
12:12	-14.5	-17.6	-17.6	16.6	-14.5	-17.6	-17.6	16.6	-17.8	-21.6	-21.6	19.6
Exposure Category C												
1:12	-17.5	-32.5	-51.2	22.2	-20.3	-37.6	-59.3	22.2	-23.7	-43.6	-68.5	22.2
2:12	-15.6	-30.6	-47.5	21.2	-18.2	-35.5	-55.0	22.1	-21.2	-41.1	-63.6	23.3
3:12	-15.6	-30.6	-47.5	20.0	-18.2	-35.5	-55.0	21.0	-21.2	-41.1	-63.6	22.2
4:12	-15.7	-30.7	-47.5	16.5	-18.2	-35.5	-55.0	17.4	-21.2	-41.2	-63.6	18.6
5:12	-15.7	-30.7	-47.6	15.6	-18.3	-35.6	-55.0	16.6	-21.3	-41.2	-63.6	17.8
6:12	-15.7	-30.7	-47.6	14.9	-18.3	-35.6	-55.1	15.8	-21.3	-41.2	-63.7	17.0
7:12	-17.6	-21.4	-21.4	20.2	-20.5	-24.8	-24.8	22.8	-23.8	-28.8	-28.8	25.8
8:12	-17.7	-21.4	-21.4	20.1	-20.6	-24.9	-24.9	22.7	-23.9	-28.9	-28.9	25.6
9:12	-17.7	-21.5	-21.5	20.0	-20.6	-24.9	-24.9	22.5	-23.9	-28.9	-28.9	25.5
10:12	-17.8	-21.5	-21.5	19.8	-20.6	-25.0	-25.0	22.4	-23.9	-28.9	-28.9	25.4
11:12	-17.8	-21.6	-21.6	19.7	-20.7	-25.0	-25.0	22.3	-24.0	-29.0	-29.0	25.3
12:12	-17.8	-21.6	-21.6	19.6	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
Exposure Category D												
1:12	-21.4	-39.6	-62.4	22.2	-24.3	-44.8	-70.4	22.2	-27.6	-50.7	-79.7	22.2
2:12	-19.2	-37.4	-57.8	22.5	-21.8	-42.2	-65.3	23.6	-24.7	-47.9	-73.9	24.8
3:12	-19.2	-37.4	-57.8	21.4	-21.8	-42.3	-65.3	22.4	-24.8	-47.9	-73.9	23.7
4:12	-19.2	-37.4	-57.9	17.2	-21.8	-42.3	-65.3	18.3	-24.8	-47.9	-73.9	19.5
5:12	-19.3	-37.4	-57.9	16.5	-21.9	-42.3	-65.4	17.6	-24.8	-48.0	-74.0	18.8
6:12	-19.3	-37.5	-57.9	15.8	-21.9	-42.4	-65.4	16.8	-24.9	-48.0	-74.0	18.1
7:12	-21.6	-26.2	-26.2	23.8	-24.5	-29.6	-29.6	26.4	-27.8	-33.6	-33.6	29.3
8:12	-21.7	-26.2	-26.2	23.7	-24.5	-29.6	-29.6	26.2	-27.8	-33.6	-33.6	29.2
9:12	-21.7	-26.2	-26.2	23.5	-24.6	-29.7	-29.7	26.1	-27.9	-33.7	-33.7	29.1
10:12	-21.7	-26.3	-26.3	23.4	-24.6	-29.7	-29.7	26.0	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-14.2	-26.5	-42.0	25.9	-14.2	-26.5	-42.0	25.9	-17.5	-32.5	-51.2	25.9
	2:12	-12.6	-25.0	-38.9	24.6	-12.6	-25.0	-38.9	24.6	-15.6	-30.6	-47.5	24.6
	3:12	-12.7	-25.0	-38.9	23.1	-12.7	-25.0	-38.9	23.1	-15.6	-30.6	-47.5	23.1
	4:12	-12.7	-25.0	-38.9	18.3	-12.7	-25.0	-38.9	18.3	-15.7	-30.7	-47.5	18.3
	5:12	-12.7	-25.1	-39.0	17.3	-12.7	-25.1	-39.0	17.3	-15.7	-30.7	-47.6	17.3
	6:12	-12.8	-25.1	-39.0	16.3	-12.8	-25.1	-39.0	16.3	-15.7	-30.7	-47.6	16.3
	7:12	-14.3	-17.4	-17.4	18.5	-14.3	-17.4	-17.4	18.5	-17.6	-21.4	-21.4	20.8
	8:12	-14.4	-17.5	-17.5	17.7	-14.4	-17.5	-17.5	17.7	-17.7	-21.4	-21.4	20.1
	9:12	-14.4	-17.5	-17.5	17.0	-14.4	-17.5	-17.5	17.0	-17.7	-21.5	-21.5	20.0
	10:12	-14.5	-17.5	-17.5	16.9	-14.5	-17.5	-17.5	16.9	-17.8	-21.5	-21.5	19.8
	11:12	-14.5	-17.6	-17.6	16.7	-14.5	-17.6	-17.6	16.7	-17.8	-21.6	-21.6	19.7
	12:12	-14.5	-17.6	-17.6	16.6	-14.5	-17.6	-17.6	16.6	-17.8	-21.6	-21.6	19.6
Exposure Category C	1:12	-17.5	-32.5	-51.2	25.9	-20.3	-37.6	-59.3	25.9	-23.7	-43.6	-68.5	25.9
	2:12	-15.6	-30.6	-47.5	24.6	-18.2	-35.5	-55.0	25.5	-21.2	-41.1	-63.6	26.7
	3:12	-15.6	-30.6	-47.5	23.1	-18.2	-35.5	-55.0	24.0	-21.2	-41.1	-63.6	25.2
	4:12	-15.7	-30.7	-47.5	18.3	-18.2	-35.5	-55.0	19.3	-21.2	-41.2	-63.6	20.5
	5:12	-15.7	-30.7	-47.6	17.3	-18.3	-35.6	-55.0	18.2	-21.3	-41.2	-63.6	19.4
	6:12	-15.7	-30.7	-47.6	16.3	-18.3	-35.6	-55.1	17.2	-21.3	-41.2	-63.7	18.4
	7:12	-17.6	-21.4	-21.4	20.8	-20.5	-24.8	-24.8	22.8	-23.8	-28.8	-28.8	25.8
	8:12	-17.7	-21.4	-21.4	20.1	-20.6	-24.9	-24.9	22.7	-23.9	-28.9	-28.9	25.6
	9:12	-17.7	-21.5	-21.5	20.0	-20.6	-24.9	-24.9	22.5	-23.9	-28.9	-28.9	25.5
	10:12	-17.8	-21.5	-21.5	19.8	-20.6	-25.0	-25.0	22.4	-23.9	-28.9	-28.9	25.4
	11:12	-17.8	-21.6	-21.6	19.7	-20.7	-25.0	-25.0	22.3	-24.0	-29.0	-29.0	25.3
	12:12	-17.8	-21.6	-21.6	19.6	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
Exposure Category D	1:12	-21.4	-39.6	-62.4	25.9	-24.3	-44.8	-70.4	25.9	-27.6	-50.7	-79.7	25.9
	2:12	-19.2	-37.4	-57.8	25.9	-21.8	-42.2	-65.3	27.0	-24.7	-47.9	-73.9	28.2
	3:12	-19.2	-37.4	-57.8	24.4	-21.8	-42.3	-65.3	25.5	-24.8	-47.9	-73.9	26.7
	4:12	-19.2	-37.4	-57.9	18.9	-21.8	-42.3	-65.3	20.0	-24.8	-47.9	-73.9	21.2
	5:12	-19.3	-37.4	-57.9	17.9	-21.9	-42.3	-65.4	19.0	-24.8	-48.0	-74.0	20.3
	6:12	-19.3	-37.5	-57.9	17.0	-21.9	-42.4	-65.4	18.1	-24.9	-48.0	-74.0	19.3
	7:12	-21.6	-26.2	-26.2	23.8	-24.5	-29.6	-29.6	26.4	-27.8	-33.6	-33.6	29.3
	8:12	-21.7	-26.2	-26.2	23.7	-24.5	-29.6	-29.6	26.2	-27.8	-33.6	-33.6	29.2
	9:12	-21.7	-26.2	-26.2	23.5	-24.6	-29.7	-29.7	26.1	-27.9	-33.7	-33.7	29.1
	10:12	-21.7	-26.3	-26.3	23.4	-24.6	-29.7	-29.7	26.0	-27.9	-33.7	-33.7	29.0
	11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
	12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
130 mph

Ground Snow Load
20 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	25.9	-14.2	-26.5	-42.0	25.9	-17.5	-32.5	-51.2	25.9
2:12	-12.6	-25.0	-38.9	24.6	-12.6	-25.0	-38.9	24.6	-15.6	-30.6	-47.5	24.6
3:12	-12.7	-25.0	-38.9	23.1	-12.7	-25.0	-38.9	23.1	-15.6	-30.6	-47.5	23.1
4:12	-12.7	-25.0	-38.9	20.2	-12.7	-25.0	-38.9	20.2	-15.7	-30.7	-47.5	20.2
5:12	-12.7	-25.1	-39.0	18.9	-12.7	-25.1	-39.0	18.9	-15.7	-30.7	-47.6	18.9
6:12	-12.8	-25.1	-39.0	17.7	-12.8	-25.1	-39.0	17.7	-15.7	-30.7	-47.6	17.7
7:12	-14.3	-17.4	-17.4	19.7	-14.3	-17.4	-17.4	19.7	-17.6	-21.4	-21.4	22.0
8:12	-14.4	-17.5	-17.5	18.7	-14.4	-17.5	-17.5	18.7	-17.7	-21.4	-21.4	20.9
9:12	-14.4	-17.5	-17.5	17.8	-14.4	-17.5	-17.5	17.8	-17.7	-21.5	-21.5	20.0
10:12	-14.5	-17.5	-17.5	17.0	-14.5	-17.5	-17.5	17.0	-17.8	-21.5	-21.5	19.8
11:12	-14.5	-17.6	-17.6	16.7	-14.5	-17.6	-17.6	16.7	-17.8	-21.6	-21.6	19.7
12:12	-14.5	-17.6	-17.6	16.6	-14.5	-17.6	-17.6	16.6	-17.8	-21.6	-21.6	19.6
Exposure Category C												
1:12	-17.5	-32.5	-51.2	25.9	-20.3	-37.6	-59.3	25.9	-23.7	-43.6	-68.5	25.9
2:12	-15.6	-30.6	-47.5	24.6	-18.2	-35.5	-55.0	25.5	-21.2	-41.1	-63.6	26.7
3:12	-15.6	-30.6	-47.5	23.1	-18.2	-35.5	-55.0	24.0	-21.2	-41.1	-63.6	25.2
4:12	-15.7	-30.7	-47.5	20.2	-18.2	-35.5	-55.0	21.1	-21.2	-41.2	-63.6	22.4
5:12	-15.7	-30.7	-47.6	18.9	-18.3	-35.6	-55.0	19.8	-21.3	-41.2	-63.6	21.1
6:12	-15.7	-30.7	-47.6	17.7	-18.3	-35.6	-55.1	18.6	-21.3	-41.2	-63.7	19.8
7:12	-17.6	-21.4	-21.4	22.0	-20.5	-24.8	-24.8	23.9	-23.8	-28.8	-28.8	26.1
8:12	-17.7	-21.4	-21.4	20.9	-20.6	-24.9	-24.9	22.9	-23.9	-28.9	-28.9	25.6
9:12	-17.7	-21.5	-21.5	20.0	-20.6	-24.9	-24.9	22.5	-23.9	-28.9	-28.9	25.5
10:12	-17.8	-21.5	-21.5	19.8	-20.6	-25.0	-25.0	22.4	-23.9	-28.9	-28.9	25.4
11:12	-17.8	-21.6	-21.6	19.7	-20.7	-25.0	-25.0	22.3	-24.0	-29.0	-29.0	25.3
12:12	-17.8	-21.6	-21.6	19.6	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
Exposure Category D												
1:12	-21.4	-39.6	-62.4	25.9	-24.3	-44.8	-70.4	25.9	-27.6	-50.7	-79.7	25.9
2:12	-19.2	-37.4	-57.8	25.9	-21.8	-42.2	-65.3	27.0	-24.7	-47.9	-73.9	28.2
3:12	-19.2	-37.4	-57.8	24.4	-21.8	-42.3	-65.3	25.5	-24.8	-47.9	-73.9	26.7
4:12	-19.2	-37.4	-57.9	20.6	-21.8	-42.3	-65.3	21.7	-24.8	-47.9	-73.9	22.9
5:12	-19.3	-37.4	-57.9	19.4	-21.9	-42.3	-65.4	20.5	-24.8	-48.0	-74.0	21.7
6:12	-19.3	-37.5	-57.9	18.3	-21.9	-42.4	-65.4	19.4	-24.9	-48.0	-74.0	20.6
7:12	-21.6	-26.2	-26.2	24.1	-24.5	-29.6	-29.6	26.4	-27.8	-33.6	-33.6	29.3
8:12	-21.7	-26.2	-26.2	23.7	-24.5	-29.6	-29.6	26.2	-27.8	-33.6	-33.6	29.2
9:12	-21.7	-26.2	-26.2	23.5	-24.6	-29.7	-29.7	26.1	-27.9	-33.7	-33.7	29.1
10:12	-21.7	-26.3	-26.3	23.4	-24.6	-29.7	-29.7	26.0	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **130 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	26.7	-14.2	-26.5	-42.0	26.7	-17.5	-32.5	-51.2	26.7
2:12	-12.6	-25.0	-38.9	25.3	-12.6	-25.0	-38.9	25.3	-15.6	-30.6	-47.5	25.3
3:12	-12.7	-25.0	-38.9	23.7	-12.7	-25.0	-38.9	23.7	-15.6	-30.6	-47.5	23.7
4:12	-12.7	-25.0	-38.9	22.1	-12.7	-25.0	-38.9	22.1	-15.7	-30.7	-47.5	22.1
5:12	-12.7	-25.1	-39.0	20.5	-12.7	-25.1	-39.0	20.5	-15.7	-30.7	-47.6	20.5
6:12	-12.8	-25.1	-39.0	19.1	-12.8	-25.1	-39.0	19.1	-15.7	-30.7	-47.6	19.1
7:12	-14.3	-17.4	-17.4	20.9	-14.3	-17.4	-17.4	20.9	-17.6	-21.4	-21.4	23.2
8:12	-14.4	-17.5	-17.5	19.7	-14.4	-17.5	-17.5	19.7	-17.7	-21.4	-21.4	22.0
9:12	-14.4	-17.5	-17.5	18.6	-14.4	-17.5	-17.5	18.6	-17.7	-21.5	-21.5	20.9
10:12	-14.5	-17.5	-17.5	17.7	-14.5	-17.5	-17.5	17.7	-17.8	-21.5	-21.5	19.9
11:12	-14.5	-17.6	-17.6	16.9	-14.5	-17.6	-17.6	16.9	-17.8	-21.6	-21.6	19.7
12:12	-14.5	-17.6	-17.6	16.6	-14.5	-17.6	-17.6	16.6	-17.8	-21.6	-21.6	19.6
Exposure Category C												
1:12	-17.5	-32.5	-51.2	26.7	-20.3	-37.6	-59.3	26.7	-23.7	-43.6	-68.5	26.7
2:12	-15.6	-30.6	-47.5	25.3	-18.2	-35.5	-55.0	26.2	-21.2	-41.1	-63.6	27.4
3:12	-15.6	-30.6	-47.5	23.7	-18.2	-35.5	-55.0	24.6	-21.2	-41.1	-63.6	25.8
4:12	-15.7	-30.7	-47.5	22.1	-18.2	-35.5	-55.0	23.0	-21.2	-41.2	-63.6	24.2
5:12	-15.7	-30.7	-47.6	20.5	-18.3	-35.6	-55.0	21.4	-21.3	-41.2	-63.6	22.7
6:12	-15.7	-30.7	-47.6	19.1	-18.3	-35.6	-55.1	20.0	-21.3	-41.2	-63.7	21.2
7:12	-17.6	-21.4	-21.4	23.2	-20.5	-24.8	-24.8	25.1	-23.8	-28.8	-28.8	27.3
8:12	-17.7	-21.4	-21.4	22.0	-20.6	-24.9	-24.9	23.9	-23.9	-28.9	-28.9	26.1
9:12	-17.7	-21.5	-21.5	20.9	-20.6	-24.9	-24.9	22.8	-23.9	-28.9	-28.9	25.5
10:12	-17.8	-21.5	-21.5	19.9	-20.6	-25.0	-25.0	22.4	-23.9	-28.9	-28.9	25.4
11:12	-17.8	-21.6	-21.6	19.7	-20.7	-25.0	-25.0	22.3	-24.0	-29.0	-29.0	25.3
12:12	-17.8	-21.6	-21.6	19.6	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
Exposure Category D												
1:12	-21.4	-39.6	-62.4	25.9	-24.3	-44.8	-70.4	25.9	-27.6	-50.7	-79.7	25.9
2:12	-19.2	-37.4	-57.8	25.9	-21.8	-42.2	-65.3	27.0	-24.7	-47.9	-73.9	28.2
3:12	-19.2	-37.4	-57.8	24.4	-21.8	-42.3	-65.3	25.5	-24.8	-47.9	-73.9	26.7
4:12	-19.2	-37.4	-57.9	22.3	-21.8	-42.3	-65.3	23.4	-24.8	-47.9	-73.9	24.6
5:12	-19.3	-37.4	-57.9	20.9	-21.9	-42.3	-65.4	22.0	-24.8	-48.0	-74.0	23.2
6:12	-19.3	-37.5	-57.9	19.5	-21.9	-42.4	-65.4	20.6	-24.9	-48.0	-74.0	21.9
7:12	-21.6	-26.2	-26.2	25.1	-24.5	-29.6	-29.6	27.1	-27.8	-33.6	-33.6	29.3
8:12	-21.7	-26.2	-26.2	24.0	-24.5	-29.6	-29.6	26.2	-27.8	-33.6	-33.6	29.2
9:12	-21.7	-26.2	-26.2	23.5	-24.6	-29.7	-29.7	26.1	-27.9	-33.7	-33.7	29.1
10:12	-21.7	-26.3	-26.3	23.4	-24.6	-29.7	-29.7	26.0	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **130 mph**

Ground Snow Load **30 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	29.3	-14.2	-26.5	-42.0	29.3	-17.5	-32.5	-51.2	29.3
2:12	-12.6	-25.0	-38.9	27.6	-12.6	-25.0	-38.9	27.6	-15.6	-30.6	-47.5	27.6
3:12	-12.7	-25.0	-38.9	25.8	-12.7	-25.0	-38.9	25.8	-15.6	-30.6	-47.5	25.8
4:12	-12.7	-25.0	-38.9	24.0	-12.7	-25.0	-38.9	24.0	-15.7	-30.7	-47.5	24.0
5:12	-12.7	-25.1	-39.0	22.2	-12.7	-25.1	-39.0	22.2	-15.7	-30.7	-47.6	22.2
6:12	-12.8	-25.1	-39.0	20.5	-12.8	-25.1	-39.0	20.5	-15.7	-30.7	-47.6	20.5
7:12	-14.3	-17.4	-17.4	22.1	-14.3	-17.4	-17.4	22.1	-17.6	-21.4	-21.4	24.4
8:12	-14.4	-17.5	-17.5	20.7	-14.4	-17.5	-17.5	20.7	-17.7	-21.4	-21.4	23.0
9:12	-14.4	-17.5	-17.5	19.5	-14.4	-17.5	-17.5	19.5	-17.7	-21.5	-21.5	21.7
10:12	-14.5	-17.5	-17.5	18.4	-14.5	-17.5	-17.5	18.4	-17.8	-21.5	-21.5	20.7
11:12	-14.5	-17.6	-17.6	17.5	-14.5	-17.6	-17.6	17.5	-17.8	-21.6	-21.6	19.7
12:12	-14.5	-17.6	-17.6	16.7	-14.5	-17.6	-17.6	16.7	-17.8	-21.6	-21.6	19.6
Exposure Category C												
1:12	-17.5	-32.5	-51.2	29.3	-20.3	-37.6	-59.3	29.3	-23.7	-43.6	-68.5	29.3
2:12	-15.6	-30.6	-47.5	27.6	-18.2	-35.5	-55.0	28.6	-21.2	-41.1	-63.6	29.8
3:12	-15.6	-30.6	-47.5	25.8	-18.2	-35.5	-55.0	26.7	-21.2	-41.1	-63.6	28.0
4:12	-15.7	-30.7	-47.5	24.0	-18.2	-35.5	-55.0	24.9	-21.2	-41.2	-63.6	26.1
5:12	-15.7	-30.7	-47.6	22.2	-18.3	-35.6	-55.0	23.1	-21.3	-41.2	-63.6	24.3
6:12	-15.7	-30.7	-47.6	20.5	-18.3	-35.6	-55.1	21.4	-21.3	-41.2	-63.7	22.6
7:12	-17.6	-21.4	-21.4	24.4	-20.5	-24.8	-24.8	26.3	-23.8	-28.8	-28.8	28.5
8:12	-17.7	-21.4	-21.4	23.0	-20.6	-24.9	-24.9	24.9	-23.9	-28.9	-28.9	27.1
9:12	-17.7	-21.5	-21.5	21.7	-20.6	-24.9	-24.9	23.7	-23.9	-28.9	-28.9	25.9
10:12	-17.8	-21.5	-21.5	20.7	-20.6	-25.0	-25.0	22.6	-23.9	-28.9	-28.9	25.4
11:12	-17.8	-21.6	-21.6	19.7	-20.7	-25.0	-25.0	22.3	-24.0	-29.0	-29.0	25.3
12:12	-17.8	-21.6	-21.6	19.6	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
Exposure Category D												
1:12	-21.4	-39.6	-62.4	27.5	-24.3	-44.8	-70.4	27.5	-27.6	-50.7	-79.7	27.5
2:12	-19.2	-37.4	-57.8	27.3	-21.8	-42.2	-65.3	28.4	-24.7	-47.9	-73.9	29.6
3:12	-19.2	-37.4	-57.8	25.7	-21.8	-42.3	-65.3	26.7	-24.8	-47.9	-73.9	28.0
4:12	-19.2	-37.4	-57.9	24.0	-21.8	-42.3	-65.3	25.1	-24.8	-47.9	-73.9	26.3
5:12	-19.3	-37.4	-57.9	22.3	-21.9	-42.3	-65.4	23.4	-24.8	-48.0	-74.0	24.7
6:12	-19.3	-37.5	-57.9	20.8	-21.9	-42.4	-65.4	21.9	-24.9	-48.0	-74.0	23.1
7:12	-21.6	-26.2	-26.2	26.2	-24.5	-29.6	-29.6	28.1	-27.8	-33.6	-33.6	30.4
8:12	-21.7	-26.2	-26.2	24.9	-24.5	-29.6	-29.6	26.9	-27.8	-33.6	-33.6	29.2
9:12	-21.7	-26.2	-26.2	23.8	-24.6	-29.7	-29.7	26.1	-27.9	-33.7	-33.7	29.1
10:12	-21.7	-26.3	-26.3	23.4	-24.6	-29.7	-29.7	26.0	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7

Basic Wind Speed **130 mph**
Ground Snow Load **35 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
130 mph
Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.2	-26.5	-42.0	31.9	-14.2	-26.5	-42.0	31.9	-17.5	-32.5	-51.2	31.9
2:12	-12.6	-25.0	-38.9	30.0	-12.6	-25.0	-38.9	30.0	-15.6	-30.6	-47.5	30.0
3:12	-12.7	-25.0	-38.9	27.9	-12.7	-25.0	-38.9	27.9	-15.6	-30.6	-47.5	27.9
4:12	-12.7	-25.0	-38.9	25.8	-12.7	-25.0	-38.9	25.8	-15.7	-30.7	-47.5	25.8
5:12	-12.7	-25.1	-39.0	23.8	-12.7	-25.1	-39.0	23.8	-15.7	-30.7	-47.6	23.8
6:12	-12.8	-25.1	-39.0	21.9	-12.8	-25.1	-39.0	21.9	-15.7	-30.7	-47.6	21.9
7:12	-14.3	-17.4	-17.4	23.3	-14.3	-17.4	-17.4	23.3	-17.6	-21.4	-21.4	25.6
8:12	-14.4	-17.5	-17.5	21.7	-14.4	-17.5	-17.5	21.7	-17.7	-21.4	-21.4	24.0
9:12	-14.4	-17.5	-17.5	20.4	-14.4	-17.5	-17.5	20.4	-17.7	-21.5	-21.5	22.6
10:12	-14.5	-17.5	-17.5	19.1	-14.5	-17.5	-17.5	19.1	-17.8	-21.5	-21.5	21.4
11:12	-14.5	-17.6	-17.6	18.1	-14.5	-17.6	-17.6	18.1	-17.8	-21.6	-21.6	20.3
12:12	-14.5	-17.6	-17.6	17.2	-14.5	-17.6	-17.6	17.2	-17.8	-21.6	-21.6	19.6
1:12	-17.5	-32.5	-51.2	31.9	-20.3	-37.6	-59.3	31.9	-23.7	-43.6	-68.5	31.9
2:12	-15.6	-30.6	-47.5	30.0	-18.2	-35.5	-55.0	30.9	-21.2	-41.1	-63.6	32.2
3:12	-15.6	-30.6	-47.5	27.9	-18.2	-35.5	-55.0	28.9	-21.2	-41.1	-63.6	30.1
4:12	-15.7	-30.7	-47.5	25.8	-18.2	-35.5	-55.0	26.8	-21.2	-41.2	-63.6	28.0
5:12	-15.7	-30.7	-47.6	23.8	-18.3	-35.6	-55.0	24.7	-21.3	-41.2	-63.6	25.9
6:12	-15.7	-30.7	-47.6	21.9	-18.3	-35.6	-55.1	22.8	-21.3	-41.2	-63.7	24.0
7:12	-17.6	-21.4	-21.4	25.6	-20.5	-24.8	-24.8	27.5	-23.8	-28.8	-28.8	29.7
8:12	-17.7	-21.4	-21.4	24.0	-20.6	-24.9	-24.9	25.9	-23.9	-28.9	-28.9	28.2
9:12	-17.7	-21.5	-21.5	22.6	-20.6	-24.9	-24.9	24.5	-23.9	-28.9	-28.9	26.8
10:12	-17.8	-21.5	-21.5	21.4	-20.6	-25.0	-25.0	23.3	-23.9	-28.9	-28.9	25.5
11:12	-17.8	-21.6	-21.6	20.3	-20.7	-25.0	-25.0	22.3	-24.0	-29.0	-29.0	25.3
12:12	-17.8	-21.6	-21.6	19.6	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
1:12	-21.4	-39.6	-62.4	29.8	-24.3	-44.8	-70.4	29.8	-27.6	-50.7	-79.7	29.8
2:12	-19.2	-37.4	-57.8	29.4	-21.8	-42.2	-65.3	30.5	-24.7	-47.9	-73.9	31.8
3:12	-19.2	-37.4	-57.8	27.6	-21.8	-42.3	-65.3	28.6	-24.8	-47.9	-73.9	29.9
4:12	-19.2	-37.4	-57.9	25.7	-21.8	-42.3	-65.3	26.7	-24.8	-47.9	-73.9	28.0
5:12	-19.3	-37.4	-57.9	23.8	-21.9	-42.3	-65.4	24.9	-24.8	-48.0	-74.0	26.1
6:12	-19.3	-37.5	-57.9	22.1	-21.9	-42.4	-65.4	23.1	-24.9	-48.0	-74.0	24.4
7:12	-21.6	-26.2	-26.2	27.3	-24.5	-29.6	-29.6	29.2	-27.8	-33.6	-33.6	31.5
8:12	-21.7	-26.2	-26.2	25.9	-24.5	-29.6	-29.6	27.8	-27.8	-33.6	-33.6	30.0
9:12	-21.7	-26.2	-26.2	24.6	-24.6	-29.7	-29.7	26.5	-27.9	-33.7	-33.7	29.1
10:12	-21.7	-26.3	-26.3	23.5	-24.6	-29.7	-29.7	26.0	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	35.1	-14.2	-26.5	-42.0	35.1	-17.5	-32.5	-51.2	35.1
2:12	-12.6	-25.0	-38.9	32.4	-12.6	-25.0	-38.9	32.4	-15.6	-30.6	-47.5	32.4
3:12	-12.7	-25.0	-38.9	30.1	-12.7	-25.0	-38.9	30.1	-15.6	-30.6	-47.5	30.1
4:12	-12.7	-25.0	-38.9	27.7	-12.7	-25.0	-38.9	27.7	-15.7	-30.7	-47.5	27.7
5:12	-12.7	-25.1	-39.0	25.4	-12.7	-25.1	-39.0	25.4	-15.7	-30.7	-47.6	25.4
6:12	-12.8	-25.1	-39.0	23.3	-12.8	-25.1	-39.0	23.3	-15.7	-30.7	-47.6	23.3
7:12	-14.3	-17.4	-17.4	24.5	-14.3	-17.4	-17.4	24.5	-17.6	-21.4	-21.4	26.8
8:12	-14.4	-17.5	-17.5	22.8	-14.4	-17.5	-17.5	22.8	-17.7	-21.4	-21.4	25.0
9:12	-14.4	-17.5	-17.5	21.2	-14.4	-17.5	-17.5	21.2	-17.7	-21.5	-21.5	23.4
10:12	-14.5	-17.5	-17.5	19.9	-14.5	-17.5	-17.5	19.9	-17.8	-21.5	-21.5	22.1
11:12	-14.5	-17.6	-17.6	18.7	-14.5	-17.6	-17.6	18.7	-17.8	-21.6	-21.6	20.9
12:12	-14.5	-17.6	-17.6	17.7	-14.5	-17.6	-17.6	17.7	-17.8	-21.6	-21.6	19.9
Exposure Category C												
1:12	-17.5	-32.5	-51.2	35.1	-20.3	-37.6	-59.3	35.1	-23.7	-43.6	-68.5	35.1
2:12	-15.6	-30.6	-47.5	32.4	-18.2	-35.5	-55.0	33.3	-21.2	-41.1	-63.6	34.6
3:12	-15.6	-30.6	-47.5	30.1	-18.2	-35.5	-55.0	31.0	-21.2	-41.1	-63.6	32.2
4:12	-15.7	-30.7	-47.5	27.7	-18.2	-35.5	-55.0	28.6	-21.2	-41.2	-63.6	29.9
5:12	-15.7	-30.7	-47.6	25.4	-18.3	-35.6	-55.0	26.3	-21.3	-41.2	-63.6	27.6
6:12	-15.7	-30.7	-47.6	23.3	-18.3	-35.6	-55.1	24.2	-21.3	-41.2	-63.7	25.4
7:12	-17.6	-21.4	-21.4	26.8	-20.5	-24.8	-24.8	28.7	-23.8	-28.8	-28.8	30.9
8:12	-17.7	-21.4	-21.4	25.0	-20.6	-24.9	-24.9	26.9	-23.9	-28.9	-28.9	29.2
9:12	-17.7	-21.5	-21.5	23.4	-20.6	-24.9	-24.9	25.4	-23.9	-28.9	-28.9	27.6
10:12	-17.8	-21.5	-21.5	22.1	-20.6	-25.0	-25.0	24.0	-23.9	-28.9	-28.9	26.3
11:12	-17.8	-21.6	-21.6	20.9	-20.7	-25.0	-25.0	22.9	-24.0	-29.0	-29.0	25.3
12:12	-17.8	-21.6	-21.6	19.9	-20.7	-25.0	-25.0	22.2	-24.0	-29.0	-29.0	25.2
Exposure Category D												
1:12	-21.4	-39.6	-62.4	32.1	-24.3	-44.8	-70.4	32.1	-27.6	-50.7	-79.7	32.1
2:12	-19.2	-37.4	-57.8	31.6	-21.8	-42.2	-65.3	32.7	-24.7	-47.9	-73.9	33.9
3:12	-19.2	-37.4	-57.8	29.5	-21.8	-42.3	-65.3	30.6	-24.8	-47.9	-73.9	31.8
4:12	-19.2	-37.4	-57.9	27.4	-21.8	-42.3	-65.3	28.4	-24.8	-47.9	-73.9	29.7
5:12	-19.3	-37.4	-57.9	25.3	-21.9	-42.3	-65.4	26.4	-24.8	-48.0	-74.0	27.6
6:12	-19.3	-37.5	-57.9	23.3	-21.9	-42.4	-65.4	24.4	-24.9	-48.0	-74.0	25.6
7:12	-21.6	-26.2	-26.2	28.4	-24.5	-29.6	-29.6	30.3	-27.8	-33.6	-33.6	32.5
8:12	-21.7	-26.2	-26.2	26.8	-24.5	-29.6	-29.6	28.7	-27.8	-33.6	-33.6	30.9
9:12	-21.7	-26.2	-26.2	25.4	-24.6	-29.7	-29.7	27.3	-27.9	-33.7	-33.7	29.5
10:12	-21.7	-26.3	-26.3	24.1	-24.6	-29.7	-29.7	26.1	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.3	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **130 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.2	-26.5	-42.0	38.6	-14.2	-26.5	-42.0	38.6	-17.5	-32.5	-51.2	38.6
2:12	-12.6	-25.0	-38.9	35.5	-12.6	-25.0	-38.9	35.5	-15.6	-30.6	-47.5	35.5
3:12	-12.7	-25.0	-38.9	32.2	-12.7	-25.0	-38.9	32.2	-15.6	-30.6	-47.5	32.2
4:12	-12.7	-25.0	-38.9	29.6	-12.7	-25.0	-38.9	29.6	-15.7	-30.7	-47.5	29.6
5:12	-12.7	-25.1	-39.0	27.1	-12.7	-25.1	-39.0	27.1	-15.7	-30.7	-47.6	27.1
6:12	-12.8	-25.1	-39.0	24.7	-12.8	-25.1	-39.0	24.7	-15.7	-30.7	-47.6	24.7
7:12	-14.3	-17.4	-17.4	25.7	-14.3	-17.4	-17.4	25.7	-17.6	-21.4	-21.4	28.0
8:12	-14.4	-17.5	-17.5	23.8	-14.4	-17.5	-17.5	23.8	-17.7	-21.4	-21.4	26.0
9:12	-14.4	-17.5	-17.5	22.1	-14.4	-17.5	-17.5	22.1	-17.7	-21.5	-21.5	24.3
10:12	-14.5	-17.5	-17.5	20.6	-14.5	-17.5	-17.5	20.6	-17.8	-21.5	-21.5	22.8
11:12	-14.5	-17.6	-17.6	19.3	-14.5	-17.6	-17.6	19.3	-17.8	-21.6	-21.6	21.5
12:12	-14.5	-17.6	-17.6	18.2	-14.5	-17.6	-17.6	18.2	-17.8	-21.6	-21.6	20.4
1:12	-17.5	-32.5	-51.2	38.6	-20.3	-37.6	-59.3	38.6	-23.7	-43.6	-68.5	38.6
2:12	-15.6	-30.6	-47.5	35.5	-18.2	-35.5	-55.0	35.7	-21.2	-41.1	-63.6	36.9
3:12	-15.6	-30.6	-47.5	32.2	-18.2	-35.5	-55.0	33.1	-21.2	-41.1	-63.6	34.4
4:12	-15.7	-30.7	-47.5	29.6	-18.2	-35.5	-55.0	30.5	-21.2	-41.2	-63.6	31.7
5:12	-15.7	-30.7	-47.6	27.1	-18.3	-35.6	-55.0	28.0	-21.3	-41.2	-63.6	29.2
6:12	-15.7	-30.7	-47.6	24.7	-18.3	-35.6	-55.1	25.6	-21.3	-41.2	-63.7	26.8
7:12	-17.6	-21.4	-21.4	28.0	-20.5	-24.8	-24.8	29.9	-23.8	-28.8	-28.8	32.1
8:12	-17.7	-21.4	-21.4	26.0	-20.6	-24.9	-24.9	27.9	-23.9	-28.9	-28.9	30.2
9:12	-17.7	-21.5	-21.5	24.3	-20.6	-24.9	-24.9	26.2	-23.9	-28.9	-28.9	28.5
10:12	-17.8	-21.5	-21.5	22.8	-20.6	-25.0	-25.0	24.7	-23.9	-28.9	-28.9	27.0
11:12	-17.8	-21.6	-21.6	21.5	-20.7	-25.0	-25.0	23.5	-24.0	-29.0	-29.0	25.7
12:12	-17.8	-21.6	-21.6	20.4	-20.7	-25.0	-25.0	22.4	-24.0	-29.0	-29.0	25.2
1:12	-21.4	-39.6	-62.4	35.1	-24.3	-44.8	-70.4	35.1	-27.6	-50.7	-79.7	35.1
2:12	-19.2	-37.4	-57.8	33.7	-21.8	-42.2	-65.3	34.8	-24.7	-47.9	-73.9	36.0
3:12	-19.2	-37.4	-57.8	31.4	-21.8	-42.3	-65.3	32.5	-24.8	-47.9	-73.9	33.7
4:12	-19.2	-37.4	-57.9	29.0	-21.8	-42.3	-65.3	30.1	-24.8	-47.9	-73.9	31.4
5:12	-19.3	-37.4	-57.9	26.7	-21.9	-42.3	-65.4	27.8	-24.8	-48.0	-74.0	29.1
6:12	-19.3	-37.5	-57.9	24.6	-21.9	-42.4	-65.4	25.7	-24.9	-48.0	-74.0	26.9
7:12	-21.6	-26.2	-26.2	29.4	-24.5	-29.6	-29.6	31.4	-27.8	-33.6	-33.6	33.6
8:12	-21.7	-26.2	-26.2	27.7	-24.5	-29.6	-29.6	29.6	-27.8	-33.6	-33.6	31.8
9:12	-21.7	-26.2	-26.2	26.1	-24.6	-29.7	-29.7	28.1	-27.9	-33.7	-33.7	30.3
10:12	-21.7	-26.3	-26.3	24.8	-24.6	-29.7	-29.7	26.7	-27.9	-33.7	-33.7	29.0
11:12	-21.8	-26.3	-26.3	23.6	-24.6	-29.8	-29.8	25.9	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.2	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7

Basic Wind Speed
130 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	45.5	-14.2	-26.5	-42.0	45.5	-17.5	-32.5	-51.2	45.5
2:12	-12.6	-25.0	-38.9	41.9	-12.6	-25.0	-38.9	41.9	-15.6	-30.6	-47.5	41.9
3:12	-12.7	-25.0	-38.9	37.8	-12.7	-25.0	-38.9	37.8	-15.6	-30.6	-47.5	37.8
4:12	-12.7	-25.0	-38.9	33.6	-12.7	-25.0	-38.9	33.6	-15.7	-30.7	-47.5	33.6
5:12	-12.7	-25.1	-39.0	30.3	-12.7	-25.1	-39.0	30.3	-15.7	-30.7	-47.6	30.3
6:12	-12.8	-25.1	-39.0	27.5	-12.8	-25.1	-39.0	27.5	-15.7	-30.7	-47.6	27.5
7:12	-14.3	-17.4	-17.4	28.1	-14.3	-17.4	-17.4	28.1	-17.6	-21.4	-21.4	30.4
8:12	-14.4	-17.5	-17.5	25.8	-14.4	-17.5	-17.5	25.8	-17.7	-21.4	-21.4	28.0
9:12	-14.4	-17.5	-17.5	23.8	-14.4	-17.5	-17.5	23.8	-17.7	-21.5	-21.5	26.0
10:12	-14.5	-17.5	-17.5	22.0	-14.5	-17.5	-17.5	22.0	-17.8	-21.5	-21.5	24.3
11:12	-14.5	-17.6	-17.6	20.5	-14.5	-17.6	-17.6	20.5	-17.8	-21.6	-21.6	22.7
12:12	-14.5	-17.6	-17.6	19.2	-14.5	-17.6	-17.6	19.2	-17.8	-21.6	-21.6	21.4
Exposure Category C												
1:12	-17.5	-32.5	-51.2	45.5	-20.3	-37.6	-59.3	45.5	-23.7	-43.6	-68.5	45.5
2:12	-15.6	-30.6	-47.5	41.9	-18.2	-35.5	-55.0	41.9	-21.2	-41.1	-63.6	41.9
3:12	-15.6	-30.6	-47.5	37.8	-18.2	-35.5	-55.0	37.8	-21.2	-41.1	-63.6	38.6
4:12	-15.7	-30.7	-47.5	33.6	-18.2	-35.5	-55.0	34.2	-21.2	-41.2	-63.6	35.5
5:12	-15.7	-30.7	-47.6	30.3	-18.3	-35.6	-55.0	31.2	-21.3	-41.2	-63.6	32.5
6:12	-15.7	-30.7	-47.6	27.5	-18.3	-35.6	-55.1	28.4	-21.3	-41.2	-63.7	29.6
7:12	-17.6	-21.4	-21.4	30.4	-20.5	-24.8	-24.8	32.3	-23.8	-28.8	-28.8	34.5
8:12	-17.7	-21.4	-21.4	28.0	-20.6	-24.9	-24.9	30.0	-23.9	-28.9	-28.9	32.2
9:12	-17.7	-21.5	-21.5	26.0	-20.6	-24.9	-24.9	27.9	-23.9	-28.9	-28.9	30.2
10:12	-17.8	-21.5	-21.5	24.3	-20.6	-25.0	-25.0	26.2	-23.9	-28.9	-28.9	28.4
11:12	-17.8	-21.6	-21.6	22.7	-20.7	-25.0	-25.0	24.7	-24.0	-29.0	-29.0	26.9
12:12	-17.8	-21.6	-21.6	21.4	-20.7	-25.0	-25.0	23.4	-24.0	-29.0	-29.0	25.6
Exposure Category D												
1:12	-21.4	-39.6	-62.4	41.4	-24.3	-44.8	-70.4	41.4	-27.6	-50.7	-79.7	41.4
2:12	-19.2	-37.4	-57.8	38.0	-21.8	-42.2	-65.3	39.1	-24.7	-47.9	-73.9	40.3
3:12	-19.2	-37.4	-57.8	35.2	-21.8	-42.3	-65.3	36.3	-24.8	-47.9	-73.9	37.5
4:12	-19.2	-37.4	-57.9	32.4	-21.8	-42.3	-65.3	33.5	-24.8	-47.9	-73.9	34.7
5:12	-19.3	-37.4	-57.9	29.7	-21.9	-42.3	-65.4	30.8	-24.8	-48.0	-74.0	32.0
6:12	-19.3	-37.5	-57.9	27.1	-21.9	-42.4	-65.4	28.2	-24.9	-48.0	-74.0	29.4
7:12	-21.6	-26.2	-26.2	31.6	-24.5	-29.6	-29.6	33.5	-27.8	-33.6	-33.6	35.8
8:12	-21.7	-26.2	-26.2	29.5	-24.5	-29.6	-29.6	31.4	-27.8	-33.6	-33.6	33.7
9:12	-21.7	-26.2	-26.2	27.7	-24.6	-29.7	-29.7	29.6	-27.9	-33.7	-33.7	31.8
10:12	-21.7	-26.3	-26.3	26.1	-24.6	-29.7	-29.7	28.0	-27.9	-33.7	-33.7	30.2
11:12	-21.8	-26.3	-26.3	24.7	-24.6	-29.8	-29.8	26.6	-28.0	-33.7	-33.7	28.9
12:12	-21.8	-26.4	-26.4	23.5	-24.7	-29.8	-29.8	25.8	-28.0	-33.8	-33.8	28.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
130 mph

Ground Snow Load
60 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.2	-26.5	-42.0	52.5	-14.2	-26.5	-42.0	52.5	-17.5	-32.5	-51.2	52.5
2:12	-12.6	-25.0	-38.9	48.2	-12.6	-25.0	-38.9	48.2	-15.6	-30.6	-47.5	48.2
3:12	-12.7	-25.0	-38.9	43.4	-12.7	-25.0	-38.9	43.4	-15.6	-30.6	-47.5	43.4
4:12	-12.7	-25.0	-38.9	38.6	-12.7	-25.0	-38.9	38.6	-15.7	-30.7	-47.5	38.6
5:12	-12.7	-25.1	-39.0	34.0	-12.7	-25.1	-39.0	34.0	-15.7	-30.7	-47.6	34.0
6:12	-12.8	-25.1	-39.0	30.3	-12.8	-25.1	-39.0	30.3	-15.7	-30.7	-47.6	30.3
7:12	-14.3	-17.4	-17.4	30.5	-14.3	-17.4	-17.4	30.5	-17.6	-21.4	-21.4	32.7
8:12	-14.4	-17.5	-17.5	27.8	-14.4	-17.5	-17.5	27.8	-17.7	-21.4	-21.4	30.1
9:12	-14.4	-17.5	-17.5	25.5	-14.4	-17.5	-17.5	25.5	-17.7	-21.5	-21.5	27.7
10:12	-14.5	-17.5	-17.5	23.5	-14.5	-17.5	-17.5	23.5	-17.8	-21.5	-21.5	25.7
11:12	-14.5	-17.6	-17.6	21.7	-14.5	-17.6	-17.6	21.7	-17.8	-21.6	-21.6	23.9
12:12	-14.5	-17.6	-17.6	20.2	-14.5	-17.6	-17.6	20.2	-17.8	-21.6	-21.6	22.4
1:12	-17.5	-32.5	-51.2	52.5	-20.3	-37.6	-59.3	52.5	-23.7	-43.6	-68.5	52.5
2:12	-15.6	-30.6	-47.5	48.2	-18.2	-35.5	-55.0	48.2	-21.2	-41.1	-63.6	48.2
3:12	-15.6	-30.6	-47.5	43.4	-18.2	-35.5	-55.0	43.4	-21.2	-41.1	-63.6	43.4
4:12	-15.7	-30.7	-47.5	38.6	-18.2	-35.5	-55.0	38.6	-21.2	-41.2	-63.6	39.2
5:12	-15.7	-30.7	-47.6	34.0	-18.3	-35.6	-55.0	34.5	-21.3	-41.2	-63.6	35.7
6:12	-15.7	-30.7	-47.6	30.3	-18.3	-35.6	-55.1	31.2	-21.3	-41.2	-63.7	32.4
7:12	-17.6	-21.4	-21.4	32.7	-20.5	-24.8	-24.8	34.7	-23.8	-28.8	-28.8	36.9
8:12	-17.7	-21.4	-21.4	30.1	-20.6	-24.9	-24.9	32.0	-23.9	-28.9	-28.9	34.2
9:12	-17.7	-21.5	-21.5	27.7	-20.6	-24.9	-24.9	29.7	-23.9	-28.9	-28.9	31.9
10:12	-17.8	-21.5	-21.5	25.7	-20.6	-25.0	-25.0	27.6	-23.9	-28.9	-28.9	29.9
11:12	-17.8	-21.6	-21.6	23.9	-20.7	-25.0	-25.0	25.9	-24.0	-29.0	-29.0	28.1
12:12	-17.8	-21.6	-21.6	22.4	-20.7	-25.0	-25.0	24.4	-24.0	-29.0	-29.0	26.6
1:12	-21.4	-39.6	-62.4	47.6	-24.3	-44.8	-70.4	47.6	-27.6	-50.7	-79.7	47.6
2:12	-19.2	-37.4	-57.8	43.8	-21.8	-42.2	-65.3	43.8	-24.7	-47.9	-73.9	44.6
3:12	-19.2	-37.4	-57.8	39.5	-21.8	-42.3	-65.3	40.1	-24.8	-47.9	-73.9	41.4
4:12	-19.2	-37.4	-57.9	35.8	-21.8	-42.3	-65.3	36.9	-24.8	-47.9	-73.9	38.1
5:12	-19.3	-37.4	-57.9	32.6	-21.9	-42.3	-65.4	33.7	-24.8	-48.0	-74.0	34.9
6:12	-19.3	-37.5	-57.9	29.6	-21.9	-42.4	-65.4	30.7	-24.9	-48.0	-74.0	32.0
7:12	-21.6	-26.2	-26.2	33.8	-24.5	-29.6	-29.6	35.7	-27.8	-33.6	-33.6	37.9
8:12	-21.7	-26.2	-26.2	31.3	-24.5	-29.6	-29.6	33.3	-27.8	-33.6	-33.6	35.5
9:12	-21.7	-26.2	-26.2	29.2	-24.6	-29.7	-29.7	31.1	-27.9	-33.7	-33.7	33.4
10:12	-21.7	-26.3	-26.3	27.4	-24.6	-29.7	-29.7	29.3	-27.9	-33.7	-33.7	31.5
11:12	-21.8	-26.3	-26.3	25.8	-24.6	-29.8	-29.8	27.7	-28.0	-33.7	-33.7	29.9
12:12	-21.8	-26.4	-26.4	24.4	-24.7	-29.8	-29.8	26.4	-28.0	-33.8	-33.8	28.7

Basic Wind Speed **130 mph**
Ground Snow Load **70 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
130 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.2	-26.5	-42.0	59.4	-14.2	-26.5	-42.0	59.4	-17.5	-32.5	-51.2	59.4
2:12	-12.6	-25.0	-38.9	54.5	-12.6	-25.0	-38.9	54.5	-15.6	-30.6	-47.5	54.5
3:12	-12.7	-25.0	-38.9	49.1	-12.7	-25.0	-38.9	49.1	-15.6	-30.6	-47.5	49.1
4:12	-12.7	-25.0	-38.9	43.6	-12.7	-25.0	-38.9	43.6	-15.7	-30.7	-47.5	43.6
5:12	-12.7	-25.1	-39.0	38.3	-12.7	-25.1	-39.0	38.3	-15.7	-30.7	-47.6	38.3
6:12	-12.8	-25.1	-39.0	33.4	-12.8	-25.1	-39.0	33.4	-15.7	-30.7	-47.6	33.4
7:12	-14.3	-17.4	-17.4	32.9	-14.3	-17.4	-17.4	32.9	-17.6	-21.4	-21.4	35.1
8:12	-14.4	-17.5	-17.5	29.9	-14.4	-17.5	-17.5	29.9	-17.7	-21.4	-21.4	32.1
9:12	-14.4	-17.5	-17.5	27.2	-14.4	-17.5	-17.5	27.2	-17.7	-21.5	-21.5	29.4
10:12	-14.5	-17.5	-17.5	24.9	-14.5	-17.5	-17.5	24.9	-17.8	-21.5	-21.5	27.1
11:12	-14.5	-17.6	-17.6	22.9	-14.5	-17.6	-17.6	22.9	-17.8	-21.6	-21.6	25.1
12:12	-14.5	-17.6	-17.6	21.2	-14.5	-17.6	-17.6	21.2	-17.8	-21.6	-21.6	23.5
1:12	-17.5	-32.5	-51.2	59.4	-20.3	-37.6	-59.3	59.4	-23.7	-43.6	-68.5	59.4
2:12	-15.6	-30.6	-47.5	54.5	-18.2	-35.5	-55.0	54.5	-21.2	-41.1	-63.6	54.5
3:12	-15.6	-30.6	-47.5	49.1	-18.2	-35.5	-55.0	49.1	-21.2	-41.1	-63.6	49.1
4:12	-15.7	-30.7	-47.5	43.6	-18.2	-35.5	-55.0	43.6	-21.2	-41.2	-63.6	43.6
5:12	-15.7	-30.7	-47.6	38.3	-18.3	-35.6	-55.0	38.3	-21.3	-41.2	-63.6	39.0
6:12	-15.7	-30.7	-47.6	33.4	-18.3	-35.6	-55.1	34.0	-21.3	-41.2	-63.7	35.2
7:12	-17.6	-21.4	-21.4	35.1	-20.5	-24.8	-24.8	37.1	-23.8	-28.8	-28.8	39.3
8:12	-17.7	-21.4	-21.4	32.1	-20.6	-24.9	-24.9	34.0	-23.9	-28.9	-28.9	36.3
9:12	-17.7	-21.5	-21.5	29.4	-20.6	-24.9	-24.9	31.4	-23.9	-28.9	-28.9	33.6
10:12	-17.8	-21.5	-21.5	27.1	-20.6	-25.0	-25.0	29.1	-23.9	-28.9	-28.9	31.3
11:12	-17.8	-21.6	-21.6	25.1	-20.7	-25.0	-25.0	27.1	-24.0	-29.0	-29.0	29.3
12:12	-17.8	-21.6	-21.6	23.5	-20.7	-25.0	-25.0	25.4	-24.0	-29.0	-29.0	27.6
1:12	-21.4	-39.6	-62.4	53.9	-24.3	-44.8	-70.4	53.9	-27.6	-50.7	-79.7	53.9
2:12	-19.2	-37.4	-57.8	49.5	-21.8	-42.2	-65.3	49.5	-24.7	-47.9	-73.9	49.5
3:12	-19.2	-37.4	-57.8	44.6	-21.8	-42.3	-65.3	44.6	-24.8	-47.9	-73.9	45.2
4:12	-19.2	-37.4	-57.9	39.6	-21.8	-42.3	-65.3	40.2	-24.8	-47.9	-73.9	41.5
5:12	-19.3	-37.4	-57.9	35.6	-21.9	-42.3	-65.4	36.6	-24.8	-48.0	-74.0	37.9
6:12	-19.3	-37.5	-57.9	32.2	-21.9	-42.4	-65.4	33.2	-24.9	-48.0	-74.0	34.5
7:12	-21.6	-26.2	-26.2	35.9	-24.5	-29.6	-29.6	37.8	-27.8	-33.6	-33.6	40.1
8:12	-21.7	-26.2	-26.2	33.2	-24.5	-29.6	-29.6	35.1	-27.8	-33.6	-33.6	37.3
9:12	-21.7	-26.2	-26.2	30.7	-24.6	-29.7	-29.7	32.7	-27.9	-33.7	-33.7	34.9
10:12	-21.7	-26.3	-26.3	28.7	-24.6	-29.7	-29.7	30.6	-27.9	-33.7	-33.7	32.8
11:12	-21.8	-26.3	-26.3	26.9	-24.6	-29.8	-29.8	28.8	-28.0	-33.7	-33.7	31.0
12:12	-21.8	-26.4	-26.4	25.3	-24.7	-29.8	-29.8	27.3	-28.0	-33.8	-33.8	29.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-14.2	-26.5	-42.0	66.4	-14.2	-26.5	-42.0	66.4	-17.5	-32.5	-51.2	66.4
2:12	-12.6	-25.0	-38.9	60.9	-12.6	-25.0	-38.9	60.9	-15.6	-30.6	-47.5	60.9
3:12	-12.7	-25.0	-38.9	54.8	-12.7	-25.0	-38.9	54.8	-15.6	-30.6	-47.5	54.8
4:12	-12.7	-25.0	-38.9	48.6	-12.7	-25.0	-38.9	48.6	-15.7	-30.7	-47.5	48.6
5:12	-12.7	-25.1	-39.0	42.7	-12.7	-25.1	-39.0	42.7	-15.7	-30.7	-47.6	42.7
6:12	-12.8	-25.1	-39.0	37.1	-12.8	-25.1	-39.0	37.1	-15.7	-30.7	-47.6	37.1
7:12	-14.3	-17.4	-17.4	35.3	-14.3	-17.4	-17.4	35.3	-17.6	-21.4	-21.4	37.5
8:12	-14.4	-17.5	-17.5	31.9	-14.4	-17.5	-17.5	31.9	-17.7	-21.4	-21.4	34.1
9:12	-14.4	-17.5	-17.5	28.9	-14.4	-17.5	-17.5	28.9	-17.7	-21.5	-21.5	31.2
10:12	-14.5	-17.5	-17.5	26.3	-14.5	-17.5	-17.5	26.3	-17.8	-21.5	-21.5	28.6
11:12	-14.5	-17.6	-17.6	24.1	-14.5	-17.6	-17.6	24.1	-17.8	-21.6	-21.6	26.4
12:12	-14.5	-17.6	-17.6	22.2	-14.5	-17.6	-17.6	22.2	-17.8	-21.6	-21.6	24.5
Exposure Category C												
1:12	-17.5	-32.5	-51.2	66.4	-20.3	-37.6	-59.3	66.4	-23.7	-43.6	-68.5	66.4
2:12	-15.6	-30.6	-47.5	60.9	-18.2	-35.5	-55.0	60.9	-21.2	-41.1	-63.6	60.9
3:12	-15.6	-30.6	-47.5	54.8	-18.2	-35.5	-55.0	54.8	-21.2	-41.1	-63.6	54.8
4:12	-15.7	-30.7	-47.5	48.6	-18.2	-35.5	-55.0	48.6	-21.2	-41.2	-63.6	48.6
5:12	-15.7	-30.7	-47.6	42.7	-18.3	-35.6	-55.0	42.7	-21.3	-41.2	-63.6	42.7
6:12	-15.7	-30.7	-47.6	37.1	-18.3	-35.6	-55.1	37.1	-21.3	-41.2	-63.7	38.1
7:12	-17.6	-21.4	-21.4	37.5	-20.5	-24.8	-24.8	39.5	-23.8	-28.8	-28.8	41.7
8:12	-17.7	-21.4	-21.4	34.1	-20.6	-24.9	-24.9	36.1	-23.9	-28.9	-28.9	38.3
9:12	-17.7	-21.5	-21.5	31.2	-20.6	-24.9	-24.9	33.1	-23.9	-28.9	-28.9	35.3
10:12	-17.8	-21.5	-21.5	28.6	-20.6	-25.0	-25.0	30.5	-23.9	-28.9	-28.9	32.7
11:12	-17.8	-21.6	-21.6	26.4	-20.7	-25.0	-25.0	28.3	-24.0	-29.0	-29.0	30.5
12:12	-17.8	-21.6	-21.6	24.5	-20.7	-25.0	-25.0	26.4	-24.0	-29.0	-29.0	28.6
Exposure Category D												
1:12	-21.4	-39.6	-62.4	60.1	-24.3	-44.8	-70.4	60.1	-27.6	-50.7	-79.7	60.1
2:12	-19.2	-37.4	-57.8	55.2	-21.8	-42.2	-65.3	55.2	-24.7	-47.9	-73.9	55.2
3:12	-19.2	-37.4	-57.8	49.7	-21.8	-42.3	-65.3	49.7	-24.8	-47.9	-73.9	49.7
4:12	-19.2	-37.4	-57.9	44.1	-21.8	-42.3	-65.3	44.1	-24.8	-47.9	-73.9	44.9
5:12	-19.3	-37.4	-57.9	38.8	-21.9	-42.3	-65.4	39.6	-24.8	-48.0	-74.0	40.8
6:12	-19.3	-37.5	-57.9	34.7	-21.9	-42.4	-65.4	35.8	-24.9	-48.0	-74.0	37.0
7:12	-21.6	-26.2	-26.2	38.1	-24.5	-29.6	-29.6	40.0	-27.8	-33.6	-33.6	42.2
8:12	-21.7	-26.2	-26.2	35.0	-24.5	-29.6	-29.6	36.9	-27.8	-33.6	-33.6	39.2
9:12	-21.7	-26.2	-26.2	32.3	-24.6	-29.7	-29.7	34.2	-27.9	-33.7	-33.7	36.5
10:12	-21.7	-26.3	-26.3	30.0	-24.6	-29.7	-29.7	31.9	-27.9	-33.7	-33.7	34.1
11:12	-21.8	-26.3	-26.3	27.9	-24.6	-29.8	-29.8	29.9	-28.0	-33.7	-33.7	32.1
12:12	-21.8	-26.4	-26.4	26.2	-24.7	-29.8	-29.8	28.2	-28.0	-33.8	-33.8	30.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **130 mph**

Ground Snow Load **90 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-14.2	-26.5	-42.0	73.4	-14.2	-26.5	-42.0	73.4	-17.5	-32.5	-51.2	73.4
2:12	-12.6	-25.0	-38.9	67.2	-12.6	-25.0	-38.9	67.2	-15.6	-30.6	-47.5	67.2
3:12	-12.7	-25.0	-38.9	60.5	-12.7	-25.0	-38.9	60.5	-15.6	-30.6	-47.5	60.5
4:12	-12.7	-25.0	-38.9	53.6	-12.7	-25.0	-38.9	53.6	-15.7	-30.7	-47.5	53.6
5:12	-12.7	-25.1	-39.0	47.0	-12.7	-25.1	-39.0	47.0	-15.7	-30.7	-47.6	47.0
6:12	-12.8	-25.1	-39.0	40.9	-12.8	-25.1	-39.0	40.9	-15.7	-30.7	-47.6	40.9
7:12	-14.3	-17.4	-17.4	37.7	-14.3	-17.4	-17.4	37.7	-17.6	-21.4	-21.4	39.9
8:12	-14.4	-17.5	-17.5	33.9	-14.4	-17.5	-17.5	33.9	-17.7	-21.4	-21.4	36.2
9:12	-14.4	-17.5	-17.5	30.6	-14.4	-17.5	-17.5	30.6	-17.7	-21.5	-21.5	32.9
10:12	-14.5	-17.5	-17.5	27.8	-14.5	-17.5	-17.5	27.8	-17.8	-21.5	-21.5	30.0
11:12	-14.5	-17.6	-17.6	25.3	-14.5	-17.6	-17.6	25.3	-17.8	-21.6	-21.6	27.6
12:12	-14.5	-17.6	-17.6	23.2	-14.5	-17.6	-17.6	23.2	-17.8	-21.6	-21.6	25.5
1:12	-17.5	-32.5	-51.2	73.4	-20.3	-37.6	-59.3	73.4	-23.7	-43.6	-68.5	73.4
2:12	-15.6	-30.6	-47.5	67.2	-18.2	-35.5	-55.0	67.2	-21.2	-41.1	-63.6	67.2
3:12	-15.6	-30.6	-47.5	60.5	-18.2	-35.5	-55.0	60.5	-21.2	-41.1	-63.6	60.5
4:12	-15.7	-30.7	-47.5	53.6	-18.2	-35.5	-55.0	53.6	-21.2	-41.2	-63.6	53.6
5:12	-15.7	-30.7	-47.6	47.0	-18.3	-35.6	-55.0	47.0	-21.3	-41.2	-63.6	47.0
6:12	-15.7	-30.7	-47.6	40.9	-18.3	-35.6	-55.1	40.9	-21.3	-41.2	-63.7	40.9
7:12	-17.6	-21.4	-21.4	39.9	-20.5	-24.8	-24.8	41.9	-23.8	-28.8	-28.8	44.1
8:12	-17.7	-21.4	-21.4	36.2	-20.6	-24.9	-24.9	38.1	-23.9	-28.9	-28.9	40.3
9:12	-17.7	-21.5	-21.5	32.9	-20.6	-24.9	-24.9	34.8	-23.9	-28.9	-28.9	37.0
10:12	-17.8	-21.5	-21.5	30.0	-20.6	-25.0	-25.0	31.9	-23.9	-28.9	-28.9	34.2
11:12	-17.8	-21.6	-21.6	27.6	-20.7	-25.0	-25.0	29.5	-24.0	-29.0	-29.0	31.7
12:12	-17.8	-21.6	-21.6	25.5	-20.7	-25.0	-25.0	27.4	-24.0	-29.0	-29.0	29.6
1:12	-21.4	-39.6	-62.4	66.4	-24.3	-44.8	-70.4	66.4	-27.6	-50.7	-79.7	66.4
2:12	-19.2	-37.4	-57.8	60.9	-21.8	-42.2	-65.3	60.9	-24.7	-47.9	-73.9	60.9
3:12	-19.2	-37.4	-57.8	54.8	-21.8	-42.3	-65.3	54.8	-24.8	-47.9	-73.9	54.8
4:12	-19.2	-37.4	-57.9	48.6	-21.8	-42.3	-65.3	48.6	-24.8	-47.9	-73.9	48.6
5:12	-19.3	-37.4	-57.9	42.7	-21.9	-42.3	-65.4	42.7	-24.8	-48.0	-74.0	43.7
6:12	-19.3	-37.5	-57.9	37.2	-21.9	-42.4	-65.4	38.3	-24.9	-48.0	-74.0	39.5
7:12	-21.6	-26.2	-26.2	40.2	-24.5	-29.6	-29.6	42.2	-27.8	-33.6	-33.6	44.4
8:12	-21.7	-26.2	-26.2	36.8	-24.5	-29.6	-29.6	38.8	-27.8	-33.6	-33.6	41.0
9:12	-21.7	-26.2	-26.2	33.8	-24.6	-29.7	-29.7	35.8	-27.9	-33.7	-33.7	38.0
10:12	-21.7	-26.3	-26.3	31.2	-24.6	-29.7	-29.7	33.2	-27.9	-33.7	-33.7	35.4
11:12	-21.8	-26.3	-26.3	29.0	-24.6	-29.8	-29.8	31.0	-28.0	-33.7	-33.7	33.2
12:12	-21.8	-26.4	-26.4	27.1	-24.7	-29.8	-29.8	29.1	-28.0	-33.8	-33.8	31.3

Basic Wind Speed
130 mph

Ground Snow Load
100 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	13.4	-15.4	-28.7	-45.4	13.4	-18.9	-35.1	-55.4	13.4
2:12	-13.7	-27.0	-42.0	13.4	-13.7	-27.0	-42.0	13.4	-16.9	-33.1	-51.3	13.9
3:12	-13.7	-27.1	-42.1	13.3	-13.7	-27.1	-42.1	13.3	-17.0	-33.1	-51.3	13.8
4:12	-13.8	-27.1	-42.1	13.2	-13.8	-27.1	-42.1	13.2	-17.0	-33.2	-51.4	13.8
5:12	-13.8	-27.1	-42.1	13.2	-13.8	-27.1	-42.1	13.2	-17.0	-33.2	-51.4	13.7
6:12	-13.8	-27.2	-42.2	13.0	-13.8	-27.2	-42.2	13.0	-17.1	-33.2	-51.4	13.6
7:12	-15.5	-18.9	-18.9	18.3	-15.5	-18.9	-18.9	18.3	-19.1	-23.2	-23.2	21.5
8:12	-15.6	-18.9	-18.9	18.2	-15.6	-18.9	-18.9	18.2	-19.2	-23.2	-23.2	21.4
9:12	-15.6	-19.0	-19.0	18.1	-15.6	-19.0	-19.0	18.1	-19.2	-23.2	-23.2	21.3
10:12	-15.7	-19.0	-19.0	17.9	-15.7	-19.0	-19.0	17.9	-19.2	-23.3	-23.3	21.2
11:12	-15.7	-19.0	-19.0	17.8	-15.7	-19.0	-19.0	17.8	-19.3	-23.3	-23.3	21.0
12:12	-15.7	-19.1	-19.1	17.7	-15.7	-19.1	-19.1	17.7	-19.3	-23.4	-23.4	20.9
Exposure Category C												
1:12	-18.9	-35.1	-55.4	13.4	-22.0	-40.7	-64.0	13.4	-25.6	-47.1	-74.0	13.4
2:12	-16.9	-33.1	-51.3	13.9	-19.7	-38.4	-59.4	15.5	-22.9	-44.4	-68.6	17.2
3:12	-17.0	-33.1	-51.3	13.8	-19.7	-38.4	-59.4	15.4	-23.0	-44.5	-68.7	17.2
4:12	-17.0	-33.2	-51.4	13.8	-19.8	-38.4	-59.4	15.3	-23.0	-44.5	-68.7	17.1
5:12	-17.0	-33.2	-51.4	13.7	-19.8	-38.5	-59.4	15.2	-23.0	-44.5	-68.7	17.0
6:12	-17.1	-33.2	-51.4	13.6	-19.8	-38.5	-59.5	15.1	-23.1	-44.6	-68.8	16.9
7:12	-19.1	-23.2	-23.2	21.5	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5
8:12	-19.2	-23.2	-23.2	21.4	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4
9:12	-19.2	-23.2	-23.2	21.3	-22.3	-27.0	-27.0	24.1	-25.9	-31.2	-31.2	27.3
10:12	-19.2	-23.3	-23.3	21.2	-22.3	-27.0	-27.0	23.9	-25.9	-31.3	-31.3	27.2
11:12	-19.3	-23.3	-23.3	21.0	-22.4	-27.0	-27.0	23.8	-25.9	-31.3	-31.3	27.0
12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D												
1:12	-23.2	-42.8	-67.3	13.4	-26.3	-48.4	-76.0	13.4	-29.9	-54.8	-86.0	13.4
2:12	-20.8	-40.4	-62.5	16.0	-23.6	-45.7	-70.5	17.6	-26.8	-51.7	-79.8	19.4
3:12	-20.8	-40.4	-62.5	16.0	-23.6	-45.7	-70.5	17.5	-26.8	-51.7	-79.8	19.3
4:12	-20.8	-40.4	-62.5	15.9	-23.6	-45.7	-70.5	17.5	-26.8	-51.8	-79.8	19.2
5:12	-20.9	-40.5	-62.5	15.8	-23.7	-45.7	-70.6	17.4	-26.9	-51.8	-79.9	19.1
6:12	-20.9	-40.5	-62.6	15.7	-23.7	-45.8	-70.6	17.2	-26.9	-51.8	-79.9	19.0
7:12	-23.4	-28.3	-28.3	25.4	-26.5	-32.0	-32.0	28.2	-30.1	-36.3	-36.3	31.4
8:12	-23.4	-28.3	-28.3	25.3	-26.5	-32.1	-32.1	28.0	-30.1	-36.3	-36.3	31.3
9:12	-23.5	-28.4	-28.4	25.1	-26.6	-32.1	-32.1	27.9	-30.1	-36.4	-36.4	31.1
10:12	-23.5	-28.4	-28.4	25.0	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

135 mph

Ground Snow Load

0 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	14.8	-15.4	-28.7	-45.4	14.8	-18.9	-35.1	-55.4	14.8
2:12	-13.7	-27.0	-42.0	14.4	-13.7	-27.0	-42.0	14.4	-16.9	-33.1	-51.3	14.8
3:12	-13.7	-27.1	-42.1	14.0	-13.7	-27.1	-42.1	14.0	-17.0	-33.1	-51.3	14.4
4:12	-13.8	-27.1	-42.1	13.2	-13.8	-27.1	-42.1	13.2	-17.0	-33.2	-51.4	13.8
5:12	-13.8	-27.1	-42.1	13.2	-13.8	-27.1	-42.1	13.2	-17.0	-33.2	-51.4	13.7
6:12	-13.8	-27.2	-42.2	13.0	-13.8	-27.2	-42.2	13.0	-17.1	-33.2	-51.4	13.6
7:12	-15.5	-18.9	-18.9	18.3	-15.5	-18.9	-18.9	18.3	-19.1	-23.2	-23.2	21.5
8:12	-15.6	-18.9	-18.9	18.2	-15.6	-18.9	-18.9	18.2	-19.2	-23.2	-23.2	21.4
9:12	-15.6	-19.0	-19.0	18.1	-15.6	-19.0	-19.0	18.1	-19.2	-23.2	-23.2	21.3
10:12	-15.7	-19.0	-19.0	17.9	-15.7	-19.0	-19.0	17.9	-19.2	-23.3	-23.3	21.2
11:12	-15.7	-19.0	-19.0	17.8	-15.7	-19.0	-19.0	17.8	-19.3	-23.3	-23.3	21.0
12:12	-15.7	-19.1	-19.1	17.7	-15.7	-19.1	-19.1	17.7	-19.3	-23.4	-23.4	20.9
Exposure Category C												
1:12	-18.9	-35.1	-55.4	14.8	-22.0	-40.7	-64.0	14.8	-25.6	-47.1	-74.0	14.8
2:12	-16.9	-33.1	-51.3	14.8	-19.7	-38.4	-59.4	15.9	-22.9	-44.4	-68.6	17.3
3:12	-17.0	-33.1	-51.3	14.4	-19.7	-38.4	-59.4	15.5	-23.0	-44.5	-68.7	17.2
4:12	-17.0	-33.2	-51.4	13.8	-19.8	-38.4	-59.4	15.3	-23.0	-44.5	-68.7	17.1
5:12	-17.0	-33.2	-51.4	13.7	-19.8	-38.5	-59.4	15.2	-23.0	-44.5	-68.7	17.0
6:12	-17.1	-33.2	-51.4	13.6	-19.8	-38.5	-59.5	15.1	-23.1	-44.6	-68.8	16.9
7:12	-19.1	-23.2	-23.2	21.5	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5
8:12	-19.2	-23.2	-23.2	21.4	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4
9:12	-19.2	-23.2	-23.2	21.3	-22.3	-27.0	-27.0	24.1	-25.9	-31.2	-31.2	27.3
10:12	-19.2	-23.3	-23.3	21.2	-22.3	-27.0	-27.0	23.9	-25.9	-31.3	-31.3	27.2
11:12	-19.3	-23.3	-23.3	21.0	-22.4	-27.0	-27.0	23.8	-25.9	-31.3	-31.3	27.0
12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D												
1:12	-23.2	-42.8	-67.3	14.8	-26.3	-48.4	-76.0	14.8	-29.9	-54.8	-86.0	14.8
2:12	-20.8	-40.4	-62.5	16.4	-23.6	-45.7	-70.5	17.6	-26.8	-51.7	-79.8	19.4
3:12	-20.8	-40.4	-62.5	16.0	-23.6	-45.7	-70.5	17.5	-26.8	-51.7	-79.8	19.3
4:12	-20.8	-40.4	-62.5	15.9	-23.6	-45.7	-70.5	17.5	-26.8	-51.8	-79.8	19.2
5:12	-20.9	-40.5	-62.5	15.8	-23.7	-45.7	-70.6	17.4	-26.9	-51.8	-79.9	19.1
6:12	-20.9	-40.5	-62.6	15.7	-23.7	-45.8	-70.6	17.2	-26.9	-51.8	-79.9	19.0
7:12	-23.4	-28.3	-28.3	25.4	-26.5	-32.0	-32.0	28.2	-30.1	-36.3	-36.3	31.4
8:12	-23.4	-28.3	-28.3	25.3	-26.5	-32.1	-32.1	28.0	-30.1	-36.3	-36.3	31.3
9:12	-23.5	-28.4	-28.4	25.1	-26.6	-32.1	-32.1	27.9	-30.1	-36.4	-36.4	31.1
10:12	-23.5	-28.4	-28.4	25.0	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
135 mph

Ground Snow Load
5 psf

Up and Down (psf)

Basic Wind Speed
135 mph

Ground Snow Load
10 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	18.5	-15.4	-28.7	-45.4	18.5	-18.9	-35.1	-55.4	18.5
2:12	-13.7	-27.0	-42.0	17.8	-13.7	-27.0	-42.0	17.8	-16.9	-33.1	-51.3	18.2
3:12	-13.7	-27.1	-42.1	17.0	-13.7	-27.1	-42.1	17.0	-17.0	-33.1	-51.3	17.4
4:12	-13.8	-27.1	-42.1	14.6	-13.8	-27.1	-42.1	14.6	-17.0	-33.2	-51.4	15.0
5:12	-13.8	-27.1	-42.1	14.0	-13.8	-27.1	-42.1	14.0	-17.0	-33.2	-51.4	14.4
6:12	-13.8	-27.2	-42.2	13.4	-13.8	-27.2	-42.2	13.4	-17.1	-33.2	-51.4	13.8
7:12	-15.5	-18.9	-18.9	18.3	-15.5	-18.9	-18.9	18.3	-19.1	-23.2	-23.2	21.5
8:12	-15.6	-18.9	-18.9	18.2	-15.6	-18.9	-18.9	18.2	-19.2	-23.2	-23.2	21.4
9:12	-15.6	-19.0	-19.0	18.1	-15.6	-19.0	-19.0	18.1	-19.2	-23.2	-23.2	21.3
10:12	-15.7	-19.0	-19.0	17.9	-15.7	-19.0	-19.0	17.9	-19.2	-23.3	-23.3	21.2
11:12	-15.7	-19.0	-19.0	17.8	-15.7	-19.0	-19.0	17.8	-19.3	-23.3	-23.3	21.0
12:12	-15.7	-19.1	-19.1	17.7	-15.7	-19.1	-19.1	17.7	-19.3	-23.4	-23.4	20.9
Exposure Category C												
1:12	-18.9	-35.1	-55.4	18.5	-22.0	-40.7	-64.0	18.5	-25.6	-47.1	-74.0	18.5
2:12	-16.9	-33.1	-51.3	18.2	-19.7	-38.4	-59.4	19.3	-22.9	-44.4	-68.6	20.7
3:12	-17.0	-33.1	-51.3	17.4	-19.7	-38.4	-59.4	18.6	-23.0	-44.5	-68.7	19.9
4:12	-17.0	-33.2	-51.4	15.0	-19.8	-38.4	-59.4	16.1	-23.0	-44.5	-68.7	17.5
5:12	-17.0	-33.2	-51.4	14.4	-19.8	-38.5	-59.4	15.6	-23.0	-44.5	-68.7	17.0
6:12	-17.1	-33.2	-51.4	13.8	-19.8	-38.5	-59.5	15.1	-23.1	-44.6	-68.8	16.9
7:12	-19.1	-23.2	-23.2	21.5	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5
8:12	-19.2	-23.2	-23.2	21.4	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4
9:12	-19.2	-23.2	-23.2	21.3	-22.3	-27.0	-27.0	24.1	-25.9	-31.2	-31.2	27.3
10:12	-19.2	-23.3	-23.3	21.2	-22.3	-27.0	-27.0	23.9	-25.9	-31.3	-31.3	27.2
11:12	-19.3	-23.3	-23.3	21.0	-22.4	-27.0	-27.0	23.8	-25.9	-31.3	-31.3	27.0
12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D												
1:12	-23.2	-42.8	-67.3	18.5	-26.3	-48.4	-76.0	18.5	-29.9	-54.8	-86.0	18.5
2:12	-20.8	-40.4	-62.5	19.8	-23.6	-45.7	-70.5	20.9	-26.8	-51.7	-79.8	22.3
3:12	-20.8	-40.4	-62.5	19.0	-23.6	-45.7	-70.5	20.2	-26.8	-51.7	-79.8	21.5
4:12	-20.8	-40.4	-62.5	16.2	-23.6	-45.7	-70.5	17.5	-26.8	-51.8	-79.8	19.2
5:12	-20.9	-40.5	-62.5	15.8	-23.7	-45.7	-70.6	17.4	-26.9	-51.8	-79.9	19.1
6:12	-20.9	-40.5	-62.6	15.7	-23.7	-45.8	-70.6	17.2	-26.9	-51.8	-79.9	19.0
7:12	-23.4	-28.3	-28.3	25.4	-26.5	-32.0	-32.0	28.2	-30.1	-36.3	-36.3	31.4
8:12	-23.4	-28.3	-28.3	25.3	-26.5	-32.1	-32.1	28.0	-30.1	-36.3	-36.3	31.3
9:12	-23.5	-28.4	-28.4	25.1	-26.6	-32.1	-32.1	27.9	-30.1	-36.4	-36.4	31.1
10:12	-23.5	-28.4	-28.4	25.0	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	22.2	-15.4	-28.7	-45.4	22.2	-18.9	-35.1	-55.4	22.2
2:12	-13.7	-27.0	-42.0	21.2	-13.7	-27.0	-42.0	21.2	-16.9	-33.1	-51.3	21.6
3:12	-13.7	-27.1	-42.1	20.0	-13.7	-27.1	-42.1	20.0	-17.0	-33.1	-51.3	20.4
4:12	-13.8	-27.1	-42.1	16.5	-13.8	-27.1	-42.1	16.5	-17.0	-33.2	-51.4	16.9
5:12	-13.8	-27.1	-42.1	15.6	-13.8	-27.1	-42.1	15.6	-17.0	-33.2	-51.4	16.0
6:12	-13.8	-27.2	-42.2	14.9	-13.8	-27.2	-42.2	14.9	-17.1	-33.2	-51.4	15.2
7:12	-15.5	-18.9	-18.9	18.3	-15.5	-18.9	-18.9	18.3	-19.1	-23.2	-23.2	21.5
8:12	-15.6	-18.9	-18.9	18.2	-15.6	-18.9	-18.9	18.2	-19.2	-23.2	-23.2	21.4
9:12	-15.6	-19.0	-19.0	18.1	-15.6	-19.0	-19.0	18.1	-19.2	-23.2	-23.2	21.3
10:12	-15.7	-19.0	-19.0	17.9	-15.7	-19.0	-19.0	17.9	-19.2	-23.3	-23.3	21.2
11:12	-15.7	-19.0	-19.0	17.8	-15.7	-19.0	-19.0	17.8	-19.3	-23.3	-23.3	21.0
12:12	-15.7	-19.1	-19.1	17.7	-15.7	-19.1	-19.1	17.7	-19.3	-23.4	-23.4	20.9
Exposure Category C												
1:12	-18.9	-35.1	-55.4	22.2	-22.0	-40.7	-64.0	22.2	-25.6	-47.1	-74.0	22.2
2:12	-16.9	-33.1	-51.3	21.6	-19.7	-38.4	-59.4	22.7	-22.9	-44.4	-68.6	24.1
3:12	-17.0	-33.1	-51.3	20.4	-19.7	-38.4	-59.4	21.6	-23.0	-44.5	-68.7	22.9
4:12	-17.0	-33.2	-51.4	16.9	-19.8	-38.4	-59.4	18.0	-23.0	-44.5	-68.7	19.4
5:12	-17.0	-33.2	-51.4	16.0	-19.8	-38.5	-59.4	17.2	-23.0	-44.5	-68.7	18.5
6:12	-17.1	-33.2	-51.4	15.2	-19.8	-38.5	-59.5	16.4	-23.1	-44.6	-68.8	17.7
7:12	-19.1	-23.2	-23.2	21.5	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5
8:12	-19.2	-23.2	-23.2	21.4	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4
9:12	-19.2	-23.2	-23.2	21.3	-22.3	-27.0	-27.0	24.1	-25.9	-31.2	-31.2	27.3
10:12	-19.2	-23.3	-23.3	21.2	-22.3	-27.0	-27.0	23.9	-25.9	-31.3	-31.3	27.2
11:12	-19.3	-23.3	-23.3	21.0	-22.4	-27.0	-27.0	23.8	-25.9	-31.3	-31.3	27.0
12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D												
1:12	-23.2	-42.8	-67.3	22.2	-26.3	-48.4	-76.0	22.2	-29.9	-54.8	-86.0	22.2
2:12	-20.8	-40.4	-62.5	23.2	-23.6	-45.7	-70.5	24.3	-26.8	-51.7	-79.8	25.7
3:12	-20.8	-40.4	-62.5	22.0	-23.6	-45.7	-70.5	23.2	-26.8	-51.7	-79.8	24.5
4:12	-20.8	-40.4	-62.5	17.9	-23.6	-45.7	-70.5	19.1	-26.8	-51.8	-79.8	20.4
5:12	-20.9	-40.5	-62.5	17.1	-23.7	-45.7	-70.6	18.3	-26.9	-51.8	-79.9	19.6
6:12	-20.9	-40.5	-62.6	16.4	-23.7	-45.8	-70.6	17.6	-26.9	-51.8	-79.9	19.0
7:12	-23.4	-28.3	-28.3	25.4	-26.5	-32.0	-32.0	28.2	-30.1	-36.3	-36.3	31.4
8:12	-23.4	-28.3	-28.3	25.3	-26.5	-32.1	-32.1	28.0	-30.1	-36.3	-36.3	31.3
9:12	-23.5	-28.4	-28.4	25.1	-26.6	-32.1	-32.1	27.9	-30.1	-36.4	-36.4	31.1
10:12	-23.5	-28.4	-28.4	25.0	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
135 mph

Ground Snow Load
15 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-15.4	-28.7	-45.4	25.9	-15.4	-28.7	-45.4	25.9	-18.9	-35.1	-55.4	25.9
	2:12	-13.7	-27.0	-42.0	24.6	-13.7	-27.0	-42.0	24.6	-16.9	-33.1	-51.3	25.0
	3:12	-13.7	-27.1	-42.1	23.1	-13.7	-27.1	-42.1	23.1	-17.0	-33.1	-51.3	23.5
	4:12	-13.8	-27.1	-42.1	18.3	-13.8	-27.1	-42.1	18.3	-17.0	-33.2	-51.4	18.7
	5:12	-13.8	-27.1	-42.1	17.3	-13.8	-27.1	-42.1	17.3	-17.0	-33.2	-51.4	17.7
	6:12	-13.8	-27.2	-42.2	16.3	-13.8	-27.2	-42.2	16.3	-17.1	-33.2	-51.4	16.6
	7:12	-15.5	-18.9	-18.9	19.4	-15.5	-18.9	-18.9	19.4	-19.1	-23.2	-23.2	21.8
	8:12	-15.6	-18.9	-18.9	18.5	-15.6	-18.9	-18.9	18.5	-19.2	-23.2	-23.2	21.4
	9:12	-15.6	-19.0	-19.0	18.1	-15.6	-19.0	-19.0	18.1	-19.2	-23.2	-23.2	21.3
	10:12	-15.7	-19.0	-19.0	17.9	-15.7	-19.0	-19.0	17.9	-19.2	-23.3	-23.3	21.2
	11:12	-15.7	-19.0	-19.0	17.8	-15.7	-19.0	-19.0	17.8	-19.3	-23.3	-23.3	21.0
	12:12	-15.7	-19.1	-19.1	17.7	-15.7	-19.1	-19.1	17.7	-19.3	-23.4	-23.4	20.9
Exposure Category C	1:12	-18.9	-35.1	-55.4	25.9	-22.0	-40.7	-64.0	25.9	-25.6	-47.1	-74.0	25.9
	2:12	-16.9	-33.1	-51.3	25.0	-19.7	-38.4	-59.4	26.1	-22.9	-44.4	-68.6	27.5
	3:12	-17.0	-33.1	-51.3	23.5	-19.7	-38.4	-59.4	24.6	-23.0	-44.5	-68.7	26.0
	4:12	-17.0	-33.2	-51.4	18.7	-19.8	-38.4	-59.4	19.9	-23.0	-44.5	-68.7	21.2
	5:12	-17.0	-33.2	-51.4	17.7	-19.8	-38.5	-59.4	18.8	-23.0	-44.5	-68.7	20.2
	6:12	-17.1	-33.2	-51.4	16.6	-19.8	-38.5	-59.5	17.8	-23.1	-44.6	-68.8	19.1
	7:12	-19.1	-23.2	-23.2	21.8	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5
	8:12	-19.2	-23.2	-23.2	21.4	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4
	9:12	-19.2	-23.2	-23.2	21.3	-22.3	-27.0	-27.0	24.1	-25.9	-31.2	-31.2	27.3
	10:12	-19.2	-23.3	-23.3	21.2	-22.3	-27.0	-27.0	23.9	-25.9	-31.3	-31.3	27.2
	11:12	-19.3	-23.3	-23.3	21.0	-22.4	-27.0	-27.0	23.8	-25.9	-31.3	-31.3	27.0
	12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D	1:12	-23.2	-42.8	-67.3	25.9	-26.3	-48.4	-76.0	25.9	-29.9	-54.8	-86.0	25.9
	2:12	-20.8	-40.4	-62.5	26.6	-23.6	-45.7	-70.5	27.7	-26.8	-51.7	-79.8	29.1
	3:12	-20.8	-40.4	-62.5	25.1	-23.6	-45.7	-70.5	26.2	-26.8	-51.7	-79.8	27.6
	4:12	-20.8	-40.4	-62.5	19.6	-23.6	-45.7	-70.5	20.7	-26.8	-51.8	-79.8	22.1
	5:12	-20.9	-40.5	-62.5	18.6	-23.7	-45.7	-70.6	19.8	-26.9	-51.8	-79.9	21.1
	6:12	-20.9	-40.5	-62.6	17.7	-23.7	-45.8	-70.6	18.8	-26.9	-51.8	-79.9	20.2
	7:12	-23.4	-28.3	-28.3	25.4	-26.5	-32.0	-32.0	28.2	-30.1	-36.3	-36.3	31.4
	8:12	-23.4	-28.3	-28.3	25.3	-26.5	-32.1	-32.1	28.0	-30.1	-36.3	-36.3	31.3
	9:12	-23.5	-28.4	-28.4	25.1	-26.6	-32.1	-32.1	27.9	-30.1	-36.4	-36.4	31.1
	10:12	-23.5	-28.4	-28.4	25.0	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
	11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
	12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **135 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-15.4	-28.7	-45.4	25.9	-15.4	-28.7	-45.4	25.9	-18.9	-35.1	-55.4	25.9
	2:12	-13.7	-27.0	-42.0	24.6	-13.7	-27.0	-42.0	24.6	-16.9	-33.1	-51.3	25.0
	3:12	-13.7	-27.1	-42.1	23.1	-13.7	-27.1	-42.1	23.1	-17.0	-33.1	-51.3	23.5
	4:12	-13.8	-27.1	-42.1	20.2	-13.8	-27.1	-42.1	20.2	-17.0	-33.2	-51.4	20.6
	5:12	-13.8	-27.1	-42.1	18.9	-13.8	-27.1	-42.1	18.9	-17.0	-33.2	-51.4	19.3
	6:12	-13.8	-27.2	-42.2	17.7	-13.8	-27.2	-42.2	17.7	-17.1	-33.2	-51.4	18.0
	7:12	-15.5	-18.9	-18.9	20.6	-15.5	-18.9	-18.9	20.6	-19.1	-23.2	-23.2	23.0
	8:12	-15.6	-18.9	-18.9	19.5	-15.6	-18.9	-18.9	19.5	-19.2	-23.2	-23.2	21.9
	9:12	-15.6	-19.0	-19.0	18.6	-15.6	-19.0	-19.0	18.6	-19.2	-23.2	-23.2	21.3
	10:12	-15.7	-19.0	-19.0	17.9	-15.7	-19.0	-19.0	17.9	-19.2	-23.3	-23.3	21.2
	11:12	-15.7	-19.0	-19.0	17.8	-15.7	-19.0	-19.0	17.8	-19.3	-23.3	-23.3	21.0
	12:12	-15.7	-19.1	-19.1	17.7	-15.7	-19.1	-19.1	17.7	-19.3	-23.4	-23.4	20.9
Exposure Category C	1:12	-18.9	-35.1	-55.4	25.9	-22.0	-40.7	-64.0	25.9	-25.6	-47.1	-74.0	25.9
	2:12	-16.9	-33.1	-51.3	25.0	-19.7	-38.4	-59.4	26.1	-22.9	-44.4	-68.6	27.5
	3:12	-17.0	-33.1	-51.3	23.5	-19.7	-38.4	-59.4	24.6	-23.0	-44.5	-68.7	26.0
	4:12	-17.0	-33.2	-51.4	20.6	-19.8	-38.4	-59.4	21.8	-23.0	-44.5	-68.7	23.1
	5:12	-17.0	-33.2	-51.4	19.3	-19.8	-38.5	-59.4	20.4	-23.0	-44.5	-68.7	21.8
	6:12	-17.1	-33.2	-51.4	18.0	-19.8	-38.5	-59.5	19.2	-23.1	-44.6	-68.8	20.5
	7:12	-19.1	-23.2	-23.2	23.0	-22.2	-26.9	-26.9	25.1	-25.8	-31.2	-31.2	27.5
	8:12	-19.2	-23.2	-23.2	21.9	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4
	9:12	-19.2	-23.2	-23.2	21.3	-22.3	-27.0	-27.0	24.1	-25.9	-31.2	-31.2	27.3
	10:12	-19.2	-23.3	-23.3	21.2	-22.3	-27.0	-27.0	23.9	-25.9	-31.3	-31.3	27.2
	11:12	-19.3	-23.3	-23.3	21.0	-22.4	-27.0	-27.0	23.8	-25.9	-31.3	-31.3	27.0
	12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D	1:12	-23.2	-42.8	-67.3	25.9	-26.3	-48.4	-76.0	25.9	-29.9	-54.8	-86.0	25.9
	2:12	-20.8	-40.4	-62.5	26.6	-23.6	-45.7	-70.5	27.7	-26.8	-51.7	-79.8	29.1
	3:12	-20.8	-40.4	-62.5	25.1	-23.6	-45.7	-70.5	26.2	-26.8	-51.7	-79.8	27.6
	4:12	-20.8	-40.4	-62.5	21.3	-23.6	-45.7	-70.5	22.4	-26.8	-51.8	-79.8	23.8
	5:12	-20.9	-40.5	-62.5	20.1	-23.7	-45.7	-70.6	21.2	-26.9	-51.8	-79.9	22.6
	6:12	-20.9	-40.5	-62.6	18.9	-23.7	-45.8	-70.6	20.1	-26.9	-51.8	-79.9	21.4
	7:12	-23.4	-28.3	-28.3	25.4	-26.5	-32.0	-32.0	28.2	-30.1	-36.3	-36.3	31.4
	8:12	-23.4	-28.3	-28.3	25.3	-26.5	-32.1	-32.1	28.0	-30.1	-36.3	-36.3	31.3
	9:12	-23.5	-28.4	-28.4	25.1	-26.6	-32.1	-32.1	27.9	-30.1	-36.4	-36.4	31.1
	10:12	-23.5	-28.4	-28.4	25.0	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
	11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
	12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
	5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
	6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
	7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
	8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
	9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
	10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
	11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **135 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	26.7	-15.4	-28.7	-45.4	26.7	-18.9	-35.1	-55.4	26.7
2:12	-13.7	-27.0	-42.0	25.3	-13.7	-27.0	-42.0	25.3	-16.9	-33.1	-51.3	25.7
3:12	-13.7	-27.1	-42.1	23.7	-13.7	-27.1	-42.1	23.7	-17.0	-33.1	-51.3	24.1
4:12	-13.8	-27.1	-42.1	22.1	-13.8	-27.1	-42.1	22.1	-17.0	-33.2	-51.4	22.5
5:12	-13.8	-27.1	-42.1	20.5	-13.8	-27.1	-42.1	20.5	-17.0	-33.2	-51.4	20.9
6:12	-13.8	-27.2	-42.2	19.1	-13.8	-27.2	-42.2	19.1	-17.1	-33.2	-51.4	19.4
7:12	-15.5	-18.9	-18.9	21.8	-15.5	-18.9	-18.9	21.8	-19.1	-23.2	-23.2	24.2
8:12	-15.6	-18.9	-18.9	20.5	-15.6	-18.9	-18.9	20.5	-19.2	-23.2	-23.2	22.9
9:12	-15.6	-19.0	-19.0	19.5	-15.6	-19.0	-19.0	19.5	-19.2	-23.2	-23.2	21.9
10:12	-15.7	-19.0	-19.0	18.5	-15.7	-19.0	-19.0	18.5	-19.2	-23.3	-23.3	21.2
11:12	-15.7	-19.0	-19.0	17.8	-15.7	-19.0	-19.0	17.8	-19.3	-23.3	-23.3	21.0
12:12	-15.7	-19.1	-19.1	17.7	-15.7	-19.1	-19.1	17.7	-19.3	-23.4	-23.4	20.9
Exposure Category C												
1:12	-18.9	-35.1	-55.4	26.7	-22.0	-40.7	-64.0	26.7	-25.6	-47.1	-74.0	26.7
2:12	-16.9	-33.1	-51.3	25.7	-19.7	-38.4	-59.4	26.8	-22.9	-44.4	-68.6	28.2
3:12	-17.0	-33.1	-51.3	24.1	-19.7	-38.4	-59.4	25.2	-23.0	-44.5	-68.7	26.6
4:12	-17.0	-33.2	-51.4	22.5	-19.8	-38.4	-59.4	23.6	-23.0	-44.5	-68.7	25.0
5:12	-17.0	-33.2	-51.4	20.9	-19.8	-38.5	-59.4	22.1	-23.0	-44.5	-68.7	23.4
6:12	-17.1	-33.2	-51.4	19.4	-19.8	-38.5	-59.5	20.6	-23.1	-44.6	-68.8	21.9
7:12	-19.1	-23.2	-23.2	24.2	-22.2	-26.9	-26.9	26.2	-25.8	-31.2	-31.2	28.7
8:12	-19.2	-23.2	-23.2	22.9	-22.3	-26.9	-26.9	25.0	-25.8	-31.2	-31.2	27.4
9:12	-19.2	-23.2	-23.2	21.9	-22.3	-27.0	-27.0	24.1	-25.9	-31.2	-31.2	27.3
10:12	-19.2	-23.3	-23.3	21.2	-22.3	-27.0	-27.0	23.9	-25.9	-31.3	-31.3	27.2
11:12	-19.3	-23.3	-23.3	21.0	-22.4	-27.0	-27.0	23.8	-25.9	-31.3	-31.3	27.0
12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D												
1:12	-23.2	-42.8	-67.3	25.9	-26.3	-48.4	-76.0	25.9	-29.9	-54.8	-86.0	25.9
2:12	-20.8	-40.4	-62.5	26.6	-23.6	-45.7	-70.5	27.7	-26.8	-51.7	-79.8	29.1
3:12	-20.8	-40.4	-62.5	25.1	-23.6	-45.7	-70.5	26.2	-26.8	-51.7	-79.8	27.6
4:12	-20.8	-40.4	-62.5	23.0	-23.6	-45.7	-70.5	24.1	-26.8	-51.8	-79.8	25.5
5:12	-20.9	-40.5	-62.5	21.5	-23.7	-45.7	-70.6	22.7	-26.9	-51.8	-79.9	24.0
6:12	-20.9	-40.5	-62.6	20.2	-23.7	-45.8	-70.6	21.4	-26.9	-51.8	-79.9	22.7
7:12	-23.4	-28.3	-28.3	26.3	-26.5	-32.0	-32.0	28.4	-30.1	-36.3	-36.3	31.4
8:12	-23.4	-28.3	-28.3	25.3	-26.5	-32.1	-32.1	28.0	-30.1	-36.3	-36.3	31.3
9:12	-23.5	-28.4	-28.4	25.1	-26.6	-32.1	-32.1	27.9	-30.1	-36.4	-36.4	31.1
10:12	-23.5	-28.4	-28.4	25.0	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

135 mph

Ground Snow Load

30 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-15.4	-28.7	-45.4	29.3	-15.4	-28.7	-45.4	29.3	-18.9	-35.1	-55.4	29.3
	2:12	-13.7	-27.0	-42.0	27.6	-13.7	-27.0	-42.0	27.6	-16.9	-33.1	-51.3	28.0
	3:12	-13.7	-27.1	-42.1	25.8	-13.7	-27.1	-42.1	25.8	-17.0	-33.1	-51.3	26.2
	4:12	-13.8	-27.1	-42.1	24.0	-13.8	-27.1	-42.1	24.0	-17.0	-33.2	-51.4	24.4
	5:12	-13.8	-27.1	-42.1	22.2	-13.8	-27.1	-42.1	22.2	-17.0	-33.2	-51.4	22.5
	6:12	-13.8	-27.2	-42.2	20.5	-13.8	-27.2	-42.2	20.5	-17.1	-33.2	-51.4	20.8
	7:12	-15.5	-18.9	-18.9	22.9	-15.5	-18.9	-18.9	22.9	-19.1	-23.2	-23.2	25.4
	8:12	-15.6	-18.9	-18.9	21.6	-15.6	-18.9	-18.9	21.6	-19.2	-23.2	-23.2	24.0
	9:12	-15.6	-19.0	-19.0	20.3	-15.6	-19.0	-19.0	20.3	-19.2	-23.2	-23.2	22.7
	10:12	-15.7	-19.0	-19.0	19.2	-15.7	-19.0	-19.0	19.2	-19.2	-23.3	-23.3	21.6
	11:12	-15.7	-19.0	-19.0	18.3	-15.7	-19.0	-19.0	18.3	-19.3	-23.3	-23.3	21.0
	12:12	-15.7	-19.1	-19.1	17.7	-15.7	-19.1	-19.1	17.7	-19.3	-23.4	-23.4	20.9
Exposure Category C	1:12	-18.9	-35.1	-55.4	29.3	-22.0	-40.7	-64.0	29.3	-25.6	-47.1	-74.0	29.3
	2:12	-16.9	-33.1	-51.3	28.0	-19.7	-38.4	-59.4	29.2	-22.9	-44.4	-68.6	30.5
	3:12	-17.0	-33.1	-51.3	26.2	-19.7	-38.4	-59.4	27.4	-23.0	-44.5	-68.7	28.7
	4:12	-17.0	-33.2	-51.4	24.4	-19.8	-38.4	-59.4	25.5	-23.0	-44.5	-68.7	26.9
	5:12	-17.0	-33.2	-51.4	22.5	-19.8	-38.5	-59.4	23.7	-23.0	-44.5	-68.7	25.0
	6:12	-17.1	-33.2	-51.4	20.8	-19.8	-38.5	-59.5	22.0	-23.1	-44.6	-68.8	23.3
	7:12	-19.1	-23.2	-23.2	25.4	-22.2	-26.9	-26.9	27.4	-25.8	-31.2	-31.2	29.9
	8:12	-19.2	-23.2	-23.2	24.0	-22.3	-26.9	-26.9	26.0	-25.8	-31.2	-31.2	28.5
	9:12	-19.2	-23.2	-23.2	22.7	-22.3	-27.0	-27.0	24.8	-25.9	-31.2	-31.2	27.3
	10:12	-19.2	-23.3	-23.3	21.6	-22.3	-27.0	-27.0	23.9	-25.9	-31.3	-31.3	27.2
	11:12	-19.3	-23.3	-23.3	21.0	-22.4	-27.0	-27.0	23.8	-25.9	-31.3	-31.3	27.0
	12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D	1:12	-23.2	-42.8	-67.3	27.5	-26.3	-48.4	-76.0	27.5	-29.9	-54.8	-86.0	27.5
	2:12	-20.8	-40.4	-62.5	28.0	-23.6	-45.7	-70.5	29.1	-26.8	-51.7	-79.8	30.5
	3:12	-20.8	-40.4	-62.5	26.3	-23.6	-45.7	-70.5	27.5	-26.8	-51.7	-79.8	28.8
	4:12	-20.8	-40.4	-62.5	24.6	-23.6	-45.7	-70.5	25.8	-26.8	-51.8	-79.8	27.1
	5:12	-20.9	-40.5	-62.5	23.0	-23.7	-45.7	-70.6	24.2	-26.9	-51.8	-79.9	25.5
	6:12	-20.9	-40.5	-62.6	21.5	-23.7	-45.8	-70.6	22.6	-26.9	-51.8	-79.9	24.0
	7:12	-23.4	-28.3	-28.3	27.4	-26.5	-32.0	-32.0	29.5	-30.1	-36.3	-36.3	31.9
	8:12	-23.4	-28.3	-28.3	26.1	-26.5	-32.1	-32.1	28.2	-30.1	-36.3	-36.3	31.3
	9:12	-23.5	-28.4	-28.4	25.1	-26.6	-32.1	-32.1	27.9	-30.1	-36.4	-36.4	31.1
	10:12	-23.5	-28.4	-28.4	25.0	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
	11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
	12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
	2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
	3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
	4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
	5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
	6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
	7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
	8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
	9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
	10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
	11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **135 mph**

Ground Snow Load **35 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	31.9	-15.4	-28.7	-45.4	31.9	-18.9	-35.1	-55.4	31.9
2:12	-13.7	-27.0	-42.0	30.0	-13.7	-27.0	-42.0	30.0	-16.9	-33.1	-51.3	30.4
3:12	-13.7	-27.1	-42.1	27.9	-13.7	-27.1	-42.1	27.9	-17.0	-33.1	-51.3	28.3
4:12	-13.8	-27.1	-42.1	25.8	-13.8	-27.1	-42.1	25.8	-17.0	-33.2	-51.4	26.2
5:12	-13.8	-27.1	-42.1	23.8	-13.8	-27.1	-42.1	23.8	-17.0	-33.2	-51.4	24.2
6:12	-13.8	-27.2	-42.2	21.9	-13.8	-27.2	-42.2	21.9	-17.1	-33.2	-51.4	22.3
7:12	-15.5	-18.9	-18.9	24.1	-15.5	-18.9	-18.9	24.1	-19.1	-23.2	-23.2	26.6
8:12	-15.6	-18.9	-18.9	22.6	-15.6	-18.9	-18.9	22.6	-19.2	-23.2	-23.2	25.0
9:12	-15.6	-19.0	-19.0	21.2	-15.6	-19.0	-19.0	21.2	-19.2	-23.2	-23.2	23.6
10:12	-15.7	-19.0	-19.0	20.0	-15.7	-19.0	-19.0	20.0	-19.2	-23.3	-23.3	22.4
11:12	-15.7	-19.0	-19.0	18.9	-15.7	-19.0	-19.0	18.9	-19.3	-23.3	-23.3	21.3
12:12	-15.7	-19.1	-19.1	18.0	-15.7	-19.1	-19.1	18.0	-19.3	-23.4	-23.4	20.9
Exposure Category C												
1:12	-18.9	-35.1	-55.4	31.9	-22.0	-40.7	-64.0	31.9	-25.6	-47.1	-74.0	31.9
2:12	-16.9	-33.1	-51.3	30.4	-19.7	-38.4	-59.4	31.6	-22.9	-44.4	-68.6	32.9
3:12	-17.0	-33.1	-51.3	28.3	-19.7	-38.4	-59.4	29.5	-23.0	-44.5	-68.7	30.8
4:12	-17.0	-33.2	-51.4	26.2	-19.8	-38.4	-59.4	27.4	-23.0	-44.5	-68.7	28.7
5:12	-17.0	-33.2	-51.4	24.2	-19.8	-38.5	-59.4	25.3	-23.0	-44.5	-68.7	26.7
6:12	-17.1	-33.2	-51.4	22.3	-19.8	-38.5	-59.5	23.4	-23.1	-44.6	-68.8	24.8
7:12	-19.1	-23.2	-23.2	26.6	-22.2	-26.9	-26.9	28.6	-25.8	-31.2	-31.2	31.1
8:12	-19.2	-23.2	-23.2	25.0	-22.3	-26.9	-26.9	27.1	-25.8	-31.2	-31.2	29.5
9:12	-19.2	-23.2	-23.2	23.6	-22.3	-27.0	-27.0	25.7	-25.9	-31.2	-31.2	28.1
10:12	-19.2	-23.3	-23.3	22.4	-22.3	-27.0	-27.0	24.5	-25.9	-31.3	-31.3	27.2
11:12	-19.3	-23.3	-23.3	21.3	-22.4	-27.0	-27.0	23.8	-25.9	-31.3	-31.3	27.0
12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D												
1:12	-23.2	-42.8	-67.3	29.8	-26.3	-48.4	-76.0	29.8	-29.9	-54.8	-86.0	29.8
2:12	-20.8	-40.4	-62.5	30.1	-23.6	-45.7	-70.5	31.3	-26.8	-51.7	-79.8	32.6
3:12	-20.8	-40.4	-62.5	28.2	-23.6	-45.7	-70.5	29.4	-26.8	-51.7	-79.8	30.7
4:12	-20.8	-40.4	-62.5	26.3	-23.6	-45.7	-70.5	27.5	-26.8	-51.8	-79.8	28.8
5:12	-20.9	-40.5	-62.5	24.5	-23.7	-45.7	-70.6	25.6	-26.9	-51.8	-79.9	27.0
6:12	-20.9	-40.5	-62.6	22.7	-23.7	-45.8	-70.6	23.9	-26.9	-51.8	-79.9	25.2
7:12	-23.4	-28.3	-28.3	28.5	-26.5	-32.0	-32.0	30.6	-30.1	-36.3	-36.3	33.0
8:12	-23.4	-28.3	-28.3	27.1	-26.5	-32.1	-32.1	29.1	-30.1	-36.3	-36.3	31.6
9:12	-23.5	-28.4	-28.4	25.8	-26.6	-32.1	-32.1	27.9	-30.1	-36.4	-36.4	31.1
10:12	-23.5	-28.4	-28.4	25.0	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

135 mph

Ground Snow Load

40 psf

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

135 mph

Ground Snow Load

45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	35.1	-15.4	-28.7	-45.4	35.1	-18.9	-35.1	-55.4	35.1
2:12	-13.7	-27.0	-42.0	32.4	-13.7	-27.0	-42.0	32.4	-16.9	-33.1	-51.3	32.8
3:12	-13.7	-27.1	-42.1	30.1	-13.7	-27.1	-42.1	30.1	-17.0	-33.1	-51.3	30.5
4:12	-13.8	-27.1	-42.1	27.7	-13.8	-27.1	-42.1	27.7	-17.0	-33.2	-51.4	28.1
5:12	-13.8	-27.1	-42.1	25.4	-13.8	-27.1	-42.1	25.4	-17.0	-33.2	-51.4	25.8
6:12	-13.8	-27.2	-42.2	23.3	-13.8	-27.2	-42.2	23.3	-17.1	-33.2	-51.4	23.7
7:12	-15.5	-18.9	-18.9	25.3	-15.5	-18.9	-18.9	25.3	-19.1	-23.2	-23.2	27.8
8:12	-15.6	-18.9	-18.9	23.6	-15.6	-18.9	-18.9	23.6	-19.2	-23.2	-23.2	26.0
9:12	-15.6	-19.0	-19.0	22.0	-15.6	-19.0	-19.0	22.0	-19.2	-23.2	-23.2	24.4
10:12	-15.7	-19.0	-19.0	20.7	-15.7	-19.0	-19.0	20.7	-19.2	-23.3	-23.3	23.1
11:12	-15.7	-19.0	-19.0	19.5	-15.7	-19.0	-19.0	19.5	-19.3	-23.3	-23.3	21.9
12:12	-15.7	-19.1	-19.1	18.5	-15.7	-19.1	-19.1	18.5	-19.3	-23.4	-23.4	20.9
Exposure Category C												
1:12	-18.9	-35.1	-55.4	35.1	-22.0	-40.7	-64.0	35.1	-25.6	-47.1	-74.0	35.1
2:12	-16.9	-33.1	-51.3	32.8	-19.7	-38.4	-59.4	33.9	-22.9	-44.4	-68.6	35.3
3:12	-17.0	-33.1	-51.3	30.5	-19.7	-38.4	-59.4	31.6	-23.0	-44.5	-68.7	33.0
4:12	-17.0	-33.2	-51.4	28.1	-19.8	-38.4	-59.4	29.3	-23.0	-44.5	-68.7	30.6
5:12	-17.0	-33.2	-51.4	25.8	-19.8	-38.5	-59.4	27.0	-23.0	-44.5	-68.7	28.3
6:12	-17.1	-33.2	-51.4	23.7	-19.8	-38.5	-59.5	24.8	-23.1	-44.6	-68.8	26.2
7:12	-19.1	-23.2	-23.2	27.8	-22.2	-26.9	-26.9	29.8	-25.8	-31.2	-31.2	32.3
8:12	-19.2	-23.2	-23.2	26.0	-22.3	-26.9	-26.9	28.1	-25.8	-31.2	-31.2	30.5
9:12	-19.2	-23.2	-23.2	24.4	-22.3	-27.0	-27.0	26.5	-25.9	-31.2	-31.2	28.9
10:12	-19.2	-23.3	-23.3	23.1	-22.3	-27.0	-27.0	25.2	-25.9	-31.3	-31.3	27.6
11:12	-19.3	-23.3	-23.3	21.9	-22.4	-27.0	-27.0	24.0	-25.9	-31.3	-31.3	27.0
12:12	-19.3	-23.4	-23.4	20.9	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D												
1:12	-23.2	-42.8	-67.3	32.1	-26.3	-48.4	-76.0	32.1	-29.9	-54.8	-86.0	32.1
2:12	-20.8	-40.4	-62.5	32.3	-23.6	-45.7	-70.5	33.4	-26.8	-51.7	-79.8	34.8
3:12	-20.8	-40.4	-62.5	30.2	-23.6	-45.7	-70.5	31.3	-26.8	-51.7	-79.8	32.7
4:12	-20.8	-40.4	-62.5	28.0	-23.6	-45.7	-70.5	29.2	-26.8	-51.8	-79.8	30.5
5:12	-20.9	-40.5	-62.5	25.9	-23.7	-45.7	-70.6	27.1	-26.9	-51.8	-79.9	28.4
6:12	-20.9	-40.5	-62.6	24.0	-23.7	-45.8	-70.6	25.2	-26.9	-51.8	-79.9	26.5
7:12	-23.4	-28.3	-28.3	29.6	-26.5	-32.0	-32.0	31.7	-30.1	-36.3	-36.3	34.1
8:12	-23.4	-28.3	-28.3	28.0	-26.5	-32.1	-32.1	30.1	-30.1	-36.3	-36.3	32.5
9:12	-23.5	-28.4	-28.4	26.6	-26.6	-32.1	-32.1	28.6	-30.1	-36.4	-36.4	31.1
10:12	-23.5	-28.4	-28.4	25.3	-26.6	-32.1	-32.1	27.8	-30.2	-36.4	-36.4	31.0
11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

135 mph

Ground Snow Load

50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	38.6	-15.4	-28.7	-45.4	38.6	-18.9	-35.1	-55.4	38.6
2:12	-13.7	-27.0	-42.0	35.5	-13.7	-27.0	-42.0	35.5	-16.9	-33.1	-51.3	35.5
3:12	-13.7	-27.1	-42.1	32.2	-13.7	-27.1	-42.1	32.2	-17.0	-33.1	-51.3	32.6
4:12	-13.8	-27.1	-42.1	29.6	-13.8	-27.1	-42.1	29.6	-17.0	-33.2	-51.4	30.0
5:12	-13.8	-27.1	-42.1	27.1	-13.8	-27.1	-42.1	27.1	-17.0	-33.2	-51.4	27.4
6:12	-13.8	-27.2	-42.2	24.7	-13.8	-27.2	-42.2	24.7	-17.1	-33.2	-51.4	25.1
7:12	-15.5	-18.9	-18.9	26.5	-15.5	-18.9	-18.9	26.5	-19.1	-23.2	-23.2	29.0
8:12	-15.6	-18.9	-18.9	24.6	-15.6	-18.9	-18.9	24.6	-19.2	-23.2	-23.2	27.0
9:12	-15.6	-19.0	-19.0	22.9	-15.6	-19.0	-19.0	22.9	-19.2	-23.2	-23.2	25.3
10:12	-15.7	-19.0	-19.0	21.4	-15.7	-19.0	-19.0	21.4	-19.2	-23.3	-23.3	23.8
11:12	-15.7	-19.0	-19.0	20.1	-15.7	-19.0	-19.0	20.1	-19.3	-23.3	-23.3	22.5
12:12	-15.7	-19.1	-19.1	19.0	-15.7	-19.1	-19.1	19.0	-19.3	-23.4	-23.4	21.4
Exposure Category C												
1:12	-18.9	-35.1	-55.4	38.6	-22.0	-40.7	-64.0	38.6	-25.6	-47.1	-74.0	38.6
2:12	-16.9	-33.1	-51.3	35.5	-19.7	-38.4	-59.4	36.3	-22.9	-44.4	-68.6	37.7
3:12	-17.0	-33.1	-51.3	32.6	-19.7	-38.4	-59.4	33.7	-23.0	-44.5	-68.7	35.1
4:12	-17.0	-33.2	-51.4	30.0	-19.8	-38.4	-59.4	31.1	-23.0	-44.5	-68.7	32.5
5:12	-17.0	-33.2	-51.4	27.4	-19.8	-38.5	-59.4	28.6	-23.0	-44.5	-68.7	29.9
6:12	-17.1	-33.2	-51.4	25.1	-19.8	-38.5	-59.5	26.2	-23.1	-44.6	-68.8	27.6
7:12	-19.1	-23.2	-23.2	29.0	-22.2	-26.9	-26.9	31.0	-25.8	-31.2	-31.2	33.4
8:12	-19.2	-23.2	-23.2	27.0	-22.3	-26.9	-26.9	29.1	-25.8	-31.2	-31.2	31.5
9:12	-19.2	-23.2	-23.2	25.3	-22.3	-27.0	-27.0	27.4	-25.9	-31.2	-31.2	29.8
10:12	-19.2	-23.3	-23.3	23.8	-22.3	-27.0	-27.0	25.9	-25.9	-31.3	-31.3	28.3
11:12	-19.3	-23.3	-23.3	22.5	-22.4	-27.0	-27.0	24.6	-25.9	-31.3	-31.3	27.0
12:12	-19.3	-23.4	-23.4	21.4	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9
Exposure Category D												
1:12	-23.2	-42.8	-67.3	35.1	-26.3	-48.4	-76.0	35.1	-29.9	-54.8	-86.0	35.1
2:12	-20.8	-40.4	-62.5	34.4	-23.6	-45.7	-70.5	35.6	-26.8	-51.7	-79.8	36.9
3:12	-20.8	-40.4	-62.5	32.1	-23.6	-45.7	-70.5	33.2	-26.8	-51.7	-79.8	34.6
4:12	-20.8	-40.4	-62.5	29.7	-23.6	-45.7	-70.5	30.9	-26.8	-51.8	-79.8	32.2
5:12	-20.9	-40.5	-62.5	27.4	-23.7	-45.7	-70.6	28.6	-26.9	-51.8	-79.9	29.9
6:12	-20.9	-40.5	-62.6	25.3	-23.7	-45.8	-70.6	26.4	-26.9	-51.8	-79.9	27.8
7:12	-23.4	-28.3	-28.3	30.6	-26.5	-32.0	-32.0	32.7	-30.1	-36.3	-36.3	35.1
8:12	-23.4	-28.3	-28.3	28.9	-26.5	-32.1	-32.1	31.0	-30.1	-36.3	-36.3	33.4
9:12	-23.5	-28.4	-28.4	27.3	-26.6	-32.1	-32.1	29.4	-30.1	-36.4	-36.4	31.8
10:12	-23.5	-28.4	-28.4	26.0	-26.6	-32.1	-32.1	28.1	-30.2	-36.4	-36.4	31.0
11:12	-23.6	-28.5	-28.5	24.9	-26.7	-32.2	-32.2	27.7	-30.2	-36.5	-36.5	30.9
12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	45.5	-15.4	-28.7	-45.4	45.5	-18.9	-35.1	-55.4	45.5
2:12	-13.7	-27.0	-42.0	41.9	-13.7	-27.0	-42.0	41.9	-16.9	-33.1	-51.3	41.9
3:12	-13.7	-27.1	-42.1	37.8	-13.7	-27.1	-42.1	37.8	-17.0	-33.1	-51.3	37.8
4:12	-13.8	-27.1	-42.1	33.6	-13.8	-27.1	-42.1	33.6	-17.0	-33.2	-51.4	33.7
5:12	-13.8	-27.1	-42.1	30.3	-13.8	-27.1	-42.1	30.3	-17.0	-33.2	-51.4	30.7
6:12	-13.8	-27.2	-42.2	27.5	-13.8	-27.2	-42.2	27.5	-17.1	-33.2	-51.4	27.9
7:12	-15.5	-18.9	-18.9	28.9	-15.5	-18.9	-18.9	28.9	-19.1	-23.2	-23.2	31.3
8:12	-15.6	-18.9	-18.9	26.6	-15.6	-18.9	-18.9	26.6	-19.2	-23.2	-23.2	29.0
9:12	-15.6	-19.0	-19.0	24.6	-15.6	-19.0	-19.0	24.6	-19.2	-23.2	-23.2	27.0
10:12	-15.7	-19.0	-19.0	22.8	-15.7	-19.0	-19.0	22.8	-19.2	-23.3	-23.3	25.2
11:12	-15.7	-19.0	-19.0	21.3	-15.7	-19.0	-19.0	21.3	-19.3	-23.3	-23.3	23.7
12:12	-15.7	-19.1	-19.1	20.0	-15.7	-19.1	-19.1	20.0	-19.3	-23.4	-23.4	22.4
Exposure Category C												
1:12	-18.9	-35.1	-55.4	45.5	-22.0	-40.7	-64.0	45.5	-25.6	-47.1	-74.0	45.5
2:12	-16.9	-33.1	-51.3	41.9	-19.7	-38.4	-59.4	41.9	-22.9	-44.4	-68.6	42.4
3:12	-17.0	-33.1	-51.3	37.8	-19.7	-38.4	-59.4	38.0	-23.0	-44.5	-68.7	39.3
4:12	-17.0	-33.2	-51.4	33.7	-19.8	-38.4	-59.4	34.9	-23.0	-44.5	-68.7	36.2
5:12	-17.0	-33.2	-51.4	30.7	-19.8	-38.5	-59.4	31.9	-23.0	-44.5	-68.7	33.2
6:12	-17.1	-33.2	-51.4	27.9	-19.8	-38.5	-59.5	29.0	-23.1	-44.6	-68.8	30.4
7:12	-19.1	-23.2	-23.2	31.3	-22.2	-26.9	-26.9	33.4	-25.8	-31.2	-31.2	35.8
8:12	-19.2	-23.2	-23.2	29.0	-22.3	-26.9	-26.9	31.1	-25.8	-31.2	-31.2	33.5
9:12	-19.2	-23.2	-23.2	27.0	-22.3	-27.0	-27.0	29.1	-25.9	-31.2	-31.2	31.5
10:12	-19.2	-23.3	-23.3	25.2	-22.3	-27.0	-27.0	27.3	-25.9	-31.3	-31.3	29.7
11:12	-19.3	-23.3	-23.3	23.7	-22.4	-27.0	-27.0	25.8	-25.9	-31.3	-31.3	28.2
12:12	-19.3	-23.4	-23.4	22.4	-22.4	-27.1	-27.1	24.5	-26.0	-31.4	-31.4	26.9
Exposure Category D												
1:12	-23.2	-42.8	-67.3	41.4	-26.3	-48.4	-76.0	41.4	-29.9	-54.8	-86.0	41.4
2:12	-20.8	-40.4	-62.5	38.7	-23.6	-45.7	-70.5	39.8	-26.8	-51.7	-79.8	41.2
3:12	-20.8	-40.4	-62.5	35.9	-23.6	-45.7	-70.5	37.1	-26.8	-51.7	-79.8	38.4
4:12	-20.8	-40.4	-62.5	33.1	-23.6	-45.7	-70.5	34.2	-26.8	-51.8	-79.8	35.6
5:12	-20.9	-40.5	-62.5	30.4	-23.7	-45.7	-70.6	31.5	-26.9	-51.8	-79.9	32.8
6:12	-20.9	-40.5	-62.6	27.8	-23.7	-45.8	-70.6	28.9	-26.9	-51.8	-79.9	30.3
7:12	-23.4	-28.3	-28.3	32.8	-26.5	-32.0	-32.0	34.9	-30.1	-36.3	-36.3	37.3
8:12	-23.4	-28.3	-28.3	30.7	-26.5	-32.1	-32.1	32.8	-30.1	-36.3	-36.3	35.2
9:12	-23.5	-28.4	-28.4	28.9	-26.6	-32.1	-32.1	31.0	-30.1	-36.4	-36.4	33.4
10:12	-23.5	-28.4	-28.4	27.3	-26.6	-32.1	-32.1	29.4	-30.2	-36.4	-36.4	31.8
11:12	-23.6	-28.5	-28.5	25.9	-26.7	-32.2	-32.2	28.0	-30.2	-36.5	-36.5	30.9
12:12	-23.6	-28.5	-28.5	24.8	-26.7	-32.2	-32.2	27.6	-30.3	-36.5	-36.5	30.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
135 mph

Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-15.4	-28.7	-45.4	52.5	-15.4	-28.7	-45.4	52.5	-18.9	-35.1	-55.4	52.5
2:12	-13.7	-27.0	-42.0	48.2	-13.7	-27.0	-42.0	48.2	-16.9	-33.1	-51.3	48.2
3:12	-13.7	-27.1	-42.1	43.4	-13.7	-27.1	-42.1	43.4	-17.0	-33.1	-51.3	43.4
4:12	-13.8	-27.1	-42.1	38.6	-13.8	-27.1	-42.1	38.6	-17.0	-33.2	-51.4	38.6
5:12	-13.8	-27.1	-42.1	34.0	-13.8	-27.1	-42.1	34.0	-17.0	-33.2	-51.4	34.0
6:12	-13.8	-27.2	-42.2	30.3	-13.8	-27.2	-42.2	30.3	-17.1	-33.2	-51.4	30.7
7:12	-15.5	-18.9	-18.9	31.3	-15.5	-18.9	-18.9	31.3	-19.1	-23.2	-23.2	33.7
8:12	-15.6	-18.9	-18.9	28.7	-15.6	-18.9	-18.9	28.7	-19.2	-23.2	-23.2	31.1
9:12	-15.6	-19.0	-19.0	26.3	-15.6	-19.0	-19.0	26.3	-19.2	-23.2	-23.2	28.7
10:12	-15.7	-19.0	-19.0	24.3	-15.7	-19.0	-19.0	24.3	-19.2	-23.3	-23.3	26.7
11:12	-15.7	-19.0	-19.0	22.5	-15.7	-19.0	-19.0	22.5	-19.3	-23.3	-23.3	24.9
12:12	-15.7	-19.1	-19.1	21.0	-15.7	-19.1	-19.1	21.0	-19.3	-23.4	-23.4	23.4
1:12	-18.9	-35.1	-55.4	52.5	-22.0	-40.7	-64.0	52.5	-25.6	-47.1	-74.0	52.5
2:12	-16.9	-33.1	-51.3	48.2	-19.7	-38.4	-59.4	48.2	-22.9	-44.4	-68.6	48.2
3:12	-17.0	-33.1	-51.3	43.4	-19.7	-38.4	-59.4	43.4	-23.0	-44.5	-68.7	43.6
4:12	-17.0	-33.2	-51.4	38.6	-19.8	-38.4	-59.4	38.6	-23.0	-44.5	-68.7	40.0
5:12	-17.0	-33.2	-51.4	34.0	-19.8	-38.5	-59.4	35.1	-23.0	-44.5	-68.7	36.5
6:12	-17.1	-33.2	-51.4	30.7	-19.8	-38.5	-59.5	31.8	-23.1	-44.6	-68.8	33.2
7:12	-19.1	-23.2	-23.2	33.7	-22.2	-26.9	-26.9	35.8	-25.8	-31.2	-31.2	38.2
8:12	-19.2	-23.2	-23.2	31.1	-22.3	-26.9	-26.9	33.2	-25.8	-31.2	-31.2	35.6
9:12	-19.2	-23.2	-23.2	28.7	-22.3	-27.0	-27.0	30.8	-25.9	-31.2	-31.2	33.2
10:12	-19.2	-23.3	-23.3	26.7	-22.3	-27.0	-27.0	28.8	-25.9	-31.3	-31.3	31.2
11:12	-19.3	-23.3	-23.3	24.9	-22.4	-27.0	-27.0	27.0	-25.9	-31.3	-31.3	29.4
12:12	-19.3	-23.4	-23.4	23.4	-22.4	-27.1	-27.1	25.5	-26.0	-31.4	-31.4	27.9
1:12	-23.2	-42.8	-67.3	47.6	-26.3	-48.4	-76.0	47.6	-29.9	-54.8	-86.0	47.6
2:12	-20.8	-40.4	-62.5	43.8	-23.6	-45.7	-70.5	44.1	-26.8	-51.7	-79.8	45.5
3:12	-20.8	-40.4	-62.5	39.7	-23.6	-45.7	-70.5	40.9	-26.8	-51.7	-79.8	42.2
4:12	-20.8	-40.4	-62.5	36.5	-23.6	-45.7	-70.5	37.6	-26.8	-51.8	-79.8	39.0
5:12	-20.9	-40.5	-62.5	33.3	-23.7	-45.7	-70.6	34.4	-26.9	-51.8	-79.9	35.8
6:12	-20.9	-40.5	-62.6	30.3	-23.7	-45.8	-70.6	31.5	-26.9	-51.8	-79.9	32.8
7:12	-23.4	-28.3	-28.3	35.0	-26.5	-32.0	-32.0	37.0	-30.1	-36.3	-36.3	39.5
8:12	-23.4	-28.3	-28.3	32.5	-26.5	-32.1	-32.1	34.6	-30.1	-36.3	-36.3	37.0
9:12	-23.5	-28.4	-28.4	30.4	-26.6	-32.1	-32.1	32.5	-30.1	-36.4	-36.4	34.9
10:12	-23.5	-28.4	-28.4	28.6	-26.6	-32.1	-32.1	30.7	-30.2	-36.4	-36.4	33.1
11:12	-23.6	-28.5	-28.5	27.0	-26.7	-32.2	-32.2	29.1	-30.2	-36.5	-36.5	31.5
12:12	-23.6	-28.5	-28.5	25.6	-26.7	-32.2	-32.2	27.7	-30.3	-36.5	-36.5	30.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **135 mph**
Ground Snow Load **70 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Up and Down (psf)													
Exposure Category B	1:12	-15.4	-28.7	-45.4	59.4	-15.4	-28.7	-45.4	59.4	-18.9	-35.1	-55.4	59.4
	2:12	-13.7	-27.0	-42.0	54.5	-13.7	-27.0	-42.0	54.5	-16.9	-33.1	-51.3	54.5
	3:12	-13.7	-27.1	-42.1	49.1	-13.7	-27.1	-42.1	49.1	-17.0	-33.1	-51.3	49.1
	4:12	-13.8	-27.1	-42.1	43.6	-13.8	-27.1	-42.1	43.6	-17.0	-33.2	-51.4	43.6
	5:12	-13.8	-27.1	-42.1	38.3	-13.8	-27.1	-42.1	38.3	-17.0	-33.2	-51.4	38.3
	6:12	-13.8	-27.2	-42.2	33.4	-13.8	-27.2	-42.2	33.4	-17.1	-33.2	-51.4	33.5
	7:12	-15.5	-18.9	-18.9	33.7	-15.5	-18.9	-18.9	33.7	-19.1	-23.2	-23.2	36.1
	8:12	-15.6	-18.9	-18.9	30.7	-15.6	-18.9	-18.9	30.7	-19.2	-23.2	-23.2	33.1
	9:12	-15.6	-19.0	-19.0	28.0	-15.6	-19.0	-19.0	28.0	-19.2	-23.2	-23.2	30.4
	10:12	-15.7	-19.0	-19.0	25.7	-15.7	-19.0	-19.0	25.7	-19.2	-23.3	-23.3	28.1
	11:12	-15.7	-19.0	-19.0	23.7	-15.7	-19.0	-19.0	23.7	-19.3	-23.3	-23.3	26.1
	12:12	-15.7	-19.1	-19.1	22.0	-15.7	-19.1	-19.1	22.0	-19.3	-23.4	-23.4	24.4
Exposure Category C	1:12	-18.9	-35.1	-55.4	59.4	-22.0	-40.7	-64.0	59.4	-25.6	-47.1	-74.0	59.4
	2:12	-16.9	-33.1	-51.3	54.5	-19.7	-38.4	-59.4	54.5	-22.9	-44.4	-68.6	54.5
	3:12	-17.0	-33.1	-51.3	49.1	-19.7	-38.4	-59.4	49.1	-23.0	-44.5	-68.7	49.1
	4:12	-17.0	-33.2	-51.4	43.6	-19.8	-38.4	-59.4	43.6	-23.0	-44.5	-68.7	43.7
	5:12	-17.0	-33.2	-51.4	38.3	-19.8	-38.5	-59.4	38.4	-23.0	-44.5	-68.7	39.7
	6:12	-17.1	-33.2	-51.4	33.5	-19.8	-38.5	-59.5	34.6	-23.1	-44.6	-68.8	36.0
	7:12	-19.1	-23.2	-23.2	36.1	-22.2	-26.9	-26.9	38.2	-25.8	-31.2	-31.2	40.6
	8:12	-19.2	-23.2	-23.2	33.1	-22.3	-26.9	-26.9	35.2	-25.8	-31.2	-31.2	37.6
	9:12	-19.2	-23.2	-23.2	30.4	-22.3	-27.0	-27.0	32.5	-25.9	-31.2	-31.2	34.9
	10:12	-19.2	-23.3	-23.3	28.1	-22.3	-27.0	-27.0	30.2	-25.9	-31.3	-31.3	32.6
	11:12	-19.3	-23.3	-23.3	26.1	-22.4	-27.0	-27.0	28.2	-25.9	-31.3	-31.3	30.6
	12:12	-19.3	-23.4	-23.4	24.4	-22.4	-27.1	-27.1	26.5	-26.0	-31.4	-31.4	28.9
Exposure Category D	1:12	-23.2	-42.8	-67.3	53.9	-26.3	-48.4	-76.0	53.9	-29.9	-54.8	-86.0	53.9
	2:12	-20.8	-40.4	-62.5	49.5	-23.6	-45.7	-70.5	49.5	-26.8	-51.7	-79.8	49.7
	3:12	-20.8	-40.4	-62.5	44.6	-23.6	-45.7	-70.5	44.7	-26.8	-51.7	-79.8	46.1
	4:12	-20.8	-40.4	-62.5	39.8	-23.6	-45.7	-70.5	41.0	-26.8	-51.8	-79.8	42.3
	5:12	-20.9	-40.5	-62.5	36.2	-23.7	-45.7	-70.6	37.4	-26.9	-51.8	-79.9	38.7
	6:12	-20.9	-40.5	-62.6	32.8	-23.7	-45.8	-70.6	34.0	-26.9	-51.8	-79.9	35.3
	7:12	-23.4	-28.3	-28.3	37.1	-26.5	-32.0	-32.0	39.2	-30.1	-36.3	-36.3	41.6
	8:12	-23.4	-28.3	-28.3	34.4	-26.5	-32.1	-32.1	36.5	-30.1	-36.3	-36.3	38.9
	9:12	-23.5	-28.4	-28.4	32.0	-26.6	-32.1	-32.1	34.0	-30.1	-36.4	-36.4	36.4
	10:12	-23.5	-28.4	-28.4	29.9	-26.6	-32.1	-32.1	31.9	-30.2	-36.4	-36.4	34.4
	11:12	-23.6	-28.5	-28.5	28.1	-26.7	-32.2	-32.2	30.2	-30.2	-36.5	-36.5	32.6
	12:12	-23.6	-28.5	-28.5	26.5	-26.7	-32.2	-32.2	28.6	-30.3	-36.5	-36.5	31.0
Side Load (psf)													
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
	2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
	3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
	4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
	5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
	6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
	7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
	8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
	9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
	10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
	11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4	
Lateral													
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed **135 mph**

Ground Snow Load **80 psf**

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-15.4	-28.7	-45.4	66.4	-15.4	-28.7	-45.4	66.4	-18.9	-35.1	-55.4	66.4
	2:12	-13.7	-27.0	-42.0	60.9	-13.7	-27.0	-42.0	60.9	-16.9	-33.1	-51.3	60.9
	3:12	-13.7	-27.1	-42.1	54.8	-13.7	-27.1	-42.1	54.8	-17.0	-33.1	-51.3	54.8
	4:12	-13.8	-27.1	-42.1	48.6	-13.8	-27.1	-42.1	48.6	-17.0	-33.2	-51.4	48.6
	5:12	-13.8	-27.1	-42.1	42.7	-13.8	-27.1	-42.1	42.7	-17.0	-33.2	-51.4	42.7
	6:12	-13.8	-27.2	-42.2	37.1	-13.8	-27.2	-42.2	37.1	-17.1	-33.2	-51.4	37.1
	7:12	-15.5	-18.9	-18.9	36.1	-15.5	-18.9	-18.9	36.1	-19.1	-23.2	-23.2	38.5
	8:12	-15.6	-18.9	-18.9	32.7	-15.6	-18.9	-18.9	32.7	-19.2	-23.2	-23.2	35.1
	9:12	-15.6	-19.0	-19.0	29.7	-15.6	-19.0	-19.0	29.7	-19.2	-23.2	-23.2	32.1
	10:12	-15.7	-19.0	-19.0	27.2	-15.7	-19.0	-19.0	27.2	-19.2	-23.3	-23.3	29.6
	11:12	-15.7	-19.0	-19.0	24.9	-15.7	-19.0	-19.0	24.9	-19.3	-23.3	-23.3	27.3
	12:12	-15.7	-19.1	-19.1	23.1	-15.7	-19.1	-19.1	23.1	-19.3	-23.4	-23.4	25.5
Exposure Category C	1:12	-18.9	-35.1	-55.4	66.4	-22.0	-40.7	-64.0	66.4	-25.6	-47.1	-74.0	66.4
	2:12	-16.9	-33.1	-51.3	60.9	-19.7	-38.4	-59.4	60.9	-22.9	-44.4	-68.6	60.9
	3:12	-17.0	-33.1	-51.3	54.8	-19.7	-38.4	-59.4	54.8	-23.0	-44.5	-68.7	54.8
	4:12	-17.0	-33.2	-51.4	48.6	-19.8	-38.4	-59.4	48.6	-23.0	-44.5	-68.7	48.6
	5:12	-17.0	-33.2	-51.4	42.7	-19.8	-38.5	-59.4	42.7	-23.0	-44.5	-68.7	43.0
	6:12	-17.1	-33.2	-51.4	37.1	-19.8	-38.5	-59.5	37.4	-23.1	-44.6	-68.8	38.8
	7:12	-19.1	-23.2	-23.2	38.5	-22.2	-26.9	-26.9	40.6	-25.8	-31.2	-31.2	43.0
	8:12	-19.2	-23.2	-23.2	35.1	-22.3	-26.9	-26.9	37.2	-25.8	-31.2	-31.2	39.6
	9:12	-19.2	-23.2	-23.2	32.1	-22.3	-27.0	-27.0	34.2	-25.9	-31.2	-31.2	36.6
	10:12	-19.2	-23.3	-23.3	29.6	-22.3	-27.0	-27.0	31.6	-25.9	-31.3	-31.3	34.1
	11:12	-19.3	-23.3	-23.3	27.3	-22.4	-27.0	-27.0	29.4	-25.9	-31.3	-31.3	31.8
	12:12	-19.3	-23.4	-23.4	25.5	-22.4	-27.1	-27.1	27.5	-26.0	-31.4	-31.4	30.0
Exposure Category D	1:12	-23.2	-42.8	-67.3	60.1	-26.3	-48.4	-76.0	60.1	-29.9	-54.8	-86.0	60.1
	2:12	-20.8	-40.4	-62.5	55.2	-23.6	-45.7	-70.5	55.2	-26.8	-51.7	-79.8	55.2
	3:12	-20.8	-40.4	-62.5	49.7	-23.6	-45.7	-70.5	49.7	-26.8	-51.7	-79.8	49.9
	4:12	-20.8	-40.4	-62.5	44.1	-23.6	-45.7	-70.5	44.4	-26.8	-51.8	-79.8	45.7
	5:12	-20.9	-40.5	-62.5	39.2	-23.7	-45.7	-70.6	40.3	-26.9	-51.8	-79.9	41.7
	6:12	-20.9	-40.5	-62.6	35.4	-23.7	-45.8	-70.6	36.5	-26.9	-51.8	-79.9	37.9
	7:12	-23.4	-28.3	-28.3	39.3	-26.5	-32.0	-32.0	41.4	-30.1	-36.3	-36.3	43.8
	8:12	-23.4	-28.3	-28.3	36.2	-26.5	-32.1	-32.1	38.3	-30.1	-36.3	-36.3	40.7
	9:12	-23.5	-28.4	-28.4	33.5	-26.6	-32.1	-32.1	35.6	-30.1	-36.4	-36.4	38.0
	10:12	-23.5	-28.4	-28.4	31.2	-26.6	-32.1	-32.1	33.2	-30.2	-36.4	-36.4	35.7
	11:12	-23.6	-28.5	-28.5	29.2	-26.7	-32.2	-32.2	31.2	-30.2	-36.5	-36.5	33.6
	12:12	-23.6	-28.5	-28.5	27.4	-26.7	-32.2	-32.2	29.5	-30.3	-36.5	-36.5	31.9
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
	2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
	3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
	4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
	6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
	7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
	8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
	9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
	10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
	11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
135 mph

Ground Snow Load
90 psf

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-15.4	-28.7	-45.4	73.4	-15.4	-28.7	-45.4	73.4	-18.9	-35.1	-55.4	73.4
2:12	-13.7	-27.0	-42.0	67.2	-13.7	-27.0	-42.0	67.2	-16.9	-33.1	-51.3	67.2
3:12	-13.7	-27.1	-42.1	60.5	-13.7	-27.1	-42.1	60.5	-17.0	-33.1	-51.3	60.5
4:12	-13.8	-27.1	-42.1	53.6	-13.8	-27.1	-42.1	53.6	-17.0	-33.2	-51.4	53.6
5:12	-13.8	-27.1	-42.1	47.0	-13.8	-27.1	-42.1	47.0	-17.0	-33.2	-51.4	47.0
6:12	-13.8	-27.2	-42.2	40.9	-13.8	-27.2	-42.2	40.9	-17.1	-33.2	-51.4	40.9
7:12	-15.5	-18.9	-18.9	38.5	-15.5	-18.9	-18.9	38.5	-19.1	-23.2	-23.2	40.9
8:12	-15.6	-18.9	-18.9	34.7	-15.6	-18.9	-18.9	34.7	-19.2	-23.2	-23.2	37.2
9:12	-15.6	-19.0	-19.0	31.4	-15.6	-19.0	-19.0	31.4	-19.2	-23.2	-23.2	33.9
10:12	-15.7	-19.0	-19.0	28.6	-15.7	-19.0	-19.0	28.6	-19.2	-23.3	-23.3	31.0
11:12	-15.7	-19.0	-19.0	26.1	-15.7	-19.0	-19.0	26.1	-19.3	-23.3	-23.3	28.6
12:12	-15.7	-19.1	-19.1	24.1	-15.7	-19.1	-19.1	24.1	-19.3	-23.4	-23.4	26.5
Exposure Category C												
1:12	-18.9	-35.1	-55.4	73.4	-22.0	-40.7	-64.0	73.4	-25.6	-47.1	-74.0	73.4
2:12	-16.9	-33.1	-51.3	67.2	-19.7	-38.4	-59.4	67.2	-22.9	-44.4	-68.6	67.2
3:12	-17.0	-33.1	-51.3	60.5	-19.7	-38.4	-59.4	60.5	-23.0	-44.5	-68.7	60.5
4:12	-17.0	-33.2	-51.4	53.6	-19.8	-38.4	-59.4	53.6	-23.0	-44.5	-68.7	53.6
5:12	-17.0	-33.2	-51.4	47.0	-19.8	-38.5	-59.4	47.0	-23.0	-44.5	-68.7	47.0
6:12	-17.1	-33.2	-51.4	40.9	-19.8	-38.5	-59.5	40.9	-23.1	-44.6	-68.8	41.6
7:12	-19.1	-23.2	-23.2	40.9	-22.2	-26.9	-26.9	43.0	-25.8	-31.2	-31.2	45.4
8:12	-19.2	-23.2	-23.2	37.2	-22.3	-26.9	-26.9	39.2	-25.8	-31.2	-31.2	41.7
9:12	-19.2	-23.2	-23.2	33.9	-22.3	-27.0	-27.0	35.9	-25.9	-31.2	-31.2	38.4
10:12	-19.2	-23.3	-23.3	31.0	-22.3	-27.0	-27.0	33.1	-25.9	-31.3	-31.3	35.5
11:12	-19.3	-23.3	-23.3	28.6	-22.4	-27.0	-27.0	30.6	-25.9	-31.3	-31.3	33.1
12:12	-19.3	-23.4	-23.4	26.5	-22.4	-27.1	-27.1	28.6	-26.0	-31.4	-31.4	31.0
Exposure Category D												
1:12	-23.2	-42.8	-67.3	66.4	-26.3	-48.4	-76.0	66.4	-29.9	-54.8	-86.0	66.4
2:12	-20.8	-40.4	-62.5	60.9	-23.6	-45.7	-70.5	60.9	-26.8	-51.7	-79.8	60.9
3:12	-20.8	-40.4	-62.5	54.8	-23.6	-45.7	-70.5	54.8	-26.8	-51.7	-79.8	54.8
4:12	-20.8	-40.4	-62.5	48.6	-23.6	-45.7	-70.5	48.6	-26.8	-51.8	-79.8	49.1
5:12	-20.9	-40.5	-62.5	42.7	-23.7	-45.7	-70.6	43.2	-26.9	-51.8	-79.9	44.6
6:12	-20.9	-40.5	-62.6	37.9	-23.7	-45.8	-70.6	39.1	-26.9	-51.8	-79.9	40.4
7:12	-23.4	-28.3	-28.3	41.4	-26.5	-32.0	-32.0	43.5	-30.1	-36.3	-36.3	45.9
8:12	-23.4	-28.3	-28.3	38.0	-26.5	-32.1	-32.1	40.1	-30.1	-36.3	-36.3	42.5
9:12	-23.5	-28.4	-28.4	35.0	-26.6	-32.1	-32.1	37.1	-30.1	-36.4	-36.4	39.5
10:12	-23.5	-28.4	-28.4	32.5	-26.6	-32.1	-32.1	34.5	-30.2	-36.4	-36.4	36.9
11:12	-23.6	-28.5	-28.5	30.2	-26.7	-32.2	-32.2	32.3	-30.2	-36.5	-36.5	34.7
12:12	-23.6	-28.5	-28.5	28.4	-26.7	-32.2	-32.2	30.4	-30.3	-36.5	-36.5	32.8
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
135 mph

Ground Snow Load
100 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	13.4	-16.6	-31.0	-48.9	13.4	-20.5	-37.9	-59.6	13.4
2:12	-14.9	-29.2	-45.3	13.4	-14.9	-29.2	-45.3	13.4	-18.3	-35.7	-55.3	14.7
3:12	-14.9	-29.2	-45.3	13.3	-14.9	-29.2	-45.3	13.3	-18.3	-35.7	-55.3	14.6
4:12	-14.9	-29.2	-45.4	13.2	-14.9	-29.2	-45.4	13.2	-18.4	-35.8	-55.3	14.5
5:12	-14.9	-29.3	-45.4	13.2	-14.9	-29.3	-45.4	13.2	-18.4	-35.8	-55.4	14.4
6:12	-15.0	-29.3	-45.4	13.0	-15.0	-29.3	-45.4	13.0	-18.4	-35.8	-55.4	14.3
7:12	-16.8	-20.4	-20.4	19.4	-16.8	-20.4	-20.4	19.4	-20.6	-25.0	-25.0	22.9
8:12	-16.8	-20.4	-20.4	19.3	-16.8	-20.4	-20.4	19.3	-20.7	-25.0	-25.0	22.8
9:12	-16.9	-20.5	-20.5	19.2	-16.9	-20.5	-20.5	19.2	-20.7	-25.1	-25.1	22.7
10:12	-16.9	-20.5	-20.5	19.1	-16.9	-20.5	-20.5	19.1	-20.8	-25.1	-25.1	22.5
11:12	-17.0	-20.5	-20.5	19.0	-17.0	-20.5	-20.5	19.0	-20.8	-25.2	-25.2	22.4
12:12	-17.0	-20.6	-20.6	18.8	-17.0	-20.6	-20.6	18.8	-20.8	-25.2	-25.2	22.3
Exposure Category C												
1:12	-20.5	-37.9	-59.6	13.4	-23.8	-43.9	-68.9	13.4	-27.6	-50.8	-79.7	13.4
2:12	-18.3	-35.7	-55.3	14.7	-21.3	-41.4	-63.9	16.3	-24.8	-47.9	-73.9	18.3
3:12	-18.3	-35.7	-55.3	14.6	-21.3	-41.4	-64.0	16.3	-24.8	-47.9	-73.9	18.2
4:12	-18.4	-35.8	-55.3	14.5	-21.4	-41.4	-64.0	16.2	-24.8	-47.9	-74.0	18.1
5:12	-18.4	-35.8	-55.4	14.4	-21.4	-41.4	-64.0	16.1	-24.8	-48.0	-74.0	18.0
6:12	-18.4	-35.8	-55.4	14.3	-21.4	-41.5	-64.1	16.0	-24.9	-48.0	-74.0	17.9
7:12	-20.6	-25.0	-25.0	22.9	-24.0	-29.0	-29.0	25.9	-27.8	-33.6	-33.6	29.3
8:12	-20.7	-25.0	-25.0	22.8	-24.0	-29.0	-29.0	25.8	-27.8	-33.6	-33.6	29.2
9:12	-20.7	-25.1	-25.1	22.7	-24.1	-29.1	-29.1	25.6	-27.9	-33.7	-33.7	29.1
10:12	-20.8	-25.1	-25.1	22.5	-24.1	-29.1	-29.1	25.5	-27.9	-33.7	-33.7	29.0
11:12	-20.8	-25.2	-25.2	22.4	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D												
1:12	-25.1	-46.2	-72.5	13.4	-28.4	-52.2	-81.8	13.4	-32.2	-59.1	-92.6	13.9
2:12	-22.5	-43.5	-67.3	17.0	-25.4	-49.2	-75.9	18.6	-28.9	-55.7	-85.9	20.6
3:12	-22.5	-43.6	-67.3	16.9	-25.5	-49.2	-75.9	18.6	-28.9	-55.7	-85.9	20.5
4:12	-22.5	-43.6	-67.3	16.8	-25.5	-49.2	-76.0	18.5	-29.0	-55.8	-85.9	20.4
5:12	-22.5	-43.6	-67.3	16.7	-25.5	-49.3	-76.0	18.4	-29.0	-55.8	-86.0	20.3
6:12	-22.6	-43.7	-67.4	16.6	-25.6	-49.3	-76.0	18.3	-29.0	-55.8	-86.0	20.2
7:12	-25.2	-30.5	-30.5	27.0	-28.6	-34.5	-34.5	30.0	-32.4	-39.1	-39.1	33.5
8:12	-25.3	-30.6	-30.6	26.9	-28.6	-34.6	-34.6	29.9	-32.5	-39.2	-39.2	33.4
9:12	-25.3	-30.6	-30.6	26.8	-28.7	-34.6	-34.6	29.8	-32.5	-39.2	-39.2	33.2
10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

140 mph

Ground Snow Load

0 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-16.6	-31.0	-48.9	14.8	-16.6	-31.0	-48.9	14.8	-20.5	-37.9	-59.6	14.8
	2:12	-14.9	-29.2	-45.3	14.4	-14.9	-29.2	-45.3	14.4	-18.3	-35.7	-55.3	15.3
	3:12	-14.9	-29.2	-45.3	14.0	-14.9	-29.2	-45.3	14.0	-18.3	-35.7	-55.3	14.9
	4:12	-14.9	-29.2	-45.4	13.2	-14.9	-29.2	-45.4	13.2	-18.4	-35.8	-55.3	14.5
	5:12	-14.9	-29.3	-45.4	13.2	-14.9	-29.3	-45.4	13.2	-18.4	-35.8	-55.4	14.4
	6:12	-15.0	-29.3	-45.4	13.0	-15.0	-29.3	-45.4	13.0	-18.4	-35.8	-55.4	14.3
	7:12	-16.8	-20.4	-20.4	19.4	-16.8	-20.4	-20.4	19.4	-20.6	-25.0	-25.0	22.9
	8:12	-16.8	-20.4	-20.4	19.3	-16.8	-20.4	-20.4	19.3	-20.7	-25.0	-25.0	22.8
	9:12	-16.9	-20.5	-20.5	19.2	-16.9	-20.5	-20.5	19.2	-20.7	-25.1	-25.1	22.7
	10:12	-16.9	-20.5	-20.5	19.1	-16.9	-20.5	-20.5	19.1	-20.8	-25.1	-25.1	22.5
	11:12	-17.0	-20.5	-20.5	19.0	-17.0	-20.5	-20.5	19.0	-20.8	-25.2	-25.2	22.4
	12:12	-17.0	-20.6	-20.6	18.8	-17.0	-20.6	-20.6	18.8	-20.8	-25.2	-25.2	22.3
Exposure Category C	1:12	-20.5	-37.9	-59.6	14.8	-23.8	-43.9	-68.9	14.8	-27.6	-50.8	-79.7	14.8
	2:12	-18.3	-35.7	-55.3	15.3	-21.3	-41.4	-63.9	16.6	-24.8	-47.9	-73.9	18.3
	3:12	-18.3	-35.7	-55.3	14.9	-21.3	-41.4	-64.0	16.3	-24.8	-47.9	-73.9	18.2
	4:12	-18.4	-35.8	-55.3	14.5	-21.4	-41.4	-64.0	16.2	-24.8	-47.9	-74.0	18.1
	5:12	-18.4	-35.8	-55.4	14.4	-21.4	-41.4	-64.0	16.1	-24.8	-48.0	-74.0	18.0
	6:12	-18.4	-35.8	-55.4	14.3	-21.4	-41.5	-64.1	16.0	-24.9	-48.0	-74.0	17.9
	7:12	-20.6	-25.0	-25.0	22.9	-24.0	-29.0	-29.0	25.9	-27.8	-33.6	-33.6	29.3
	8:12	-20.7	-25.0	-25.0	22.8	-24.0	-29.0	-29.0	25.8	-27.8	-33.6	-33.6	29.2
	9:12	-20.7	-25.1	-25.1	22.7	-24.1	-29.1	-29.1	25.6	-27.9	-33.7	-33.7	29.1
	10:12	-20.8	-25.1	-25.1	22.5	-24.1	-29.1	-29.1	25.5	-27.9	-33.7	-33.7	29.0
	11:12	-20.8	-25.2	-25.2	22.4	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
	12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D	1:12	-25.1	-46.2	-72.5	14.8	-28.4	-52.2	-81.8	14.8	-32.2	-59.1	-92.6	15.1
	2:12	-22.5	-43.5	-67.3	17.1	-25.4	-49.2	-75.9	18.6	-28.9	-55.7	-85.9	20.6
	3:12	-22.5	-43.6	-67.3	16.9	-25.5	-49.2	-75.9	18.6	-28.9	-55.7	-85.9	20.5
	4:12	-22.5	-43.6	-67.3	16.8	-25.5	-49.2	-76.0	18.5	-29.0	-55.8	-85.9	20.4
	5:12	-22.5	-43.6	-67.3	16.7	-25.5	-49.3	-76.0	18.4	-29.0	-55.8	-86.0	20.3
	6:12	-22.6	-43.7	-67.4	16.6	-25.6	-49.3	-76.0	18.3	-29.0	-55.8	-86.0	20.2
	7:12	-25.2	-30.5	-30.5	27.0	-28.6	-34.5	-34.5	30.0	-32.4	-39.1	-39.1	33.5
	8:12	-25.3	-30.6	-30.6	26.9	-28.6	-34.6	-34.6	29.9	-32.5	-39.2	-39.2	33.4
	9:12	-25.3	-30.6	-30.6	26.8	-28.7	-34.6	-34.6	29.8	-32.5	-39.2	-39.2	33.2
	10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
	11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
	12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
	2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
	3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
	4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
	5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
	6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
	7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
	8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
	9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
	10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
	11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **140 mph**
Ground Snow Load **5 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	18.5	-16.6	-31.0	-48.9	18.5	-20.5	-37.9	-59.6	18.5
2:12	-14.9	-29.2	-45.3	17.8	-14.9	-29.2	-45.3	17.8	-18.3	-35.7	-55.3	18.7
3:12	-14.9	-29.2	-45.3	17.0	-14.9	-29.2	-45.3	17.0	-18.3	-35.7	-55.3	18.0
4:12	-14.9	-29.2	-45.4	14.6	-14.9	-29.2	-45.4	14.6	-18.4	-35.8	-55.3	15.6
5:12	-14.9	-29.3	-45.4	14.0	-14.9	-29.3	-45.4	14.0	-18.4	-35.8	-55.4	15.0
6:12	-15.0	-29.3	-45.4	13.4	-15.0	-29.3	-45.4	13.4	-18.4	-35.8	-55.4	14.4
7:12	-16.8	-20.4	-20.4	19.4	-16.8	-20.4	-20.4	19.4	-20.6	-25.0	-25.0	22.9
8:12	-16.8	-20.4	-20.4	19.3	-16.8	-20.4	-20.4	19.3	-20.7	-25.0	-25.0	22.8
9:12	-16.9	-20.5	-20.5	19.2	-16.9	-20.5	-20.5	19.2	-20.7	-25.1	-25.1	22.7
10:12	-16.9	-20.5	-20.5	19.1	-16.9	-20.5	-20.5	19.1	-20.8	-25.1	-25.1	22.5
11:12	-17.0	-20.5	-20.5	19.0	-17.0	-20.5	-20.5	19.0	-20.8	-25.2	-25.2	22.4
12:12	-17.0	-20.6	-20.6	18.8	-17.0	-20.6	-20.6	18.8	-20.8	-25.2	-25.2	22.3
Exposure Category C												
1:12	-20.5	-37.9	-59.6	18.5	-23.8	-43.9	-68.9	18.5	-27.6	-50.8	-79.7	18.5
2:12	-18.3	-35.7	-55.3	18.7	-21.3	-41.4	-63.9	20.0	-24.8	-47.9	-73.9	21.4
3:12	-18.3	-35.7	-55.3	18.0	-21.3	-41.4	-64.0	19.2	-24.8	-47.9	-73.9	20.7
4:12	-18.4	-35.8	-55.3	15.6	-21.4	-41.4	-64.0	16.8	-24.8	-47.9	-74.0	18.2
5:12	-18.4	-35.8	-55.4	15.0	-21.4	-41.4	-64.0	16.2	-24.8	-48.0	-74.0	18.0
6:12	-18.4	-35.8	-55.4	14.4	-21.4	-41.5	-64.1	16.0	-24.9	-48.0	-74.0	17.9
7:12	-20.6	-25.0	-25.0	22.9	-24.0	-29.0	-29.0	25.9	-27.8	-33.6	-33.6	29.3
8:12	-20.7	-25.0	-25.0	22.8	-24.0	-29.0	-29.0	25.8	-27.8	-33.6	-33.6	29.2
9:12	-20.7	-25.1	-25.1	22.7	-24.1	-29.1	-29.1	25.6	-27.9	-33.7	-33.7	29.1
10:12	-20.8	-25.1	-25.1	22.5	-24.1	-29.1	-29.1	25.5	-27.9	-33.7	-33.7	29.0
11:12	-20.8	-25.2	-25.2	22.4	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D												
1:12	-25.1	-46.2	-72.5	18.5	-28.4	-52.2	-81.8	18.5	-32.2	-59.1	-92.6	18.8
2:12	-22.5	-43.5	-67.3	20.5	-25.4	-49.2	-75.9	21.7	-28.9	-55.7	-85.9	23.2
3:12	-22.5	-43.6	-67.3	19.7	-25.5	-49.2	-75.9	20.9	-28.9	-55.7	-85.9	22.4
4:12	-22.5	-43.6	-67.3	16.9	-25.5	-49.2	-76.0	18.5	-29.0	-55.8	-85.9	20.4
5:12	-22.5	-43.6	-67.3	16.7	-25.5	-49.3	-76.0	18.4	-29.0	-55.8	-86.0	20.3
6:12	-22.6	-43.7	-67.4	16.6	-25.6	-49.3	-76.0	18.3	-29.0	-55.8	-86.0	20.2
7:12	-25.2	-30.5	-30.5	27.0	-28.6	-34.5	-34.5	30.0	-32.4	-39.1	-39.1	33.5
8:12	-25.3	-30.6	-30.6	26.9	-28.6	-34.6	-34.6	29.9	-32.5	-39.2	-39.2	33.4
9:12	-25.3	-30.6	-30.6	26.8	-28.7	-34.6	-34.6	29.8	-32.5	-39.2	-39.2	33.2
10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **140 mph**

Ground Snow Load **10 psf**

Up and Down (psf)

Basic Wind Speed **140 mph**
Ground Snow Load **15 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	22.2	-16.6	-31.0	-48.9	22.2	-20.5	-37.9	-59.6	22.2
2:12	-14.9	-29.2	-45.3	21.2	-14.9	-29.2	-45.3	21.2	-18.3	-35.7	-55.3	22.1
3:12	-14.9	-29.2	-45.3	20.0	-14.9	-29.2	-45.3	20.0	-18.3	-35.7	-55.3	21.0
4:12	-14.9	-29.2	-45.4	16.5	-14.9	-29.2	-45.4	16.5	-18.4	-35.8	-55.3	17.4
5:12	-14.9	-29.3	-45.4	15.6	-14.9	-29.3	-45.4	15.6	-18.4	-35.8	-55.4	16.6
6:12	-15.0	-29.3	-45.4	14.9	-15.0	-29.3	-45.4	14.9	-18.4	-35.8	-55.4	15.8
7:12	-16.8	-20.4	-20.4	19.4	-16.8	-20.4	-20.4	19.4	-20.6	-25.0	-25.0	22.9
8:12	-16.8	-20.4	-20.4	19.3	-16.8	-20.4	-20.4	19.3	-20.7	-25.0	-25.0	22.8
9:12	-16.9	-20.5	-20.5	19.2	-16.9	-20.5	-20.5	19.2	-20.7	-25.1	-25.1	22.7
10:12	-16.9	-20.5	-20.5	19.1	-16.9	-20.5	-20.5	19.1	-20.8	-25.1	-25.1	22.5
11:12	-17.0	-20.5	-20.5	19.0	-17.0	-20.5	-20.5	19.0	-20.8	-25.2	-25.2	22.4
12:12	-17.0	-20.6	-20.6	18.8	-17.0	-20.6	-20.6	18.8	-20.8	-25.2	-25.2	22.3
Exposure Category C												
1:12	-20.5	-37.9	-59.6	22.2	-23.8	-43.9	-68.9	22.2	-27.6	-50.8	-79.7	22.2
2:12	-18.3	-35.7	-55.3	22.1	-21.3	-41.4	-63.9	23.4	-24.8	-47.9	-73.9	24.8
3:12	-18.3	-35.7	-55.3	21.0	-21.3	-41.4	-64.0	22.3	-24.8	-47.9	-73.9	23.7
4:12	-18.4	-35.8	-55.3	17.4	-21.4	-41.4	-64.0	18.7	-24.8	-47.9	-74.0	20.1
5:12	-18.4	-35.8	-55.4	16.6	-21.4	-41.4	-64.0	17.8	-24.8	-48.0	-74.0	19.3
6:12	-18.4	-35.8	-55.4	15.8	-21.4	-41.5	-64.1	17.1	-24.9	-48.0	-74.0	18.5
7:12	-20.6	-25.0	-25.0	22.9	-24.0	-29.0	-29.0	25.9	-27.8	-33.6	-33.6	29.3
8:12	-20.7	-25.0	-25.0	22.8	-24.0	-29.0	-29.0	25.8	-27.8	-33.6	-33.6	29.2
9:12	-20.7	-25.1	-25.1	22.7	-24.1	-29.1	-29.1	25.6	-27.9	-33.7	-33.7	29.1
10:12	-20.8	-25.1	-25.1	22.5	-24.1	-29.1	-29.1	25.5	-27.9	-33.7	-33.7	29.0
11:12	-20.8	-25.2	-25.2	22.4	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D												
1:12	-25.1	-46.2	-72.5	22.2	-28.4	-52.2	-81.8	22.2	-32.2	-59.1	-92.6	22.5
2:12	-22.5	-43.5	-67.3	23.9	-25.4	-49.2	-75.9	25.1	-28.9	-55.7	-85.9	26.6
3:12	-22.5	-43.6	-67.3	22.7	-25.5	-49.2	-75.9	24.0	-28.9	-55.7	-85.9	25.4
4:12	-22.5	-43.6	-67.3	18.6	-25.5	-49.2	-76.0	19.8	-29.0	-55.8	-85.9	21.3
5:12	-22.5	-43.6	-67.3	17.8	-25.5	-49.3	-76.0	19.1	-29.0	-55.8	-86.0	20.5
6:12	-22.6	-43.7	-67.4	17.1	-25.6	-49.3	-76.0	18.4	-29.0	-55.8	-86.0	20.2
7:12	-25.2	-30.5	-30.5	27.0	-28.6	-34.5	-34.5	30.0	-32.4	-39.1	-39.1	33.5
8:12	-25.3	-30.6	-30.6	26.9	-28.6	-34.6	-34.6	29.9	-32.5	-39.2	-39.2	33.4
9:12	-25.3	-30.6	-30.6	26.8	-28.7	-34.6	-34.6	29.8	-32.5	-39.2	-39.2	33.2
10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	25.9	-16.6	-31.0	-48.9	25.9	-20.5	-37.9	-59.6	25.9
2:12	-14.9	-29.2	-45.3	24.6	-14.9	-29.2	-45.3	24.6	-18.3	-35.7	-55.3	25.5
3:12	-14.9	-29.2	-45.3	23.1	-14.9	-29.2	-45.3	23.1	-18.3	-35.7	-55.3	24.0
4:12	-14.9	-29.2	-45.4	18.3	-14.9	-29.2	-45.4	18.3	-18.4	-35.8	-55.3	19.3
5:12	-14.9	-29.3	-45.4	17.3	-14.9	-29.3	-45.4	17.3	-18.4	-35.8	-55.4	18.2
6:12	-15.0	-29.3	-45.4	16.3	-15.0	-29.3	-45.4	16.3	-18.4	-35.8	-55.4	17.2
7:12	-16.8	-20.4	-20.4	20.2	-16.8	-20.4	-20.4	20.2	-20.6	-25.0	-25.0	22.9
8:12	-16.8	-20.4	-20.4	19.4	-16.8	-20.4	-20.4	19.4	-20.7	-25.0	-25.0	22.8
9:12	-16.9	-20.5	-20.5	19.2	-16.9	-20.5	-20.5	19.2	-20.7	-25.1	-25.1	22.7
10:12	-16.9	-20.5	-20.5	19.1	-16.9	-20.5	-20.5	19.1	-20.8	-25.1	-25.1	22.5
11:12	-17.0	-20.5	-20.5	19.0	-17.0	-20.5	-20.5	19.0	-20.8	-25.2	-25.2	22.4
12:12	-17.0	-20.6	-20.6	18.8	-17.0	-20.6	-20.6	18.8	-20.8	-25.2	-25.2	22.3
Exposure Category C												
1:12	-20.5	-37.9	-59.6	25.9	-23.8	-43.9	-68.9	25.9	-27.6	-50.8	-79.7	25.9
2:12	-18.3	-35.7	-55.3	25.5	-21.3	-41.4	-63.9	26.8	-24.8	-47.9	-73.9	28.2
3:12	-18.3	-35.7	-55.3	24.0	-21.3	-41.4	-64.0	25.3	-24.8	-47.9	-73.9	26.7
4:12	-18.4	-35.8	-55.3	19.3	-21.4	-41.4	-64.0	20.6	-24.8	-47.9	-74.0	22.0
5:12	-18.4	-35.8	-55.4	18.2	-21.4	-41.4	-64.0	19.5	-24.8	-48.0	-74.0	20.9
6:12	-18.4	-35.8	-55.4	17.2	-21.4	-41.5	-64.1	18.5	-24.9	-48.0	-74.0	19.9
7:12	-20.6	-25.0	-25.0	22.9	-24.0	-29.0	-29.0	25.9	-27.8	-33.6	-33.6	29.3
8:12	-20.7	-25.0	-25.0	22.8	-24.0	-29.0	-29.0	25.8	-27.8	-33.6	-33.6	29.2
9:12	-20.7	-25.1	-25.1	22.7	-24.1	-29.1	-29.1	25.6	-27.9	-33.7	-33.7	29.1
10:12	-20.8	-25.1	-25.1	22.5	-24.1	-29.1	-29.1	25.5	-27.9	-33.7	-33.7	29.0
11:12	-20.8	-25.2	-25.2	22.4	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D												
1:12	-25.1	-46.2	-72.5	25.9	-28.4	-52.2	-81.8	25.9	-32.2	-59.1	-92.6	26.3
2:12	-22.5	-43.5	-67.3	27.3	-25.4	-49.2	-75.9	28.5	-28.9	-55.7	-85.9	30.0
3:12	-22.5	-43.6	-67.3	25.8	-25.5	-49.2	-75.9	27.0	-28.9	-55.7	-85.9	28.5
4:12	-22.5	-43.6	-67.3	20.3	-25.5	-49.2	-76.0	21.5	-29.0	-55.8	-85.9	23.0
5:12	-22.5	-43.6	-67.3	19.3	-25.5	-49.3	-76.0	20.6	-29.0	-55.8	-86.0	22.0
6:12	-22.6	-43.7	-67.4	18.4	-25.6	-49.3	-76.0	19.6	-29.0	-55.8	-86.0	21.1
7:12	-25.2	-30.5	-30.5	27.0	-28.6	-34.5	-34.5	30.0	-32.4	-39.1	-39.1	33.5
8:12	-25.3	-30.6	-30.6	26.9	-28.6	-34.6	-34.6	29.9	-32.5	-39.2	-39.2	33.4
9:12	-25.3	-30.6	-30.6	26.8	-28.7	-34.6	-34.6	29.8	-32.5	-39.2	-39.2	33.2
10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **140 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	25.9	-16.6	-31.0	-48.9	25.9	-20.5	-37.9	-59.6	25.9
2:12	-14.9	-29.2	-45.3	24.6	-14.9	-29.2	-45.3	24.6	-18.3	-35.7	-55.3	25.5
3:12	-14.9	-29.2	-45.3	23.1	-14.9	-29.2	-45.3	23.1	-18.3	-35.7	-55.3	24.0
4:12	-14.9	-29.2	-45.4	20.2	-14.9	-29.2	-45.4	20.2	-18.4	-35.8	-55.3	21.2
5:12	-14.9	-29.3	-45.4	18.9	-14.9	-29.3	-45.4	18.9	-18.4	-35.8	-55.4	19.9
6:12	-15.0	-29.3	-45.4	17.7	-15.0	-29.3	-45.4	17.7	-18.4	-35.8	-55.4	18.6
7:12	-16.8	-20.4	-20.4	21.4	-16.8	-20.4	-20.4	21.4	-20.6	-25.0	-25.0	24.0
8:12	-16.8	-20.4	-20.4	20.4	-16.8	-20.4	-20.4	20.4	-20.7	-25.0	-25.0	23.0
9:12	-16.9	-20.5	-20.5	19.5	-16.9	-20.5	-20.5	19.5	-20.7	-25.1	-25.1	22.7
10:12	-16.9	-20.5	-20.5	19.1	-16.9	-20.5	-20.5	19.1	-20.8	-25.1	-25.1	22.5
11:12	-17.0	-20.5	-20.5	19.0	-17.0	-20.5	-20.5	19.0	-20.8	-25.2	-25.2	22.4
12:12	-17.0	-20.6	-20.6	18.8	-17.0	-20.6	-20.6	18.8	-20.8	-25.2	-25.2	22.3
Exposure Category C												
1:12	-20.5	-37.9	-59.6	25.9	-23.8	-43.9	-68.9	25.9	-27.6	-50.8	-79.7	25.9
2:12	-18.3	-35.7	-55.3	25.5	-21.3	-41.4	-63.9	26.8	-24.8	-47.9	-73.9	28.2
3:12	-18.3	-35.7	-55.3	24.0	-21.3	-41.4	-64.0	25.3	-24.8	-47.9	-73.9	26.7
4:12	-18.4	-35.8	-55.3	21.2	-21.4	-41.4	-64.0	22.4	-24.8	-47.9	-74.0	23.9
5:12	-18.4	-35.8	-55.4	19.9	-21.4	-41.4	-64.0	21.1	-24.8	-48.0	-74.0	22.5
6:12	-18.4	-35.8	-55.4	18.6	-21.4	-41.5	-64.1	19.9	-24.9	-48.0	-74.0	21.3
7:12	-20.6	-25.0	-25.0	24.0	-24.0	-29.0	-29.0	26.2	-27.8	-33.6	-33.6	29.3
8:12	-20.7	-25.0	-25.0	23.0	-24.0	-29.0	-29.0	25.8	-27.8	-33.6	-33.6	29.2
9:12	-20.7	-25.1	-25.1	22.7	-24.1	-29.1	-29.1	25.6	-27.9	-33.7	-33.7	29.1
10:12	-20.8	-25.1	-25.1	22.5	-24.1	-29.1	-29.1	25.5	-27.9	-33.7	-33.7	29.0
11:12	-20.8	-25.2	-25.2	22.4	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D												
1:12	-25.1	-46.2	-72.5	25.9	-28.4	-52.2	-81.8	25.9	-32.2	-59.1	-92.6	26.3
2:12	-22.5	-43.5	-67.3	27.3	-25.4	-49.2	-75.9	28.5	-28.9	-55.7	-85.9	30.0
3:12	-22.5	-43.6	-67.3	25.8	-25.5	-49.2	-75.9	27.0	-28.9	-55.7	-85.9	28.5
4:12	-22.5	-43.6	-67.3	22.0	-25.5	-49.2	-76.0	23.2	-29.0	-55.8	-85.9	24.7
5:12	-22.5	-43.6	-67.3	20.8	-25.5	-49.3	-76.0	22.0	-29.0	-55.8	-86.0	23.5
6:12	-22.6	-43.7	-67.4	19.6	-25.6	-49.3	-76.0	20.9	-29.0	-55.8	-86.0	22.3
7:12	-25.2	-30.5	-30.5	27.0	-28.6	-34.5	-34.5	30.0	-32.4	-39.1	-39.1	33.5
8:12	-25.3	-30.6	-30.6	26.9	-28.6	-34.6	-34.6	29.9	-32.5	-39.2	-39.2	33.4
9:12	-25.3	-30.6	-30.6	26.8	-28.7	-34.6	-34.6	29.8	-32.5	-39.2	-39.2	33.2
10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **140 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

140 mph

Ground Snow Load

30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	26.7	-16.6	-31.0	-48.9	26.7	-20.5	-37.9	-59.6	26.7
2:12	-14.9	-29.2	-45.3	25.3	-14.9	-29.2	-45.3	25.3	-18.3	-35.7	-55.3	26.2
3:12	-14.9	-29.2	-45.3	23.7	-14.9	-29.2	-45.3	23.7	-18.3	-35.7	-55.3	24.7
4:12	-14.9	-29.2	-45.4	22.1	-14.9	-29.2	-45.4	22.1	-18.4	-35.8	-55.3	23.1
5:12	-14.9	-29.3	-45.4	20.5	-14.9	-29.3	-45.4	20.5	-18.4	-35.8	-55.4	21.5
6:12	-15.0	-29.3	-45.4	19.1	-15.0	-29.3	-45.4	19.1	-18.4	-35.8	-55.4	20.0
7:12	-16.8	-20.4	-20.4	22.6	-16.8	-20.4	-20.4	22.6	-20.6	-25.0	-25.0	25.2
8:12	-16.8	-20.4	-20.4	21.4	-16.8	-20.4	-20.4	21.4	-20.7	-25.0	-25.0	24.0
9:12	-16.9	-20.5	-20.5	20.3	-16.9	-20.5	-20.5	20.3	-20.7	-25.1	-25.1	22.9
10:12	-16.9	-20.5	-20.5	19.4	-16.9	-20.5	-20.5	19.4	-20.8	-25.1	-25.1	22.5
11:12	-17.0	-20.5	-20.5	19.0	-17.0	-20.5	-20.5	19.0	-20.8	-25.2	-25.2	22.4
12:12	-17.0	-20.6	-20.6	18.8	-17.0	-20.6	-20.6	18.8	-20.8	-25.2	-25.2	22.3
Exposure Category C												
1:12	-20.5	-37.9	-59.6	26.7	-23.8	-43.9	-68.9	26.7	-27.6	-50.8	-79.7	26.7
2:12	-18.3	-35.7	-55.3	26.2	-21.3	-41.4	-63.9	27.5	-24.8	-47.9	-73.9	28.9
3:12	-18.3	-35.7	-55.3	24.7	-21.3	-41.4	-64.0	25.9	-24.8	-47.9	-73.9	27.3
4:12	-18.4	-35.8	-55.3	23.1	-21.4	-41.4	-64.0	24.3	-24.8	-47.9	-74.0	25.7
5:12	-18.4	-35.8	-55.4	21.5	-21.4	-41.4	-64.0	22.7	-24.8	-48.0	-74.0	24.2
6:12	-18.4	-35.8	-55.4	20.0	-21.4	-41.5	-64.1	21.3	-24.9	-48.0	-74.0	22.7
7:12	-20.6	-25.0	-25.0	25.2	-24.0	-29.0	-29.0	27.4	-27.8	-33.6	-33.6	30.0
8:12	-20.7	-25.0	-25.0	24.0	-24.0	-29.0	-29.0	26.2	-27.8	-33.6	-33.6	29.2
9:12	-20.7	-25.1	-25.1	22.9	-24.1	-29.1	-29.1	25.6	-27.9	-33.7	-33.7	29.1
10:12	-20.8	-25.1	-25.1	22.5	-24.1	-29.1	-29.1	25.5	-27.9	-33.7	-33.7	29.0
11:12	-20.8	-25.2	-25.2	22.4	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D												
1:12	-25.1	-46.2	-72.5	25.9	-28.4	-52.2	-81.8	25.9	-32.2	-59.1	-92.6	26.3
2:12	-22.5	-43.5	-67.3	27.3	-25.4	-49.2	-75.9	28.5	-28.9	-55.7	-85.9	30.0
3:12	-22.5	-43.6	-67.3	25.8	-25.5	-49.2	-75.9	27.0	-28.9	-55.7	-85.9	28.5
4:12	-22.5	-43.6	-67.3	23.7	-25.5	-49.2	-76.0	24.9	-29.0	-55.8	-85.9	26.3
5:12	-22.5	-43.6	-67.3	22.2	-25.5	-49.3	-76.0	23.5	-29.0	-55.8	-86.0	24.9
6:12	-22.6	-43.7	-67.4	20.9	-25.6	-49.3	-76.0	22.2	-29.0	-55.8	-86.0	23.6
7:12	-25.2	-30.5	-30.5	27.6	-28.6	-34.5	-34.5	30.0	-32.4	-39.1	-39.1	33.5
8:12	-25.3	-30.6	-30.6	26.9	-28.6	-34.6	-34.6	29.9	-32.5	-39.2	-39.2	33.4
9:12	-25.3	-30.6	-30.6	26.8	-28.7	-34.6	-34.6	29.8	-32.5	-39.2	-39.2	33.2
10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
140 mph

Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-16.6	-31.0	-48.9	29.3	-16.6	-31.0	-48.9	29.3	-20.5	-37.9	-59.6	29.3
2:12	-14.9	-29.2	-45.3	27.6	-14.9	-29.2	-45.3	27.6	-18.3	-35.7	-55.3	28.6
3:12	-14.9	-29.2	-45.3	25.8	-14.9	-29.2	-45.3	25.8	-18.3	-35.7	-55.3	26.8
4:12	-14.9	-29.2	-45.4	24.0	-14.9	-29.2	-45.4	24.0	-18.4	-35.8	-55.3	24.9
5:12	-14.9	-29.3	-45.4	22.2	-14.9	-29.3	-45.4	22.2	-18.4	-35.8	-55.4	23.1
6:12	-15.0	-29.3	-45.4	20.5	-15.0	-29.3	-45.4	20.5	-18.4	-35.8	-55.4	21.4
7:12	-16.8	-20.4	-20.4	23.8	-16.8	-20.4	-20.4	23.8	-20.6	-25.0	-25.0	26.4
8:12	-16.8	-20.4	-20.4	22.4	-16.8	-20.4	-20.4	22.4	-20.7	-25.0	-25.0	25.0
9:12	-16.9	-20.5	-20.5	21.2	-16.9	-20.5	-20.5	21.2	-20.7	-25.1	-25.1	23.8
10:12	-16.9	-20.5	-20.5	20.1	-16.9	-20.5	-20.5	20.1	-20.8	-25.1	-25.1	22.7
11:12	-17.0	-20.5	-20.5	19.2	-17.0	-20.5	-20.5	19.2	-20.8	-25.2	-25.2	22.4
12:12	-17.0	-20.6	-20.6	18.8	-17.0	-20.6	-20.6	18.8	-20.8	-25.2	-25.2	22.3
1:12	-20.5	-37.9	-59.6	29.3	-23.8	-43.9	-68.9	29.3	-27.6	-50.8	-79.7	29.3
2:12	-18.3	-35.7	-55.3	28.6	-21.3	-41.4	-63.9	29.9	-24.8	-47.9	-73.9	31.3
3:12	-18.3	-35.7	-55.3	26.8	-21.3	-41.4	-64.0	28.0	-24.8	-47.9	-73.9	29.5
4:12	-18.4	-35.8	-55.3	24.9	-21.4	-41.4	-64.0	26.2	-24.8	-47.9	-74.0	27.6
5:12	-18.4	-35.8	-55.4	23.1	-21.4	-41.4	-64.0	24.4	-24.8	-48.0	-74.0	25.8
6:12	-18.4	-35.8	-55.4	21.4	-21.4	-41.5	-64.1	22.7	-24.9	-48.0	-74.0	24.1
7:12	-20.6	-25.0	-25.0	26.4	-24.0	-29.0	-29.0	28.6	-27.8	-33.6	-33.6	31.2
8:12	-20.7	-25.0	-25.0	25.0	-24.0	-29.0	-29.0	27.2	-27.8	-33.6	-33.6	29.8
9:12	-20.7	-25.1	-25.1	23.8	-24.1	-29.1	-29.1	26.0	-27.9	-33.7	-33.7	29.1
10:12	-20.8	-25.1	-25.1	22.7	-24.1	-29.1	-29.1	25.5	-27.9	-33.7	-33.7	29.0
11:12	-20.8	-25.2	-25.2	22.4	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
1:12	-25.1	-46.2	-72.5	27.5	-28.4	-52.2	-81.8	27.5	-32.2	-59.1	-92.6	27.8
2:12	-22.5	-43.5	-67.3	28.7	-25.4	-49.2	-75.9	29.9	-28.9	-55.7	-85.9	31.4
3:12	-22.5	-43.6	-67.3	27.0	-25.5	-49.2	-75.9	28.3	-28.9	-55.7	-85.9	29.7
4:12	-22.5	-43.6	-67.3	25.3	-25.5	-49.2	-76.0	26.6	-29.0	-55.8	-85.9	28.0
5:12	-22.5	-43.6	-67.3	23.7	-25.5	-49.3	-76.0	25.0	-29.0	-55.8	-86.0	26.4
6:12	-22.6	-43.7	-67.4	22.2	-25.6	-49.3	-76.0	23.4	-29.0	-55.8	-86.0	24.9
7:12	-25.2	-30.5	-30.5	28.7	-28.6	-34.5	-34.5	30.9	-32.4	-39.1	-39.1	33.5
8:12	-25.3	-30.6	-30.6	27.4	-28.6	-34.6	-34.6	29.9	-32.5	-39.2	-39.2	33.4
9:12	-25.3	-30.6	-30.6	26.8	-28.7	-34.6	-34.6	29.8	-32.5	-39.2	-39.2	33.2
10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	31.9	-16.6	-31.0	-48.9	31.9	-20.5	-37.9	-59.6	31.9
2:12	-14.9	-29.2	-45.3	30.0	-14.9	-29.2	-45.3	30.0	-18.3	-35.7	-55.3	31.0
3:12	-14.9	-29.2	-45.3	27.9	-14.9	-29.2	-45.3	27.9	-18.3	-35.7	-55.3	28.9
4:12	-14.9	-29.2	-45.4	25.8	-14.9	-29.2	-45.4	25.8	-18.4	-35.8	-55.3	26.8
5:12	-14.9	-29.3	-45.4	23.8	-14.9	-29.3	-45.4	23.8	-18.4	-35.8	-55.4	24.8
6:12	-15.0	-29.3	-45.4	21.9	-15.0	-29.3	-45.4	21.9	-18.4	-35.8	-55.4	22.8
7:12	-16.8	-20.4	-20.4	25.0	-16.8	-20.4	-20.4	25.0	-20.6	-25.0	-25.0	27.6
8:12	-16.8	-20.4	-20.4	23.4	-16.8	-20.4	-20.4	23.4	-20.7	-25.0	-25.0	26.0
9:12	-16.9	-20.5	-20.5	22.0	-16.9	-20.5	-20.5	22.0	-20.7	-25.1	-25.1	24.6
10:12	-16.9	-20.5	-20.5	20.8	-16.9	-20.5	-20.5	20.8	-20.8	-25.1	-25.1	23.4
11:12	-17.0	-20.5	-20.5	19.8	-17.0	-20.5	-20.5	19.8	-20.8	-25.2	-25.2	22.4
12:12	-17.0	-20.6	-20.6	18.9	-17.0	-20.6	-20.6	18.9	-20.8	-25.2	-25.2	22.3
Exposure Category C												
1:12	-20.5	-37.9	-59.6	31.9	-23.8	-43.9	-68.9	31.9	-27.6	-50.8	-79.7	31.9
2:12	-18.3	-35.7	-55.3	31.0	-21.3	-41.4	-63.9	32.2	-24.8	-47.9	-73.9	33.7
3:12	-18.3	-35.7	-55.3	28.9	-21.3	-41.4	-64.0	30.2	-24.8	-47.9	-73.9	31.6
4:12	-18.4	-35.8	-55.3	26.8	-21.4	-41.4	-64.0	28.0	-24.8	-47.9	-74.0	29.5
5:12	-18.4	-35.8	-55.4	24.8	-21.4	-41.4	-64.0	26.0	-24.8	-48.0	-74.0	27.4
6:12	-18.4	-35.8	-55.4	22.8	-21.4	-41.5	-64.1	24.1	-24.9	-48.0	-74.0	25.5
7:12	-20.6	-25.0	-25.0	27.6	-24.0	-29.0	-29.0	29.8	-27.8	-33.6	-33.6	32.4
8:12	-20.7	-25.0	-25.0	26.0	-24.0	-29.0	-29.0	28.3	-27.8	-33.6	-33.6	30.8
9:12	-20.7	-25.1	-25.1	24.6	-24.1	-29.1	-29.1	26.9	-27.9	-33.7	-33.7	29.4
10:12	-20.8	-25.1	-25.1	23.4	-24.1	-29.1	-29.1	25.6	-27.9	-33.7	-33.7	29.0
11:12	-20.8	-25.2	-25.2	22.4	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D												
1:12	-25.1	-46.2	-72.5	29.8	-28.4	-52.2	-81.8	29.8	-32.2	-59.1	-92.6	30.1
2:12	-22.5	-43.5	-67.3	30.8	-25.4	-49.2	-75.9	32.1	-28.9	-55.7	-85.9	33.5
3:12	-22.5	-43.6	-67.3	28.9	-25.5	-49.2	-75.9	30.2	-28.9	-55.7	-85.9	31.6
4:12	-22.5	-43.6	-67.3	27.0	-25.5	-49.2	-76.0	28.3	-29.0	-55.8	-85.9	29.7
5:12	-22.5	-43.6	-67.3	25.2	-25.5	-49.3	-76.0	26.4	-29.0	-55.8	-86.0	27.9
6:12	-22.6	-43.7	-67.4	23.4	-25.6	-49.3	-76.0	24.7	-29.0	-55.8	-86.0	26.1
7:12	-25.2	-30.5	-30.5	29.7	-28.6	-34.5	-34.5	32.0	-32.4	-39.1	-39.1	34.6
8:12	-25.3	-30.6	-30.6	28.3	-28.6	-34.6	-34.6	30.5	-32.5	-39.2	-39.2	33.4
9:12	-25.3	-30.6	-30.6	27.0	-28.7	-34.6	-34.6	29.8	-32.5	-39.2	-39.2	33.2
10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **140 mph**

Ground Snow Load **40 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	35.1	-16.6	-31.0	-48.9	35.1	-20.5	-37.9	-59.6	35.1
2:12	-14.9	-29.2	-45.3	32.4	-14.9	-29.2	-45.3	32.4	-18.3	-35.7	-55.3	33.4
3:12	-14.9	-29.2	-45.3	30.1	-14.9	-29.2	-45.3	30.1	-18.3	-35.7	-55.3	31.0
4:12	-14.9	-29.2	-45.4	27.7	-14.9	-29.2	-45.4	27.7	-18.4	-35.8	-55.3	28.7
5:12	-14.9	-29.3	-45.4	25.4	-14.9	-29.3	-45.4	25.4	-18.4	-35.8	-55.4	26.4
6:12	-15.0	-29.3	-45.4	23.3	-15.0	-29.3	-45.4	23.3	-18.4	-35.8	-55.4	24.2
7:12	-16.8	-20.4	-20.4	26.2	-16.8	-20.4	-20.4	26.2	-20.6	-25.0	-25.0	28.8
8:12	-16.8	-20.4	-20.4	24.4	-16.8	-20.4	-20.4	24.4	-20.7	-25.0	-25.0	27.0
9:12	-16.9	-20.5	-20.5	22.9	-16.9	-20.5	-20.5	22.9	-20.7	-25.1	-25.1	25.5
10:12	-16.9	-20.5	-20.5	21.5	-16.9	-20.5	-20.5	21.5	-20.8	-25.1	-25.1	24.1
11:12	-17.0	-20.5	-20.5	20.4	-17.0	-20.5	-20.5	20.4	-20.8	-25.2	-25.2	22.9
12:12	-17.0	-20.6	-20.6	19.4	-17.0	-20.6	-20.6	19.4	-20.8	-25.2	-25.2	22.3
Exposure Category C												
1:12	-20.5	-37.9	-59.6	35.1	-23.8	-43.9	-68.9	35.1	-27.6	-50.8	-79.7	35.1
2:12	-18.3	-35.7	-55.3	33.4	-21.3	-41.4	-63.9	34.6	-24.8	-47.9	-73.9	36.0
3:12	-18.3	-35.7	-55.3	31.0	-21.3	-41.4	-64.0	32.3	-24.8	-47.9	-73.9	33.7
4:12	-18.4	-35.8	-55.3	28.7	-21.4	-41.4	-64.0	29.9	-24.8	-47.9	-74.0	31.4
5:12	-18.4	-35.8	-55.4	26.4	-21.4	-41.4	-64.0	27.6	-24.8	-48.0	-74.0	29.1
6:12	-18.4	-35.8	-55.4	24.2	-21.4	-41.5	-64.1	25.5	-24.9	-48.0	-74.0	26.9
7:12	-20.6	-25.0	-25.0	28.8	-24.0	-29.0	-29.0	31.0	-27.8	-33.6	-33.6	33.6
8:12	-20.7	-25.0	-25.0	27.0	-24.0	-29.0	-29.0	29.3	-27.8	-33.6	-33.6	31.9
9:12	-20.7	-25.1	-25.1	25.5	-24.1	-29.1	-29.1	27.7	-27.9	-33.7	-33.7	30.3
10:12	-20.8	-25.1	-25.1	24.1	-24.1	-29.1	-29.1	26.4	-27.9	-33.7	-33.7	29.0
11:12	-20.8	-25.2	-25.2	22.9	-24.1	-29.1	-29.1	25.4	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.3	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D												
1:12	-25.1	-46.2	-72.5	32.1	-28.4	-52.2	-81.8	32.1	-32.2	-59.1	-92.6	32.5
2:12	-22.5	-43.5	-67.3	32.9	-25.4	-49.2	-75.9	34.2	-28.9	-55.7	-85.9	35.6
3:12	-22.5	-43.6	-67.3	30.8	-25.5	-49.2	-75.9	32.1	-28.9	-55.7	-85.9	33.5
4:12	-22.5	-43.6	-67.3	28.7	-25.5	-49.2	-76.0	30.0	-29.0	-55.8	-85.9	31.4
5:12	-22.5	-43.6	-67.3	26.6	-25.5	-49.3	-76.0	27.9	-29.0	-55.8	-86.0	29.3
6:12	-22.6	-43.7	-67.4	24.7	-25.6	-49.3	-76.0	25.9	-29.0	-55.8	-86.0	27.4
7:12	-25.2	-30.5	-30.5	30.8	-28.6	-34.5	-34.5	33.1	-32.4	-39.1	-39.1	35.7
8:12	-25.3	-30.6	-30.6	29.2	-28.6	-34.6	-34.6	31.5	-32.5	-39.2	-39.2	34.1
9:12	-25.3	-30.6	-30.6	27.8	-28.7	-34.6	-34.6	30.1	-32.5	-39.2	-39.2	33.2
10:12	-25.4	-30.6	-30.6	26.7	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **140 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	38.6	-16.6	-31.0	-48.9	38.6	-20.5	-37.9	-59.6	38.6
2:12	-14.9	-29.2	-45.3	35.5	-14.9	-29.2	-45.3	35.5	-18.3	-35.7	-55.3	35.7
3:12	-14.9	-29.2	-45.3	32.2	-14.9	-29.2	-45.3	32.2	-18.3	-35.7	-55.3	33.2
4:12	-14.9	-29.2	-45.4	29.6	-14.9	-29.2	-45.4	29.6	-18.4	-35.8	-55.3	30.5
5:12	-14.9	-29.3	-45.4	27.1	-14.9	-29.3	-45.4	27.1	-18.4	-35.8	-55.4	28.0
6:12	-15.0	-29.3	-45.4	24.7	-15.0	-29.3	-45.4	24.7	-18.4	-35.8	-55.4	25.6
7:12	-16.8	-20.4	-20.4	27.4	-16.8	-20.4	-20.4	27.4	-20.6	-25.0	-25.0	30.0
8:12	-16.8	-20.4	-20.4	25.4	-16.8	-20.4	-20.4	25.4	-20.7	-25.0	-25.0	28.0
9:12	-16.9	-20.5	-20.5	23.7	-16.9	-20.5	-20.5	23.7	-20.7	-25.1	-25.1	26.3
10:12	-16.9	-20.5	-20.5	22.2	-16.9	-20.5	-20.5	22.2	-20.8	-25.1	-25.1	24.8
11:12	-17.0	-20.5	-20.5	21.0	-17.0	-20.5	-20.5	21.0	-20.8	-25.2	-25.2	23.6
12:12	-17.0	-20.6	-20.6	19.9	-17.0	-20.6	-20.6	19.9	-20.8	-25.2	-25.2	22.5
Exposure Category C												
1:12	-20.5	-37.9	-59.6	38.6	-23.8	-43.9	-68.9	38.6	-27.6	-50.8	-79.7	38.6
2:12	-18.3	-35.7	-55.3	35.7	-21.3	-41.4	-63.9	37.0	-24.8	-47.9	-73.9	38.4
3:12	-18.3	-35.7	-55.3	33.2	-21.3	-41.4	-64.0	34.4	-24.8	-47.9	-73.9	35.8
4:12	-18.4	-35.8	-55.3	30.5	-21.4	-41.4	-64.0	31.8	-24.8	-47.9	-74.0	33.2
5:12	-18.4	-35.8	-55.4	28.0	-21.4	-41.4	-64.0	29.3	-24.8	-48.0	-74.0	30.7
6:12	-18.4	-35.8	-55.4	25.6	-21.4	-41.5	-64.1	26.9	-24.9	-48.0	-74.0	28.3
7:12	-20.6	-25.0	-25.0	30.0	-24.0	-29.0	-29.0	32.2	-27.8	-33.6	-33.6	34.8
8:12	-20.7	-25.0	-25.0	28.0	-24.0	-29.0	-29.0	30.3	-27.8	-33.6	-33.6	32.9
9:12	-20.7	-25.1	-25.1	26.3	-24.1	-29.1	-29.1	28.6	-27.9	-33.7	-33.7	31.2
10:12	-20.8	-25.1	-25.1	24.8	-24.1	-29.1	-29.1	27.1	-27.9	-33.7	-33.7	29.7
11:12	-20.8	-25.2	-25.2	23.6	-24.1	-29.1	-29.1	25.8	-28.0	-33.8	-33.8	28.9
12:12	-20.8	-25.2	-25.2	22.5	-24.2	-29.2	-29.2	25.3	-28.0	-33.8	-33.8	28.7
Exposure Category D												
1:12	-25.1	-46.2	-72.5	35.1	-28.4	-52.2	-81.8	35.1	-32.2	-59.1	-92.6	35.1
2:12	-22.5	-43.5	-67.3	35.1	-25.4	-49.2	-75.9	36.3	-28.9	-55.7	-85.9	37.8
3:12	-22.5	-43.6	-67.3	32.8	-25.5	-49.2	-75.9	34.0	-28.9	-55.7	-85.9	35.4
4:12	-22.5	-43.6	-67.3	30.4	-25.5	-49.2	-76.0	31.6	-29.0	-55.8	-85.9	33.1
5:12	-22.5	-43.6	-67.3	28.1	-25.5	-49.3	-76.0	29.4	-29.0	-55.8	-86.0	30.8
6:12	-22.6	-43.7	-67.4	26.0	-25.6	-49.3	-76.0	27.2	-29.0	-55.8	-86.0	28.6
7:12	-25.2	-30.5	-30.5	31.9	-28.6	-34.5	-34.5	34.1	-32.4	-39.1	-39.1	36.7
8:12	-25.3	-30.6	-30.6	30.1	-28.6	-34.6	-34.6	32.4	-32.5	-39.2	-39.2	35.0
9:12	-25.3	-30.6	-30.6	28.6	-28.7	-34.6	-34.6	30.8	-32.5	-39.2	-39.2	33.4
10:12	-25.4	-30.6	-30.6	27.2	-28.7	-34.6	-34.6	29.7	-32.5	-39.2	-39.2	33.1
11:12	-25.4	-30.7	-30.7	26.6	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9

Basic Wind Speed
140 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-16.6	-31.0	-48.9	45.5	-16.6	-31.0	-48.9	45.5	-20.5	-37.9	-59.6	45.5
	2:12	-14.9	-29.2	-45.3	41.9	-14.9	-29.2	-45.3	41.9	-18.3	-35.7	-55.3	41.9
	3:12	-14.9	-29.2	-45.3	37.8	-14.9	-29.2	-45.3	37.8	-18.3	-35.7	-55.3	37.8
	4:12	-14.9	-29.2	-45.4	33.6	-14.9	-29.2	-45.4	33.6	-18.4	-35.8	-55.3	34.3
	5:12	-14.9	-29.3	-45.4	30.3	-14.9	-29.3	-45.4	30.3	-18.4	-35.8	-55.4	31.3
	6:12	-15.0	-29.3	-45.4	27.5	-15.0	-29.3	-45.4	27.5	-18.4	-35.8	-55.4	28.4
	7:12	-16.8	-20.4	-20.4	29.8	-16.8	-20.4	-20.4	29.8	-20.6	-25.0	-25.0	32.4
	8:12	-16.8	-20.4	-20.4	27.5	-16.8	-20.4	-20.4	27.5	-20.7	-25.0	-25.0	30.1
	9:12	-16.9	-20.5	-20.5	25.4	-16.9	-20.5	-20.5	25.4	-20.7	-25.1	-25.1	28.0
	10:12	-16.9	-20.5	-20.5	23.7	-16.9	-20.5	-20.5	23.7	-20.8	-25.1	-25.1	26.3
	11:12	-17.0	-20.5	-20.5	22.2	-17.0	-20.5	-20.5	22.2	-20.8	-25.2	-25.2	24.8
	12:12	-17.0	-20.6	-20.6	20.9	-17.0	-20.6	-20.6	20.9	-20.8	-25.2	-25.2	23.5
Exposure Category C	1:12	-20.5	-37.9	-59.6	45.5	-23.8	-43.9	-68.9	45.5	-27.6	-50.8	-79.7	45.5
	2:12	-18.3	-35.7	-55.3	41.9	-21.3	-41.4	-63.9	41.9	-24.8	-47.9	-73.9	43.2
	3:12	-18.3	-35.7	-55.3	37.8	-21.3	-41.4	-64.0	38.7	-24.8	-47.9	-73.9	40.1
	4:12	-18.4	-35.8	-55.3	34.3	-21.4	-41.4	-64.0	35.5	-24.8	-47.9	-74.0	37.0
	5:12	-18.4	-35.8	-55.4	31.3	-21.4	-41.4	-64.0	32.5	-24.8	-48.0	-74.0	34.0
	6:12	-18.4	-35.8	-55.4	28.4	-21.4	-41.5	-64.1	29.7	-24.9	-48.0	-74.0	31.1
	7:12	-20.6	-25.0	-25.0	32.4	-24.0	-29.0	-29.0	34.6	-27.8	-33.6	-33.6	37.2
	8:12	-20.7	-25.0	-25.0	30.1	-24.0	-29.0	-29.0	32.3	-27.8	-33.6	-33.6	34.9
	9:12	-20.7	-25.1	-25.1	28.0	-24.1	-29.1	-29.1	30.3	-27.9	-33.7	-33.7	32.9
	10:12	-20.8	-25.1	-25.1	26.3	-24.1	-29.1	-29.1	28.5	-27.9	-33.7	-33.7	31.1
	11:12	-20.8	-25.2	-25.2	24.8	-24.1	-29.1	-29.1	27.0	-28.0	-33.8	-33.8	29.6
	12:12	-20.8	-25.2	-25.2	23.5	-24.2	-29.2	-29.2	25.7	-28.0	-33.8	-33.8	28.7
Exposure Category D	1:12	-25.1	-46.2	-72.5	41.4	-28.4	-52.2	-81.8	41.4	-32.2	-59.1	-92.6	41.4
	2:12	-22.5	-43.5	-67.3	39.4	-25.4	-49.2	-75.9	40.6	-28.9	-55.7	-85.9	42.1
	3:12	-22.5	-43.6	-67.3	36.6	-25.5	-49.2	-75.9	37.8	-28.9	-55.7	-85.9	39.3
	4:12	-22.5	-43.6	-67.3	33.8	-25.5	-49.2	-76.0	35.0	-29.0	-55.8	-85.9	36.5
	5:12	-22.5	-43.6	-67.3	31.0	-25.5	-49.3	-76.0	32.3	-29.0	-55.8	-86.0	33.7
	6:12	-22.6	-43.7	-67.4	28.5	-25.6	-49.3	-76.0	29.7	-29.0	-55.8	-86.0	31.2
	7:12	-25.2	-30.5	-30.5	34.0	-28.6	-34.5	-34.5	36.3	-32.4	-39.1	-39.1	38.9
	8:12	-25.3	-30.6	-30.6	32.0	-28.6	-34.6	-34.6	34.2	-32.5	-39.2	-39.2	36.8
	9:12	-25.3	-30.6	-30.6	30.1	-28.7	-34.6	-34.6	32.4	-32.5	-39.2	-39.2	35.0
	10:12	-25.4	-30.6	-30.6	28.5	-28.7	-34.6	-34.6	30.8	-32.5	-39.2	-39.2	33.4
	11:12	-25.4	-30.7	-30.7	27.1	-28.7	-34.7	-34.7	29.6	-32.6	-39.3	-39.3	33.0
	12:12	-25.4	-30.7	-30.7	26.4	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
	2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
	3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
	4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
	5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
	6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
	7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
	8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
	9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
	10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
140 mph

Ground Snow Load
60 psf

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

140 mph

Ground Snow Load

70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	52.5	-16.6	-31.0	-48.9	52.5	-20.5	-37.9	-59.6	52.5
2:12	-14.9	-29.2	-45.3	48.2	-14.9	-29.2	-45.3	48.2	-18.3	-35.7	-55.3	48.2
3:12	-14.9	-29.2	-45.3	43.4	-14.9	-29.2	-45.3	43.4	-18.3	-35.7	-55.3	43.4
4:12	-14.9	-29.2	-45.4	38.6	-14.9	-29.2	-45.4	38.6	-18.4	-35.8	-55.3	38.6
5:12	-14.9	-29.3	-45.4	34.0	-14.9	-29.3	-45.4	34.0	-18.4	-35.8	-55.4	34.5
6:12	-15.0	-29.3	-45.4	30.3	-15.0	-29.3	-45.4	30.3	-18.4	-35.8	-55.4	31.2
7:12	-16.8	-20.4	-20.4	32.2	-16.8	-20.4	-20.4	32.2	-20.6	-25.0	-25.0	34.8
8:12	-16.8	-20.4	-20.4	29.5	-16.8	-20.4	-20.4	29.5	-20.7	-25.0	-25.0	32.1
9:12	-16.9	-20.5	-20.5	27.2	-16.9	-20.5	-20.5	27.2	-20.7	-25.1	-25.1	29.7
10:12	-16.9	-20.5	-20.5	25.1	-16.9	-20.5	-20.5	25.1	-20.8	-25.1	-25.1	27.7
11:12	-17.0	-20.5	-20.5	23.4	-17.0	-20.5	-20.5	23.4	-20.8	-25.2	-25.2	26.0
12:12	-17.0	-20.6	-20.6	21.9	-17.0	-20.6	-20.6	21.9	-20.8	-25.2	-25.2	24.5
Exposure Category C												
1:12	-20.5	-37.9	-59.6	52.5	-23.8	-43.9	-68.9	52.5	-27.6	-50.8	-79.7	52.5
2:12	-18.3	-35.7	-55.3	48.2	-21.3	-41.4	-63.9	48.2	-24.8	-47.9	-73.9	48.2
3:12	-18.3	-35.7	-55.3	43.4	-21.3	-41.4	-64.0	43.4	-24.8	-47.9	-73.9	44.4
4:12	-18.4	-35.8	-55.3	38.6	-21.4	-41.4	-64.0	39.3	-24.8	-47.9	-74.0	40.7
5:12	-18.4	-35.8	-55.4	34.5	-21.4	-41.4	-64.0	35.8	-24.8	-48.0	-74.0	37.2
6:12	-18.4	-35.8	-55.4	31.2	-21.4	-41.5	-64.1	32.5	-24.9	-48.0	-74.0	33.9
7:12	-20.6	-25.0	-25.0	34.8	-24.0	-29.0	-29.0	37.0	-27.8	-33.6	-33.6	39.6
8:12	-20.7	-25.0	-25.0	32.1	-24.0	-29.0	-29.0	34.3	-27.8	-33.6	-33.6	36.9
9:12	-20.7	-25.1	-25.1	29.7	-24.1	-29.1	-29.1	32.0	-27.9	-33.7	-33.7	34.6
10:12	-20.8	-25.1	-25.1	27.7	-24.1	-29.1	-29.1	30.0	-27.9	-33.7	-33.7	32.5
11:12	-20.8	-25.2	-25.2	26.0	-24.1	-29.1	-29.1	28.2	-28.0	-33.8	-33.8	30.8
12:12	-20.8	-25.2	-25.2	24.5	-24.2	-29.2	-29.2	26.7	-28.0	-33.8	-33.8	29.3
Exposure Category D												
1:12	-25.1	-46.2	-72.5	47.6	-28.4	-52.2	-81.8	47.6	-32.2	-59.1	-92.6	47.6
2:12	-22.5	-43.5	-67.3	43.8	-25.4	-49.2	-75.9	44.9	-28.9	-55.7	-85.9	46.3
3:12	-22.5	-43.6	-67.3	40.4	-25.5	-49.2	-75.9	41.7	-28.9	-55.7	-85.9	43.1
4:12	-22.5	-43.6	-67.3	37.1	-25.5	-49.2	-76.0	38.4	-29.0	-55.8	-85.9	39.8
5:12	-22.5	-43.6	-67.3	34.0	-25.5	-49.3	-76.0	35.2	-29.0	-55.8	-86.0	36.7
6:12	-22.6	-43.7	-67.4	31.0	-25.6	-49.3	-76.0	32.3	-29.0	-55.8	-86.0	33.7
7:12	-25.2	-30.5	-30.5	36.2	-28.6	-34.5	-34.5	38.4	-32.4	-39.1	-39.1	41.0
8:12	-25.3	-30.6	-30.6	33.8	-28.6	-34.6	-34.6	36.0	-32.5	-39.2	-39.2	38.6
9:12	-25.3	-30.6	-30.6	31.7	-28.7	-34.6	-34.6	33.9	-32.5	-39.2	-39.2	36.5
10:12	-25.4	-30.6	-30.6	29.8	-28.7	-34.6	-34.6	32.1	-32.5	-39.2	-39.2	34.7
11:12	-25.4	-30.7	-30.7	28.2	-28.7	-34.7	-34.7	30.5	-32.6	-39.3	-39.3	33.1
12:12	-25.4	-30.7	-30.7	26.9	-28.8	-34.7	-34.7	29.4	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-16.6	-31.0	-48.9	59.4	-16.6	-31.0	-48.9	59.4	-20.5	-37.9	-59.6	59.4
2:12	-14.9	-29.2	-45.3	54.5	-14.9	-29.2	-45.3	54.5	-18.3	-35.7	-55.3	54.5
3:12	-14.9	-29.2	-45.3	49.1	-14.9	-29.2	-45.3	49.1	-18.3	-35.7	-55.3	49.1
4:12	-14.9	-29.2	-45.4	43.6	-14.9	-29.2	-45.4	43.6	-18.4	-35.8	-55.3	43.6
5:12	-14.9	-29.3	-45.4	38.3	-14.9	-29.3	-45.4	38.3	-18.4	-35.8	-55.4	38.3
6:12	-15.0	-29.3	-45.4	33.4	-15.0	-29.3	-45.4	33.4	-18.4	-35.8	-55.4	34.1
7:12	-16.8	-20.4	-20.4	34.6	-16.8	-20.4	-20.4	34.6	-20.6	-25.0	-25.0	37.2
8:12	-16.8	-20.4	-20.4	31.5	-16.8	-20.4	-20.4	31.5	-20.7	-25.0	-25.0	34.1
9:12	-16.9	-20.5	-20.5	28.9	-16.9	-20.5	-20.5	28.9	-20.7	-25.1	-25.1	31.5
10:12	-16.9	-20.5	-20.5	26.6	-16.9	-20.5	-20.5	26.6	-20.8	-25.1	-25.1	29.2
11:12	-17.0	-20.5	-20.5	24.6	-17.0	-20.5	-20.5	24.6	-20.8	-25.2	-25.2	27.2
12:12	-17.0	-20.6	-20.6	22.9	-17.0	-20.6	-20.6	22.9	-20.8	-25.2	-25.2	25.5
Exposure Category C												
1:12	-20.5	-37.9	-59.6	59.4	-23.8	-43.9	-68.9	59.4	-27.6	-50.8	-79.7	59.4
2:12	-18.3	-35.7	-55.3	54.5	-21.3	-41.4	-63.9	54.5	-24.8	-47.9	-73.9	54.5
3:12	-18.3	-35.7	-55.3	49.1	-21.3	-41.4	-64.0	49.1	-24.8	-47.9	-73.9	49.1
4:12	-18.4	-35.8	-55.3	43.6	-21.4	-41.4	-64.0	43.6	-24.8	-47.9	-74.0	44.5
5:12	-18.4	-35.8	-55.4	38.3	-21.4	-41.4	-64.0	39.0	-24.8	-48.0	-74.0	40.5
6:12	-18.4	-35.8	-55.4	34.1	-21.4	-41.5	-64.1	35.3	-24.9	-48.0	-74.0	36.7
7:12	-20.6	-25.0	-25.0	37.2	-24.0	-29.0	-29.0	39.4	-27.8	-33.6	-33.6	42.0
8:12	-20.7	-25.0	-25.0	34.1	-24.0	-29.0	-29.0	36.4	-27.8	-33.6	-33.6	39.0
9:12	-20.7	-25.1	-25.1	31.5	-24.1	-29.1	-29.1	33.7	-27.9	-33.7	-33.7	36.3
10:12	-20.8	-25.1	-25.1	29.2	-24.1	-29.1	-29.1	31.4	-27.9	-33.7	-33.7	34.0
11:12	-20.8	-25.2	-25.2	27.2	-24.1	-29.1	-29.1	29.4	-28.0	-33.8	-33.8	32.0
12:12	-20.8	-25.2	-25.2	25.5	-24.2	-29.2	-29.2	27.7	-28.0	-33.8	-33.8	30.3
Exposure Category D												
1:12	-25.1	-46.2	-72.5	53.9	-28.4	-52.2	-81.8	53.9	-32.2	-59.1	-92.6	53.9
2:12	-22.5	-43.5	-67.3	49.5	-25.4	-49.2	-75.9	49.5	-28.9	-55.7	-85.9	50.6
3:12	-22.5	-43.6	-67.3	44.6	-25.5	-49.2	-75.9	45.5	-28.9	-55.7	-85.9	46.9
4:12	-22.5	-43.6	-67.3	40.5	-25.5	-49.2	-76.0	41.8	-29.0	-55.8	-85.9	43.2
5:12	-22.5	-43.6	-67.3	36.9	-25.5	-49.3	-76.0	38.2	-29.0	-55.8	-86.0	39.6
6:12	-22.6	-43.7	-67.4	33.5	-25.6	-49.3	-76.0	34.8	-29.0	-55.8	-86.0	36.2
7:12	-25.2	-30.5	-30.5	38.4	-28.6	-34.5	-34.5	40.6	-32.4	-39.1	-39.1	43.2
8:12	-25.3	-30.6	-30.6	35.6	-28.6	-34.6	-34.6	37.9	-32.5	-39.2	-39.2	40.4
9:12	-25.3	-30.6	-30.6	33.2	-28.7	-34.6	-34.6	35.4	-32.5	-39.2	-39.2	38.0
10:12	-25.4	-30.6	-30.6	31.1	-28.7	-34.6	-34.6	33.4	-32.5	-39.2	-39.2	35.9
11:12	-25.4	-30.7	-30.7	29.3	-28.7	-34.7	-34.7	31.6	-32.6	-39.3	-39.3	34.2
12:12	-25.4	-30.7	-30.7	27.8	-28.8	-34.7	-34.7	30.0	-32.6	-39.3	-39.3	32.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **140 mph**

Ground Snow Load **80 psf**

Up and Down (psf)

Basic Wind Speed
140 mph
Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-16.6	-31.0	-48.9	66.4	-16.6	-31.0	-48.9	66.4	-20.5	-37.9	-59.6	66.4
2:12	-14.9	-29.2	-45.3	60.9	-14.9	-29.2	-45.3	60.9	-18.3	-35.7	-55.3	60.9
3:12	-14.9	-29.2	-45.3	54.8	-14.9	-29.2	-45.3	54.8	-18.3	-35.7	-55.3	54.8
4:12	-14.9	-29.2	-45.4	48.6	-14.9	-29.2	-45.4	48.6	-18.4	-35.8	-55.3	48.6
5:12	-14.9	-29.3	-45.4	42.7	-14.9	-29.3	-45.4	42.7	-18.4	-35.8	-55.4	42.7
6:12	-15.0	-29.3	-45.4	37.1	-15.0	-29.3	-45.4	37.1	-18.4	-35.8	-55.4	37.1
7:12	-16.8	-20.4	-20.4	37.0	-16.8	-20.4	-20.4	37.0	-20.6	-25.0	-25.0	39.6
8:12	-16.8	-20.4	-20.4	33.6	-16.8	-20.4	-20.4	33.6	-20.7	-25.0	-25.0	36.2
9:12	-16.9	-20.5	-20.5	30.6	-16.9	-20.5	-20.5	30.6	-20.7	-25.1	-25.1	33.2
10:12	-16.9	-20.5	-20.5	28.0	-16.9	-20.5	-20.5	28.0	-20.8	-25.1	-25.1	30.6
11:12	-17.0	-20.5	-20.5	25.8	-17.0	-20.5	-20.5	25.8	-20.8	-25.2	-25.2	28.4
12:12	-17.0	-20.6	-20.6	23.9	-17.0	-20.6	-20.6	23.9	-20.8	-25.2	-25.2	26.5
1:12	-20.5	-37.9	-59.6	66.4	-23.8	-43.9	-68.9	66.4	-27.6	-50.8	-79.7	66.4
2:12	-18.3	-35.7	-55.3	60.9	-21.3	-41.4	-63.9	60.9	-24.8	-47.9	-73.9	60.9
3:12	-18.3	-35.7	-55.3	54.8	-21.3	-41.4	-64.0	54.8	-24.8	-47.9	-73.9	54.8
4:12	-18.4	-35.8	-55.3	48.6	-21.4	-41.4	-64.0	48.6	-24.8	-47.9	-74.0	48.6
5:12	-18.4	-35.8	-55.4	42.7	-21.4	-41.4	-64.0	42.7	-24.8	-48.0	-74.0	43.7
6:12	-18.4	-35.8	-55.4	37.1	-21.4	-41.5	-64.1	38.1	-24.9	-48.0	-74.0	39.5
7:12	-20.6	-25.0	-25.0	39.6	-24.0	-29.0	-29.0	41.8	-27.8	-33.6	-33.6	44.4
8:12	-20.7	-25.0	-25.0	36.2	-24.0	-29.0	-29.0	38.4	-27.8	-33.6	-33.6	41.0
9:12	-20.7	-25.1	-25.1	33.2	-24.1	-29.1	-29.1	35.4	-27.9	-33.7	-33.7	38.0
10:12	-20.8	-25.1	-25.1	30.6	-24.1	-29.1	-29.1	32.8	-27.9	-33.7	-33.7	35.4
11:12	-20.8	-25.2	-25.2	28.4	-24.1	-29.1	-29.1	30.6	-28.0	-33.8	-33.8	33.2
12:12	-20.8	-25.2	-25.2	26.5	-24.2	-29.2	-29.2	28.7	-28.0	-33.8	-33.8	31.3
1:12	-25.1	-46.2	-72.5	60.1	-28.4	-52.2	-81.8	60.1	-32.2	-59.1	-92.6	60.1
2:12	-22.5	-43.5	-67.3	55.2	-25.4	-49.2	-75.9	55.2	-28.9	-55.7	-85.9	55.2
3:12	-22.5	-43.6	-67.3	49.7	-25.5	-49.2	-75.9	49.7	-28.9	-55.7	-85.9	50.8
4:12	-22.5	-43.6	-67.3	44.1	-25.5	-49.2	-76.0	45.1	-29.0	-55.8	-85.9	46.6
5:12	-22.5	-43.6	-67.3	39.8	-25.5	-49.3	-76.0	41.1	-29.0	-55.8	-86.0	42.5
6:12	-22.6	-43.7	-67.4	36.1	-25.6	-49.3	-76.0	37.3	-29.0	-55.8	-86.0	38.7
7:12	-25.2	-30.5	-30.5	40.5	-28.6	-34.5	-34.5	42.8	-32.4	-39.1	-39.1	45.4
8:12	-25.3	-30.6	-30.6	37.4	-28.6	-34.6	-34.6	39.7	-32.5	-39.2	-39.2	42.3
9:12	-25.3	-30.6	-30.6	34.7	-28.7	-34.6	-34.6	37.0	-32.5	-39.2	-39.2	39.6
10:12	-25.4	-30.6	-30.6	32.4	-28.7	-34.6	-34.6	34.7	-32.5	-39.2	-39.2	37.2
11:12	-25.4	-30.7	-30.7	30.4	-28.7	-34.7	-34.7	32.6	-32.6	-39.3	-39.3	35.2
12:12	-25.4	-30.7	-30.7	28.7	-28.8	-34.7	-34.7	30.9	-32.6	-39.3	-39.3	33.5
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-16.6	-31.0	-48.9	73.4	-16.6	-31.0	-48.9	73.4	-20.5	-37.9	-59.6	73.4
	2:12	-14.9	-29.2	-45.3	67.2	-14.9	-29.2	-45.3	67.2	-18.3	-35.7	-55.3	67.2
	3:12	-14.9	-29.2	-45.3	60.5	-14.9	-29.2	-45.3	60.5	-18.3	-35.7	-55.3	60.5
	4:12	-14.9	-29.2	-45.4	53.6	-14.9	-29.2	-45.4	53.6	-18.4	-35.8	-55.3	53.6
	5:12	-14.9	-29.3	-45.4	47.0	-14.9	-29.3	-45.4	47.0	-18.4	-35.8	-55.4	47.0
	6:12	-15.0	-29.3	-45.4	40.9	-15.0	-29.3	-45.4	40.9	-18.4	-35.8	-55.4	40.9
	7:12	-16.8	-20.4	-20.4	39.4	-16.8	-20.4	-20.4	39.4	-20.6	-25.0	-25.0	42.0
	8:12	-16.8	-20.4	-20.4	35.6	-16.8	-20.4	-20.4	35.6	-20.7	-25.0	-25.0	38.2
	9:12	-16.9	-20.5	-20.5	32.3	-16.9	-20.5	-20.5	32.3	-20.7	-25.1	-25.1	34.9
	10:12	-16.9	-20.5	-20.5	29.4	-16.9	-20.5	-20.5	29.4	-20.8	-25.1	-25.1	32.0
	11:12	-17.0	-20.5	-20.5	27.0	-17.0	-20.5	-20.5	27.0	-20.8	-25.2	-25.2	29.6
	12:12	-17.0	-20.6	-20.6	24.9	-17.0	-20.6	-20.6	24.9	-20.8	-25.2	-25.2	27.5
Exposure Category C	1:12	-20.5	-37.9	-59.6	73.4	-23.8	-43.9	-68.9	73.4	-27.6	-50.8	-79.7	73.4
	2:12	-18.3	-35.7	-55.3	67.2	-21.3	-41.4	-63.9	67.2	-24.8	-47.9	-73.9	67.2
	3:12	-18.3	-35.7	-55.3	60.5	-21.3	-41.4	-64.0	60.5	-24.8	-47.9	-73.9	60.5
	4:12	-18.4	-35.8	-55.3	53.6	-21.4	-41.4	-64.0	53.6	-24.8	-47.9	-74.0	53.6
	5:12	-18.4	-35.8	-55.4	47.0	-21.4	-41.4	-64.0	47.0	-24.8	-48.0	-74.0	47.0
	6:12	-18.4	-35.8	-55.4	40.9	-21.4	-41.5	-64.1	40.9	-24.9	-48.0	-74.0	42.4
	7:12	-20.6	-25.0	-25.0	42.0	-24.0	-29.0	-29.0	44.2	-27.8	-33.6	-33.6	46.8
	8:12	-20.7	-25.0	-25.0	38.2	-24.0	-29.0	-29.0	40.4	-27.8	-33.6	-33.6	43.0
	9:12	-20.7	-25.1	-25.1	34.9	-24.1	-29.1	-29.1	37.1	-27.9	-33.7	-33.7	39.7
	10:12	-20.8	-25.1	-25.1	32.0	-24.1	-29.1	-29.1	34.3	-27.9	-33.7	-33.7	36.9
	11:12	-20.8	-25.2	-25.2	29.6	-24.1	-29.1	-29.1	31.8	-28.0	-33.8	-33.8	34.4
	12:12	-20.8	-25.2	-25.2	27.5	-24.2	-29.2	-29.2	29.7	-28.0	-33.8	-33.8	32.3
Exposure Category D	1:12	-25.1	-46.2	-72.5	66.4	-28.4	-52.2	-81.8	66.4	-32.2	-59.1	-92.6	66.4
	2:12	-22.5	-43.5	-67.3	60.9	-25.4	-49.2	-75.9	60.9	-28.9	-55.7	-85.9	60.9
	3:12	-22.5	-43.6	-67.3	54.8	-25.5	-49.2	-75.9	54.8	-28.9	-55.7	-85.9	54.8
	4:12	-22.5	-43.6	-67.3	48.6	-25.5	-49.2	-76.0	48.6	-29.0	-55.8	-85.9	50.0
	5:12	-22.5	-43.6	-67.3	42.8	-25.5	-49.3	-76.0	44.0	-29.0	-55.8	-86.0	45.5
	6:12	-22.6	-43.7	-67.4	38.6	-25.6	-49.3	-76.0	39.8	-29.0	-55.8	-86.0	41.3
	7:12	-25.2	-30.5	-30.5	42.7	-28.6	-34.5	-34.5	44.9	-32.4	-39.1	-39.1	47.5
	8:12	-25.3	-30.6	-30.6	39.3	-28.6	-34.6	-34.6	41.5	-32.5	-39.2	-39.2	44.1
	9:12	-25.3	-30.6	-30.6	36.3	-28.7	-34.6	-34.6	38.5	-32.5	-39.2	-39.2	41.1
	10:12	-25.4	-30.6	-30.6	33.7	-28.7	-34.6	-34.6	35.9	-32.5	-39.2	-39.2	38.5
	11:12	-25.4	-30.7	-30.7	31.5	-28.7	-34.7	-34.7	33.7	-32.6	-39.3	-39.3	36.3
	12:12	-25.4	-30.7	-30.7	29.6	-28.8	-34.7	-34.7	31.8	-32.6	-39.3	-39.3	34.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
	2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
	3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
	4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
	5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
	6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
	7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
	8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
	9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
	10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
	11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **140 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed
145 mph

Ground Snow Load
0 psf

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-17.9	-33.3	-52.5	13.4	-17.9	-33.3	-52.5	13.4	-22.1	-40.7	-64.1	13.4
	2:12	-16.0	-31.4	-48.7	13.4	-16.0	-31.4	-48.7	13.4	-19.7	-38.4	-59.4	15.5
	3:12	-16.0	-31.4	-48.7	13.3	-16.0	-31.4	-48.7	13.3	-19.8	-38.4	-59.4	15.4
	4:12	-16.1	-31.4	-48.7	13.3	-16.1	-31.4	-48.7	13.3	-19.8	-38.4	-59.4	15.3
	5:12	-16.1	-31.5	-48.8	13.2	-16.1	-31.5	-48.8	13.2	-19.8	-38.5	-59.5	15.2
	6:12	-16.1	-31.5	-48.8	13.0	-16.1	-31.5	-48.8	13.0	-19.9	-38.5	-59.5	15.1
	7:12	-18.1	-21.9	-21.9	20.6	-18.1	-21.9	-21.9	20.6	-22.2	-26.9	-26.9	24.3
	8:12	-18.1	-22.0	-22.0	20.5	-18.1	-22.0	-22.0	20.5	-22.3	-26.9	-26.9	24.2
	9:12	-18.2	-22.0	-22.0	20.4	-18.2	-22.0	-22.0	20.4	-22.3	-27.0	-27.0	24.1
	10:12	-18.2	-22.1	-22.1	20.2	-18.2	-22.1	-22.1	20.2	-22.3	-27.0	-27.0	24.0
	11:12	-18.3	-22.1	-22.1	20.1	-18.3	-22.1	-22.1	20.1	-22.4	-27.1	-27.1	23.8
	12:12	-18.3	-22.2	-22.2	20.0	-18.3	-22.2	-22.2	20.0	-22.4	-27.1	-27.1	23.7
Exposure Category C	1:12	-22.1	-40.7	-64.1	13.4	-25.6	-47.1	-74.0	13.4	-29.7	-54.6	-85.6	13.4
	2:12	-19.7	-38.4	-59.4	15.5	-22.9	-44.5	-68.7	17.2	-26.7	-51.5	-79.4	19.3
	3:12	-19.8	-38.4	-59.4	15.4	-23.0	-44.5	-68.7	17.2	-26.7	-51.5	-79.4	19.2
	4:12	-19.8	-38.4	-59.4	15.3	-23.0	-44.5	-68.7	17.1	-26.7	-51.5	-79.4	19.2
	5:12	-19.8	-38.5	-59.5	15.2	-23.0	-44.5	-68.8	17.0	-26.7	-51.5	-79.5	19.1
	6:12	-19.9	-38.5	-59.5	15.1	-23.1	-44.6	-68.8	16.9	-26.8	-51.6	-79.5	19.0
	7:12	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5	-29.9	-36.1	-36.1	31.2
	8:12	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4	-30.0	-36.2	-36.2	31.1
	9:12	-22.3	-27.0	-27.0	24.1	-25.9	-31.3	-31.3	27.3	-30.0	-36.2	-36.2	31.0
	10:12	-22.3	-27.0	-27.0	24.0	-25.9	-31.3	-31.3	27.2	-30.0	-36.2	-36.2	30.9
	11:12	-22.4	-27.1	-27.1	23.8	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
	12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
Exposure Category D	1:12	-27.0	-49.6	-77.9	13.4	-30.6	-56.0	-87.9	13.4	-34.7	-63.4	-99.4	14.6
	2:12	-24.2	-46.8	-72.2	17.9	-27.4	-52.9	-81.5	19.7	-31.1	-59.9	-92.2	21.8
	3:12	-24.2	-46.8	-72.3	17.9	-27.4	-52.9	-81.5	19.7	-31.1	-59.9	-92.2	21.7
	4:12	-24.2	-46.8	-72.3	17.8	-27.4	-52.9	-81.6	19.6	-31.1	-59.9	-92.3	21.6
	5:12	-24.3	-46.9	-72.3	17.7	-27.5	-52.9	-81.6	19.5	-31.2	-59.9	-92.3	21.5
	6:12	-24.3	-46.9	-72.4	17.6	-27.5	-53.0	-81.6	19.4	-31.2	-60.0	-92.3	21.4
	7:12	-27.2	-32.8	-32.8	28.8	-30.7	-37.1	-37.1	32.0	-34.9	-42.0	-42.0	35.7
	8:12	-27.2	-32.9	-32.9	28.6	-30.8	-37.1	-37.1	31.9	-34.9	-42.1	-42.1	35.6
	9:12	-27.2	-32.9	-32.9	28.5	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
	10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
	11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
	12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
	2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
	3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
	4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
	5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
	6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
	7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
	8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
	9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
	10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
	11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed **145 mph**
Ground Snow Load **5 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-17.9	-33.3	-52.5	14.8	-17.9	-33.3	-52.5	14.8	-22.1	-40.7	-64.1	14.8
2:12	-16.0	-31.4	-48.7	14.4	-16.0	-31.4	-48.7	14.4	-19.7	-38.4	-59.4	15.9
3:12	-16.0	-31.4	-48.7	14.0	-16.0	-31.4	-48.7	14.0	-19.8	-38.4	-59.4	15.5
4:12	-16.1	-31.4	-48.7	13.3	-16.1	-31.4	-48.7	13.3	-19.8	-38.4	-59.4	15.3
5:12	-16.1	-31.5	-48.8	13.2	-16.1	-31.5	-48.8	13.2	-19.8	-38.5	-59.5	15.2
6:12	-16.1	-31.5	-48.8	13.0	-16.1	-31.5	-48.8	13.0	-19.9	-38.5	-59.5	15.1
7:12	-18.1	-21.9	-21.9	20.6	-18.1	-21.9	-21.9	20.6	-22.2	-26.9	-26.9	24.3
8:12	-18.1	-22.0	-22.0	20.5	-18.1	-22.0	-22.0	20.5	-22.3	-26.9	-26.9	24.2
9:12	-18.2	-22.0	-22.0	20.4	-18.2	-22.0	-22.0	20.4	-22.3	-27.0	-27.0	24.1
10:12	-18.2	-22.1	-22.1	20.2	-18.2	-22.1	-22.1	20.2	-22.3	-27.0	-27.0	24.0
11:12	-18.3	-22.1	-22.1	20.1	-18.3	-22.1	-22.1	20.1	-22.4	-27.1	-27.1	23.8
12:12	-18.3	-22.2	-22.2	20.0	-18.3	-22.2	-22.2	20.0	-22.4	-27.1	-27.1	23.7
1:12	-22.1	-40.7	-64.1	14.8	-25.6	-47.1	-74.0	14.8	-29.7	-54.6	-85.6	14.8
2:12	-19.7	-38.4	-59.4	15.9	-22.9	-44.5	-68.7	17.3	-26.7	-51.5	-79.4	19.3
3:12	-19.8	-38.4	-59.4	15.5	-23.0	-44.5	-68.7	17.2	-26.7	-51.5	-79.4	19.2
4:12	-19.8	-38.4	-59.4	15.3	-23.0	-44.5	-68.7	17.1	-26.7	-51.5	-79.4	19.2
5:12	-19.8	-38.5	-59.5	15.2	-23.0	-44.5	-68.8	17.0	-26.7	-51.5	-79.5	19.1
6:12	-19.9	-38.5	-59.5	15.1	-23.1	-44.6	-68.8	16.9	-26.8	-51.6	-79.5	19.0
7:12	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5	-29.9	-36.1	-36.1	31.2
8:12	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4	-30.0	-36.2	-36.2	31.1
9:12	-22.3	-27.0	-27.0	24.1	-25.9	-31.3	-31.3	27.3	-30.0	-36.2	-36.2	31.0
10:12	-22.3	-27.0	-27.0	24.0	-25.9	-31.3	-31.3	27.2	-30.0	-36.2	-36.2	30.9
11:12	-22.4	-27.1	-27.1	23.8	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
1:12	-27.0	-49.6	-77.9	14.8	-30.6	-56.0	-87.9	14.8	-34.7	-63.4	-99.4	15.6
2:12	-24.2	-46.8	-72.2	17.9	-27.4	-52.9	-81.5	19.7	-31.1	-59.9	-92.2	21.8
3:12	-24.2	-46.8	-72.3	17.9	-27.4	-52.9	-81.5	19.7	-31.1	-59.9	-92.2	21.7
4:12	-24.2	-46.8	-72.3	17.8	-27.4	-52.9	-81.6	19.6	-31.1	-59.9	-92.3	21.6
5:12	-24.3	-46.9	-72.3	17.7	-27.5	-52.9	-81.6	19.5	-31.2	-59.9	-92.3	21.5
6:12	-24.3	-46.9	-72.4	17.6	-27.5	-53.0	-81.6	19.4	-31.2	-60.0	-92.3	21.4
7:12	-27.2	-32.8	-32.8	28.8	-30.7	-37.1	-37.1	32.0	-34.9	-42.0	-42.0	35.7
8:12	-27.2	-32.9	-32.9	28.6	-30.8	-37.1	-37.1	31.9	-34.9	-42.1	-42.1	35.6
9:12	-27.2	-32.9	-32.9	28.5	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

145 mph

Ground Snow Load

10 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.9	-33.3	-52.5	18.5	-17.9	-33.3	-52.5	18.5	-22.1	-40.7	-64.1	18.5
2:12	-16.0	-31.4	-48.7	17.8	-16.0	-31.4	-48.7	17.8	-19.7	-38.4	-59.4	19.3
3:12	-16.0	-31.4	-48.7	17.0	-16.0	-31.4	-48.7	17.0	-19.8	-38.4	-59.4	18.6
4:12	-16.1	-31.4	-48.7	14.6	-16.1	-31.4	-48.7	14.6	-19.8	-38.4	-59.4	16.1
5:12	-16.1	-31.5	-48.8	14.0	-16.1	-31.5	-48.8	14.0	-19.8	-38.5	-59.5	15.6
6:12	-16.1	-31.5	-48.8	13.5	-16.1	-31.5	-48.8	13.5	-19.9	-38.5	-59.5	15.1
7:12	-18.1	-21.9	-21.9	20.6	-18.1	-21.9	-21.9	20.6	-22.2	-26.9	-26.9	24.3
8:12	-18.1	-22.0	-22.0	20.5	-18.1	-22.0	-22.0	20.5	-22.3	-26.9	-26.9	24.2
9:12	-18.2	-22.0	-22.0	20.4	-18.2	-22.0	-22.0	20.4	-22.3	-27.0	-27.0	24.1
10:12	-18.2	-22.1	-22.1	20.2	-18.2	-22.1	-22.1	20.2	-22.3	-27.0	-27.0	24.0
11:12	-18.3	-22.1	-22.1	20.1	-18.3	-22.1	-22.1	20.1	-22.4	-27.1	-27.1	23.8
12:12	-18.3	-22.2	-22.2	20.0	-18.3	-22.2	-22.2	20.0	-22.4	-27.1	-27.1	23.7
Exposure Category C												
1:12	-22.1	-40.7	-64.1	18.5	-25.6	-47.1	-74.0	18.5	-29.7	-54.6	-85.6	18.5
2:12	-19.7	-38.4	-59.4	19.3	-22.9	-44.5	-68.7	20.7	-26.7	-51.5	-79.4	22.2
3:12	-19.8	-38.4	-59.4	18.6	-23.0	-44.5	-68.7	19.9	-26.7	-51.5	-79.4	21.4
4:12	-19.8	-38.4	-59.4	16.1	-23.0	-44.5	-68.7	17.5	-26.7	-51.5	-79.4	19.2
5:12	-19.8	-38.5	-59.5	15.6	-23.0	-44.5	-68.8	17.0	-26.7	-51.5	-79.5	19.1
6:12	-19.9	-38.5	-59.5	15.1	-23.1	-44.6	-68.8	16.9	-26.8	-51.6	-79.5	19.0
7:12	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5	-29.9	-36.1	-36.1	31.2
8:12	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4	-30.0	-36.2	-36.2	31.1
9:12	-22.3	-27.0	-27.0	24.1	-25.9	-31.3	-31.3	27.3	-30.0	-36.2	-36.2	31.0
10:12	-22.3	-27.0	-27.0	24.0	-25.9	-31.3	-31.3	27.2	-30.0	-36.2	-36.2	30.9
11:12	-22.4	-27.1	-27.1	23.8	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
Exposure Category D												
1:12	-27.0	-49.6	-77.9	18.5	-30.6	-56.0	-87.9	18.5	-34.7	-63.4	-99.4	19.4
2:12	-24.2	-46.8	-72.2	21.2	-27.4	-52.9	-81.5	22.5	-31.1	-59.9	-92.2	24.1
3:12	-24.2	-46.8	-72.3	20.4	-27.4	-52.9	-81.5	21.8	-31.1	-59.9	-92.2	23.3
4:12	-24.2	-46.8	-72.3	17.8	-27.4	-52.9	-81.6	19.6	-31.1	-59.9	-92.3	21.6
5:12	-24.3	-46.9	-72.3	17.7	-27.5	-52.9	-81.6	19.5	-31.2	-59.9	-92.3	21.5
6:12	-24.3	-46.9	-72.4	17.6	-27.5	-53.0	-81.6	19.4	-31.2	-60.0	-92.3	21.4
7:12	-27.2	-32.8	-32.8	28.8	-30.7	-37.1	-37.1	32.0	-34.9	-42.0	-42.0	35.7
8:12	-27.2	-32.9	-32.9	28.6	-30.8	-37.1	-37.1	31.9	-34.9	-42.1	-42.1	35.6
9:12	-27.2	-32.9	-32.9	28.5	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

145 mph

Ground Snow Load

15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.9	-33.3	-52.5	22.2	-17.9	-33.3	-52.5	22.2	-22.1	-40.7	-64.1	22.2
2:12	-16.0	-31.4	-48.7	21.2	-16.0	-31.4	-48.7	21.2	-19.7	-38.4	-59.4	22.7
3:12	-16.0	-31.4	-48.7	20.1	-16.0	-31.4	-48.7	20.1	-19.8	-38.4	-59.4	21.6
4:12	-16.1	-31.4	-48.7	16.5	-16.1	-31.4	-48.7	16.5	-19.8	-38.4	-59.4	18.0
5:12	-16.1	-31.5	-48.8	15.6	-16.1	-31.5	-48.8	15.6	-19.8	-38.5	-59.5	17.2
6:12	-16.1	-31.5	-48.8	14.9	-16.1	-31.5	-48.8	14.9	-19.9	-38.5	-59.5	16.4
7:12	-18.1	-21.9	-21.9	20.6	-18.1	-21.9	-21.9	20.6	-22.2	-26.9	-26.9	24.3
8:12	-18.1	-22.0	-22.0	20.5	-18.1	-22.0	-22.0	20.5	-22.3	-26.9	-26.9	24.2
9:12	-18.2	-22.0	-22.0	20.4	-18.2	-22.0	-22.0	20.4	-22.3	-27.0	-27.0	24.1
10:12	-18.2	-22.1	-22.1	20.2	-18.2	-22.1	-22.1	20.2	-22.3	-27.0	-27.0	24.0
11:12	-18.3	-22.1	-22.1	20.1	-18.3	-22.1	-22.1	20.1	-22.4	-27.1	-27.1	23.8
12:12	-18.3	-22.2	-22.2	20.0	-18.3	-22.2	-22.2	20.0	-22.4	-27.1	-27.1	23.7
Exposure Category C												
1:12	-22.1	-40.7	-64.1	22.2	-25.6	-47.1	-74.0	22.2	-29.7	-54.6	-85.6	22.2
2:12	-19.7	-38.4	-59.4	22.7	-22.9	-44.5	-68.7	24.1	-26.7	-51.5	-79.4	25.6
3:12	-19.8	-38.4	-59.4	21.6	-23.0	-44.5	-68.7	22.9	-26.7	-51.5	-79.4	24.5
4:12	-19.8	-38.4	-59.4	18.0	-23.0	-44.5	-68.7	19.4	-26.7	-51.5	-79.4	20.9
5:12	-19.8	-38.5	-59.5	17.2	-23.0	-44.5	-68.8	18.5	-26.7	-51.5	-79.5	20.1
6:12	-19.9	-38.5	-59.5	16.4	-23.1	-44.6	-68.8	17.7	-26.8	-51.6	-79.5	19.3
7:12	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5	-29.9	-36.1	-36.1	31.2
8:12	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4	-30.0	-36.2	-36.2	31.1
9:12	-22.3	-27.0	-27.0	24.1	-25.9	-31.3	-31.3	27.3	-30.0	-36.2	-36.2	31.0
10:12	-22.3	-27.0	-27.0	24.0	-25.9	-31.3	-31.3	27.2	-30.0	-36.2	-36.2	30.9
11:12	-22.4	-27.1	-27.1	23.8	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
Exposure Category D												
1:12	-27.0	-49.6	-77.9	22.2	-30.6	-56.0	-87.9	22.2	-34.7	-63.4	-99.4	23.1
2:12	-24.2	-46.8	-72.2	24.6	-27.4	-52.9	-81.5	25.9	-31.1	-59.9	-92.2	27.5
3:12	-24.2	-46.8	-72.3	23.5	-27.4	-52.9	-81.5	24.8	-31.1	-59.9	-92.2	26.3
4:12	-24.2	-46.8	-72.3	19.3	-27.4	-52.9	-81.6	20.7	-31.1	-59.9	-92.3	22.2
5:12	-24.3	-46.9	-72.3	18.6	-27.5	-52.9	-81.6	19.9	-31.2	-59.9	-92.3	21.5
6:12	-24.3	-46.9	-72.4	17.8	-27.5	-53.0	-81.6	19.4	-31.2	-60.0	-92.3	21.4
7:12	-27.2	-32.8	-32.8	28.8	-30.7	-37.1	-37.1	32.0	-34.9	-42.0	-42.0	35.7
8:12	-27.2	-32.9	-32.9	28.6	-30.8	-37.1	-37.1	31.9	-34.9	-42.1	-42.1	35.6
9:12	-27.2	-32.9	-32.9	28.5	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-17.9	-33.3	-52.5	25.9	-17.9	-33.3	-52.5	25.9	-22.1	-40.7	-64.1	25.9
	2:12	-16.0	-31.4	-48.7	24.6	-16.0	-31.4	-48.7	24.6	-19.7	-38.4	-59.4	26.1
	3:12	-16.0	-31.4	-48.7	23.1	-16.0	-31.4	-48.7	23.1	-19.8	-38.4	-59.4	24.6
	4:12	-16.1	-31.4	-48.7	18.4	-16.1	-31.4	-48.7	18.4	-19.8	-38.4	-59.4	19.9
	5:12	-16.1	-31.5	-48.8	17.3	-16.1	-31.5	-48.8	17.3	-19.8	-38.5	-59.5	18.8
	6:12	-16.1	-31.5	-48.8	16.3	-16.1	-31.5	-48.8	16.3	-19.9	-38.5	-59.5	17.8
	7:12	-18.1	-21.9	-21.9	21.1	-18.1	-21.9	-21.9	21.1	-22.2	-26.9	-26.9	24.3
	8:12	-18.1	-22.0	-22.0	20.5	-18.1	-22.0	-22.0	20.5	-22.3	-26.9	-26.9	24.2
	9:12	-18.2	-22.0	-22.0	20.4	-18.2	-22.0	-22.0	20.4	-22.3	-27.0	-27.0	24.1
	10:12	-18.2	-22.1	-22.1	20.2	-18.2	-22.1	-22.1	20.2	-22.3	-27.0	-27.0	24.0
	11:12	-18.3	-22.1	-22.1	20.1	-18.3	-22.1	-22.1	20.1	-22.4	-27.1	-27.1	23.8
	12:12	-18.3	-22.2	-22.2	20.0	-18.3	-22.2	-22.2	20.0	-22.4	-27.1	-27.1	23.7
Exposure Category C	1:12	-22.1	-40.7	-64.1	25.9	-25.6	-47.1	-74.0	25.9	-29.7	-54.6	-85.6	25.9
	2:12	-19.7	-38.4	-59.4	26.1	-22.9	-44.5	-68.7	27.5	-26.7	-51.5	-79.4	29.0
	3:12	-19.8	-38.4	-59.4	24.6	-23.0	-44.5	-68.7	26.0	-26.7	-51.5	-79.4	27.5
	4:12	-19.8	-38.4	-59.4	19.9	-23.0	-44.5	-68.7	21.2	-26.7	-51.5	-79.4	22.8
	5:12	-19.8	-38.5	-59.5	18.8	-23.0	-44.5	-68.8	20.2	-26.7	-51.5	-79.5	21.7
	6:12	-19.9	-38.5	-59.5	17.8	-23.1	-44.6	-68.8	19.1	-26.8	-51.6	-79.5	20.7
	7:12	-22.2	-26.9	-26.9	24.3	-25.8	-31.2	-31.2	27.5	-29.9	-36.1	-36.1	31.2
	8:12	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4	-30.0	-36.2	-36.2	31.1
	9:12	-22.3	-27.0	-27.0	24.1	-25.9	-31.3	-31.3	27.3	-30.0	-36.2	-36.2	31.0
	10:12	-22.3	-27.0	-27.0	24.0	-25.9	-31.3	-31.3	27.2	-30.0	-36.2	-36.2	30.9
	11:12	-22.4	-27.1	-27.1	23.8	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
	12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
Exposure Category D	1:12	-27.0	-49.6	-77.9	25.9	-30.6	-56.0	-87.9	25.9	-34.7	-63.4	-99.4	26.8
	2:12	-24.2	-46.8	-72.2	28.0	-27.4	-52.9	-81.5	29.3	-31.1	-59.9	-92.2	30.9
	3:12	-24.2	-46.8	-72.3	26.5	-27.4	-52.9	-81.5	27.8	-31.1	-59.9	-92.2	29.4
	4:12	-24.2	-46.8	-72.3	21.0	-27.4	-52.9	-81.6	22.3	-31.1	-59.9	-92.3	23.9
	5:12	-24.3	-46.9	-72.3	20.0	-27.5	-52.9	-81.6	21.4	-31.2	-59.9	-92.3	22.9
	6:12	-24.3	-46.9	-72.4	19.1	-27.5	-53.0	-81.6	20.4	-31.2	-60.0	-92.3	22.0
	7:12	-27.2	-32.8	-32.8	28.8	-30.7	-37.1	-37.1	32.0	-34.9	-42.0	-42.0	35.7
	8:12	-27.2	-32.9	-32.9	28.6	-30.8	-37.1	-37.1	31.9	-34.9	-42.1	-42.1	35.6
	9:12	-27.2	-32.9	-32.9	28.5	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
	10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
	11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
	12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **145 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

145 mph

Ground Snow Load

25 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.9	-33.3	-52.5	25.9	-17.9	-33.3	-52.5	25.9	-22.1	-40.7	-64.1	25.9
2:12	-16.0	-31.4	-48.7	24.6	-16.0	-31.4	-48.7	24.6	-19.7	-38.4	-59.4	26.1
3:12	-16.0	-31.4	-48.7	23.1	-16.0	-31.4	-48.7	23.1	-19.8	-38.4	-59.4	24.6
4:12	-16.1	-31.4	-48.7	20.2	-16.1	-31.4	-48.7	20.2	-19.8	-38.4	-59.4	21.8
5:12	-16.1	-31.5	-48.8	18.9	-16.1	-31.5	-48.8	18.9	-19.8	-38.5	-59.5	20.5
6:12	-16.1	-31.5	-48.8	17.7	-16.1	-31.5	-48.8	17.7	-19.9	-38.5	-59.5	19.2
7:12	-18.1	-21.9	-21.9	22.3	-18.1	-21.9	-21.9	22.3	-22.2	-26.9	-26.9	25.1
8:12	-18.1	-22.0	-22.0	21.2	-18.1	-22.0	-22.0	21.2	-22.3	-26.9	-26.9	24.2
9:12	-18.2	-22.0	-22.0	20.4	-18.2	-22.0	-22.0	20.4	-22.3	-27.0	-27.0	24.1
10:12	-18.2	-22.1	-22.1	20.2	-18.2	-22.1	-22.1	20.2	-22.3	-27.0	-27.0	24.0
11:12	-18.3	-22.1	-22.1	20.1	-18.3	-22.1	-22.1	20.1	-22.4	-27.1	-27.1	23.8
12:12	-18.3	-22.2	-22.2	20.0	-18.3	-22.2	-22.2	20.0	-22.4	-27.1	-27.1	23.7
Exposure Category C												
1:12	-22.1	-40.7	-64.1	25.9	-25.6	-47.1	-74.0	25.9	-29.7	-54.6	-85.6	25.9
2:12	-19.7	-38.4	-59.4	26.1	-22.9	-44.5	-68.7	27.5	-26.7	-51.5	-79.4	29.0
3:12	-19.8	-38.4	-59.4	24.6	-23.0	-44.5	-68.7	26.0	-26.7	-51.5	-79.4	27.5
4:12	-19.8	-38.4	-59.4	21.8	-23.0	-44.5	-68.7	23.1	-26.7	-51.5	-79.4	24.7
5:12	-19.8	-38.5	-59.5	20.5	-23.0	-44.5	-68.8	21.8	-26.7	-51.5	-79.5	23.3
6:12	-19.9	-38.5	-59.5	19.2	-23.1	-44.6	-68.8	20.5	-26.8	-51.6	-79.5	22.1
7:12	-22.2	-26.9	-26.9	25.1	-25.8	-31.2	-31.2	27.5	-29.9	-36.1	-36.1	31.2
8:12	-22.3	-26.9	-26.9	24.2	-25.8	-31.2	-31.2	27.4	-30.0	-36.2	-36.2	31.1
9:12	-22.3	-27.0	-27.0	24.1	-25.9	-31.3	-31.3	27.3	-30.0	-36.2	-36.2	31.0
10:12	-22.3	-27.0	-27.0	24.0	-25.9	-31.3	-31.3	27.2	-30.0	-36.2	-36.2	30.9
11:12	-22.4	-27.1	-27.1	23.8	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
Exposure Category D												
1:12	-27.0	-49.6	-77.9	25.9	-30.6	-56.0	-87.9	25.9	-34.7	-63.4	-99.4	26.8
2:12	-24.2	-46.8	-72.2	28.0	-27.4	-52.9	-81.5	29.3	-31.1	-59.9	-92.2	30.9
3:12	-24.2	-46.8	-72.3	26.5	-27.4	-52.9	-81.5	27.8	-31.1	-59.9	-92.2	29.4
4:12	-24.2	-46.8	-72.3	22.7	-27.4	-52.9	-81.6	24.0	-31.1	-59.9	-92.3	25.6
5:12	-24.3	-46.9	-72.3	21.5	-27.5	-52.9	-81.6	22.8	-31.2	-59.9	-92.3	24.4
6:12	-24.3	-46.9	-72.4	20.4	-27.5	-53.0	-81.6	21.7	-31.2	-60.0	-92.3	23.2
7:12	-27.2	-32.8	-32.8	28.8	-30.7	-37.1	-37.1	32.0	-34.9	-42.0	-42.0	35.7
8:12	-27.2	-32.9	-32.9	28.6	-30.8	-37.1	-37.1	31.9	-34.9	-42.1	-42.1	35.6
9:12	-27.2	-32.9	-32.9	28.5	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

145 mph

Ground Snow Load

30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.9	-33.3	-52.5	26.7	-17.9	-33.3	-52.5	26.7	-22.1	-40.7	-64.1	26.7
2:12	-16.0	-31.4	-48.7	25.3	-16.0	-31.4	-48.7	25.3	-19.7	-38.4	-59.4	26.8
3:12	-16.0	-31.4	-48.7	23.7	-16.0	-31.4	-48.7	23.7	-19.8	-38.4	-59.4	25.2
4:12	-16.1	-31.4	-48.7	22.1	-16.1	-31.4	-48.7	22.1	-19.8	-38.4	-59.4	23.6
5:12	-16.1	-31.5	-48.8	20.5	-16.1	-31.5	-48.8	20.5	-19.8	-38.5	-59.5	22.1
6:12	-16.1	-31.5	-48.8	19.1	-16.1	-31.5	-48.8	19.1	-19.9	-38.5	-59.5	20.6
7:12	-18.1	-21.9	-21.9	23.5	-18.1	-21.9	-21.9	23.5	-22.2	-26.9	-26.9	26.3
8:12	-18.1	-22.0	-22.0	22.3	-18.1	-22.0	-22.0	22.3	-22.3	-26.9	-26.9	25.0
9:12	-18.2	-22.0	-22.0	21.2	-18.2	-22.0	-22.0	21.2	-22.3	-27.0	-27.0	24.1
10:12	-18.2	-22.1	-22.1	20.2	-18.2	-22.1	-22.1	20.2	-22.3	-27.0	-27.0	24.0
11:12	-18.3	-22.1	-22.1	20.1	-18.3	-22.1	-22.1	20.1	-22.4	-27.1	-27.1	23.8
12:12	-18.3	-22.2	-22.2	20.0	-18.3	-22.2	-22.2	20.0	-22.4	-27.1	-27.1	23.7
Exposure Category C												
1:12	-22.1	-40.7	-64.1	26.7	-25.6	-47.1	-74.0	26.7	-29.7	-54.6	-85.6	26.7
2:12	-19.7	-38.4	-59.4	26.8	-22.9	-44.5	-68.7	28.2	-26.7	-51.5	-79.4	29.7
3:12	-19.8	-38.4	-59.4	25.2	-23.0	-44.5	-68.7	26.6	-26.7	-51.5	-79.4	28.1
4:12	-19.8	-38.4	-59.4	23.6	-23.0	-44.5	-68.7	25.0	-26.7	-51.5	-79.4	26.5
5:12	-19.8	-38.5	-59.5	22.1	-23.0	-44.5	-68.8	23.4	-26.7	-51.5	-79.5	25.0
6:12	-19.9	-38.5	-59.5	20.6	-23.1	-44.6	-68.8	21.9	-26.8	-51.6	-79.5	23.5
7:12	-22.2	-26.9	-26.9	26.3	-25.8	-31.2	-31.2	28.7	-29.9	-36.1	-36.1	31.4
8:12	-22.3	-26.9	-26.9	25.0	-25.8	-31.2	-31.2	27.5	-30.0	-36.2	-36.2	31.1
9:12	-22.3	-27.0	-27.0	24.1	-25.9	-31.3	-31.3	27.3	-30.0	-36.2	-36.2	31.0
10:12	-22.3	-27.0	-27.0	24.0	-25.9	-31.3	-31.3	27.2	-30.0	-36.2	-36.2	30.9
11:12	-22.4	-27.1	-27.1	23.8	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
Exposure Category D												
1:12	-27.0	-49.6	-77.9	25.9	-30.6	-56.0	-87.9	25.9	-34.7	-63.4	-99.4	26.8
2:12	-24.2	-46.8	-72.2	28.0	-27.4	-52.9	-81.5	29.3	-31.1	-59.9	-92.2	30.9
3:12	-24.2	-46.8	-72.3	26.5	-27.4	-52.9	-81.5	27.8	-31.1	-59.9	-92.2	29.4
4:12	-24.2	-46.8	-72.3	24.4	-27.4	-52.9	-81.6	25.7	-31.1	-59.9	-92.3	27.3
5:12	-24.3	-46.9	-72.3	23.0	-27.5	-52.9	-81.6	24.3	-31.2	-59.9	-92.3	25.8
6:12	-24.3	-46.9	-72.4	21.6	-27.5	-53.0	-81.6	23.0	-31.2	-60.0	-92.3	24.5
7:12	-27.2	-32.8	-32.8	28.9	-30.7	-37.1	-37.1	32.0	-34.9	-42.0	-42.0	35.7
8:12	-27.2	-32.9	-32.9	28.6	-30.8	-37.1	-37.1	31.9	-34.9	-42.1	-42.1	35.6
9:12	-27.2	-32.9	-32.9	28.5	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

145 mph

Ground Snow Load

35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.9	-33.3	-52.5	29.3	-17.9	-33.3	-52.5	29.3	-22.1	-40.7	-64.1	29.3
2:12	-16.0	-31.4	-48.7	27.7	-16.0	-31.4	-48.7	27.7	-19.7	-38.4	-59.4	29.2
3:12	-16.0	-31.4	-48.7	25.8	-16.0	-31.4	-48.7	25.8	-19.8	-38.4	-59.4	27.4
4:12	-16.1	-31.4	-48.7	24.0	-16.1	-31.4	-48.7	24.0	-19.8	-38.4	-59.4	25.5
5:12	-16.1	-31.5	-48.8	22.2	-16.1	-31.5	-48.8	22.2	-19.8	-38.5	-59.5	23.7
6:12	-16.1	-31.5	-48.8	20.5	-16.1	-31.5	-48.8	20.5	-19.9	-38.5	-59.5	22.0
7:12	-18.1	-21.9	-21.9	24.7	-18.1	-21.9	-21.9	24.7	-22.2	-26.9	-26.9	27.5
8:12	-18.1	-22.0	-22.0	23.3	-18.1	-22.0	-22.0	23.3	-22.3	-26.9	-26.9	26.1
9:12	-18.2	-22.0	-22.0	22.0	-18.2	-22.0	-22.0	22.0	-22.3	-27.0	-27.0	24.8
10:12	-18.2	-22.1	-22.1	21.0	-18.2	-22.1	-22.1	21.0	-22.3	-27.0	-27.0	24.0
11:12	-18.3	-22.1	-22.1	20.1	-18.3	-22.1	-22.1	20.1	-22.4	-27.1	-27.1	23.8
12:12	-18.3	-22.2	-22.2	20.0	-18.3	-22.2	-22.2	20.0	-22.4	-27.1	-27.1	23.7
Exposure Category C												
1:12	-22.1	-40.7	-64.1	29.3	-25.6	-47.1	-74.0	29.3	-29.7	-54.6	-85.6	29.3
2:12	-19.7	-38.4	-59.4	29.2	-22.9	-44.5	-68.7	30.5	-26.7	-51.5	-79.4	32.1
3:12	-19.8	-38.4	-59.4	27.4	-23.0	-44.5	-68.7	28.7	-26.7	-51.5	-79.4	30.3
4:12	-19.8	-38.4	-59.4	25.5	-23.0	-44.5	-68.7	26.9	-26.7	-51.5	-79.4	28.4
5:12	-19.8	-38.5	-59.5	23.7	-23.0	-44.5	-68.8	25.1	-26.7	-51.5	-79.5	26.6
6:12	-19.9	-38.5	-59.5	22.0	-23.1	-44.6	-68.8	23.4	-26.8	-51.6	-79.5	24.9
7:12	-22.2	-26.9	-26.9	27.5	-25.8	-31.2	-31.2	29.9	-29.9	-36.1	-36.1	32.6
8:12	-22.3	-26.9	-26.9	26.1	-25.8	-31.2	-31.2	28.5	-30.0	-36.2	-36.2	31.2
9:12	-22.3	-27.0	-27.0	24.8	-25.9	-31.3	-31.3	27.3	-30.0	-36.2	-36.2	31.0
10:12	-22.3	-27.0	-27.0	24.0	-25.9	-31.3	-31.3	27.2	-30.0	-36.2	-36.2	30.9
11:12	-22.4	-27.1	-27.1	23.8	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
Exposure Category D												
1:12	-27.0	-49.6	-77.9	27.5	-30.6	-56.0	-87.9	27.5	-34.7	-63.4	-99.4	28.3
2:12	-24.2	-46.8	-72.2	29.4	-27.4	-52.9	-81.5	30.7	-31.1	-59.9	-92.2	32.3
3:12	-24.2	-46.8	-72.3	27.7	-27.4	-52.9	-81.5	29.1	-31.1	-59.9	-92.2	30.6
4:12	-24.2	-46.8	-72.3	26.1	-27.4	-52.9	-81.6	27.4	-31.1	-59.9	-92.3	28.9
5:12	-24.3	-46.9	-72.3	24.4	-27.5	-52.9	-81.6	25.8	-31.2	-59.9	-92.3	27.3
6:12	-24.3	-46.9	-72.4	22.9	-27.5	-53.0	-81.6	24.2	-31.2	-60.0	-92.3	25.8
7:12	-27.2	-32.8	-32.8	30.0	-30.7	-37.1	-37.1	32.4	-34.9	-42.0	-42.0	35.7
8:12	-27.2	-32.9	-32.9	28.7	-30.8	-37.1	-37.1	31.9	-34.9	-42.1	-42.1	35.6
9:12	-27.2	-32.9	-32.9	28.5	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
145 mph

Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-17.9	-33.3	-52.5	31.9	-17.9	-33.3	-52.5	31.9	-22.1	-40.7	-64.1	31.9
	2:12	-16.0	-31.4	-48.7	30.0	-16.0	-31.4	-48.7	30.0	-19.7	-38.4	-59.4	31.6
	3:12	-16.0	-31.4	-48.7	28.0	-16.0	-31.4	-48.7	28.0	-19.8	-38.4	-59.4	29.5
	4:12	-16.1	-31.4	-48.7	25.8	-16.1	-31.4	-48.7	25.8	-19.8	-38.4	-59.4	27.4
	5:12	-16.1	-31.5	-48.8	23.8	-16.1	-31.5	-48.8	23.8	-19.8	-38.5	-59.5	25.3
	6:12	-16.1	-31.5	-48.8	21.9	-16.1	-31.5	-48.8	21.9	-19.9	-38.5	-59.5	23.4
	7:12	-18.1	-21.9	-21.9	25.9	-18.1	-21.9	-21.9	25.9	-22.2	-26.9	-26.9	28.7
	8:12	-18.1	-22.0	-22.0	24.3	-18.1	-22.0	-22.0	24.3	-22.3	-26.9	-26.9	27.1
	9:12	-18.2	-22.0	-22.0	22.9	-18.2	-22.0	-22.0	22.9	-22.3	-27.0	-27.0	25.7
	10:12	-18.2	-22.1	-22.1	21.7	-18.2	-22.1	-22.1	21.7	-22.3	-27.0	-27.0	24.5
	11:12	-18.3	-22.1	-22.1	20.6	-18.3	-22.1	-22.1	20.6	-22.4	-27.1	-27.1	23.8
	12:12	-18.3	-22.2	-22.2	20.0	-18.3	-22.2	-22.2	20.0	-22.4	-27.1	-27.1	23.7
Exposure Category C	1:12	-22.1	-40.7	-64.1	31.9	-25.6	-47.1	-74.0	31.9	-29.7	-54.6	-85.6	31.9
	2:12	-19.7	-38.4	-59.4	31.6	-22.9	-44.5	-68.7	32.9	-26.7	-51.5	-79.4	34.5
	3:12	-19.8	-38.4	-59.4	29.5	-23.0	-44.5	-68.7	30.8	-26.7	-51.5	-79.4	32.4
	4:12	-19.8	-38.4	-59.4	27.4	-23.0	-44.5	-68.7	28.7	-26.7	-51.5	-79.4	30.3
	5:12	-19.8	-38.5	-59.5	25.3	-23.0	-44.5	-68.8	26.7	-26.7	-51.5	-79.5	28.2
	6:12	-19.9	-38.5	-59.5	23.4	-23.1	-44.6	-68.8	24.8	-26.8	-51.6	-79.5	26.3
	7:12	-22.2	-26.9	-26.9	28.7	-25.8	-31.2	-31.2	31.1	-29.9	-36.1	-36.1	33.8
	8:12	-22.3	-26.9	-26.9	27.1	-25.8	-31.2	-31.2	29.5	-30.0	-36.2	-36.2	32.3
	9:12	-22.3	-27.0	-27.0	25.7	-25.9	-31.3	-31.3	28.1	-30.0	-36.2	-36.2	31.0
	10:12	-22.3	-27.0	-27.0	24.5	-25.9	-31.3	-31.3	27.2	-30.0	-36.2	-36.2	30.9
	11:12	-22.4	-27.1	-27.1	23.8	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
	12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
Exposure Category D	1:12	-27.0	-49.6	-77.9	29.8	-30.6	-56.0	-87.9	29.8	-34.7	-63.4	-99.4	30.7
	2:12	-24.2	-46.8	-72.2	31.5	-27.4	-52.9	-81.5	32.9	-31.1	-59.9	-92.2	34.4
	3:12	-24.2	-46.8	-72.3	29.7	-27.4	-52.9	-81.5	31.0	-31.1	-59.9	-92.2	32.5
	4:12	-24.2	-46.8	-72.3	27.7	-27.4	-52.9	-81.6	29.1	-31.1	-59.9	-92.3	30.6
	5:12	-24.3	-46.9	-72.3	25.9	-27.5	-52.9	-81.6	27.2	-31.2	-59.9	-92.3	28.8
	6:12	-24.3	-46.9	-72.4	24.1	-27.5	-53.0	-81.6	25.5	-31.2	-60.0	-92.3	27.0
	7:12	-27.2	-32.8	-32.8	31.0	-30.7	-37.1	-37.1	33.4	-34.9	-42.0	-42.0	36.2
	8:12	-27.2	-32.9	-32.9	29.6	-30.8	-37.1	-37.1	32.0	-34.9	-42.1	-42.1	35.6
	9:12	-27.2	-32.9	-32.9	28.5	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
	10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
	11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
	12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
	2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
	3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
	4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
	5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
	6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
	7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
	8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
	9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
	10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
	11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.7	9.1	9.7	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Table W145-S40

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-17.9	-33.3	-52.5	35.1	-17.9	-33.3	-52.5	35.1	-22.1	-40.7	-64.1	35.1
	2:12	-16.0	-31.4	-48.7	32.4	-16.0	-31.4	-48.7	32.4	-19.7	-38.4	-59.4	34.0
	3:12	-16.0	-31.4	-48.7	30.1	-16.0	-31.4	-48.7	30.1	-19.8	-38.4	-59.4	31.6
	4:12	-16.1	-31.4	-48.7	27.7	-16.1	-31.4	-48.7	27.7	-19.8	-38.4	-59.4	29.3
	5:12	-16.1	-31.5	-48.8	25.4	-16.1	-31.5	-48.8	25.4	-19.8	-38.5	-59.5	27.0
	6:12	-16.1	-31.5	-48.8	23.3	-16.1	-31.5	-48.8	23.3	-19.9	-38.5	-59.5	24.8
	7:12	-18.1	-21.9	-21.9	27.1	-18.1	-21.9	-21.9	27.1	-22.2	-26.9	-26.9	29.9
	8:12	-18.1	-22.0	-22.0	25.3	-18.1	-22.0	-22.0	25.3	-22.3	-26.9	-26.9	28.1
	9:12	-18.2	-22.0	-22.0	23.8	-18.2	-22.0	-22.0	23.8	-22.3	-27.0	-27.0	26.5
	10:12	-18.2	-22.1	-22.1	22.4	-18.2	-22.1	-22.1	22.4	-22.3	-27.0	-27.0	25.2
	11:12	-18.3	-22.1	-22.1	21.2	-18.3	-22.1	-22.1	21.2	-22.4	-27.1	-27.1	24.0
	12:12	-18.3	-22.2	-22.2	20.2	-18.3	-22.2	-22.2	20.2	-22.4	-27.1	-27.1	23.7
Exposure Category C	1:12	-22.1	-40.7	-64.1	35.1	-25.6	-47.1	-74.0	35.1	-29.7	-54.6	-85.6	35.1
	2:12	-19.7	-38.4	-59.4	34.0	-22.9	-44.5	-68.7	35.3	-26.7	-51.5	-79.4	36.8
	3:12	-19.8	-38.4	-59.4	31.6	-23.0	-44.5	-68.7	33.0	-26.7	-51.5	-79.4	34.5
	4:12	-19.8	-38.4	-59.4	29.3	-23.0	-44.5	-68.7	30.6	-26.7	-51.5	-79.4	32.1
	5:12	-19.8	-38.5	-59.5	27.0	-23.0	-44.5	-68.8	28.3	-26.7	-51.5	-79.5	29.9
	6:12	-19.9	-38.5	-59.5	24.8	-23.1	-44.6	-68.8	26.2	-26.8	-51.6	-79.5	27.7
	7:12	-22.2	-26.9	-26.9	29.9	-25.8	-31.2	-31.2	32.3	-29.9	-36.1	-36.1	35.0
	8:12	-22.3	-26.9	-26.9	28.1	-25.8	-31.2	-31.2	30.5	-30.0	-36.2	-36.2	33.3
	9:12	-22.3	-27.0	-27.0	26.5	-25.9	-31.3	-31.3	28.9	-30.0	-36.2	-36.2	31.7
	10:12	-22.3	-27.0	-27.0	25.2	-25.9	-31.3	-31.3	27.6	-30.0	-36.2	-36.2	30.9
	11:12	-22.4	-27.1	-27.1	24.0	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
	12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
Exposure Category D	1:12	-27.0	-49.6	-77.9	32.1	-30.6	-56.0	-87.9	32.1	-34.7	-63.4	-99.4	33.0
	2:12	-24.2	-46.8	-72.2	33.7	-27.4	-52.9	-81.5	35.0	-31.1	-59.9	-92.2	36.5
	3:12	-24.2	-46.8	-72.3	31.6	-27.4	-52.9	-81.5	32.9	-31.1	-59.9	-92.2	34.4
	4:12	-24.2	-46.8	-72.3	29.4	-27.4	-52.9	-81.6	30.8	-31.1	-59.9	-92.3	32.3
	5:12	-24.3	-46.9	-72.3	27.4	-27.5	-52.9	-81.6	28.7	-31.2	-59.9	-92.3	30.2
	6:12	-24.3	-46.9	-72.4	25.4	-27.5	-53.0	-81.6	26.7	-31.2	-60.0	-92.3	28.3
	7:12	-27.2	-32.8	-32.8	32.1	-30.7	-37.1	-37.1	34.5	-34.9	-42.0	-42.0	37.3
	8:12	-27.2	-32.9	-32.9	30.5	-30.8	-37.1	-37.1	32.9	-34.9	-42.1	-42.1	35.7
	9:12	-27.2	-32.9	-32.9	29.1	-30.8	-37.2	-37.2	31.7	-34.9	-42.1	-42.1	35.4
	10:12	-27.3	-32.9	-32.9	28.4	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
	11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
	12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
	3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
	4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
	5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
	6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
	7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
	8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
	9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
	10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
	11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	9.4	9.9	10.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
145 mph

Ground Snow Load
45 psf

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

 Basic Wind Speed
145 mph

 Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-17.9	-33.3	-52.5	38.6	-17.9	-33.3	-52.5	38.6	-22.1	-40.7	-64.1	38.6
2:12	-16.0	-31.4	-48.7	35.5	-16.0	-31.4	-48.7	35.5	-19.7	-38.4	-59.4	36.3
3:12	-16.0	-31.4	-48.7	32.2	-16.0	-31.4	-48.7	32.2	-19.8	-38.4	-59.4	33.8
4:12	-16.1	-31.4	-48.7	29.6	-16.1	-31.4	-48.7	29.6	-19.8	-38.4	-59.4	31.1
5:12	-16.1	-31.5	-48.8	27.1	-16.1	-31.5	-48.8	27.1	-19.8	-38.5	-59.5	28.6
6:12	-16.1	-31.5	-48.8	24.7	-16.1	-31.5	-48.8	24.7	-19.9	-38.5	-59.5	26.2
7:12	-18.1	-21.9	-21.9	28.3	-18.1	-21.9	-21.9	28.3	-22.2	-26.9	-26.9	31.0
8:12	-18.1	-22.0	-22.0	26.3	-18.1	-22.0	-22.0	26.3	-22.3	-26.9	-26.9	29.1
9:12	-18.2	-22.0	-22.0	24.6	-18.2	-22.0	-22.0	24.6	-22.3	-27.0	-27.0	27.4
10:12	-18.2	-22.1	-22.1	23.1	-18.2	-22.1	-22.1	23.1	-22.3	-27.0	-27.0	25.9
11:12	-18.3	-22.1	-22.1	21.8	-18.3	-22.1	-22.1	21.8	-22.4	-27.1	-27.1	24.6
12:12	-18.3	-22.2	-22.2	20.7	-18.3	-22.2	-22.2	20.7	-22.4	-27.1	-27.1	23.7
1:12	-22.1	-40.7	-64.1	38.6	-25.6	-47.1	-74.0	38.6	-29.7	-54.6	-85.6	38.6
2:12	-19.7	-38.4	-59.4	36.3	-22.9	-44.5	-68.7	37.7	-26.7	-51.5	-79.4	39.2
3:12	-19.8	-38.4	-59.4	33.8	-23.0	-44.5	-68.7	35.1	-26.7	-51.5	-79.4	36.6
4:12	-19.8	-38.4	-59.4	31.1	-23.0	-44.5	-68.7	32.5	-26.7	-51.5	-79.4	34.0
5:12	-19.8	-38.5	-59.5	28.6	-23.0	-44.5	-68.8	29.9	-26.7	-51.5	-79.5	31.5
6:12	-19.9	-38.5	-59.5	26.2	-23.1	-44.6	-68.8	27.6	-26.8	-51.6	-79.5	29.1
7:12	-22.2	-26.9	-26.9	31.0	-25.8	-31.2	-31.2	33.5	-29.9	-36.1	-36.1	36.2
8:12	-22.3	-26.9	-26.9	29.1	-25.8	-31.2	-31.2	31.5	-30.0	-36.2	-36.2	34.3
9:12	-22.3	-27.0	-27.0	27.4	-25.9	-31.3	-31.3	29.8	-30.0	-36.2	-36.2	32.6
10:12	-22.3	-27.0	-27.0	25.9	-25.9	-31.3	-31.3	28.3	-30.0	-36.2	-36.2	31.1
11:12	-22.4	-27.1	-27.1	24.6	-26.0	-31.3	-31.3	27.0	-30.1	-36.3	-36.3	30.8
12:12	-22.4	-27.1	-27.1	23.7	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6
1:12	-27.0	-49.6	-77.9	35.1	-30.6	-56.0	-87.9	35.1	-34.7	-63.4	-99.4	35.4
2:12	-24.2	-46.8	-72.2	35.8	-27.4	-52.9	-81.5	37.1	-31.1	-59.9	-92.2	38.7
3:12	-24.2	-46.8	-72.3	33.5	-27.4	-52.9	-81.5	34.8	-31.1	-59.9	-92.2	36.4
4:12	-24.2	-46.8	-72.3	31.1	-27.4	-52.9	-81.6	32.5	-31.1	-59.9	-92.3	34.0
5:12	-24.3	-46.9	-72.3	28.8	-27.5	-52.9	-81.6	30.2	-31.2	-59.9	-92.3	31.7
6:12	-24.3	-46.9	-72.4	26.7	-27.5	-53.0	-81.6	28.0	-31.2	-60.0	-92.3	29.6
7:12	-27.2	-32.8	-32.8	33.2	-30.7	-37.1	-37.1	35.6	-34.9	-42.0	-42.0	38.4
8:12	-27.2	-32.9	-32.9	31.4	-30.8	-37.1	-37.1	33.8	-34.9	-42.1	-42.1	36.6
9:12	-27.2	-32.9	-32.9	29.9	-30.8	-37.2	-37.2	32.3	-34.9	-42.1	-42.1	35.4
10:12	-27.3	-32.9	-32.9	28.5	-30.9	-37.2	-37.2	31.6	-35.0	-42.2	-42.2	35.3
11:12	-27.3	-33.0	-33.0	28.3	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2
12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.					
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)		
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3			
Up and Down (psf)	Exposure Category B	1:12	-17.9	-33.3	-52.5	45.5	-17.9	-33.3	-52.5	45.5	-22.1	-40.7	-64.1	45.5	
		2:12	-16.0	-31.4	-48.7	41.9	-16.0	-31.4	-48.7	41.9	-19.7	-38.4	-59.4	41.9	
		3:12	-16.0	-31.4	-48.7	37.8	-16.0	-31.4	-48.7	37.8	-19.8	-38.4	-59.4	38.0	
		4:12	-16.1	-31.4	-48.7	33.6	-16.1	-31.4	-48.7	33.6	-19.8	-38.4	-59.4	34.9	
		5:12	-16.1	-31.5	-48.8	30.3	-16.1	-31.5	-48.8	30.3	-19.8	-38.5	-59.5	31.9	
		6:12	-16.1	-31.5	-48.8	27.5	-16.1	-31.5	-48.8	27.5	-19.9	-38.5	-59.5	29.0	
		7:12	-18.1	-21.9	-21.9	30.7	-18.1	-21.9	-21.9	30.7	-22.2	-26.9	-26.9	33.4	
		8:12	-18.1	-22.0	-22.0	28.4	-18.1	-22.0	-22.0	28.4	-22.3	-26.9	-26.9	31.1	
		9:12	-18.2	-22.0	-22.0	26.3	-18.2	-22.0	-22.0	26.3	-22.3	-27.0	-27.0	29.1	
		10:12	-18.2	-22.1	-22.1	24.6	-18.2	-22.1	-22.1	24.6	-22.3	-27.0	-27.0	27.3	
		11:12	-18.3	-22.1	-22.1	23.0	-18.3	-22.1	-22.1	23.0	-22.4	-27.1	-27.1	25.8	
		12:12	-18.3	-22.2	-22.2	21.7	-18.3	-22.2	-22.2	21.7	-22.4	-27.1	-27.1	24.5	
Up and Down (psf)	Exposure Category C	1:12	-22.1	-40.7	-64.1	45.5	-25.6	-47.1	-74.0	45.5	-29.7	-54.6	-85.6	45.5	
		2:12	-19.7	-38.4	-59.4	41.9	-22.9	-44.5	-68.7	42.4	-26.7	-51.5	-79.4	44.0	
		3:12	-19.8	-38.4	-59.4	38.0	-23.0	-44.5	-68.7	39.3	-26.7	-51.5	-79.4	40.9	
		4:12	-19.8	-38.4	-59.4	34.9	-23.0	-44.5	-68.7	36.2	-26.7	-51.5	-79.4	37.8	
		5:12	-19.8	-38.5	-59.5	31.9	-23.0	-44.5	-68.8	33.2	-26.7	-51.5	-79.5	34.7	
		6:12	-19.9	-38.5	-59.5	29.0	-23.1	-44.6	-68.8	30.4	-26.8	-51.6	-79.5	31.9	
		7:12	-22.2	-26.9	-26.9	33.4	-25.8	-31.2	-31.2	35.9	-29.9	-36.1	-36.1	38.6	
		8:12	-22.3	-26.9	-26.9	31.1	-25.8	-31.2	-31.2	33.5	-30.0	-36.2	-36.2	36.3	
		9:12	-22.3	-27.0	-27.0	29.1	-25.9	-31.3	-31.3	31.5	-30.0	-36.2	-36.2	34.3	
		10:12	-22.3	-27.0	-27.0	27.3	-25.9	-31.3	-31.3	29.7	-30.0	-36.2	-36.2	32.5	
		11:12	-22.4	-27.1	-27.1	25.8	-26.0	-31.3	-31.3	28.2	-30.1	-36.3	-36.3	31.0	
		12:12	-22.4	-27.1	-27.1	24.5	-26.0	-31.4	-31.4	26.9	-30.1	-36.3	-36.3	30.6	
Up and Down (psf)	Exposure Category D	1:12	-27.0	-49.6	-77.9	41.4	-30.6	-56.0	-87.9	41.4	-34.7	-63.4	-99.4	41.4	
		2:12	-24.2	-46.8	-72.2	40.1	-27.4	-52.9	-81.5	41.4	-31.1	-59.9	-92.2	43.0	
		3:12	-24.2	-46.8	-72.3	37.3	-27.4	-52.9	-81.5	38.6	-31.1	-59.9	-92.2	40.2	
		4:12	-24.2	-46.8	-72.3	34.5	-27.4	-52.9	-81.6	35.8	-31.1	-59.9	-92.3	37.4	
		5:12	-24.3	-46.9	-72.3	31.8	-27.5	-52.9	-81.6	33.1	-31.2	-59.9	-92.3	34.6	
		6:12	-24.3	-46.9	-72.4	29.2	-27.5	-53.0	-81.6	30.5	-31.2	-60.0	-92.3	32.1	
		7:12	-27.2	-32.8	-32.8	35.3	-30.7	-37.1	-37.1	37.8	-34.9	-42.0	-42.0	40.5	
		8:12	-27.2	-32.9	-32.9	33.2	-30.8	-37.1	-37.1	35.7	-34.9	-42.1	-42.1	38.4	
		9:12	-27.2	-32.9	-32.9	31.4	-30.8	-37.2	-37.2	33.8	-34.9	-42.1	-42.1	36.6	
		10:12	-27.3	-32.9	-32.9	29.8	-30.9	-37.2	-37.2	32.2	-35.0	-42.2	-42.2	35.3	
		11:12	-27.3	-33.0	-33.0	28.4	-30.9	-37.3	-37.3	31.5	-35.0	-42.2	-42.2	35.2	
		12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1	
Side Load (psf)	Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
		1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5	
		2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1	
		3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1	
		4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6	
		5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
		6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
		7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
		8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
		9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
		10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
		11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2		
Lateral			Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
			0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

 Basic Wind Speed: 145 mph
 Ground Snow Load: 60 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.9	-33.3	-52.5	52.5	-17.9	-33.3	-52.5	52.5	-22.1	-40.7	-64.1	52.5
2:12	-16.0	-31.4	-48.7	48.2	-16.0	-31.4	-48.7	48.2	-19.7	-38.4	-59.4	48.2
3:12	-16.0	-31.4	-48.7	43.4	-16.0	-31.4	-48.7	43.4	-19.8	-38.4	-59.4	43.4
4:12	-16.1	-31.4	-48.7	38.6	-16.1	-31.4	-48.7	38.6	-19.8	-38.4	-59.4	38.6
5:12	-16.1	-31.5	-48.8	34.0	-16.1	-31.5	-48.8	34.0	-19.8	-38.5	-59.5	35.1
6:12	-16.1	-31.5	-48.8	30.3	-16.1	-31.5	-48.8	30.3	-19.9	-38.5	-59.5	31.8
7:12	-18.1	-21.9	-21.9	33.1	-18.1	-21.9	-21.9	33.1	-22.2	-26.9	-26.9	35.8
8:12	-18.1	-22.0	-22.0	30.4	-18.1	-22.0	-22.0	30.4	-22.3	-26.9	-26.9	33.2
9:12	-18.2	-22.0	-22.0	28.0	-18.2	-22.0	-22.0	28.0	-22.3	-27.0	-27.0	30.8
10:12	-18.2	-22.1	-22.1	26.0	-18.2	-22.1	-22.1	26.0	-22.3	-27.0	-27.0	28.8
11:12	-18.3	-22.1	-22.1	24.3	-18.3	-22.1	-22.1	24.3	-22.4	-27.1	-27.1	27.0
12:12	-18.3	-22.2	-22.2	22.8	-18.3	-22.2	-22.2	22.8	-22.4	-27.1	-27.1	25.5
Exposure Category C												
1:12	-22.1	-40.7	-64.1	52.5	-25.6	-47.1	-74.0	52.5	-29.7	-54.6	-85.6	52.5
2:12	-19.7	-38.4	-59.4	48.2	-22.9	-44.5	-68.7	48.2	-26.7	-51.5	-79.4	48.7
3:12	-19.8	-38.4	-59.4	43.4	-23.0	-44.5	-68.7	43.6	-26.7	-51.5	-79.4	45.1
4:12	-19.8	-38.4	-59.4	38.6	-23.0	-44.5	-68.7	40.0	-26.7	-51.5	-79.4	41.5
5:12	-19.8	-38.5	-59.5	35.1	-23.0	-44.5	-68.8	36.5	-26.7	-51.5	-79.5	38.0
6:12	-19.9	-38.5	-59.5	31.8	-23.1	-44.6	-68.8	33.2	-26.8	-51.6	-79.5	34.7
7:12	-22.2	-26.9	-26.9	35.8	-25.8	-31.2	-31.2	38.2	-29.9	-36.1	-36.1	41.0
8:12	-22.3	-26.9	-26.9	33.2	-25.8	-31.2	-31.2	35.6	-30.0	-36.2	-36.2	38.4
9:12	-22.3	-27.0	-27.0	30.8	-25.9	-31.3	-31.3	33.2	-30.0	-36.2	-36.2	36.0
10:12	-22.3	-27.0	-27.0	28.8	-25.9	-31.3	-31.3	31.2	-30.0	-36.2	-36.2	34.0
11:12	-22.4	-27.1	-27.1	27.0	-26.0	-31.3	-31.3	29.4	-30.1	-36.3	-36.3	32.2
12:12	-22.4	-27.1	-27.1	25.5	-26.0	-31.4	-31.4	27.9	-30.1	-36.3	-36.3	30.7
Exposure Category D												
1:12	-27.0	-49.6	-77.9	47.6	-30.6	-56.0	-87.9	47.6	-34.7	-63.4	-99.4	47.6
2:12	-24.2	-46.8	-72.2	44.4	-27.4	-52.9	-81.5	45.7	-31.1	-59.9	-92.2	47.3
3:12	-24.2	-46.8	-72.3	41.1	-27.4	-52.9	-81.5	42.5	-31.1	-59.9	-92.2	44.0
4:12	-24.2	-46.8	-72.3	37.9	-27.4	-52.9	-81.6	39.2	-31.1	-59.9	-92.3	40.7
5:12	-24.3	-46.9	-72.3	34.7	-27.5	-52.9	-81.6	36.0	-31.2	-59.9	-92.3	37.6
6:12	-24.3	-46.9	-72.4	31.7	-27.5	-53.0	-81.6	33.1	-31.2	-60.0	-92.3	34.6
7:12	-27.2	-32.8	-32.8	37.5	-30.7	-37.1	-37.1	39.9	-34.9	-42.0	-42.0	42.7
8:12	-27.2	-32.9	-32.9	35.1	-30.8	-37.1	-37.1	37.5	-34.9	-42.1	-42.1	40.3
9:12	-27.2	-32.9	-32.9	33.0	-30.8	-37.2	-37.2	35.4	-34.9	-42.1	-42.1	38.1
10:12	-27.3	-32.9	-32.9	31.1	-30.9	-37.2	-37.2	33.5	-35.0	-42.2	-42.2	36.3
11:12	-27.3	-33.0	-33.0	29.5	-30.9	-37.3	-37.3	31.9	-35.0	-42.2	-42.2	35.2
12:12	-27.4	-33.0	-33.0	28.2	-30.9	-37.3	-37.3	31.4	-35.1	-42.2	-42.2	35.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
145 mph

Ground Snow Load
70 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.9	-33.3	-52.5	59.4	-17.9	-33.3	-52.5	59.4	-22.1	-40.7	-64.1	59.4
2:12	-16.0	-31.4	-48.7	54.5	-16.0	-31.4	-48.7	54.5	-19.7	-38.4	-59.4	54.5
3:12	-16.0	-31.4	-48.7	49.1	-16.0	-31.4	-48.7	49.1	-19.8	-38.4	-59.4	49.1
4:12	-16.1	-31.4	-48.7	43.6	-16.1	-31.4	-48.7	43.6	-19.8	-38.4	-59.4	43.6
5:12	-16.1	-31.5	-48.8	38.3	-16.1	-31.5	-48.8	38.3	-19.8	-38.5	-59.5	38.4
6:12	-16.1	-31.5	-48.8	33.4	-16.1	-31.5	-48.8	33.4	-19.9	-38.5	-59.5	34.6
7:12	-18.1	-21.9	-21.9	35.5	-18.1	-21.9	-21.9	35.5	-22.2	-26.9	-26.9	38.2
8:12	-18.1	-22.0	-22.0	32.4	-18.1	-22.0	-22.0	32.4	-22.3	-26.9	-26.9	35.2
9:12	-18.2	-22.0	-22.0	29.7	-18.2	-22.0	-22.0	29.7	-22.3	-27.0	-27.0	32.5
10:12	-18.2	-22.1	-22.1	27.4	-18.2	-22.1	-22.1	27.4	-22.3	-27.0	-27.0	30.2
11:12	-18.3	-22.1	-22.1	25.5	-18.3	-22.1	-22.1	25.5	-22.4	-27.1	-27.1	28.2
12:12	-18.3	-22.2	-22.2	23.8	-18.3	-22.2	-22.2	23.8	-22.4	-27.1	-27.1	26.5
Exposure Category C												
1:12	-22.1	-40.7	-64.1	59.4	-25.6	-47.1	-74.0	59.4	-29.7	-54.6	-85.6	59.4
2:12	-19.7	-38.4	-59.4	54.5	-22.9	-44.5	-68.7	54.5	-26.7	-51.5	-79.4	54.5
3:12	-19.8	-38.4	-59.4	49.1	-23.0	-44.5	-68.7	49.1	-26.7	-51.5	-79.4	49.4
4:12	-19.8	-38.4	-59.4	43.6	-23.0	-44.5	-68.7	43.7	-26.7	-51.5	-79.4	45.3
5:12	-19.8	-38.5	-59.5	38.4	-23.0	-44.5	-68.8	39.7	-26.7	-51.5	-79.5	41.3
6:12	-19.9	-38.5	-59.5	34.6	-23.1	-44.6	-68.8	36.0	-26.8	-51.6	-79.5	37.5
7:12	-22.2	-26.9	-26.9	38.2	-25.8	-31.2	-31.2	40.6	-29.9	-36.1	-36.1	43.4
8:12	-22.3	-26.9	-26.9	35.2	-25.8	-31.2	-31.2	37.6	-30.0	-36.2	-36.2	40.4
9:12	-22.3	-27.0	-27.0	32.5	-25.9	-31.3	-31.3	34.9	-30.0	-36.2	-36.2	37.7
10:12	-22.3	-27.0	-27.0	30.2	-25.9	-31.3	-31.3	32.6	-30.0	-36.2	-36.2	35.4
11:12	-22.4	-27.1	-27.1	28.2	-26.0	-31.3	-31.3	30.6	-30.1	-36.3	-36.3	33.4
12:12	-22.4	-27.1	-27.1	26.5	-26.0	-31.4	-31.4	29.0	-30.1	-36.3	-36.3	31.7
Exposure Category D												
1:12	-27.0	-49.6	-77.9	53.9	-30.6	-56.0	-87.9	53.9	-34.7	-63.4	-99.4	53.9
2:12	-24.2	-46.8	-72.2	49.5	-27.4	-52.9	-81.5	50.0	-31.1	-59.9	-92.2	51.5
3:12	-24.2	-46.8	-72.3	45.0	-27.4	-52.9	-81.5	46.3	-31.1	-59.9	-92.2	47.8
4:12	-24.2	-46.8	-72.3	41.2	-27.4	-52.9	-81.6	42.6	-31.1	-59.9	-92.3	44.1
5:12	-24.3	-46.9	-72.3	37.6	-27.5	-52.9	-81.6	39.0	-31.2	-59.9	-92.3	40.5
6:12	-24.3	-46.9	-72.4	34.3	-27.5	-53.0	-81.6	35.6	-31.2	-60.0	-92.3	37.1
7:12	-27.2	-32.8	-32.8	39.7	-30.7	-37.1	-37.1	42.1	-34.9	-42.0	-42.0	44.8
8:12	-27.2	-32.9	-32.9	36.9	-30.8	-37.1	-37.1	39.3	-34.9	-42.1	-42.1	42.1
9:12	-27.2	-32.9	-32.9	34.5	-30.8	-37.2	-37.2	36.9	-34.9	-42.1	-42.1	39.7
10:12	-27.3	-32.9	-32.9	32.4	-30.9	-37.2	-37.2	34.8	-35.0	-42.2	-42.2	37.6
11:12	-27.3	-33.0	-33.0	30.6	-30.9	-37.3	-37.3	33.0	-35.0	-42.2	-42.2	35.8
12:12	-27.4	-33.0	-33.0	29.1	-30.9	-37.3	-37.3	31.5	-35.1	-42.2	-42.2	35.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **145 mph**

Ground Snow Load **80 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
145 mph													
90 psf													
Exposure Category B	1:12	-17.9	-33.3	-52.5	66.4	-17.9	-33.3	-52.5	66.4	-22.1	-40.7	-64.1	66.4
	2:12	-16.0	-31.4	-48.7	60.9	-16.0	-31.4	-48.7	60.9	-19.7	-38.4	-59.4	60.9
	3:12	-16.0	-31.4	-48.7	54.8	-16.0	-31.4	-48.7	54.8	-19.8	-38.4	-59.4	54.8
	4:12	-16.1	-31.4	-48.7	48.6	-16.1	-31.4	-48.7	48.6	-19.8	-38.4	-59.4	48.6
	5:12	-16.1	-31.5	-48.8	42.7	-16.1	-31.5	-48.8	42.7	-19.8	-38.5	-59.5	42.7
	6:12	-16.1	-31.5	-48.8	37.1	-16.1	-31.5	-48.8	37.1	-19.9	-38.5	-59.5	37.5
	7:12	-18.1	-21.9	-21.9	37.8	-18.1	-21.9	-21.9	37.8	-22.2	-26.9	-26.9	40.6
	8:12	-18.1	-22.0	-22.0	34.4	-18.1	-22.0	-22.0	34.4	-22.3	-26.9	-26.9	37.2
	9:12	-18.2	-22.0	-22.0	31.5	-18.2	-22.0	-22.0	31.5	-22.3	-27.0	-27.0	34.2
	10:12	-18.2	-22.1	-22.1	28.9	-18.2	-22.1	-22.1	28.9	-22.3	-27.0	-27.0	31.7
	11:12	-18.3	-22.1	-22.1	26.7	-18.3	-22.1	-22.1	26.7	-22.4	-27.1	-27.1	29.4
	12:12	-18.3	-22.2	-22.2	24.8	-18.3	-22.2	-22.2	24.8	-22.4	-27.1	-27.1	27.6
Exposure Category C	1:12	-22.1	-40.7	-64.1	66.4	-25.6	-47.1	-74.0	66.4	-29.7	-54.6	-85.6	66.4
	2:12	-19.7	-38.4	-59.4	60.9	-22.9	-44.5	-68.7	60.9	-26.7	-51.5	-79.4	60.9
	3:12	-19.8	-38.4	-59.4	54.8	-23.0	-44.5	-68.7	54.8	-26.7	-51.5	-79.4	54.8
	4:12	-19.8	-38.4	-59.4	48.6	-23.0	-44.5	-68.7	48.6	-26.7	-51.5	-79.4	49.0
	5:12	-19.8	-38.5	-59.5	42.7	-23.0	-44.5	-68.8	43.0	-26.7	-51.5	-79.5	44.5
	6:12	-19.9	-38.5	-59.5	37.5	-23.1	-44.6	-68.8	38.8	-26.8	-51.6	-79.5	40.3
	7:12	-22.2	-26.9	-26.9	40.6	-25.8	-31.2	-31.2	43.0	-29.9	-36.1	-36.1	45.8
	8:12	-22.3	-26.9	-26.9	37.2	-25.8	-31.2	-31.2	39.6	-30.0	-36.2	-36.2	42.4
	9:12	-22.3	-27.0	-27.0	34.2	-25.9	-31.3	-31.3	36.6	-30.0	-36.2	-36.2	39.4
	10:12	-22.3	-27.0	-27.0	31.7	-25.9	-31.3	-31.3	34.1	-30.0	-36.2	-36.2	36.8
	11:12	-22.4	-27.1	-27.1	29.4	-26.0	-31.3	-31.3	31.9	-30.1	-36.3	-36.3	34.6
	12:12	-22.4	-27.1	-27.1	27.6	-26.0	-31.4	-31.4	30.0	-30.1	-36.3	-36.3	32.7
Exposure Category D	1:12	-27.0	-49.6	-77.9	60.1	-30.6	-56.0	-87.9	60.1	-34.7	-63.4	-99.4	60.1
	2:12	-24.2	-46.8	-72.2	55.2	-27.4	-52.9	-81.5	55.2	-31.1	-59.9	-92.2	55.8
	3:12	-24.2	-46.8	-72.3	49.7	-27.4	-52.9	-81.5	50.1	-31.1	-59.9	-92.2	51.7
	4:12	-24.2	-46.8	-72.3	44.6	-27.4	-52.9	-81.6	46.0	-31.1	-59.9	-92.3	47.5
	5:12	-24.3	-46.9	-72.3	40.6	-27.5	-52.9	-81.6	41.9	-31.2	-59.9	-92.3	43.4
	6:12	-24.3	-46.9	-72.4	36.8	-27.5	-53.0	-81.6	38.1	-31.2	-60.0	-92.3	39.7
	7:12	-27.2	-32.8	-32.8	41.8	-30.7	-37.1	-37.1	44.2	-34.9	-42.0	-42.0	47.0
	8:12	-27.2	-32.9	-32.9	38.7	-30.8	-37.1	-37.1	41.1	-34.9	-42.1	-42.1	43.9
	9:12	-27.2	-32.9	-32.9	36.0	-30.8	-37.2	-37.2	38.4	-34.9	-42.1	-42.1	41.2
	10:12	-27.3	-32.9	-32.9	33.7	-30.9	-37.2	-37.2	36.1	-35.0	-42.2	-42.2	38.9
	11:12	-27.3	-33.0	-33.0	31.7	-30.9	-37.3	-37.3	34.1	-35.0	-42.2	-42.2	36.9
	12:12	-27.4	-33.0	-33.0	30.0	-30.9	-37.3	-37.3	32.4	-35.1	-42.2	-42.2	35.2
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
	2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
	3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
	4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
	6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
	7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
	8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
	9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
	10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
	11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

Ground Snow Load

Up and Down (psf)

Basic Wind Speed
145 mph

Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-17.9	-33.3	-52.5	73.4	-17.9	-33.3	-52.5	73.4	-22.1	-40.7	-64.1	73.4
2:12	-16.0	-31.4	-48.7	67.2	-16.0	-31.4	-48.7	67.2	-19.7	-38.4	-59.4	67.2
3:12	-16.0	-31.4	-48.7	60.5	-16.0	-31.4	-48.7	60.5	-19.8	-38.4	-59.4	60.5
4:12	-16.1	-31.4	-48.7	53.6	-16.1	-31.4	-48.7	53.6	-19.8	-38.4	-59.4	53.6
5:12	-16.1	-31.5	-48.8	47.0	-16.1	-31.5	-48.8	47.0	-19.8	-38.5	-59.5	47.0
6:12	-16.1	-31.5	-48.8	40.9	-16.1	-31.5	-48.8	40.9	-19.9	-38.5	-59.5	40.9
7:12	-18.1	-21.9	-21.9	40.2	-18.1	-21.9	-21.9	40.2	-22.2	-26.9	-26.9	43.0
8:12	-18.1	-22.0	-22.0	36.5	-18.1	-22.0	-22.0	36.5	-22.3	-26.9	-26.9	39.3
9:12	-18.2	-22.0	-22.0	33.2	-18.2	-22.0	-22.0	33.2	-22.3	-27.0	-27.0	36.0
10:12	-18.2	-22.1	-22.1	30.3	-18.2	-22.1	-22.1	30.3	-22.3	-27.0	-27.0	33.1
11:12	-18.3	-22.1	-22.1	27.9	-18.3	-22.1	-22.1	27.9	-22.4	-27.1	-27.1	30.7
12:12	-18.3	-22.2	-22.2	25.8	-18.3	-22.2	-22.2	25.8	-22.4	-27.1	-27.1	28.6
Exposure Category C												
1:12	-22.1	-40.7	-64.1	73.4	-25.6	-47.1	-74.0	73.4	-29.7	-54.6	-85.6	73.4
2:12	-19.7	-38.4	-59.4	67.2	-22.9	-44.5	-68.7	67.2	-26.7	-51.5	-79.4	67.2
3:12	-19.8	-38.4	-59.4	60.5	-23.0	-44.5	-68.7	60.5	-26.7	-51.5	-79.4	60.5
4:12	-19.8	-38.4	-59.4	53.6	-23.0	-44.5	-68.7	53.6	-26.7	-51.5	-79.4	53.6
5:12	-19.8	-38.5	-59.5	47.0	-23.0	-44.5	-68.8	47.0	-26.7	-51.5	-79.5	47.8
6:12	-19.9	-38.5	-59.5	40.9	-23.1	-44.6	-68.8	41.6	-26.8	-51.6	-79.5	43.1
7:12	-22.2	-26.9	-26.9	43.0	-25.8	-31.2	-31.2	45.4	-29.9	-36.1	-36.1	48.2
8:12	-22.3	-26.9	-26.9	39.3	-25.8	-31.2	-31.2	41.7	-30.0	-36.2	-36.2	44.4
9:12	-22.3	-27.0	-27.0	36.0	-25.9	-31.3	-31.3	38.4	-30.0	-36.2	-36.2	41.1
10:12	-22.3	-27.0	-27.0	33.1	-25.9	-31.3	-31.3	35.5	-30.0	-36.2	-36.2	38.3
11:12	-22.4	-27.1	-27.1	30.7	-26.0	-31.3	-31.3	33.1	-30.1	-36.3	-36.3	35.8
12:12	-22.4	-27.1	-27.1	28.6	-26.0	-31.4	-31.4	31.0	-30.1	-36.3	-36.3	33.8
Exposure Category D												
1:12	-27.0	-49.6	-77.9	66.4	-30.6	-56.0	-87.9	66.4	-34.7	-63.4	-99.4	66.4
2:12	-24.2	-46.8	-72.2	60.9	-27.4	-52.9	-81.5	60.9	-31.1	-59.9	-92.2	60.9
3:12	-24.2	-46.8	-72.3	54.8	-27.4	-52.9	-81.5	54.8	-31.1	-59.9	-92.2	55.5
4:12	-24.2	-46.8	-72.3	48.6	-27.4	-52.9	-81.6	49.3	-31.1	-59.9	-92.3	50.9
5:12	-24.3	-46.9	-72.3	43.5	-27.5	-52.9	-81.6	44.8	-31.2	-59.9	-92.3	46.4
6:12	-24.3	-46.9	-72.4	39.3	-27.5	-53.0	-81.6	40.6	-31.2	-60.0	-92.3	42.2
7:12	-27.2	-32.8	-32.8	44.0	-30.7	-37.1	-37.1	46.4	-34.9	-42.0	-42.0	49.2
8:12	-27.2	-32.9	-32.9	40.6	-30.8	-37.1	-37.1	43.0	-34.9	-42.1	-42.1	45.7
9:12	-27.2	-32.9	-32.9	37.6	-30.8	-37.2	-37.2	40.0	-34.9	-42.1	-42.1	42.8
10:12	-27.3	-32.9	-32.9	35.0	-30.9	-37.2	-37.2	37.4	-35.0	-42.2	-42.2	40.2
11:12	-27.3	-33.0	-33.0	32.8	-30.9	-37.3	-37.3	35.2	-35.0	-42.2	-42.2	38.0
12:12	-27.4	-33.0	-33.0	30.9	-30.9	-37.3	-37.3	33.3	-35.1	-42.2	-42.2	36.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	13.4	-19.3	-35.7	-56.3	13.4	-23.7	-43.7	-68.6	13.4
2:12	-17.2	-33.7	-52.2	14.1	-17.2	-33.7	-52.2	14.1	-21.2	-41.2	-63.7	16.3
3:12	-17.3	-33.7	-52.2	14.0	-17.3	-33.7	-52.2	14.0	-21.2	-41.2	-63.7	16.2
4:12	-17.3	-33.7	-52.2	13.9	-17.3	-33.7	-52.2	13.9	-21.3	-41.2	-63.7	16.1
5:12	-17.3	-33.8	-52.3	13.8	-17.3	-33.8	-52.3	13.8	-21.3	-41.3	-63.7	16.0
6:12	-17.4	-33.8	-52.3	13.7	-17.4	-33.8	-52.3	13.7	-21.3	-41.3	-63.8	15.9
7:12	-19.5	-23.6	-23.6	21.8	-19.5	-23.6	-23.6	21.8	-23.9	-28.9	-28.9	25.8
8:12	-19.5	-23.6	-23.6	21.7	-19.5	-23.6	-23.6	21.7	-23.9	-28.9	-28.9	25.7
9:12	-19.5	-23.6	-23.6	21.6	-19.5	-23.6	-23.6	21.6	-23.9	-28.9	-28.9	25.6
10:12	-19.6	-23.7	-23.7	21.5	-19.6	-23.7	-23.7	21.5	-24.0	-29.0	-29.0	25.4
11:12	-19.6	-23.7	-23.7	21.3	-19.6	-23.7	-23.7	21.3	-24.0	-29.0	-29.0	25.3
12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
Exposure Category C												
1:12	-23.7	-43.7	-68.6	13.4	-27.5	-50.5	-79.3	13.4	-31.9	-58.5	-91.7	13.8
2:12	-21.2	-41.2	-63.7	16.3	-24.6	-47.7	-73.6	18.2	-28.6	-55.2	-85.0	20.4
3:12	-21.2	-41.2	-63.7	16.2	-24.7	-47.7	-73.6	18.1	-28.6	-55.2	-85.1	20.3
4:12	-21.3	-41.2	-63.7	16.1	-24.7	-47.7	-73.6	18.0	-28.7	-55.2	-85.1	20.2
5:12	-21.3	-41.3	-63.7	16.0	-24.7	-47.8	-73.7	17.9	-28.7	-55.2	-85.1	20.1
6:12	-21.3	-41.3	-63.8	15.9	-24.8	-47.8	-73.7	17.8	-28.7	-55.3	-85.2	20.0
7:12	-23.9	-28.9	-28.9	25.8	-27.7	-33.4	-33.4	29.2	-32.1	-38.7	-38.7	33.2
8:12	-23.9	-28.9	-28.9	25.7	-27.7	-33.5	-33.5	29.1	-32.1	-38.8	-38.8	33.1
9:12	-23.9	-28.9	-28.9	25.6	-27.8	-33.5	-33.5	29.0	-32.2	-38.8	-38.8	33.0
10:12	-24.0	-29.0	-29.0	25.4	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D												
1:12	-29.0	-53.2	-83.4	13.4	-32.8	-60.1	-94.1	14.1	-37.2	-68.0	-106.5	15.4
2:12	-26.0	-50.2	-77.4	18.9	-29.4	-56.7	-87.3	20.8	-33.4	-64.2	-98.8	23.0
3:12	-26.0	-50.2	-77.4	18.9	-29.4	-56.7	-87.4	20.8	-33.4	-64.2	-98.8	23.0
4:12	-26.0	-50.2	-77.5	18.8	-29.5	-56.7	-87.4	20.7	-33.4	-64.2	-98.8	22.9
5:12	-26.0	-50.3	-77.5	18.7	-29.5	-56.7	-87.4	20.6	-33.4	-64.2	-98.9	22.8
6:12	-26.1	-50.3	-77.5	18.6	-29.5	-56.8	-87.4	20.5	-33.5	-64.3	-98.9	22.7
7:12	-29.1	-35.2	-35.2	30.6	-33.0	-39.8	-39.8	34.0	-37.4	-45.1	-45.1	38.0
8:12	-29.2	-35.2	-35.2	30.4	-33.0	-39.8	-39.8	33.9	-37.4	-45.1	-45.1	37.8
9:12	-29.2	-35.3	-35.3	30.3	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed
150 mph

Ground Snow Load
0 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	14.8	-19.3	-35.7	-56.3	14.8	-23.7	-43.7	-68.6	14.8
2:12	-17.2	-33.7	-52.2	14.9	-17.2	-33.7	-52.2	14.9	-21.2	-41.2	-63.7	16.6
3:12	-17.3	-33.7	-52.2	14.5	-17.3	-33.7	-52.2	14.5	-21.2	-41.2	-63.7	16.2
4:12	-17.3	-33.7	-52.2	13.9	-17.3	-33.7	-52.2	13.9	-21.3	-41.2	-63.7	16.1
5:12	-17.3	-33.8	-52.3	13.8	-17.3	-33.8	-52.3	13.8	-21.3	-41.3	-63.7	16.0
6:12	-17.4	-33.8	-52.3	13.7	-17.4	-33.8	-52.3	13.7	-21.3	-41.3	-63.8	15.9
7:12	-19.5	-23.6	-23.6	21.8	-19.5	-23.6	-23.6	21.8	-23.9	-28.9	-28.9	25.8
8:12	-19.5	-23.6	-23.6	21.7	-19.5	-23.6	-23.6	21.7	-23.9	-28.9	-28.9	25.7
9:12	-19.5	-23.6	-23.6	21.6	-19.5	-23.6	-23.6	21.6	-23.9	-28.9	-28.9	25.6
10:12	-19.6	-23.7	-23.7	21.5	-19.6	-23.7	-23.7	21.5	-24.0	-29.0	-29.0	25.4
11:12	-19.6	-23.7	-23.7	21.3	-19.6	-23.7	-23.7	21.3	-24.0	-29.0	-29.0	25.3
12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
Exposure Category C												
1:12	-23.7	-43.7	-68.6	14.8	-27.5	-50.5	-79.3	14.8	-31.9	-58.5	-91.7	15.0
2:12	-21.2	-41.2	-63.7	16.6	-24.6	-47.7	-73.6	18.2	-28.6	-55.2	-85.0	20.4
3:12	-21.2	-41.2	-63.7	16.2	-24.7	-47.7	-73.6	18.1	-28.6	-55.2	-85.1	20.3
4:12	-21.3	-41.2	-63.7	16.1	-24.7	-47.7	-73.6	18.0	-28.7	-55.2	-85.1	20.2
5:12	-21.3	-41.3	-63.7	16.0	-24.7	-47.8	-73.7	17.9	-28.7	-55.2	-85.1	20.1
6:12	-21.3	-41.3	-63.8	15.9	-24.8	-47.8	-73.7	17.8	-28.7	-55.3	-85.2	20.0
7:12	-23.9	-28.9	-28.9	25.8	-27.7	-33.4	-33.4	29.2	-32.1	-38.7	-38.7	33.2
8:12	-23.9	-28.9	-28.9	25.7	-27.7	-33.5	-33.5	29.1	-32.1	-38.8	-38.8	33.1
9:12	-23.9	-28.9	-28.9	25.6	-27.8	-33.5	-33.5	29.0	-32.2	-38.8	-38.8	33.0
10:12	-24.0	-29.0	-29.0	25.4	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D												
1:12	-29.0	-53.2	-83.4	14.8	-32.8	-60.1	-94.1	15.2	-37.2	-68.0	-106.5	16.2
2:12	-26.0	-50.2	-77.4	18.9	-29.4	-56.7	-87.3	20.8	-33.4	-64.2	-98.8	23.0
3:12	-26.0	-50.2	-77.4	18.9	-29.4	-56.7	-87.4	20.8	-33.4	-64.2	-98.8	23.0
4:12	-26.0	-50.2	-77.5	18.8	-29.5	-56.7	-87.4	20.7	-33.4	-64.2	-98.8	22.9
5:12	-26.0	-50.3	-77.5	18.7	-29.5	-56.7	-87.4	20.6	-33.4	-64.2	-98.9	22.8
6:12	-26.1	-50.3	-77.5	18.6	-29.5	-56.8	-87.4	20.5	-33.5	-64.3	-98.9	22.7
7:12	-29.1	-35.2	-35.2	30.6	-33.0	-39.8	-39.8	34.0	-37.4	-45.1	-45.1	38.0
8:12	-29.2	-35.2	-35.2	30.4	-33.0	-39.8	-39.8	33.9	-37.4	-45.1	-45.1	37.8
9:12	-29.2	-35.3	-35.3	30.3	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
150 mph

Ground Snow Load
5 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	18.5	-19.3	-35.7	-56.3	18.5	-23.7	-43.7	-68.6	18.5
2:12	-17.2	-33.7	-52.2	18.3	-17.2	-33.7	-52.2	18.3	-21.2	-41.2	-63.7	20.0
3:12	-17.3	-33.7	-52.2	17.5	-17.3	-33.7	-52.2	17.5	-21.2	-41.2	-63.7	19.2
4:12	-17.3	-33.7	-52.2	15.1	-17.3	-33.7	-52.2	15.1	-21.3	-41.2	-63.7	16.8
5:12	-17.3	-33.8	-52.3	14.5	-17.3	-33.8	-52.3	14.5	-21.3	-41.3	-63.7	16.2
6:12	-17.4	-33.8	-52.3	14.0	-17.4	-33.8	-52.3	14.0	-21.3	-41.3	-63.8	15.9
7:12	-19.5	-23.6	-23.6	21.8	-19.5	-23.6	-23.6	21.8	-23.9	-28.9	-28.9	25.8
8:12	-19.5	-23.6	-23.6	21.7	-19.5	-23.6	-23.6	21.7	-23.9	-28.9	-28.9	25.7
9:12	-19.5	-23.6	-23.6	21.6	-19.5	-23.6	-23.6	21.6	-23.9	-28.9	-28.9	25.6
10:12	-19.6	-23.7	-23.7	21.5	-19.6	-23.7	-23.7	21.5	-24.0	-29.0	-29.0	25.4
11:12	-19.6	-23.7	-23.7	21.3	-19.6	-23.7	-23.7	21.3	-24.0	-29.0	-29.0	25.3
12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
Exposure Category C												
1:12	-23.7	-43.7	-68.6	18.5	-27.5	-50.5	-79.3	18.5	-31.9	-58.5	-91.7	18.8
2:12	-21.2	-41.2	-63.7	20.0	-24.6	-47.7	-73.6	21.4	-28.6	-55.2	-85.0	23.0
3:12	-21.2	-41.2	-63.7	19.2	-24.7	-47.7	-73.6	20.6	-28.6	-55.2	-85.1	22.3
4:12	-21.3	-41.2	-63.7	16.8	-24.7	-47.7	-73.6	18.2	-28.7	-55.2	-85.1	20.2
5:12	-21.3	-41.3	-63.7	16.2	-24.7	-47.8	-73.7	17.9	-28.7	-55.2	-85.1	20.1
6:12	-21.3	-41.3	-63.8	15.9	-24.8	-47.8	-73.7	17.8	-28.7	-55.3	-85.2	20.0
7:12	-23.9	-28.9	-28.9	25.8	-27.7	-33.4	-33.4	29.2	-32.1	-38.7	-38.7	33.2
8:12	-23.9	-28.9	-28.9	25.7	-27.7	-33.5	-33.5	29.1	-32.1	-38.8	-38.8	33.1
9:12	-23.9	-28.9	-28.9	25.6	-27.8	-33.5	-33.5	29.0	-32.2	-38.8	-38.8	33.0
10:12	-24.0	-29.0	-29.0	25.4	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D												
1:12	-29.0	-53.2	-83.4	18.5	-32.8	-60.1	-94.1	18.9	-37.2	-68.0	-106.5	19.9
2:12	-26.0	-50.2	-77.4	21.9	-29.4	-56.7	-87.3	23.4	-33.4	-64.2	-98.8	25.0
3:12	-26.0	-50.2	-77.4	21.2	-29.4	-56.7	-87.4	22.6	-33.4	-64.2	-98.8	24.2
4:12	-26.0	-50.2	-77.5	18.8	-29.5	-56.7	-87.4	20.7	-33.4	-64.2	-98.8	22.9
5:12	-26.0	-50.3	-77.5	18.7	-29.5	-56.7	-87.4	20.6	-33.4	-64.2	-98.9	22.8
6:12	-26.1	-50.3	-77.5	18.6	-29.5	-56.8	-87.4	20.5	-33.5	-64.3	-98.9	22.7
7:12	-29.1	-35.2	-35.2	30.6	-33.0	-39.8	-39.8	34.0	-37.4	-45.1	-45.1	38.0
8:12	-29.2	-35.2	-35.2	30.4	-33.0	-39.8	-39.8	33.9	-37.4	-45.1	-45.1	37.8
9:12	-29.2	-35.3	-35.3	30.3	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
150 mph

Ground Snow Load
10 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	22.2	-19.3	-35.7	-56.3	22.2	-23.7	-43.7	-68.6	22.2
2:12	-17.2	-33.7	-52.2	21.7	-17.2	-33.7	-52.2	21.7	-21.2	-41.2	-63.7	23.4
3:12	-17.3	-33.7	-52.2	20.6	-17.3	-33.7	-52.2	20.6	-21.2	-41.2	-63.7	22.2
4:12	-17.3	-33.7	-52.2	17.0	-17.3	-33.7	-52.2	17.0	-21.3	-41.2	-63.7	18.6
5:12	-17.3	-33.8	-52.3	16.2	-17.3	-33.8	-52.3	16.2	-21.3	-41.3	-63.7	17.8
6:12	-17.4	-33.8	-52.3	15.4	-17.4	-33.8	-52.3	15.4	-21.3	-41.3	-63.8	17.0
7:12	-19.5	-23.6	-23.6	21.8	-19.5	-23.6	-23.6	21.8	-23.9	-28.9	-28.9	25.8
8:12	-19.5	-23.6	-23.6	21.7	-19.5	-23.6	-23.6	21.7	-23.9	-28.9	-28.9	25.7
9:12	-19.5	-23.6	-23.6	21.6	-19.5	-23.6	-23.6	21.6	-23.9	-28.9	-28.9	25.6
10:12	-19.6	-23.7	-23.7	21.5	-19.6	-23.7	-23.7	21.5	-24.0	-29.0	-29.0	25.4
11:12	-19.6	-23.7	-23.7	21.3	-19.6	-23.7	-23.7	21.3	-24.0	-29.0	-29.0	25.3
12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
Exposure Category C												
1:12	-23.7	-43.7	-68.6	22.2	-27.5	-50.5	-79.3	22.2	-31.9	-58.5	-91.7	22.5
2:12	-21.2	-41.2	-63.7	23.4	-24.6	-47.7	-73.6	24.8	-28.6	-55.2	-85.0	26.4
3:12	-21.2	-41.2	-63.7	22.2	-24.7	-47.7	-73.6	23.6	-28.6	-55.2	-85.1	25.3
4:12	-21.3	-41.2	-63.7	18.6	-24.7	-47.7	-73.6	20.1	-28.7	-55.2	-85.1	21.7
5:12	-21.3	-41.3	-63.7	17.8	-24.7	-47.8	-73.7	19.2	-28.7	-55.2	-85.1	20.9
6:12	-21.3	-41.3	-63.8	17.0	-24.8	-47.8	-73.7	18.4	-28.7	-55.3	-85.2	20.1
7:12	-23.9	-28.9	-28.9	25.8	-27.7	-33.4	-33.4	29.2	-32.1	-38.7	-38.7	33.2
8:12	-23.9	-28.9	-28.9	25.7	-27.7	-33.5	-33.5	29.1	-32.1	-38.8	-38.8	33.1
9:12	-23.9	-28.9	-28.9	25.6	-27.8	-33.5	-33.5	29.0	-32.2	-38.8	-38.8	33.0
10:12	-24.0	-29.0	-29.0	25.4	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D												
1:12	-29.0	-53.2	-83.4	22.2	-32.8	-60.1	-94.1	22.7	-37.2	-68.0	-106.5	23.7
2:12	-26.0	-50.2	-77.4	25.3	-29.4	-56.7	-87.3	26.8	-33.4	-64.2	-98.8	28.4
3:12	-26.0	-50.2	-77.4	24.2	-29.4	-56.7	-87.4	25.6	-33.4	-64.2	-98.8	27.3
4:12	-26.0	-50.2	-77.5	20.1	-29.5	-56.7	-87.4	21.5	-33.4	-64.2	-98.8	23.1
5:12	-26.0	-50.3	-77.5	19.3	-29.5	-56.7	-87.4	20.7	-33.4	-64.2	-98.9	22.8
6:12	-26.1	-50.3	-77.5	18.6	-29.5	-56.8	-87.4	20.5	-33.5	-64.3	-98.9	22.7
7:12	-29.1	-35.2	-35.2	30.6	-33.0	-39.8	-39.8	34.0	-37.4	-45.1	-45.1	38.0
8:12	-29.2	-35.2	-35.2	30.4	-33.0	-39.8	-39.8	33.9	-37.4	-45.1	-45.1	37.8
9:12	-29.2	-35.3	-35.3	30.3	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
150 mph

Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-19.3	-35.7	-56.3	25.9	-19.3	-35.7	-56.3	25.9	-23.7	-43.7	-68.6	25.9
2:12	-17.2	-33.7	-52.2	25.1	-17.2	-33.7	-52.2	25.1	-21.2	-41.2	-63.7	26.8
3:12	-17.3	-33.7	-52.2	23.6	-17.3	-33.7	-52.2	23.6	-21.2	-41.2	-63.7	25.3
4:12	-17.3	-33.7	-52.2	18.9	-17.3	-33.7	-52.2	18.9	-21.3	-41.2	-63.7	20.5
5:12	-17.3	-33.8	-52.3	17.8	-17.3	-33.8	-52.3	17.8	-21.3	-41.3	-63.7	19.4
6:12	-17.4	-33.8	-52.3	16.8	-17.4	-33.8	-52.3	16.8	-21.3	-41.3	-63.8	18.4
7:12	-19.5	-23.6	-23.6	22.0	-19.5	-23.6	-23.6	22.0	-23.9	-28.9	-28.9	25.8
8:12	-19.5	-23.6	-23.6	21.7	-19.5	-23.6	-23.6	21.7	-23.9	-28.9	-28.9	25.7
9:12	-19.5	-23.6	-23.6	21.6	-19.5	-23.6	-23.6	21.6	-23.9	-28.9	-28.9	25.6
10:12	-19.6	-23.7	-23.7	21.5	-19.6	-23.7	-23.7	21.5	-24.0	-29.0	-29.0	25.4
11:12	-19.6	-23.7	-23.7	21.3	-19.6	-23.7	-23.7	21.3	-24.0	-29.0	-29.0	25.3
12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
1:12	-23.7	-43.7	-68.6	25.9	-27.5	-50.5	-79.3	25.9	-31.9	-58.5	-91.7	26.2
2:12	-21.2	-41.2	-63.7	26.8	-24.6	-47.7	-73.6	28.2	-28.6	-55.2	-85.0	29.8
3:12	-21.2	-41.2	-63.7	25.3	-24.7	-47.7	-73.6	26.7	-28.6	-55.2	-85.1	28.3
4:12	-21.3	-41.2	-63.7	20.5	-24.7	-47.7	-73.6	21.9	-28.7	-55.2	-85.1	23.6
5:12	-21.3	-41.3	-63.7	19.4	-24.7	-47.8	-73.7	20.9	-28.7	-55.2	-85.1	22.5
6:12	-21.3	-41.3	-63.8	18.4	-24.8	-47.8	-73.7	19.9	-28.7	-55.3	-85.2	21.5
7:12	-23.9	-28.9	-28.9	25.8	-27.7	-33.4	-33.4	29.2	-32.1	-38.7	-38.7	33.2
8:12	-23.9	-28.9	-28.9	25.7	-27.7	-33.5	-33.5	29.1	-32.1	-38.8	-38.8	33.1
9:12	-23.9	-28.9	-28.9	25.6	-27.8	-33.5	-33.5	29.0	-32.2	-38.8	-38.8	33.0
10:12	-24.0	-29.0	-29.0	25.4	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
1:12	-29.0	-53.2	-83.4	25.9	-32.8	-60.1	-94.1	26.4	-37.2	-68.0	-106.5	27.4
2:12	-26.0	-50.2	-77.4	28.7	-29.4	-56.7	-87.3	30.2	-33.4	-64.2	-98.8	31.8
3:12	-26.0	-50.2	-77.4	27.2	-29.4	-56.7	-87.4	28.7	-33.4	-64.2	-98.8	30.3
4:12	-26.0	-50.2	-77.5	21.7	-29.5	-56.7	-87.4	23.2	-33.4	-64.2	-98.8	24.8
5:12	-26.0	-50.3	-77.5	20.8	-29.5	-56.7	-87.4	22.2	-33.4	-64.2	-98.9	23.9
6:12	-26.1	-50.3	-77.5	19.8	-29.5	-56.8	-87.4	21.3	-33.5	-64.3	-98.9	22.9
7:12	-29.1	-35.2	-35.2	30.6	-33.0	-39.8	-39.8	34.0	-37.4	-45.1	-45.1	38.0
8:12	-29.2	-35.2	-35.2	30.4	-33.0	-39.8	-39.8	33.9	-37.4	-45.1	-45.1	37.8
9:12	-29.2	-35.3	-35.3	30.3	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **150 mph**
Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-19.3	-35.7	-56.3	25.9	-19.3	-35.7	-56.3	25.9	-23.7	-43.7	-68.6	25.9
	2:12	-17.2	-33.7	-52.2	25.1	-17.2	-33.7	-52.2	25.1	-21.2	-41.2	-63.7	26.8
	3:12	-17.3	-33.7	-52.2	23.6	-17.3	-33.7	-52.2	23.6	-21.2	-41.2	-63.7	25.3
	4:12	-17.3	-33.7	-52.2	20.7	-17.3	-33.7	-52.2	20.7	-21.3	-41.2	-63.7	22.4
	5:12	-17.3	-33.8	-52.3	19.4	-17.3	-33.8	-52.3	19.4	-21.3	-41.3	-63.7	21.1
	6:12	-17.4	-33.8	-52.3	18.2	-17.4	-33.8	-52.3	18.2	-21.3	-41.3	-63.8	19.8
	7:12	-19.5	-23.6	-23.6	23.2	-19.5	-23.6	-23.6	23.2	-23.9	-28.9	-28.9	26.2
	8:12	-19.5	-23.6	-23.6	22.2	-19.5	-23.6	-23.6	22.2	-23.9	-28.9	-28.9	25.7
	9:12	-19.5	-23.6	-23.6	21.6	-19.5	-23.6	-23.6	21.6	-23.9	-28.9	-28.9	25.6
	10:12	-19.6	-23.7	-23.7	21.5	-19.6	-23.7	-23.7	21.5	-24.0	-29.0	-29.0	25.4
	11:12	-19.6	-23.7	-23.7	21.3	-19.6	-23.7	-23.7	21.3	-24.0	-29.0	-29.0	25.3
	12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
Exposure Category C	1:12	-23.7	-43.7	-68.6	25.9	-27.5	-50.5	-79.3	25.9	-31.9	-58.5	-91.7	26.2
	2:12	-21.2	-41.2	-63.7	26.8	-24.6	-47.7	-73.6	28.2	-28.6	-55.2	-85.0	29.8
	3:12	-21.2	-41.2	-63.7	25.3	-24.7	-47.7	-73.6	26.7	-28.6	-55.2	-85.1	28.3
	4:12	-21.3	-41.2	-63.7	22.4	-24.7	-47.7	-73.6	23.8	-28.7	-55.2	-85.1	25.5
	5:12	-21.3	-41.3	-63.7	21.1	-24.7	-47.8	-73.7	22.5	-28.7	-55.2	-85.1	24.2
	6:12	-21.3	-41.3	-63.8	19.8	-24.8	-47.8	-73.7	21.3	-28.7	-55.3	-85.2	22.9
	7:12	-23.9	-28.9	-28.9	26.2	-27.7	-33.4	-33.4	29.2	-32.1	-38.7	-38.7	33.2
	8:12	-23.9	-28.9	-28.9	25.7	-27.7	-33.5	-33.5	29.1	-32.1	-38.8	-38.8	33.1
	9:12	-23.9	-28.9	-28.9	25.6	-27.8	-33.5	-33.5	29.0	-32.2	-38.8	-38.8	33.0
	10:12	-24.0	-29.0	-29.0	25.4	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
	11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
	12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D	1:12	-29.0	-53.2	-83.4	25.9	-32.8	-60.1	-94.1	26.4	-37.2	-68.0	-106.5	27.4
	2:12	-26.0	-50.2	-77.4	28.7	-29.4	-56.7	-87.3	30.2	-33.4	-64.2	-98.8	31.8
	3:12	-26.0	-50.2	-77.4	27.2	-29.4	-56.7	-87.4	28.7	-33.4	-64.2	-98.8	30.3
	4:12	-26.0	-50.2	-77.5	23.4	-29.5	-56.7	-87.4	24.9	-33.4	-64.2	-98.8	26.5
	5:12	-26.0	-50.3	-77.5	22.2	-29.5	-56.7	-87.4	23.7	-33.4	-64.2	-98.9	25.3
	6:12	-26.1	-50.3	-77.5	21.1	-29.5	-56.8	-87.4	22.5	-33.5	-64.3	-98.9	24.2
	7:12	-29.1	-35.2	-35.2	30.6	-33.0	-39.8	-39.8	34.0	-37.4	-45.1	-45.1	38.0
	8:12	-29.2	-35.2	-35.2	30.4	-33.0	-39.8	-39.8	33.9	-37.4	-45.1	-45.1	37.8
	9:12	-29.2	-35.3	-35.3	30.3	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
	10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
	11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
	12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
	5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
	6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
	7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
	8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
	9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
	10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
	11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **150 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	26.7	-19.3	-35.7	-56.3	26.7	-23.7	-43.7	-68.6	26.7
2:12	-17.2	-33.7	-52.2	25.8	-17.2	-33.7	-52.2	25.8	-21.2	-41.2	-63.7	27.4
3:12	-17.3	-33.7	-52.2	24.2	-17.3	-33.7	-52.2	24.2	-21.2	-41.2	-63.7	25.9
4:12	-17.3	-33.7	-52.2	22.6	-17.3	-33.7	-52.2	22.6	-21.3	-41.2	-63.7	24.3
5:12	-17.3	-33.8	-52.3	21.0	-17.3	-33.8	-52.3	21.0	-21.3	-41.3	-63.7	22.7
6:12	-17.4	-33.8	-52.3	19.6	-17.4	-33.8	-52.3	19.6	-21.3	-41.3	-63.8	21.2
7:12	-19.5	-23.6	-23.6	24.4	-19.5	-23.6	-23.6	24.4	-23.9	-28.9	-28.9	27.4
8:12	-19.5	-23.6	-23.6	23.2	-19.5	-23.6	-23.6	23.2	-23.9	-28.9	-28.9	26.1
9:12	-19.5	-23.6	-23.6	22.1	-19.5	-23.6	-23.6	22.1	-23.9	-28.9	-28.9	25.6
10:12	-19.6	-23.7	-23.7	21.5	-19.6	-23.7	-23.7	21.5	-24.0	-29.0	-29.0	25.4
11:12	-19.6	-23.7	-23.7	21.3	-19.6	-23.7	-23.7	21.3	-24.0	-29.0	-29.0	25.3
12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
Exposure Category C												
1:12	-23.7	-43.7	-68.6	26.7	-27.5	-50.5	-79.3	26.7	-31.9	-58.5	-91.7	26.9
2:12	-21.2	-41.2	-63.7	27.4	-24.6	-47.7	-73.6	28.9	-28.6	-55.2	-85.0	30.5
3:12	-21.2	-41.2	-63.7	25.9	-24.7	-47.7	-73.6	27.3	-28.6	-55.2	-85.1	28.9
4:12	-21.3	-41.2	-63.7	24.3	-24.7	-47.7	-73.6	25.7	-28.7	-55.2	-85.1	27.3
5:12	-21.3	-41.3	-63.7	22.7	-24.7	-47.8	-73.7	24.1	-28.7	-55.2	-85.1	25.8
6:12	-21.3	-41.3	-63.8	21.2	-24.8	-47.8	-73.7	22.7	-28.7	-55.3	-85.2	24.3
7:12	-23.9	-28.9	-28.9	27.4	-27.7	-33.4	-33.4	29.9	-32.1	-38.7	-38.7	33.2
8:12	-23.9	-28.9	-28.9	26.1	-27.7	-33.5	-33.5	29.1	-32.1	-38.8	-38.8	33.1
9:12	-23.9	-28.9	-28.9	25.6	-27.8	-33.5	-33.5	29.0	-32.2	-38.8	-38.8	33.0
10:12	-24.0	-29.0	-29.0	25.4	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D												
1:12	-29.0	-53.2	-83.4	25.9	-32.8	-60.1	-94.1	26.4	-37.2	-68.0	-106.5	27.4
2:12	-26.0	-50.2	-77.4	28.7	-29.4	-56.7	-87.3	30.2	-33.4	-64.2	-98.8	31.8
3:12	-26.0	-50.2	-77.4	27.2	-29.4	-56.7	-87.4	28.7	-33.4	-64.2	-98.8	30.3
4:12	-26.0	-50.2	-77.5	25.1	-29.5	-56.7	-87.4	26.5	-33.4	-64.2	-98.8	28.2
5:12	-26.0	-50.3	-77.5	23.7	-29.5	-56.7	-87.4	25.1	-33.4	-64.2	-98.9	26.8
6:12	-26.1	-50.3	-77.5	22.4	-29.5	-56.8	-87.4	23.8	-33.5	-64.3	-98.9	25.4
7:12	-29.1	-35.2	-35.2	30.6	-33.0	-39.8	-39.8	34.0	-37.4	-45.1	-45.1	38.0
8:12	-29.2	-35.2	-35.2	30.4	-33.0	-39.8	-39.8	33.9	-37.4	-45.1	-45.1	37.8
9:12	-29.2	-35.3	-35.3	30.3	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

150 mph

Ground Snow Load

30 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	29.3	-19.3	-35.7	-56.3	29.3	-23.7	-43.7	-68.6	29.3
2:12	-17.2	-33.7	-52.2	28.2	-17.2	-33.7	-52.2	28.2	-21.2	-41.2	-63.7	29.8
3:12	-17.3	-33.7	-52.2	26.3	-17.3	-33.7	-52.2	26.3	-21.2	-41.2	-63.7	28.0
4:12	-17.3	-33.7	-52.2	24.5	-17.3	-33.7	-52.2	24.5	-21.3	-41.2	-63.7	26.1
5:12	-17.3	-33.8	-52.3	22.7	-17.3	-33.8	-52.3	22.7	-21.3	-41.3	-63.7	24.3
6:12	-17.4	-33.8	-52.3	21.0	-17.4	-33.8	-52.3	21.0	-21.3	-41.3	-63.8	22.6
7:12	-19.5	-23.6	-23.6	25.6	-19.5	-23.6	-23.6	25.6	-23.9	-28.9	-28.9	28.6
8:12	-19.5	-23.6	-23.6	24.2	-19.5	-23.6	-23.6	24.2	-23.9	-28.9	-28.9	27.2
9:12	-19.5	-23.6	-23.6	23.0	-19.5	-23.6	-23.6	23.0	-23.9	-28.9	-28.9	25.9
10:12	-19.6	-23.7	-23.7	21.9	-19.6	-23.7	-23.7	21.9	-24.0	-29.0	-29.0	25.4
11:12	-19.6	-23.7	-23.7	21.3	-19.6	-23.7	-23.7	21.3	-24.0	-29.0	-29.0	25.3
12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
Exposure Category C												
1:12	-23.7	-43.7	-68.6	29.3	-27.5	-50.5	-79.3	29.3	-31.9	-58.5	-91.7	29.6
2:12	-21.2	-41.2	-63.7	29.8	-24.6	-47.7	-73.6	31.2	-28.6	-55.2	-85.0	32.9
3:12	-21.2	-41.2	-63.7	28.0	-24.7	-47.7	-73.6	29.4	-28.6	-55.2	-85.1	31.1
4:12	-21.3	-41.2	-63.7	26.1	-24.7	-47.7	-73.6	27.6	-28.7	-55.2	-85.1	29.2
5:12	-21.3	-41.3	-63.7	24.3	-24.7	-47.8	-73.7	25.8	-28.7	-55.2	-85.1	27.4
6:12	-21.3	-41.3	-63.8	22.6	-24.8	-47.8	-73.7	24.1	-28.7	-55.3	-85.2	25.7
7:12	-23.9	-28.9	-28.9	28.6	-27.7	-33.4	-33.4	31.1	-32.1	-38.7	-38.7	34.1
8:12	-23.9	-28.9	-28.9	27.2	-27.7	-33.5	-33.5	29.7	-32.1	-38.8	-38.8	33.1
9:12	-23.9	-28.9	-28.9	25.9	-27.8	-33.5	-33.5	29.0	-32.2	-38.8	-38.8	33.0
10:12	-24.0	-29.0	-29.0	25.4	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D												
1:12	-29.0	-53.2	-83.4	27.5	-32.8	-60.1	-94.1	27.9	-37.2	-68.0	-106.5	28.9
2:12	-26.0	-50.2	-77.4	30.1	-29.4	-56.7	-87.3	31.6	-33.4	-64.2	-98.8	33.2
3:12	-26.0	-50.2	-77.4	28.5	-29.4	-56.7	-87.4	29.9	-33.4	-64.2	-98.8	31.6
4:12	-26.0	-50.2	-77.5	26.8	-29.5	-56.7	-87.4	28.2	-33.4	-64.2	-98.8	29.9
5:12	-26.0	-50.3	-77.5	25.2	-29.5	-56.7	-87.4	26.6	-33.4	-64.2	-98.9	28.3
6:12	-26.1	-50.3	-77.5	23.6	-29.5	-56.8	-87.4	25.1	-33.5	-64.3	-98.9	26.7
7:12	-29.1	-35.2	-35.2	31.3	-33.0	-39.8	-39.8	34.0	-37.4	-45.1	-45.1	38.0
8:12	-29.2	-35.2	-35.2	30.4	-33.0	-39.8	-39.8	33.9	-37.4	-45.1	-45.1	37.8
9:12	-29.2	-35.3	-35.3	30.3	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
150 mph

Ground Snow Load
35 psf

Up and Down (psf)

Side Load (psf)

Basic Wind Speed
150 mph

Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-19.3	-35.7	-56.3	31.9	-19.3	-35.7	-56.3	31.9	-23.7	-43.7	-68.6	31.9
	2:12	-17.2	-33.7	-52.2	30.5	-17.2	-33.7	-52.2	30.5	-21.2	-41.2	-63.7	32.2
	3:12	-17.3	-33.7	-52.2	28.5	-17.3	-33.7	-52.2	28.5	-21.2	-41.2	-63.7	30.1
	4:12	-17.3	-33.7	-52.2	26.4	-17.3	-33.7	-52.2	26.4	-21.3	-41.2	-63.7	28.0
	5:12	-17.3	-33.8	-52.3	24.3	-17.3	-33.8	-52.3	24.3	-21.3	-41.3	-63.7	26.0
	6:12	-17.4	-33.8	-52.3	22.4	-17.4	-33.8	-52.3	22.4	-21.3	-41.3	-63.8	24.0
	7:12	-19.5	-23.6	-23.6	26.8	-19.5	-23.6	-23.6	26.8	-23.9	-28.9	-28.9	29.8
	8:12	-19.5	-23.6	-23.6	25.2	-19.5	-23.6	-23.6	25.2	-23.9	-28.9	-28.9	28.2
	9:12	-19.5	-23.6	-23.6	23.8	-19.5	-23.6	-23.6	23.8	-23.9	-28.9	-28.9	26.8
	10:12	-19.6	-23.7	-23.7	22.6	-19.6	-23.7	-23.7	22.6	-24.0	-29.0	-29.0	25.6
	11:12	-19.6	-23.7	-23.7	21.5	-19.6	-23.7	-23.7	21.5	-24.0	-29.0	-29.0	25.3
	12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
Exposure Category C	1:12	-23.7	-43.7	-68.6	31.9	-27.5	-50.5	-79.3	31.9	-31.9	-58.5	-91.7	32.2
	2:12	-21.2	-41.2	-63.7	32.2	-24.6	-47.7	-73.6	33.6	-28.6	-55.2	-85.0	35.3
	3:12	-21.2	-41.2	-63.7	30.1	-24.7	-47.7	-73.6	31.5	-28.6	-55.2	-85.1	33.2
	4:12	-21.3	-41.2	-63.7	28.0	-24.7	-47.7	-73.6	29.4	-28.7	-55.2	-85.1	31.1
	5:12	-21.3	-41.3	-63.7	26.0	-24.7	-47.8	-73.7	27.4	-28.7	-55.2	-85.1	29.0
	6:12	-21.3	-41.3	-63.8	24.0	-24.8	-47.8	-73.7	25.5	-28.7	-55.3	-85.2	27.1
	7:12	-23.9	-28.9	-28.9	29.8	-27.7	-33.4	-33.4	32.3	-32.1	-38.7	-38.7	35.3
	8:12	-23.9	-28.9	-28.9	28.2	-27.7	-33.5	-33.5	30.8	-32.1	-38.8	-38.8	33.7
	9:12	-23.9	-28.9	-28.9	26.8	-27.8	-33.5	-33.5	29.4	-32.2	-38.8	-38.8	33.0
	10:12	-24.0	-29.0	-29.0	25.6	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
	11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
	12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D	1:12	-29.0	-53.2	-83.4	29.8	-32.8	-60.1	-94.1	30.3	-37.2	-68.0	-106.5	31.3
	2:12	-26.0	-50.2	-77.4	32.3	-29.4	-56.7	-87.3	33.7	-33.4	-64.2	-98.8	35.4
	3:12	-26.0	-50.2	-77.4	30.4	-29.4	-56.7	-87.4	31.8	-33.4	-64.2	-98.8	33.5
	4:12	-26.0	-50.2	-77.5	28.5	-29.5	-56.7	-87.4	29.9	-33.4	-64.2	-98.8	31.6
	5:12	-26.0	-50.3	-77.5	26.6	-29.5	-56.7	-87.4	28.1	-33.4	-64.2	-98.9	29.7
	6:12	-26.1	-50.3	-77.5	24.9	-29.5	-56.8	-87.4	26.3	-33.5	-64.3	-98.9	28.0
	7:12	-29.1	-35.2	-35.2	32.4	-33.0	-39.8	-39.8	34.9	-37.4	-45.1	-45.1	38.0
	8:12	-29.2	-35.2	-35.2	30.9	-33.0	-39.8	-39.8	33.9	-37.4	-45.1	-45.1	37.8
	9:12	-29.2	-35.3	-35.3	30.3	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
	10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
	11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
	12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
	2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
	3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
	4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
	5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
	6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
	7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
	8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
	9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
	10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
	11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
	12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
150 mph
Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	35.1	-19.3	-35.7	-56.3	35.1	-23.7	-43.7	-68.6	35.1
2:12	-17.2	-33.7	-52.2	32.9	-17.2	-33.7	-52.2	32.9	-21.2	-41.2	-63.7	34.6
3:12	-17.3	-33.7	-52.2	30.6	-17.3	-33.7	-52.2	30.6	-21.2	-41.2	-63.7	32.2
4:12	-17.3	-33.7	-52.2	28.2	-17.3	-33.7	-52.2	28.2	-21.3	-41.2	-63.7	29.9
5:12	-17.3	-33.8	-52.3	25.9	-17.3	-33.8	-52.3	25.9	-21.3	-41.3	-63.7	27.6
6:12	-17.4	-33.8	-52.3	23.8	-17.4	-33.8	-52.3	23.8	-21.3	-41.3	-63.8	25.4
7:12	-19.5	-23.6	-23.6	28.0	-19.5	-23.6	-23.6	28.0	-23.9	-28.9	-28.9	31.0
8:12	-19.5	-23.6	-23.6	26.2	-19.5	-23.6	-23.6	26.2	-23.9	-28.9	-28.9	29.2
9:12	-19.5	-23.6	-23.6	24.7	-19.5	-23.6	-23.6	24.7	-23.9	-28.9	-28.9	27.6
10:12	-19.6	-23.7	-23.7	23.3	-19.6	-23.7	-23.7	23.3	-24.0	-29.0	-29.0	26.3
11:12	-19.6	-23.7	-23.7	22.1	-19.6	-23.7	-23.7	22.1	-24.0	-29.0	-29.0	25.3
12:12	-19.7	-23.8	-23.8	21.2	-19.7	-23.8	-23.8	21.2	-24.1	-29.1	-29.1	25.2
Exposure Category C												
1:12	-23.7	-43.7	-68.6	35.1	-27.5	-50.5	-79.3	35.1	-31.9	-58.5	-91.7	35.1
2:12	-21.2	-41.2	-63.7	34.6	-24.6	-47.7	-73.6	36.0	-28.6	-55.2	-85.0	37.7
3:12	-21.2	-41.2	-63.7	32.2	-24.7	-47.7	-73.6	33.7	-28.6	-55.2	-85.1	35.3
4:12	-21.3	-41.2	-63.7	29.9	-24.7	-47.7	-73.6	31.3	-28.7	-55.2	-85.1	33.0
5:12	-21.3	-41.3	-63.7	27.6	-24.7	-47.8	-73.7	29.0	-28.7	-55.2	-85.1	30.7
6:12	-21.3	-41.3	-63.8	25.4	-24.8	-47.8	-73.7	26.9	-28.7	-55.3	-85.2	28.5
7:12	-23.9	-28.9	-28.9	31.0	-27.7	-33.4	-33.4	33.5	-32.1	-38.7	-38.7	36.5
8:12	-23.9	-28.9	-28.9	29.2	-27.7	-33.5	-33.5	31.8	-32.1	-38.8	-38.8	34.7
9:12	-23.9	-28.9	-28.9	27.6	-27.8	-33.5	-33.5	30.2	-32.2	-38.8	-38.8	33.2
10:12	-24.0	-29.0	-29.0	26.3	-27.8	-33.6	-33.6	28.9	-32.2	-38.8	-38.8	32.8
11:12	-24.0	-29.0	-29.0	25.3	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D												
1:12	-29.0	-53.2	-83.4	32.1	-32.8	-60.1	-94.1	32.6	-37.2	-68.0	-106.5	33.6
2:12	-26.0	-50.2	-77.4	34.4	-29.4	-56.7	-87.3	35.8	-33.4	-64.2	-98.8	37.5
3:12	-26.0	-50.2	-77.4	32.3	-29.4	-56.7	-87.4	33.7	-33.4	-64.2	-98.8	35.4
4:12	-26.0	-50.2	-77.5	30.2	-29.5	-56.7	-87.4	31.6	-33.4	-64.2	-98.8	33.3
5:12	-26.0	-50.3	-77.5	28.1	-29.5	-56.7	-87.4	29.5	-33.4	-64.2	-98.9	31.2
6:12	-26.1	-50.3	-77.5	26.2	-29.5	-56.8	-87.4	27.6	-33.5	-64.3	-98.9	29.2
7:12	-29.1	-35.2	-35.2	33.4	-33.0	-39.8	-39.8	36.0	-37.4	-45.1	-45.1	39.0
8:12	-29.2	-35.2	-35.2	31.8	-33.0	-39.8	-39.8	34.4	-37.4	-45.1	-45.1	37.8
9:12	-29.2	-35.3	-35.3	30.4	-33.0	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.7
10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W150-S45

Up and Down (psf)

Basic Wind Speed
150 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	38.6	-19.3	-35.7	-56.3	38.6	-23.7	-43.7	-68.6	38.6
2:12	-17.2	-33.7	-52.2	35.5	-17.2	-33.7	-52.2	35.5	-21.2	-41.2	-63.7	36.9
3:12	-17.3	-33.7	-52.2	32.7	-17.3	-33.7	-52.2	32.7	-21.2	-41.2	-63.7	34.4
4:12	-17.3	-33.7	-52.2	30.1	-17.3	-33.7	-52.2	30.1	-21.3	-41.2	-63.7	31.8
5:12	-17.3	-33.8	-52.3	27.6	-17.3	-33.8	-52.3	27.6	-21.3	-41.3	-63.7	29.2
6:12	-17.4	-33.8	-52.3	25.2	-17.4	-33.8	-52.3	25.2	-21.3	-41.3	-63.8	26.8
7:12	-19.5	-23.6	-23.6	29.2	-19.5	-23.6	-23.6	29.2	-23.9	-28.9	-28.9	32.2
8:12	-19.5	-23.6	-23.6	27.2	-19.5	-23.6	-23.6	27.2	-23.9	-28.9	-28.9	30.2
9:12	-19.5	-23.6	-23.6	25.5	-19.5	-23.6	-23.6	25.5	-23.9	-28.9	-28.9	28.5
10:12	-19.6	-23.7	-23.7	24.0	-19.6	-23.7	-23.7	24.0	-24.0	-29.0	-29.0	27.0
11:12	-19.6	-23.7	-23.7	22.7	-19.6	-23.7	-23.7	22.7	-24.0	-29.0	-29.0	25.7
12:12	-19.7	-23.8	-23.8	21.6	-19.7	-23.8	-23.8	21.6	-24.1	-29.1	-29.1	25.2
Exposure Category C												
1:12	-23.7	-43.7	-68.6	38.6	-27.5	-50.5	-79.3	38.6	-31.9	-58.5	-91.7	38.6
2:12	-21.2	-41.2	-63.7	36.9	-24.6	-47.7	-73.6	38.4	-28.6	-55.2	-85.0	40.0
3:12	-21.2	-41.2	-63.7	34.4	-24.7	-47.7	-73.6	35.8	-28.6	-55.2	-85.1	37.5
4:12	-21.3	-41.2	-63.7	31.8	-24.7	-47.7	-73.6	33.2	-28.7	-55.2	-85.1	34.8
5:12	-21.3	-41.3	-63.7	29.2	-24.7	-47.8	-73.7	30.7	-28.7	-55.2	-85.1	32.3
6:12	-21.3	-41.3	-63.8	26.8	-24.8	-47.8	-73.7	28.3	-28.7	-55.3	-85.2	29.9
7:12	-23.9	-28.9	-28.9	32.2	-27.7	-33.4	-33.4	34.7	-32.1	-38.7	-38.7	37.7
8:12	-23.9	-28.9	-28.9	30.2	-27.7	-33.5	-33.5	32.8	-32.1	-38.8	-38.8	35.8
9:12	-23.9	-28.9	-28.9	28.5	-27.8	-33.5	-33.5	31.1	-32.2	-38.8	-38.8	34.0
10:12	-24.0	-29.0	-29.0	27.0	-27.8	-33.6	-33.6	29.6	-32.2	-38.8	-38.8	32.8
11:12	-24.0	-29.0	-29.0	25.7	-27.8	-33.6	-33.6	28.7	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.2	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D												
1:12	-29.0	-53.2	-83.4	35.1	-32.8	-60.1	-94.1	35.1	-37.2	-68.0	-106.5	36.0
2:12	-26.0	-50.2	-77.4	36.5	-29.4	-56.7	-87.3	38.0	-33.4	-64.2	-98.8	39.6
3:12	-26.0	-50.2	-77.4	34.2	-29.4	-56.7	-87.4	35.7	-33.4	-64.2	-98.8	37.3
4:12	-26.0	-50.2	-77.5	31.9	-29.5	-56.7	-87.4	33.3	-33.4	-64.2	-98.8	34.9
5:12	-26.0	-50.3	-77.5	29.6	-29.5	-56.7	-87.4	31.0	-33.4	-64.2	-98.9	32.7
6:12	-26.1	-50.3	-77.5	27.4	-29.5	-56.8	-87.4	28.8	-33.5	-64.3	-98.9	30.5
7:12	-29.1	-35.2	-35.2	34.5	-33.0	-39.8	-39.8	37.1	-37.4	-45.1	-45.1	40.1
8:12	-29.2	-35.2	-35.2	32.8	-33.0	-39.8	-39.8	35.3	-37.4	-45.1	-45.1	38.3
9:12	-29.2	-35.3	-35.3	31.2	-33.0	-39.9	-39.9	33.8	-37.5	-45.2	-45.2	37.7
10:12	-29.3	-35.3	-35.3	30.2	-33.1	-39.9	-39.9	33.6	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Basic Wind Speed
150 mph

Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	45.5	-19.3	-35.7	-56.3	45.5	-23.7	-43.7	-68.6	45.5
2:12	-17.2	-33.7	-52.2	41.9	-17.2	-33.7	-52.2	41.9	-21.2	-41.2	-63.7	41.9
3:12	-17.3	-33.7	-52.2	37.8	-17.3	-33.7	-52.2	37.8	-21.2	-41.2	-63.7	38.6
4:12	-17.3	-33.7	-52.2	33.9	-17.3	-33.7	-52.2	33.9	-21.3	-41.2	-63.7	35.5
5:12	-17.3	-33.8	-52.3	30.8	-17.3	-33.8	-52.3	30.8	-21.3	-41.3	-63.7	32.5
6:12	-17.4	-33.8	-52.3	28.0	-17.4	-33.8	-52.3	28.0	-21.3	-41.3	-63.8	29.6
7:12	-19.5	-23.6	-23.6	31.6	-19.5	-23.6	-23.6	31.6	-23.9	-28.9	-28.9	34.5
8:12	-19.5	-23.6	-23.6	29.3	-19.5	-23.6	-23.6	29.3	-23.9	-28.9	-28.9	32.2
9:12	-19.5	-23.6	-23.6	27.2	-19.5	-23.6	-23.6	27.2	-23.9	-28.9	-28.9	30.2
10:12	-19.6	-23.7	-23.7	25.5	-19.6	-23.7	-23.7	25.5	-24.0	-29.0	-29.0	28.4
11:12	-19.6	-23.7	-23.7	24.0	-19.6	-23.7	-23.7	24.0	-24.0	-29.0	-29.0	26.9
12:12	-19.7	-23.8	-23.8	22.7	-19.7	-23.8	-23.8	22.7	-24.1	-29.1	-29.1	25.6
Exposure Category C												
1:12	-23.7	-43.7	-68.6	45.5	-27.5	-50.5	-79.3	45.5	-31.9	-58.5	-91.7	45.5
2:12	-21.2	-41.2	-63.7	41.9	-24.6	-47.7	-73.6	43.1	-28.6	-55.2	-85.0	44.8
3:12	-21.2	-41.2	-63.7	38.6	-24.7	-47.7	-73.6	40.1	-28.6	-55.2	-85.1	41.7
4:12	-21.3	-41.2	-63.7	35.5	-24.7	-47.7	-73.6	36.9	-28.7	-55.2	-85.1	38.6
5:12	-21.3	-41.3	-63.7	32.5	-24.7	-47.8	-73.7	33.9	-28.7	-55.2	-85.1	35.6
6:12	-21.3	-41.3	-63.8	29.6	-24.8	-47.8	-73.7	31.1	-28.7	-55.3	-85.2	32.7
7:12	-23.9	-28.9	-28.9	34.5	-27.7	-33.4	-33.4	37.1	-32.1	-38.7	-38.7	40.1
8:12	-23.9	-28.9	-28.9	32.2	-27.7	-33.5	-33.5	34.8	-32.1	-38.8	-38.8	37.8
9:12	-23.9	-28.9	-28.9	30.2	-27.8	-33.5	-33.5	32.8	-32.2	-38.8	-38.8	35.8
10:12	-24.0	-29.0	-29.0	28.4	-27.8	-33.6	-33.6	31.0	-32.2	-38.8	-38.8	34.0
11:12	-24.0	-29.0	-29.0	26.9	-27.8	-33.6	-33.6	29.5	-32.2	-38.9	-38.9	32.7
12:12	-24.1	-29.1	-29.1	25.6	-27.9	-33.6	-33.6	28.6	-32.3	-38.9	-38.9	32.6
Exposure Category D												
1:12	-29.0	-53.2	-83.4	41.4	-32.8	-60.1	-94.1	41.4	-37.2	-68.0	-106.5	41.4
2:12	-26.0	-50.2	-77.4	40.8	-29.4	-56.7	-87.3	42.3	-33.4	-64.2	-98.8	43.9
3:12	-26.0	-50.2	-77.4	38.1	-29.4	-56.7	-87.4	39.5	-33.4	-64.2	-98.8	41.1
4:12	-26.0	-50.2	-77.5	35.2	-29.5	-56.7	-87.4	36.7	-33.4	-64.2	-98.8	38.3
5:12	-26.0	-50.3	-77.5	32.5	-29.5	-56.7	-87.4	33.9	-33.4	-64.2	-98.9	35.6
6:12	-26.1	-50.3	-77.5	29.9	-29.5	-56.8	-87.4	31.4	-33.5	-64.3	-98.9	33.0
7:12	-29.1	-35.2	-35.2	36.7	-33.0	-39.8	-39.8	39.3	-37.4	-45.1	-45.1	42.2
8:12	-29.2	-35.2	-35.2	34.6	-33.0	-39.8	-39.8	37.2	-37.4	-45.1	-45.1	40.1
9:12	-29.2	-35.3	-35.3	32.7	-33.0	-39.9	-39.9	35.3	-37.5	-45.2	-45.2	38.3
10:12	-29.3	-35.3	-35.3	31.2	-33.1	-39.9	-39.9	33.7	-37.5	-45.2	-45.2	37.6
11:12	-29.3	-35.4	-35.4	30.1	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
150 mph
Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-19.3	-35.7	-56.3	52.5	-19.3	-35.7	-56.3	52.5	-23.7	-43.7	-68.6	52.5
2:12	-17.2	-33.7	-52.2	48.2	-17.2	-33.7	-52.2	48.2	-21.2	-41.2	-63.7	48.2
3:12	-17.3	-33.7	-52.2	43.4	-17.3	-33.7	-52.2	43.4	-21.2	-41.2	-63.7	43.4
4:12	-17.3	-33.7	-52.2	38.6	-17.3	-33.7	-52.2	38.6	-21.3	-41.2	-63.7	39.3
5:12	-17.3	-33.8	-52.3	34.1	-17.3	-33.8	-52.3	34.1	-21.3	-41.3	-63.7	35.7
6:12	-17.4	-33.8	-52.3	30.8	-17.4	-33.8	-52.3	30.8	-21.3	-41.3	-63.8	32.5
7:12	-19.5	-23.6	-23.6	34.0	-19.5	-23.6	-23.6	34.0	-23.9	-28.9	-28.9	36.9
8:12	-19.5	-23.6	-23.6	31.3	-19.5	-23.6	-23.6	31.3	-23.9	-28.9	-28.9	34.3
9:12	-19.5	-23.6	-23.6	28.9	-19.5	-23.6	-23.6	28.9	-23.9	-28.9	-28.9	31.9
10:12	-19.6	-23.7	-23.7	26.9	-19.6	-23.7	-23.7	26.9	-24.0	-29.0	-29.0	29.9
11:12	-19.6	-23.7	-23.7	25.2	-19.6	-23.7	-23.7	25.2	-24.0	-29.0	-29.0	28.1
12:12	-19.7	-23.8	-23.8	23.7	-19.7	-23.8	-23.8	23.7	-24.1	-29.1	-29.1	26.6
1:12	-23.7	-43.7	-68.6	52.5	-27.5	-50.5	-79.3	52.5	-31.9	-58.5	-91.7	52.5
2:12	-21.2	-41.2	-63.7	48.2	-24.6	-47.7	-73.6	48.2	-28.6	-55.2	-85.0	49.5
3:12	-21.2	-41.2	-63.7	43.4	-24.7	-47.7	-73.6	44.3	-28.6	-55.2	-85.1	46.0
4:12	-21.3	-41.2	-63.7	39.3	-24.7	-47.7	-73.6	40.7	-28.7	-55.2	-85.1	42.3
5:12	-21.3	-41.3	-63.7	35.7	-24.7	-47.8	-73.7	37.2	-28.7	-55.2	-85.1	38.8
6:12	-21.3	-41.3	-63.8	32.5	-24.8	-47.8	-73.7	33.9	-28.7	-55.3	-85.2	35.5
7:12	-23.9	-28.9	-28.9	36.9	-27.7	-33.4	-33.4	39.5	-32.1	-38.7	-38.7	42.5
8:12	-23.9	-28.9	-28.9	34.3	-27.7	-33.5	-33.5	36.8	-32.1	-38.8	-38.8	39.8
9:12	-23.9	-28.9	-28.9	31.9	-27.8	-33.5	-33.5	34.5	-32.2	-38.8	-38.8	37.5
10:12	-24.0	-29.0	-29.0	29.9	-27.8	-33.6	-33.6	32.5	-32.2	-38.8	-38.8	35.4
11:12	-24.0	-29.0	-29.0	28.1	-27.8	-33.6	-33.6	30.7	-32.2	-38.9	-38.9	33.7
12:12	-24.1	-29.1	-29.1	26.6	-27.9	-33.6	-33.6	29.2	-32.3	-38.9	-38.9	32.6
1:12	-29.0	-53.2	-83.4	47.6	-32.8	-60.1	-94.1	47.6	-37.2	-68.0	-106.5	47.6
2:12	-26.0	-50.2	-77.4	45.1	-29.4	-56.7	-87.3	46.5	-33.4	-64.2	-98.8	48.2
3:12	-26.0	-50.2	-77.4	41.9	-29.4	-56.7	-87.4	43.3	-33.4	-64.2	-98.8	45.0
4:12	-26.0	-50.2	-77.5	38.6	-29.5	-56.7	-87.4	40.0	-33.4	-64.2	-98.8	41.7
5:12	-26.0	-50.3	-77.5	35.4	-29.5	-56.7	-87.4	36.9	-33.4	-64.2	-98.9	38.5
6:12	-26.1	-50.3	-77.5	32.5	-29.5	-56.8	-87.4	33.9	-33.5	-64.3	-98.9	35.6
7:12	-29.1	-35.2	-35.2	38.8	-33.0	-39.8	-39.8	41.4	-37.4	-45.1	-45.1	44.4
8:12	-29.2	-35.2	-35.2	36.4	-33.0	-39.8	-39.8	39.0	-37.4	-45.1	-45.1	42.0
9:12	-29.2	-35.3	-35.3	34.3	-33.0	-39.9	-39.9	36.9	-37.5	-45.2	-45.2	39.8
10:12	-29.3	-35.3	-35.3	32.4	-33.1	-39.9	-39.9	35.0	-37.5	-45.2	-45.2	38.0
11:12	-29.3	-35.4	-35.4	30.9	-33.1	-39.9	-39.9	33.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.0	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	59.4	-19.3	-35.7	-56.3	59.4	-23.7	-43.7	-68.6	59.4
2:12	-17.2	-33.7	-52.2	54.5	-17.2	-33.7	-52.2	54.5	-21.2	-41.2	-63.7	54.5
3:12	-17.3	-33.7	-52.2	49.1	-17.3	-33.7	-52.2	49.1	-21.2	-41.2	-63.7	49.1
4:12	-17.3	-33.7	-52.2	43.6	-17.3	-33.7	-52.2	43.6	-21.3	-41.2	-63.7	43.6
5:12	-17.3	-33.8	-52.3	38.3	-17.3	-33.8	-52.3	38.3	-21.3	-41.3	-63.7	39.0
6:12	-17.4	-33.8	-52.3	33.6	-17.4	-33.8	-52.3	33.6	-21.3	-41.3	-63.8	35.3
7:12	-19.5	-23.6	-23.6	36.4	-19.5	-23.6	-23.6	36.4	-23.9	-28.9	-28.9	39.3
8:12	-19.5	-23.6	-23.6	33.3	-19.5	-23.6	-23.6	33.3	-23.9	-28.9	-28.9	36.3
9:12	-19.5	-23.6	-23.6	30.7	-19.5	-23.6	-23.6	30.7	-23.9	-28.9	-28.9	33.6
10:12	-19.6	-23.7	-23.7	28.4	-19.6	-23.7	-23.7	28.4	-24.0	-29.0	-29.0	31.3
11:12	-19.6	-23.7	-23.7	26.4	-19.6	-23.7	-23.7	26.4	-24.0	-29.0	-29.0	29.3
12:12	-19.7	-23.8	-23.8	24.7	-19.7	-23.8	-23.8	24.7	-24.1	-29.1	-29.1	27.7
Exposure Category C												
1:12	-23.7	-43.7	-68.6	59.4	-27.5	-50.5	-79.3	59.4	-31.9	-58.5	-91.7	59.4
2:12	-21.2	-41.2	-63.7	54.5	-24.6	-47.7	-73.6	54.5	-28.6	-55.2	-85.0	54.5
3:12	-21.2	-41.2	-63.7	49.1	-24.7	-47.7	-73.6	49.1	-28.6	-55.2	-85.1	50.2
4:12	-21.3	-41.2	-63.7	43.6	-24.7	-47.7	-73.6	44.4	-28.7	-55.2	-85.1	46.1
5:12	-21.3	-41.3	-63.7	39.0	-24.7	-47.8	-73.7	40.4	-28.7	-55.2	-85.1	42.1
6:12	-21.3	-41.3	-63.8	35.3	-24.8	-47.8	-73.7	36.7	-28.7	-55.3	-85.2	38.3
7:12	-23.9	-28.9	-28.9	39.3	-27.7	-33.4	-33.4	41.9	-32.1	-38.7	-38.7	44.9
8:12	-23.9	-28.9	-28.9	36.3	-27.7	-33.5	-33.5	38.9	-32.1	-38.8	-38.8	41.9
9:12	-23.9	-28.9	-28.9	33.6	-27.8	-33.5	-33.5	36.2	-32.2	-38.8	-38.8	39.2
10:12	-24.0	-29.0	-29.0	31.3	-27.8	-33.6	-33.6	33.9	-32.2	-38.8	-38.8	36.9
11:12	-24.0	-29.0	-29.0	29.3	-27.8	-33.6	-33.6	31.9	-32.2	-38.9	-38.9	34.9
12:12	-24.1	-29.1	-29.1	27.7	-27.9	-33.6	-33.6	30.2	-32.3	-38.9	-38.9	33.2
Exposure Category D												
1:12	-29.0	-53.2	-83.4	53.9	-32.8	-60.1	-94.1	53.9	-37.2	-68.0	-106.5	53.9
2:12	-26.0	-50.2	-77.4	49.5	-29.4	-56.7	-87.3	50.8	-33.4	-64.2	-98.8	52.5
3:12	-26.0	-50.2	-77.4	45.7	-29.4	-56.7	-87.4	47.1	-33.4	-64.2	-98.8	48.8
4:12	-26.0	-50.2	-77.5	42.0	-29.5	-56.7	-87.4	43.4	-33.4	-64.2	-98.8	45.1
5:12	-26.0	-50.3	-77.5	38.4	-29.5	-56.7	-87.4	39.8	-33.4	-64.2	-98.9	41.5
6:12	-26.1	-50.3	-77.5	35.0	-29.5	-56.8	-87.4	36.4	-33.5	-64.3	-98.9	38.1
7:12	-29.1	-35.2	-35.2	41.0	-33.0	-39.8	-39.8	43.6	-37.4	-45.1	-45.1	46.5
8:12	-29.2	-35.2	-35.2	38.2	-33.0	-39.8	-39.8	40.8	-37.4	-45.1	-45.1	43.8
9:12	-29.2	-35.3	-35.3	35.8	-33.0	-39.9	-39.9	38.4	-37.5	-45.2	-45.2	41.4
10:12	-29.3	-35.3	-35.3	33.7	-33.1	-39.9	-39.9	36.3	-37.5	-45.2	-45.2	39.3
11:12	-29.3	-35.4	-35.4	31.9	-33.1	-39.9	-39.9	34.5	-37.5	-45.2	-45.2	37.5
12:12	-29.3	-35.4	-35.4	30.4	-33.2	-40.0	-40.0	33.4	-37.6	-45.3	-45.3	37.4

Basic Wind Speed

150 mph

Ground Snow Load

80 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-19.3	-35.7	-56.3	66.4	-19.3	-35.7	-56.3	66.4	-23.7	-43.7	-68.6	66.4
2:12	-17.2	-33.7	-52.2	60.9	-17.2	-33.7	-52.2	60.9	-21.2	-41.2	-63.7	60.9
3:12	-17.3	-33.7	-52.2	54.8	-17.3	-33.7	-52.2	54.8	-21.2	-41.2	-63.7	54.8
4:12	-17.3	-33.7	-52.2	48.6	-17.3	-33.7	-52.2	48.6	-21.3	-41.2	-63.7	48.6
5:12	-17.3	-33.8	-52.3	42.7	-17.3	-33.8	-52.3	42.7	-21.3	-41.3	-63.7	42.7
6:12	-17.4	-33.8	-52.3	37.1	-17.4	-33.8	-52.3	37.1	-21.3	-41.3	-63.8	38.1
7:12	-19.5	-23.6	-23.6	38.8	-19.5	-23.6	-23.6	38.8	-23.9	-28.9	-28.9	41.7
8:12	-19.5	-23.6	-23.6	35.4	-19.5	-23.6	-23.6	35.4	-23.9	-28.9	-28.9	38.3
9:12	-19.5	-23.6	-23.6	32.4	-19.5	-23.6	-23.6	32.4	-23.9	-28.9	-28.9	35.3
10:12	-19.6	-23.7	-23.7	29.8	-19.6	-23.7	-23.7	29.8	-24.0	-29.0	-29.0	32.8
11:12	-19.6	-23.7	-23.7	27.6	-19.6	-23.7	-23.7	27.6	-24.0	-29.0	-29.0	30.5
12:12	-19.7	-23.8	-23.8	25.7	-19.7	-23.8	-23.8	25.7	-24.1	-29.1	-29.1	28.7
Exposure Category C												
1:12	-23.7	-43.7	-68.6	66.4	-27.5	-50.5	-79.3	66.4	-31.9	-58.5	-91.7	66.4
2:12	-21.2	-41.2	-63.7	60.9	-24.6	-47.7	-73.6	60.9	-28.6	-55.2	-85.0	60.9
3:12	-21.2	-41.2	-63.7	54.8	-24.7	-47.7	-73.6	54.8	-28.6	-55.2	-85.1	54.8
4:12	-21.3	-41.2	-63.7	48.6	-24.7	-47.7	-73.6	48.6	-28.7	-55.2	-85.1	49.8
5:12	-21.3	-41.3	-63.7	42.7	-24.7	-47.8	-73.7	43.7	-28.7	-55.2	-85.1	45.3
6:12	-21.3	-41.3	-63.8	38.1	-24.8	-47.8	-73.7	39.5	-28.7	-55.3	-85.2	41.1
7:12	-23.9	-28.9	-28.9	41.7	-27.7	-33.4	-33.4	44.3	-32.1	-38.7	-38.7	47.3
8:12	-23.9	-28.9	-28.9	38.3	-27.7	-33.5	-33.5	40.9	-32.1	-38.8	-38.8	43.9
9:12	-23.9	-28.9	-28.9	35.3	-27.8	-33.5	-33.5	37.9	-32.2	-38.8	-38.8	40.9
10:12	-24.0	-29.0	-29.0	32.8	-27.8	-33.6	-33.6	35.3	-32.2	-38.8	-38.8	38.3
11:12	-24.0	-29.0	-29.0	30.5	-27.8	-33.6	-33.6	33.1	-32.2	-38.9	-38.9	36.1
12:12	-24.1	-29.1	-29.1	28.7	-27.9	-33.6	-33.6	31.2	-32.3	-38.9	-38.9	34.2
Exposure Category D												
1:12	-29.0	-53.2	-83.4	60.1	-32.8	-60.1	-94.1	60.1	-37.2	-68.0	-106.5	60.1
2:12	-26.0	-50.2	-77.4	55.2	-29.4	-56.7	-87.3	55.2	-33.4	-64.2	-98.8	56.8
3:12	-26.0	-50.2	-77.4	49.7	-29.4	-56.7	-87.4	51.0	-33.4	-64.2	-98.8	52.6
4:12	-26.0	-50.2	-77.5	45.4	-29.5	-56.7	-87.4	46.8	-33.4	-64.2	-98.8	48.4
5:12	-26.0	-50.3	-77.5	41.3	-29.5	-56.7	-87.4	42.7	-33.4	-64.2	-98.9	44.4
6:12	-26.1	-50.3	-77.5	37.5	-29.5	-56.8	-87.4	39.0	-33.5	-64.3	-98.9	40.6
7:12	-29.1	-35.2	-35.2	43.1	-33.0	-39.8	-39.8	45.7	-37.4	-45.1	-45.1	48.7
8:12	-29.2	-35.2	-35.2	40.1	-33.0	-39.8	-39.8	42.6	-37.4	-45.1	-45.1	45.6
9:12	-29.2	-35.3	-35.3	37.4	-33.0	-39.9	-39.9	40.0	-37.5	-45.2	-45.2	42.9
10:12	-29.3	-35.3	-35.3	35.0	-33.1	-39.9	-39.9	37.6	-37.5	-45.2	-45.2	40.6
11:12	-29.3	-35.4	-35.4	33.0	-33.1	-39.9	-39.9	35.6	-37.5	-45.2	-45.2	38.6
12:12	-29.3	-35.4	-35.4	31.3	-33.2	-40.0	-40.0	33.9	-37.6	-45.3	-45.3	37.4
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
150 mph

Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-19.3	-35.7	-56.3	73.4	-19.3	-35.7	-56.3	73.4	-23.7	-43.7	-68.6	73.4
2:12	-17.2	-33.7	-52.2	67.2	-17.2	-33.7	-52.2	67.2	-21.2	-41.2	-63.7	67.2
3:12	-17.3	-33.7	-52.2	60.5	-17.3	-33.7	-52.2	60.5	-21.2	-41.2	-63.7	60.5
4:12	-17.3	-33.7	-52.2	53.6	-17.3	-33.7	-52.2	53.6	-21.3	-41.2	-63.7	53.6
5:12	-17.3	-33.8	-52.3	47.0	-17.3	-33.8	-52.3	47.0	-21.3	-41.3	-63.7	47.0
6:12	-17.4	-33.8	-52.3	40.9	-17.4	-33.8	-52.3	40.9	-21.3	-41.3	-63.8	40.9
7:12	-19.5	-23.6	-23.6	41.2	-19.5	-23.6	-23.6	41.2	-23.9	-28.9	-28.9	44.1
8:12	-19.5	-23.6	-23.6	37.4	-19.5	-23.6	-23.6	37.4	-23.9	-28.9	-28.9	40.4
9:12	-19.5	-23.6	-23.6	34.1	-19.5	-23.6	-23.6	34.1	-23.9	-28.9	-28.9	37.1
10:12	-19.6	-23.7	-23.7	31.2	-19.6	-23.7	-23.7	31.2	-24.0	-29.0	-29.0	34.2
11:12	-19.6	-23.7	-23.7	28.8	-19.6	-23.7	-23.7	28.8	-24.0	-29.0	-29.0	31.8
12:12	-19.7	-23.8	-23.8	26.7	-19.7	-23.8	-23.8	26.7	-24.1	-29.1	-29.1	29.7
1:12	-23.7	-43.7	-68.6	73.4	-27.5	-50.5	-79.3	73.4	-31.9	-58.5	-91.7	73.4
2:12	-21.2	-41.2	-63.7	67.2	-24.6	-47.7	-73.6	67.2	-28.6	-55.2	-85.0	67.2
3:12	-21.2	-41.2	-63.7	60.5	-24.7	-47.7	-73.6	60.5	-28.6	-55.2	-85.1	60.5
4:12	-21.3	-41.2	-63.7	53.6	-24.7	-47.7	-73.6	53.6	-28.7	-55.2	-85.1	53.6
5:12	-21.3	-41.3	-63.7	47.0	-24.7	-47.8	-73.7	47.0	-28.7	-55.2	-85.1	48.6
6:12	-21.3	-41.3	-63.8	40.9	-24.8	-47.8	-73.7	42.3	-28.7	-55.3	-85.2	44.0
7:12	-23.9	-28.9	-28.9	44.1	-27.7	-33.4	-33.4	46.7	-32.1	-38.7	-38.7	49.7
8:12	-23.9	-28.9	-28.9	40.4	-27.7	-33.5	-33.5	42.9	-32.1	-38.8	-38.8	45.9
9:12	-23.9	-28.9	-28.9	37.1	-27.8	-33.5	-33.5	39.6	-32.2	-38.8	-38.8	42.6
10:12	-24.0	-29.0	-29.0	34.2	-27.8	-33.6	-33.6	36.8	-32.2	-38.8	-38.8	39.8
11:12	-24.0	-29.0	-29.0	31.8	-27.8	-33.6	-33.6	34.3	-32.2	-38.9	-38.9	37.3
12:12	-24.1	-29.1	-29.1	29.7	-27.9	-33.6	-33.6	32.2	-32.3	-38.9	-38.9	35.2
1:12	-29.0	-53.2	-83.4	66.4	-32.8	-60.1	-94.1	66.4	-37.2	-68.0	-106.5	66.4
2:12	-26.0	-50.2	-77.4	60.9	-29.4	-56.7	-87.3	60.9	-33.4	-64.2	-98.8	61.0
3:12	-26.0	-50.2	-77.4	54.8	-29.4	-56.7	-87.4	54.8	-33.4	-64.2	-98.8	56.5
4:12	-26.0	-50.2	-77.5	48.7	-29.5	-56.7	-87.4	50.2	-33.4	-64.2	-98.8	51.8
5:12	-26.0	-50.3	-77.5	44.2	-29.5	-56.7	-87.4	45.7	-33.4	-64.2	-98.9	47.3
6:12	-26.1	-50.3	-77.5	40.0	-29.5	-56.8	-87.4	41.5	-33.5	-64.3	-98.9	43.1
7:12	-29.1	-35.2	-35.2	45.3	-33.0	-39.8	-39.8	47.9	-37.4	-45.1	-45.1	50.9
8:12	-29.2	-35.2	-35.2	41.9	-33.0	-39.8	-39.8	44.5	-37.4	-45.1	-45.1	47.5
9:12	-29.2	-35.3	-35.3	38.9	-33.0	-39.9	-39.9	41.5	-37.5	-45.2	-45.2	44.5
10:12	-29.3	-35.3	-35.3	36.3	-33.1	-39.9	-39.9	38.9	-37.5	-45.2	-45.2	41.9
11:12	-29.3	-35.4	-35.4	34.1	-33.1	-39.9	-39.9	36.7	-37.5	-45.2	-45.2	39.7
12:12	-29.3	-35.4	-35.4	32.2	-33.2	-40.0	-40.0	34.8	-37.6	-45.3	-45.3	37.8
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
150 mph

Ground Snow Load
100 psf

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	13.4	-20.7	-38.2	-60.2	13.4	-25.4	-46.7	-73.4	13.4
2:12	-18.5	-36.1	-55.8	14.8	-18.5	-36.1	-55.8	14.8	-22.7	-44.1	-68.1	17.1
3:12	-18.5	-36.1	-55.8	14.7	-18.5	-36.1	-55.8	14.7	-22.7	-44.1	-68.1	17.1
4:12	-18.5	-36.1	-55.9	14.6	-18.5	-36.1	-55.9	14.6	-22.8	-44.1	-68.1	17.0
5:12	-18.6	-36.1	-55.9	14.5	-18.6	-36.1	-55.9	14.5	-22.8	-44.1	-68.1	16.9
6:12	-18.6	-36.2	-55.9	14.4	-18.6	-36.2	-55.9	14.4	-22.8	-44.2	-68.2	16.8
7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.6	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	23.0	-20.9	-25.3	-25.3	23.0	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-31.0	-31.0	27.1
10:12	-21.0	-25.4	-25.4	22.7	-21.0	-25.4	-25.4	22.7	-25.7	-31.0	-31.0	27.0
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.4	13.4	-29.5	-54.1	-84.8	13.4	-34.2	-62.5	-98.0	14.5
2:12	-22.7	-44.1	-68.1	17.1	-26.4	-51.0	-78.7	19.2	-30.6	-59.0	-90.9	21.5
3:12	-22.7	-44.1	-68.1	17.1	-26.4	-51.0	-78.7	19.1	-30.7	-59.0	-90.9	21.5
4:12	-22.8	-44.1	-68.1	17.0	-26.4	-51.0	-78.7	19.0	-30.7	-59.0	-90.9	21.4
5:12	-22.8	-44.1	-68.1	16.9	-26.5	-51.1	-78.7	18.9	-30.7	-59.1	-91.0	21.3
6:12	-22.8	-44.2	-68.2	16.8	-26.5	-51.1	-78.8	18.8	-30.8	-59.1	-91.0	21.2
7:12	-25.6	-30.9	-30.9	27.3	-29.6	-35.8	-35.8	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.7	-35.8	-35.8	30.9	-34.4	-41.5	-41.5	35.1
9:12	-25.6	-31.0	-31.0	27.1	-29.7	-35.9	-35.9	30.7	-34.4	-41.5	-41.5	35.0
10:12	-25.7	-31.0	-31.0	27.0	-29.8	-35.9	-35.9	30.6	-34.5	-41.5	-41.5	34.9
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.9	-89.2	13.5	-35.1	-64.2	-100.6	14.7	-39.8	-72.7	-113.8	16.2
2:12	-27.8	-53.7	-82.7	19.9	-31.5	-60.6	-93.3	22.0	-35.7	-68.6	-105.6	24.3
3:12	-27.8	-53.7	-82.8	19.9	-31.5	-60.6	-93.4	21.9	-35.7	-68.6	-105.6	24.3
4:12	-27.9	-53.7	-82.8	19.8	-31.5	-60.6	-93.4	21.8	-35.8	-68.6	-105.6	24.2
5:12	-27.9	-53.7	-82.8	19.7	-31.6	-60.7	-93.4	21.7	-35.8	-68.7	-105.7	24.1
6:12	-27.9	-53.8	-82.9	19.6	-31.6	-60.7	-93.5	21.6	-35.8	-68.7	-105.7	24.0
7:12	-31.2	-37.7	-37.7	32.4	-35.3	-42.6	-42.6	36.1	-40.0	-48.2	-48.2	40.3
8:12	-31.2	-37.7	-37.7	32.3	-35.3	-42.6	-42.6	35.9	-40.0	-48.2	-48.2	40.2
9:12	-31.3	-37.7	-37.7	32.2	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7

Basic Wind Speed **155 mph**
Ground Snow Load **0 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.2	14.8	-20.7	-38.2	-60.2	14.8	-25.4	-46.7	-73.4	14.8
2:12	-18.5	-36.1	-55.8	15.4	-18.5	-36.1	-55.8	15.4	-22.7	-44.1	-68.1	17.2
3:12	-18.5	-36.1	-55.8	15.0	-18.5	-36.1	-55.8	15.0	-22.7	-44.1	-68.1	17.1
4:12	-18.5	-36.1	-55.9	14.6	-18.5	-36.1	-55.9	14.6	-22.8	-44.1	-68.1	17.0
5:12	-18.6	-36.1	-55.9	14.5	-18.6	-36.1	-55.9	14.5	-22.8	-44.1	-68.1	16.9
6:12	-18.6	-36.2	-55.9	14.4	-18.6	-36.2	-55.9	14.4	-22.8	-44.2	-68.2	16.8
7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.6	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	23.0	-20.9	-25.3	-25.3	23.0	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-31.0	-31.0	27.1
10:12	-21.0	-25.4	-25.4	22.7	-21.0	-25.4	-25.4	22.7	-25.7	-31.0	-31.0	27.0
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.4	14.8	-29.5	-54.1	-84.8	14.8	-34.2	-62.5	-98.0	15.5
2:12	-22.7	-44.1	-68.1	17.2	-26.4	-51.0	-78.7	19.2	-30.6	-59.0	-90.9	21.5
3:12	-22.7	-44.1	-68.1	17.1	-26.4	-51.0	-78.7	19.1	-30.7	-59.0	-90.9	21.5
4:12	-22.8	-44.1	-68.1	17.0	-26.4	-51.0	-78.7	19.0	-30.7	-59.0	-90.9	21.4
5:12	-22.8	-44.1	-68.1	16.9	-26.5	-51.1	-78.7	18.9	-30.7	-59.1	-91.0	21.3
6:12	-22.8	-44.2	-68.2	16.8	-26.5	-51.1	-78.8	18.8	-30.8	-59.1	-91.0	21.2
7:12	-25.6	-30.9	-30.9	27.3	-29.6	-35.8	-35.8	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.7	-35.8	-35.8	30.9	-34.4	-41.5	-41.5	35.1
9:12	-25.6	-31.0	-31.0	27.1	-29.7	-35.9	-35.9	30.7	-34.4	-41.5	-41.5	35.0
10:12	-25.7	-31.0	-31.0	27.0	-29.8	-35.9	-35.9	30.6	-34.5	-41.5	-41.5	34.9
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.9	-89.2	14.8	-35.1	-64.2	-100.6	15.7	-39.8	-72.7	-113.8	16.8
2:12	-27.8	-53.7	-82.7	19.9	-31.5	-60.6	-93.3	22.0	-35.7	-68.6	-105.6	24.3
3:12	-27.8	-53.7	-82.8	19.9	-31.5	-60.6	-93.4	21.9	-35.7	-68.6	-105.6	24.3
4:12	-27.9	-53.7	-82.8	19.8	-31.5	-60.6	-93.4	21.8	-35.8	-68.6	-105.6	24.2
5:12	-27.9	-53.7	-82.8	19.7	-31.6	-60.7	-93.4	21.7	-35.8	-68.7	-105.7	24.1
6:12	-27.9	-53.8	-82.9	19.6	-31.6	-60.7	-93.5	21.6	-35.8	-68.7	-105.7	24.0
7:12	-31.2	-37.7	-37.7	32.4	-35.3	-42.6	-42.6	36.1	-40.0	-48.2	-48.2	40.3
8:12	-31.2	-37.7	-37.7	32.3	-35.3	-42.6	-42.6	35.9	-40.0	-48.2	-48.2	40.2
9:12	-31.3	-37.7	-37.7	32.2	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
155 mph

Ground Snow Load
5 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.2	18.5	-20.7	-38.2	-60.2	18.5	-25.4	-46.7	-73.4	18.5
2:12	-18.5	-36.1	-55.8	18.8	-18.5	-36.1	-55.8	18.8	-22.7	-44.1	-68.1	20.6
3:12	-18.5	-36.1	-55.8	18.0	-18.5	-36.1	-55.8	18.0	-22.7	-44.1	-68.1	19.8
4:12	-18.5	-36.1	-55.9	15.6	-18.5	-36.1	-55.9	15.6	-22.8	-44.1	-68.1	17.4
5:12	-18.6	-36.1	-55.9	15.0	-18.6	-36.1	-55.9	15.0	-22.8	-44.1	-68.1	16.9
6:12	-18.6	-36.2	-55.9	14.5	-18.6	-36.2	-55.9	14.5	-22.8	-44.2	-68.2	16.8
7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.6	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	23.0	-20.9	-25.3	-25.3	23.0	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-31.0	-31.0	27.1
10:12	-21.0	-25.4	-25.4	22.7	-21.0	-25.4	-25.4	22.7	-25.7	-31.0	-31.0	27.0
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7
1:12	-25.4	-46.7	-73.4	18.5	-29.5	-54.1	-84.8	18.5	-34.2	-62.5	-98.0	19.3
2:12	-22.7	-44.1	-68.1	20.6	-26.4	-51.0	-78.7	22.1	-30.6	-59.0	-90.9	23.9
3:12	-22.7	-44.1	-68.1	19.8	-26.4	-51.0	-78.7	21.3	-30.7	-59.0	-90.9	23.1
4:12	-22.8	-44.1	-68.1	17.4	-26.4	-51.0	-78.7	19.0	-30.7	-59.0	-90.9	21.4
5:12	-22.8	-44.1	-68.1	16.9	-26.5	-51.1	-78.7	18.9	-30.7	-59.1	-91.0	21.3
6:12	-22.8	-44.2	-68.2	16.8	-26.5	-51.1	-78.8	18.8	-30.8	-59.1	-91.0	21.2
7:12	-25.6	-30.9	-30.9	27.3	-29.6	-35.8	-35.8	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.7	-35.8	-35.8	30.9	-34.4	-41.5	-41.5	35.1
9:12	-25.6	-31.0	-31.0	27.1	-29.7	-35.9	-35.9	30.7	-34.4	-41.5	-41.5	35.0
10:12	-25.7	-31.0	-31.0	27.0	-29.8	-35.9	-35.9	30.6	-34.5	-41.5	-41.5	34.9
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.9	-89.2	18.6	-35.1	-64.2	-100.6	19.5	-39.8	-72.7	-113.8	20.5
2:12	-27.8	-53.7	-82.7	22.7	-31.5	-60.6	-93.3	24.2	-35.7	-68.6	-105.6	26.0
3:12	-27.8	-53.7	-82.8	21.9	-31.5	-60.6	-93.4	23.5	-35.7	-68.6	-105.6	25.2
4:12	-27.9	-53.7	-82.8	19.8	-31.5	-60.6	-93.4	21.8	-35.8	-68.6	-105.6	24.2
5:12	-27.9	-53.7	-82.8	19.7	-31.6	-60.7	-93.4	21.7	-35.8	-68.7	-105.7	24.1
6:12	-27.9	-53.8	-82.9	19.6	-31.6	-60.7	-93.5	21.6	-35.8	-68.7	-105.7	24.0
7:12	-31.2	-37.7	-37.7	32.4	-35.3	-42.6	-42.6	36.1	-40.0	-48.2	-48.2	40.3
8:12	-31.2	-37.7	-37.7	32.3	-35.3	-42.6	-42.6	35.9	-40.0	-48.2	-48.2	40.2
9:12	-31.3	-37.7	-37.7	32.2	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7

Basic Wind Speed
155 mph
Ground Snow Load
10 psf

Side Load (psf)
Lateral

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Roof Pitch	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-20.7	-38.2	-60.2	22.2	-20.7	-38.2	-60.2	22.2	-25.4	-46.7	-73.4	22.2
	2:12	-18.5	-36.1	-55.8	22.2	-18.5	-36.1	-55.8	22.2	-22.7	-44.1	-68.1	24.0
	3:12	-18.5	-36.1	-55.8	21.1	-18.5	-36.1	-55.8	21.1	-22.7	-44.1	-68.1	22.8
	4:12	-18.5	-36.1	-55.9	17.5	-18.5	-36.1	-55.9	17.5	-22.8	-44.1	-68.1	19.3
	5:12	-18.6	-36.1	-55.9	16.7	-18.6	-36.1	-55.9	16.7	-22.8	-44.1	-68.1	18.4
	6:12	-18.6	-36.2	-55.9	15.9	-18.6	-36.2	-55.9	15.9	-22.8	-44.2	-68.2	17.6
	7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.6	-30.9	-30.9	27.3
	8:12	-20.9	-25.3	-25.3	23.0	-20.9	-25.3	-25.3	23.0	-25.6	-30.9	-30.9	27.2
	9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-31.0	-31.0	27.1
	10:12	-21.0	-25.4	-25.4	22.7	-21.0	-25.4	-25.4	22.7	-25.7	-31.0	-31.0	27.0
	11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
	12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7
Exposure Category C	1:12	-25.4	-46.7	-73.4	22.2	-29.5	-54.1	-84.8	22.2	-34.2	-62.5	-98.0	23.0
	2:12	-22.7	-44.1	-68.1	24.0	-26.4	-51.0	-78.7	25.5	-30.6	-59.0	-90.9	27.3
	3:12	-22.7	-44.1	-68.1	22.8	-26.4	-51.0	-78.7	24.4	-30.7	-59.0	-90.9	26.1
	4:12	-22.8	-44.1	-68.1	19.3	-26.4	-51.0	-78.7	20.8	-30.7	-59.0	-90.9	22.6
	5:12	-22.8	-44.1	-68.1	18.4	-26.5	-51.1	-78.7	20.0	-30.7	-59.1	-91.0	21.7
	6:12	-22.8	-44.2	-68.2	17.6	-26.5	-51.1	-78.8	19.2	-30.8	-59.1	-91.0	21.2
	7:12	-25.6	-30.9	-30.9	27.3	-29.6	-35.8	-35.8	31.0	-34.3	-41.4	-41.4	35.2
	8:12	-25.6	-30.9	-30.9	27.2	-29.7	-35.8	-35.8	30.9	-34.4	-41.5	-41.5	35.1
	9:12	-25.6	-31.0	-31.0	27.1	-29.7	-35.9	-35.9	30.7	-34.4	-41.5	-41.5	35.0
	10:12	-25.7	-31.0	-31.0	27.0	-29.8	-35.9	-35.9	30.6	-34.5	-41.5	-41.5	34.9
	11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
	12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D	1:12	-31.0	-56.9	-89.2	22.3	-35.1	-64.2	-100.6	23.2	-39.8	-72.7	-113.8	24.3
	2:12	-27.8	-53.7	-82.7	26.1	-31.5	-60.6	-93.3	27.6	-35.7	-68.6	-105.6	29.4
	3:12	-27.8	-53.7	-82.8	25.0	-31.5	-60.6	-93.4	26.5	-35.7	-68.6	-105.6	28.3
	4:12	-27.9	-53.7	-82.8	20.8	-31.5	-60.6	-93.4	22.4	-35.8	-68.6	-105.6	24.2
	5:12	-27.9	-53.7	-82.8	20.1	-31.6	-60.7	-93.4	21.7	-35.8	-68.7	-105.7	24.1
	6:12	-27.9	-53.8	-82.9	19.6	-31.6	-60.7	-93.5	21.6	-35.8	-68.7	-105.7	24.0
	7:12	-31.2	-37.7	-37.7	32.4	-35.3	-42.6	-42.6	36.1	-40.0	-48.2	-48.2	40.3
	8:12	-31.2	-37.7	-37.7	32.3	-35.3	-42.6	-42.6	35.9	-40.0	-48.2	-48.2	40.2
	9:12	-31.3	-37.7	-37.7	32.2	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
	10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
	11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
	12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
	2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
	4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
	5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
	6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
	7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
	8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
	9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
	11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

 Basic Wind Speed
155 mph
 Ground Snow Load
15 psf

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	25.9	-20.7	-38.2	-60.2	25.9	-25.4	-46.7	-73.4	25.9
2:12	-18.5	-36.1	-55.8	25.6	-18.5	-36.1	-55.8	25.6	-22.7	-44.1	-68.1	27.4
3:12	-18.5	-36.1	-55.8	24.1	-18.5	-36.1	-55.8	24.1	-22.7	-44.1	-68.1	25.9
4:12	-18.5	-36.1	-55.9	19.4	-18.5	-36.1	-55.9	19.4	-22.8	-44.1	-68.1	21.1
5:12	-18.6	-36.1	-55.9	18.3	-18.6	-36.1	-55.9	18.3	-22.8	-44.1	-68.1	20.1
6:12	-18.6	-36.2	-55.9	17.3	-18.6	-36.2	-55.9	17.3	-22.8	-44.2	-68.2	19.1
7:12	-20.8	-25.2	-25.2	23.1	-20.8	-25.2	-25.2	23.1	-25.6	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	23.0	-20.9	-25.3	-25.3	23.0	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-31.0	-31.0	27.1
10:12	-21.0	-25.4	-25.4	22.7	-21.0	-25.4	-25.4	22.7	-25.7	-31.0	-31.0	27.0
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.4	25.9	-29.5	-54.1	-84.8	25.9	-34.2	-62.5	-98.0	26.7
2:12	-22.7	-44.1	-68.1	27.4	-26.4	-51.0	-78.7	28.9	-30.6	-59.0	-90.9	30.7
3:12	-22.7	-44.1	-68.1	25.9	-26.4	-51.0	-78.7	27.4	-30.7	-59.0	-90.9	29.2
4:12	-22.8	-44.1	-68.1	21.1	-26.4	-51.0	-78.7	22.7	-30.7	-59.0	-90.9	24.4
5:12	-22.8	-44.1	-68.1	20.1	-26.5	-51.1	-78.7	21.6	-30.7	-59.1	-91.0	23.4
6:12	-22.8	-44.2	-68.2	19.1	-26.5	-51.1	-78.8	20.6	-30.8	-59.1	-91.0	22.3
7:12	-25.6	-30.9	-30.9	27.3	-29.6	-35.8	-35.8	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.7	-35.8	-35.8	30.9	-34.4	-41.5	-41.5	35.1
9:12	-25.6	-31.0	-31.0	27.1	-29.7	-35.9	-35.9	30.7	-34.4	-41.5	-41.5	35.0
10:12	-25.7	-31.0	-31.0	27.0	-29.8	-35.9	-35.9	30.6	-34.5	-41.5	-41.5	34.9
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.9	-89.2	26.0	-35.1	-64.2	-100.6	26.9	-39.8	-72.7	-113.8	28.0
2:12	-27.8	-53.7	-82.7	29.5	-31.5	-60.6	-93.3	31.0	-35.7	-68.6	-105.6	32.8
3:12	-27.8	-53.7	-82.8	28.0	-31.5	-60.6	-93.4	29.5	-35.7	-68.6	-105.6	31.3
4:12	-27.9	-53.7	-82.8	22.5	-31.5	-60.6	-93.4	24.0	-35.8	-68.6	-105.6	25.8
5:12	-27.9	-53.7	-82.8	21.5	-31.6	-60.7	-93.4	23.1	-35.8	-68.7	-105.7	24.8
6:12	-27.9	-53.8	-82.9	20.6	-31.6	-60.7	-93.5	22.1	-35.8	-68.7	-105.7	24.0
7:12	-31.2	-37.7	-37.7	32.4	-35.3	-42.6	-42.6	36.1	-40.0	-48.2	-48.2	40.3
8:12	-31.2	-37.7	-37.7	32.3	-35.3	-42.6	-42.6	35.9	-40.0	-48.2	-48.2	40.2
9:12	-31.3	-37.7	-37.7	32.2	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **155 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	25.9	-20.7	-38.2	-60.2	25.9	-25.4	-46.7	-73.4	25.9
2:12	-18.5	-36.1	-55.8	25.6	-18.5	-36.1	-55.8	25.6	-22.7	-44.1	-68.1	27.4
3:12	-18.5	-36.1	-55.8	24.1	-18.5	-36.1	-55.8	24.1	-22.7	-44.1	-68.1	25.9
4:12	-18.5	-36.1	-55.9	21.3	-18.5	-36.1	-55.9	21.3	-22.8	-44.1	-68.1	23.0
5:12	-18.6	-36.1	-55.9	19.9	-18.6	-36.1	-55.9	19.9	-22.8	-44.1	-68.1	21.7
6:12	-18.6	-36.2	-55.9	18.7	-18.6	-36.2	-55.9	18.7	-22.8	-44.2	-68.2	20.5
7:12	-20.8	-25.2	-25.2	24.1	-20.8	-25.2	-25.2	24.1	-25.6	-30.9	-30.9	27.3
8:12	-20.9	-25.3	-25.3	23.1	-20.9	-25.3	-25.3	23.1	-25.6	-30.9	-30.9	27.2
9:12	-20.9	-25.3	-25.3	22.8	-20.9	-25.3	-25.3	22.8	-25.6	-31.0	-31.0	27.1
10:12	-21.0	-25.4	-25.4	22.7	-21.0	-25.4	-25.4	22.7	-25.7	-31.0	-31.0	27.0
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.4	25.9	-29.5	-54.1	-84.8	25.9	-34.2	-62.5	-98.0	26.7
2:12	-22.7	-44.1	-68.1	27.4	-26.4	-51.0	-78.7	28.9	-30.6	-59.0	-90.9	30.7
3:12	-22.7	-44.1	-68.1	25.9	-26.4	-51.0	-78.7	27.4	-30.7	-59.0	-90.9	29.2
4:12	-22.8	-44.1	-68.1	23.0	-26.4	-51.0	-78.7	24.5	-30.7	-59.0	-90.9	26.3
5:12	-22.8	-44.1	-68.1	21.7	-26.5	-51.1	-78.7	23.2	-30.7	-59.1	-91.0	25.0
6:12	-22.8	-44.2	-68.2	20.5	-26.5	-51.1	-78.8	22.0	-30.8	-59.1	-91.0	23.7
7:12	-25.6	-30.9	-30.9	27.3	-29.6	-35.8	-35.8	31.0	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.2	-29.7	-35.8	-35.8	30.9	-34.4	-41.5	-41.5	35.1
9:12	-25.6	-31.0	-31.0	27.1	-29.7	-35.9	-35.9	30.7	-34.4	-41.5	-41.5	35.0
10:12	-25.7	-31.0	-31.0	27.0	-29.8	-35.9	-35.9	30.6	-34.5	-41.5	-41.5	34.9
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.9	-89.2	26.0	-35.1	-64.2	-100.6	26.9	-39.8	-72.7	-113.8	28.0
2:12	-27.8	-53.7	-82.7	29.5	-31.5	-60.6	-93.3	31.0	-35.7	-68.6	-105.6	32.8
3:12	-27.8	-53.7	-82.8	28.0	-31.5	-60.6	-93.4	29.5	-35.7	-68.6	-105.6	31.3
4:12	-27.9	-53.7	-82.8	24.2	-31.5	-60.6	-93.4	25.7	-35.8	-68.6	-105.6	27.5
5:12	-27.9	-53.7	-82.8	23.0	-31.6	-60.7	-93.4	24.5	-35.8	-68.7	-105.7	26.3
6:12	-27.9	-53.8	-82.9	21.9	-31.6	-60.7	-93.5	23.4	-35.8	-68.7	-105.7	25.2
7:12	-31.2	-37.7	-37.7	32.4	-35.3	-42.6	-42.6	36.1	-40.0	-48.2	-48.2	40.3
8:12	-31.2	-37.7	-37.7	32.3	-35.3	-42.6	-42.6	35.9	-40.0	-48.2	-48.2	40.2
9:12	-31.3	-37.7	-37.7	32.2	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **155 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	26.7	-20.7	-38.2	-60.2	26.7	-25.4	-46.7	-73.4	26.7
2:12	-18.5	-36.1	-55.8	26.3	-18.5	-36.1	-55.8	26.3	-22.7	-44.1	-68.1	28.1
3:12	-18.5	-36.1	-55.8	24.7	-18.5	-36.1	-55.8	24.7	-22.7	-44.1	-68.1	26.5
4:12	-18.5	-36.1	-55.9	23.1	-18.5	-36.1	-55.9	23.1	-22.8	-44.1	-68.1	24.9
5:12	-18.6	-36.1	-55.9	21.6	-18.6	-36.1	-55.9	21.6	-22.8	-44.1	-68.1	23.3
6:12	-18.6	-36.2	-55.9	20.1	-18.6	-36.2	-55.9	20.1	-22.8	-44.2	-68.2	21.9
7:12	-20.8	-25.2	-25.2	25.3	-20.8	-25.2	-25.2	25.3	-25.6	-30.9	-30.9	28.5
8:12	-20.9	-25.3	-25.3	24.1	-20.9	-25.3	-25.3	24.1	-25.6	-30.9	-30.9	27.3
9:12	-20.9	-25.3	-25.3	23.0	-20.9	-25.3	-25.3	23.0	-25.6	-31.0	-31.0	27.1
10:12	-21.0	-25.4	-25.4	22.7	-21.0	-25.4	-25.4	22.7	-25.7	-31.0	-31.0	27.0
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.4	26.7	-29.5	-54.1	-84.8	26.7	-34.2	-62.5	-98.0	27.5
2:12	-22.7	-44.1	-68.1	28.1	-26.4	-51.0	-78.7	29.6	-30.6	-59.0	-90.9	31.4
3:12	-22.7	-44.1	-68.1	26.5	-26.4	-51.0	-78.7	28.0	-30.7	-59.0	-90.9	29.8
4:12	-22.8	-44.1	-68.1	24.9	-26.4	-51.0	-78.7	26.4	-30.7	-59.0	-90.9	28.2
5:12	-22.8	-44.1	-68.1	23.3	-26.5	-51.1	-78.7	24.9	-30.7	-59.1	-91.0	26.6
6:12	-22.8	-44.2	-68.2	21.9	-26.5	-51.1	-78.8	23.4	-30.8	-59.1	-91.0	25.2
7:12	-25.6	-30.9	-30.9	28.5	-29.6	-35.8	-35.8	31.3	-34.3	-41.4	-41.4	35.2
8:12	-25.6	-30.9	-30.9	27.3	-29.7	-35.8	-35.8	30.9	-34.4	-41.5	-41.5	35.1
9:12	-25.6	-31.0	-31.0	27.1	-29.7	-35.9	-35.9	30.7	-34.4	-41.5	-41.5	35.0
10:12	-25.7	-31.0	-31.0	27.0	-29.8	-35.9	-35.9	30.6	-34.5	-41.5	-41.5	34.9
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.9	-89.2	26.0	-35.1	-64.2	-100.6	26.9	-39.8	-72.7	-113.8	28.0
2:12	-27.8	-53.7	-82.7	29.5	-31.5	-60.6	-93.3	31.0	-35.7	-68.6	-105.6	32.8
3:12	-27.8	-53.7	-82.8	28.0	-31.5	-60.6	-93.4	29.5	-35.7	-68.6	-105.6	31.3
4:12	-27.9	-53.7	-82.8	25.9	-31.5	-60.6	-93.4	27.4	-35.8	-68.6	-105.6	29.2
5:12	-27.9	-53.7	-82.8	24.5	-31.6	-60.7	-93.4	26.0	-35.8	-68.7	-105.7	27.8
6:12	-27.9	-53.8	-82.9	23.1	-31.6	-60.7	-93.5	24.7	-35.8	-68.7	-105.7	26.4
7:12	-31.2	-37.7	-37.7	32.4	-35.3	-42.6	-42.6	36.1	-40.0	-48.2	-48.2	40.3
8:12	-31.2	-37.7	-37.7	32.3	-35.3	-42.6	-42.6	35.9	-40.0	-48.2	-48.2	40.2
9:12	-31.3	-37.7	-37.7	32.2	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
155 mph

Ground Snow Load
30 psf

Up and Down (psf)

Side Load (psf)

Basic Wind Speed
155 mph

Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	29.3	-20.7	-38.2	-60.2	29.3	-25.4	-46.7	-73.4	29.3
2:12	-18.5	-36.1	-55.8	28.7	-18.5	-36.1	-55.8	28.7	-22.7	-44.1	-68.1	30.4
3:12	-18.5	-36.1	-55.8	26.9	-18.5	-36.1	-55.8	26.9	-22.7	-44.1	-68.1	28.6
4:12	-18.5	-36.1	-55.9	25.0	-18.5	-36.1	-55.9	25.0	-22.8	-44.1	-68.1	26.8
5:12	-18.6	-36.1	-55.9	23.2	-18.6	-36.1	-55.9	23.2	-22.8	-44.1	-68.1	25.0
6:12	-18.6	-36.2	-55.9	21.5	-18.6	-36.2	-55.9	21.5	-22.8	-44.2	-68.2	23.3
7:12	-20.8	-25.2	-25.2	26.5	-20.8	-25.2	-25.2	26.5	-25.6	-30.9	-30.9	29.7
8:12	-20.9	-25.3	-25.3	25.1	-20.9	-25.3	-25.3	25.1	-25.6	-30.9	-30.9	28.3
9:12	-20.9	-25.3	-25.3	23.9	-20.9	-25.3	-25.3	23.9	-25.6	-31.0	-31.0	27.1
10:12	-21.0	-25.4	-25.4	22.8	-21.0	-25.4	-25.4	22.8	-25.7	-31.0	-31.0	27.0
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.4	29.3	-29.5	-54.1	-84.8	29.3	-34.2	-62.5	-98.0	30.1
2:12	-22.7	-44.1	-68.1	30.4	-26.4	-51.0	-78.7	32.0	-30.6	-59.0	-90.9	33.7
3:12	-22.7	-44.1	-68.1	28.6	-26.4	-51.0	-78.7	30.1	-30.7	-59.0	-90.9	31.9
4:12	-22.8	-44.1	-68.1	26.8	-26.4	-51.0	-78.7	28.3	-30.7	-59.0	-90.9	30.1
5:12	-22.8	-44.1	-68.1	25.0	-26.5	-51.1	-78.7	26.5	-30.7	-59.1	-91.0	28.3
6:12	-22.8	-44.2	-68.2	23.3	-26.5	-51.1	-78.8	24.8	-30.8	-59.1	-91.0	26.6
7:12	-25.6	-30.9	-30.9	29.7	-29.6	-35.8	-35.8	32.5	-34.3	-41.4	-41.4	35.6
8:12	-25.6	-30.9	-30.9	28.3	-29.7	-35.8	-35.8	31.1	-34.4	-41.5	-41.5	35.1
9:12	-25.6	-31.0	-31.0	27.1	-29.7	-35.9	-35.9	30.7	-34.4	-41.5	-41.5	35.0
10:12	-25.7	-31.0	-31.0	27.0	-29.8	-35.9	-35.9	30.6	-34.5	-41.5	-41.5	34.9
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.9	-89.2	27.5	-35.1	-64.2	-100.6	28.4	-39.8	-72.7	-113.8	29.5
2:12	-27.8	-53.7	-82.7	30.9	-31.5	-60.6	-93.3	32.4	-35.7	-68.6	-105.6	34.2
3:12	-27.8	-53.7	-82.8	29.2	-31.5	-60.6	-93.4	30.8	-35.7	-68.6	-105.6	32.5
4:12	-27.9	-53.7	-82.8	27.6	-31.5	-60.6	-93.4	29.1	-35.8	-68.6	-105.6	30.9
5:12	-27.9	-53.7	-82.8	25.9	-31.6	-60.7	-93.4	27.5	-35.8	-68.7	-105.7	29.2
6:12	-27.9	-53.8	-82.9	24.4	-31.6	-60.7	-93.5	25.9	-35.8	-68.7	-105.7	27.7
7:12	-31.2	-37.7	-37.7	32.7	-35.3	-42.6	-42.6	36.1	-40.0	-48.2	-48.2	40.3
8:12	-31.2	-37.7	-37.7	32.3	-35.3	-42.6	-42.6	35.9	-40.0	-48.2	-48.2	40.2
9:12	-31.3	-37.7	-37.7	32.2	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.2	31.9	-20.7	-38.2	-60.2	31.9	-25.4	-46.7	-73.4	31.9
2:12	-18.5	-36.1	-55.8	31.1	-18.5	-36.1	-55.8	31.1	-22.7	-44.1	-68.1	32.8
3:12	-18.5	-36.1	-55.8	29.0	-18.5	-36.1	-55.8	29.0	-22.7	-44.1	-68.1	30.7
4:12	-18.5	-36.1	-55.9	26.9	-18.5	-36.1	-55.9	26.9	-22.8	-44.1	-68.1	28.6
5:12	-18.6	-36.1	-55.9	24.8	-18.6	-36.1	-55.9	24.8	-22.8	-44.1	-68.1	26.6
6:12	-18.6	-36.2	-55.9	22.9	-18.6	-36.2	-55.9	22.9	-22.8	-44.2	-68.2	24.7
7:12	-20.8	-25.2	-25.2	27.7	-20.8	-25.2	-25.2	27.7	-25.6	-30.9	-30.9	30.9
8:12	-20.9	-25.3	-25.3	26.1	-20.9	-25.3	-25.3	26.1	-25.6	-30.9	-30.9	29.3
9:12	-20.9	-25.3	-25.3	24.7	-20.9	-25.3	-25.3	24.7	-25.6	-31.0	-31.0	27.9
10:12	-21.0	-25.4	-25.4	23.5	-21.0	-25.4	-25.4	23.5	-25.7	-31.0	-31.0	27.0
11:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7

Basic Wind Speed
155 mph

Ground Snow Load
40 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	35.1	-20.7	-38.2	-60.2	35.1	-25.4	-46.7	-73.4	35.1
2:12	-18.5	-36.1	-55.8	33.4	-18.5	-36.1	-55.8	33.4	-22.7	-44.1	-68.1	35.2
3:12	-18.5	-36.1	-55.8	31.1	-18.5	-36.1	-55.8	31.1	-22.7	-44.1	-68.1	32.9
4:12	-18.5	-36.1	-55.9	28.8	-18.5	-36.1	-55.9	28.8	-22.8	-44.1	-68.1	30.5
5:12	-18.6	-36.1	-55.9	26.5	-18.6	-36.1	-55.9	26.5	-22.8	-44.1	-68.1	28.2
6:12	-18.6	-36.2	-55.9	24.3	-18.6	-36.2	-55.9	24.3	-22.8	-44.2	-68.2	26.1
7:12	-20.8	-25.2	-25.2	28.9	-20.8	-25.2	-25.2	28.9	-25.6	-30.9	-30.9	32.1
8:12	-20.9	-25.3	-25.3	27.2	-20.9	-25.3	-25.3	27.2	-25.6	-30.9	-30.9	30.3
9:12	-20.9	-25.3	-25.3	25.6	-20.9	-25.3	-25.3	25.6	-25.6	-31.0	-31.0	28.8
10:12	-21.0	-25.4	-25.4	24.3	-21.0	-25.4	-25.4	24.3	-25.7	-31.0	-31.0	27.4
11:12	-21.0	-25.4	-25.4	23.1	-21.0	-25.4	-25.4	23.1	-25.7	-31.0	-31.0	26.8
12:12	-21.0	-25.4	-25.4	22.5	-21.0	-25.4	-25.4	22.5	-25.8	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.4	35.1	-29.5	-54.1	-84.8	35.1	-34.2	-62.5	-98.0	35.3
2:12	-22.7	-44.1	-68.1	35.2	-26.4	-51.0	-78.7	36.7	-30.6	-59.0	-90.9	38.5
3:12	-22.7	-44.1	-68.1	32.9	-26.4	-51.0	-78.7	34.4	-30.7	-59.0	-90.9	36.2
4:12	-22.8	-44.1	-68.1	30.5	-26.4	-51.0	-78.7	32.0	-30.7	-59.0	-90.9	33.8
5:12	-22.8	-44.1	-68.1	28.2	-26.5	-51.1	-78.7	29.8	-30.7	-59.1	-91.0	31.5
6:12	-22.8	-44.2	-68.2	26.1	-26.5	-51.1	-78.8	27.6	-30.8	-59.1	-91.0	29.4
7:12	-25.6	-30.9	-30.9	32.1	-29.6	-35.8	-35.8	34.9	-34.3	-41.4	-41.4	38.0
8:12	-25.6	-30.9	-30.9	30.3	-29.7	-35.8	-35.8	33.1	-34.4	-41.5	-41.5	36.3
9:12	-25.6	-31.0	-31.0	28.8	-29.7	-35.9	-35.9	31.5	-34.4	-41.5	-41.5	35.0
10:12	-25.7	-31.0	-31.0	27.4	-29.8	-35.9	-35.9	30.6	-34.5	-41.5	-41.5	34.9
11:12	-25.7	-31.0	-31.0	26.8	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.9	-89.2	32.2	-35.1	-64.2	-100.6	33.1	-39.8	-72.7	-113.8	34.2
2:12	-27.8	-53.7	-82.7	35.2	-31.5	-60.6	-93.3	36.7	-35.7	-68.6	-105.6	38.5
3:12	-27.8	-53.7	-82.8	33.1	-31.5	-60.6	-93.4	34.6	-35.7	-68.6	-105.6	36.4
4:12	-27.9	-53.7	-82.8	30.9	-31.5	-60.6	-93.4	32.5	-35.8	-68.6	-105.6	34.2
5:12	-27.9	-53.7	-82.8	28.9	-31.6	-60.7	-93.4	30.4	-35.8	-68.7	-105.7	32.2
6:12	-27.9	-53.8	-82.9	26.9	-31.6	-60.7	-93.5	28.5	-35.8	-68.7	-105.7	30.2
7:12	-31.2	-37.7	-37.7	34.8	-35.3	-42.6	-42.6	37.6	-40.0	-48.2	-48.2	40.8
8:12	-31.2	-37.7	-37.7	33.2	-35.3	-42.6	-42.6	36.0	-40.0	-48.2	-48.2	40.2
9:12	-31.3	-37.7	-37.7	32.2	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
155 mph

Ground Snow Load
45 psf

Up and Down (psf)

Basic Wind Speed
155 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	38.6	-20.7	-38.2	-60.2	38.6	-25.4	-46.7	-73.4	38.6
2:12	-18.5	-36.1	-55.8	35.8	-18.5	-36.1	-55.8	35.8	-22.7	-44.1	-68.1	37.6
3:12	-18.5	-36.1	-55.8	33.2	-18.5	-36.1	-55.8	33.2	-22.7	-44.1	-68.1	35.0
4:12	-18.5	-36.1	-55.9	30.6	-18.5	-36.1	-55.9	30.6	-22.8	-44.1	-68.1	32.4
5:12	-18.6	-36.1	-55.9	28.1	-18.6	-36.1	-55.9	28.1	-22.8	-44.1	-68.1	29.9
6:12	-18.6	-36.2	-55.9	25.7	-18.6	-36.2	-55.9	25.7	-22.8	-44.2	-68.2	27.5
7:12	-20.8	-25.2	-25.2	30.1	-20.8	-25.2	-25.2	30.1	-25.6	-30.9	-30.9	33.3
8:12	-20.9	-25.3	-25.3	28.2	-20.9	-25.3	-25.3	28.2	-25.6	-30.9	-30.9	31.3
9:12	-20.9	-25.3	-25.3	26.5	-20.9	-25.3	-25.3	26.5	-25.6	-31.0	-31.0	29.6
10:12	-21.0	-25.4	-25.4	25.0	-21.0	-25.4	-25.4	25.0	-25.7	-31.0	-31.0	28.1
11:12	-21.0	-25.4	-25.4	23.7	-21.0	-25.4	-25.4	23.7	-25.7	-31.0	-31.0	26.9
12:12	-21.0	-25.4	-25.4	22.6	-21.0	-25.4	-25.4	22.6	-25.8	-31.1	-31.1	26.7
Exposure Category C												
1:12	-25.4	-46.7	-73.4	38.6	-29.5	-54.1	-84.8	38.6	-34.2	-62.5	-98.0	38.6
2:12	-22.7	-44.1	-68.1	37.6	-26.4	-51.0	-78.7	39.1	-30.6	-59.0	-90.9	40.9
3:12	-22.7	-44.1	-68.1	35.0	-26.4	-51.0	-78.7	36.5	-30.7	-59.0	-90.9	38.3
4:12	-22.8	-44.1	-68.1	32.4	-26.4	-51.0	-78.7	33.9	-30.7	-59.0	-90.9	35.7
5:12	-22.8	-44.1	-68.1	29.9	-26.5	-51.1	-78.7	31.4	-30.7	-59.1	-91.0	33.1
6:12	-22.8	-44.2	-68.2	27.5	-26.5	-51.1	-78.8	29.0	-30.8	-59.1	-91.0	30.8
7:12	-25.6	-30.9	-30.9	33.3	-29.6	-35.8	-35.8	36.0	-34.3	-41.4	-41.4	39.2
8:12	-25.6	-30.9	-30.9	31.3	-29.7	-35.8	-35.8	34.1	-34.4	-41.5	-41.5	37.3
9:12	-25.6	-31.0	-31.0	29.6	-29.7	-35.9	-35.9	32.4	-34.4	-41.5	-41.5	35.6
10:12	-25.7	-31.0	-31.0	28.1	-29.8	-35.9	-35.9	30.9	-34.5	-41.5	-41.5	34.9
11:12	-25.7	-31.0	-31.0	26.9	-29.8	-35.9	-35.9	30.5	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.7	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.9	-89.2	35.1	-35.1	-64.2	-100.6	35.5	-39.8	-72.7	-113.8	36.5
2:12	-27.8	-53.7	-82.7	37.3	-31.5	-60.6	-93.3	38.8	-35.7	-68.6	-105.6	40.6
3:12	-27.8	-53.7	-82.8	35.0	-31.5	-60.6	-93.4	36.5	-35.7	-68.6	-105.6	38.3
4:12	-27.9	-53.7	-82.8	32.6	-31.5	-60.6	-93.4	34.2	-35.8	-68.6	-105.6	35.9
5:12	-27.9	-53.7	-82.8	30.3	-31.6	-60.7	-93.4	31.9	-35.8	-68.7	-105.7	33.6
6:12	-27.9	-53.8	-82.9	28.2	-31.6	-60.7	-93.5	29.7	-35.8	-68.7	-105.7	31.5
7:12	-31.2	-37.7	-37.7	35.9	-35.3	-42.6	-42.6	38.7	-40.0	-48.2	-48.2	41.8
8:12	-31.2	-37.7	-37.7	34.1	-35.3	-42.6	-42.6	36.9	-40.0	-48.2	-48.2	40.2
9:12	-31.3	-37.7	-37.7	32.6	-35.4	-42.6	-42.6	35.8	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.0	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Basic Wind Speed
155 mph

Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	45.5	-20.7	-38.2	-60.2	45.5	-25.4	-46.7	-73.4	45.5
2:12	-18.5	-36.1	-55.8	41.9	-18.5	-36.1	-55.8	41.9	-22.7	-44.1	-68.1	42.3
3:12	-18.5	-36.1	-55.8	37.8	-18.5	-36.1	-55.8	37.8	-22.7	-44.1	-68.1	39.3
4:12	-18.5	-36.1	-55.9	34.4	-18.5	-36.1	-55.9	34.4	-22.8	-44.1	-68.1	36.1
5:12	-18.6	-36.1	-55.9	31.3	-18.6	-36.1	-55.9	31.3	-22.8	-44.1	-68.1	33.1
6:12	-18.6	-36.2	-55.9	28.5	-18.6	-36.2	-55.9	28.5	-22.8	-44.2	-68.2	30.3
7:12	-20.8	-25.2	-25.2	32.5	-20.8	-25.2	-25.2	32.5	-25.6	-30.9	-30.9	35.7
8:12	-20.9	-25.3	-25.3	30.2	-20.9	-25.3	-25.3	30.2	-25.6	-30.9	-30.9	33.4
9:12	-20.9	-25.3	-25.3	28.2	-20.9	-25.3	-25.3	28.2	-25.6	-31.0	-31.0	31.4
10:12	-21.0	-25.4	-25.4	26.4	-21.0	-25.4	-25.4	26.4	-25.7	-31.0	-31.0	29.6
11:12	-21.0	-25.4	-25.4	24.9	-21.0	-25.4	-25.4	24.9	-25.7	-31.0	-31.0	28.1
12:12	-21.0	-25.4	-25.4	23.6	-21.0	-25.4	-25.4	23.6	-25.8	-31.1	-31.1	26.8
Exposure Category C												
1:12	-25.4	-46.7	-73.4	45.5	-29.5	-54.1	-84.8	45.5	-34.2	-62.5	-98.0	45.5
2:12	-22.7	-44.1	-68.1	42.3	-26.4	-51.0	-78.7	43.9	-30.6	-59.0	-90.9	45.6
3:12	-22.7	-44.1	-68.1	39.3	-26.4	-51.0	-78.7	40.8	-30.7	-59.0	-90.9	42.5
4:12	-22.8	-44.1	-68.1	36.1	-26.4	-51.0	-78.7	37.7	-30.7	-59.0	-90.9	39.4
5:12	-22.8	-44.1	-68.1	33.1	-26.5	-51.1	-78.7	34.6	-30.7	-59.1	-91.0	36.4
6:12	-22.8	-44.2	-68.2	30.3	-26.5	-51.1	-78.8	31.8	-30.8	-59.1	-91.0	33.6
7:12	-25.6	-30.9	-30.9	35.7	-29.6	-35.8	-35.8	38.4	-34.3	-41.4	-41.4	41.6
8:12	-25.6	-30.9	-30.9	33.4	-29.7	-35.8	-35.8	36.1	-34.4	-41.5	-41.5	39.3
9:12	-25.6	-31.0	-31.0	31.4	-29.7	-35.9	-35.9	34.1	-34.4	-41.5	-41.5	37.3
10:12	-25.7	-31.0	-31.0	29.6	-29.8	-35.9	-35.9	32.3	-34.5	-41.5	-41.5	35.5
11:12	-25.7	-31.0	-31.0	28.1	-29.8	-35.9	-35.9	30.8	-34.5	-41.6	-41.6	34.7
12:12	-25.8	-31.1	-31.1	26.8	-29.8	-36.0	-36.0	30.4	-34.5	-41.6	-41.6	34.6
Exposure Category D												
1:12	-31.0	-56.9	-89.2	41.4	-35.1	-64.2	-100.6	41.4	-39.8	-72.7	-113.8	41.4
2:12	-27.8	-53.7	-82.7	41.6	-31.5	-60.6	-93.3	43.1	-35.7	-68.6	-105.6	44.9
3:12	-27.8	-53.7	-82.8	38.8	-31.5	-60.6	-93.4	40.4	-35.7	-68.6	-105.6	42.1
4:12	-27.9	-53.7	-82.8	36.0	-31.5	-60.6	-93.4	37.5	-35.8	-68.6	-105.6	39.3
5:12	-27.9	-53.7	-82.8	33.3	-31.6	-60.7	-93.4	34.8	-35.8	-68.7	-105.7	36.6
6:12	-27.9	-53.8	-82.9	30.7	-31.6	-60.7	-93.5	32.2	-35.8	-68.7	-105.7	34.0
7:12	-31.2	-37.7	-37.7	38.1	-35.3	-42.6	-42.6	40.8	-40.0	-48.2	-48.2	44.0
8:12	-31.2	-37.7	-37.7	36.0	-35.3	-42.6	-42.6	38.7	-40.0	-48.2	-48.2	41.9
9:12	-31.3	-37.7	-37.7	34.1	-35.4	-42.6	-42.6	36.9	-40.1	-48.3	-48.3	40.1
10:12	-31.3	-37.8	-37.8	32.5	-35.4	-42.7	-42.7	35.7	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	31.9	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W155-S60

Up and Down (psf)

Basic Wind Speed
155 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.2	52.5	-20.7	-38.2	-60.2	52.5	-25.4	-46.7	-73.4	52.5
2:12	-18.5	-36.1	-55.8	48.2	-18.5	-36.1	-55.8	48.2	-22.7	-44.1	-68.1	48.2
3:12	-18.5	-36.1	-55.8	43.4	-18.5	-36.1	-55.8	43.4	-22.7	-44.1	-68.1	43.5
4:12	-18.5	-36.1	-55.9	38.6	-18.5	-36.1	-55.9	38.6	-22.8	-44.1	-68.1	39.9
5:12	-18.6	-36.1	-55.9	34.6	-18.6	-36.1	-55.9	34.6	-22.8	-44.1	-68.1	36.4
6:12	-18.6	-36.2	-55.9	31.3	-18.6	-36.2	-55.9	31.3	-22.8	-44.2	-68.2	33.1
7:12	-20.8	-25.2	-25.2	34.9	-20.8	-25.2	-25.2	34.9	-25.6	-30.9	-30.9	38.1
8:12	-20.9	-25.3	-25.3	32.2	-20.9	-25.3	-25.3	32.2	-25.6	-30.9	-30.9	35.4
9:12	-20.9	-25.3	-25.3	29.9	-20.9	-25.3	-25.3	29.9	-25.6	-31.0	-31.0	33.1
10:12	-21.0	-25.4	-25.4	27.9	-21.0	-25.4	-25.4	27.9	-25.7	-31.0	-31.0	31.0
11:12	-21.0	-25.4	-25.4	26.1	-21.0	-25.4	-25.4	26.1	-25.7	-31.0	-31.0	29.3
12:12	-21.0	-25.4	-25.4	24.6	-21.0	-25.4	-25.4	24.6	-25.8	-31.1	-31.1	27.8
1:12	-25.4	-46.7	-73.4	52.5	-29.5	-54.1	-84.8	52.5	-34.2	-62.5	-98.0	52.5
2:12	-22.7	-44.1	-68.1	48.2	-26.4	-51.0	-78.7	48.6	-30.6	-59.0	-90.9	50.4
3:12	-22.7	-44.1	-68.1	43.5	-26.4	-51.0	-78.7	45.0	-30.7	-59.0	-90.9	46.8
4:12	-22.8	-44.1	-68.1	39.9	-26.4	-51.0	-78.7	41.4	-30.7	-59.0	-90.9	43.2
5:12	-22.8	-44.1	-68.1	36.4	-26.5	-51.1	-78.7	37.9	-30.7	-59.1	-91.0	39.7
6:12	-22.8	-44.2	-68.2	33.1	-26.5	-51.1	-78.8	34.6	-30.8	-59.1	-91.0	36.4
7:12	-25.6	-30.9	-30.9	38.1	-29.6	-35.8	-35.8	40.8	-34.3	-41.4	-41.4	44.0
8:12	-25.6	-30.9	-30.9	35.4	-29.7	-35.8	-35.8	38.2	-34.4	-41.5	-41.5	41.3
9:12	-25.6	-31.0	-31.0	33.1	-29.7	-35.9	-35.9	35.8	-34.4	-41.5	-41.5	39.0
10:12	-25.7	-31.0	-31.0	31.0	-29.8	-35.9	-35.9	33.8	-34.5	-41.5	-41.5	37.0
11:12	-25.7	-31.0	-31.0	29.3	-29.8	-35.9	-35.9	32.0	-34.5	-41.6	-41.6	35.2
12:12	-25.8	-31.1	-31.1	27.8	-29.8	-36.0	-36.0	30.5	-34.5	-41.6	-41.6	34.6
1:12	-31.0	-56.9	-89.2	47.6	-35.1	-64.2	-100.6	47.6	-39.8	-72.7	-113.8	47.6
2:12	-27.8	-53.7	-82.7	45.9	-31.5	-60.6	-93.3	47.4	-35.7	-68.6	-105.6	49.2
3:12	-27.8	-53.7	-82.8	42.6	-31.5	-60.6	-93.4	44.2	-35.7	-68.6	-105.6	45.9
4:12	-27.9	-53.7	-82.8	39.4	-31.5	-60.6	-93.4	40.9	-35.8	-68.6	-105.6	42.7
5:12	-27.9	-53.7	-82.8	36.2	-31.6	-60.7	-93.4	37.7	-35.8	-68.7	-105.7	39.5
6:12	-27.9	-53.8	-82.9	33.2	-31.6	-60.7	-93.5	34.8	-35.8	-68.7	-105.7	36.5
7:12	-31.2	-37.7	-37.7	40.2	-35.3	-42.6	-42.6	43.0	-40.0	-48.2	-48.2	46.1
8:12	-31.2	-37.7	-37.7	37.8	-35.3	-42.6	-42.6	40.6	-40.0	-48.2	-48.2	43.7
9:12	-31.3	-37.7	-37.7	35.7	-35.4	-42.6	-42.6	38.4	-40.1	-48.3	-48.3	41.6
10:12	-31.3	-37.8	-37.8	33.8	-35.4	-42.7	-42.7	36.6	-40.1	-48.3	-48.3	39.9
11:12	-31.4	-37.8	-37.8	32.2	-35.4	-42.7	-42.7	35.6	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
155 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-20.7	-38.2	-60.2	59.4	-20.7	-38.2	-60.2	59.4	-25.4	-46.7	-73.4	59.4
2:12	-18.5	-36.1	-55.8	54.5	-18.5	-36.1	-55.8	54.5	-22.7	-44.1	-68.1	54.5
3:12	-18.5	-36.1	-55.8	49.1	-18.5	-36.1	-55.8	49.1	-22.7	-44.1	-68.1	49.1
4:12	-18.5	-36.1	-55.9	43.6	-18.5	-36.1	-55.9	43.6	-22.8	-44.1	-68.1	43.6
5:12	-18.6	-36.1	-55.9	38.3	-18.6	-36.1	-55.9	38.3	-22.8	-44.1	-68.1	39.6
6:12	-18.6	-36.2	-55.9	34.1	-18.6	-36.2	-55.9	34.1	-22.8	-44.2	-68.2	35.9
7:12	-20.8	-25.2	-25.2	37.3	-20.8	-25.2	-25.2	37.3	-25.6	-30.9	-30.9	40.5
8:12	-20.9	-25.3	-25.3	34.3	-20.9	-25.3	-25.3	34.3	-25.6	-30.9	-30.9	37.4
9:12	-20.9	-25.3	-25.3	31.6	-20.9	-25.3	-25.3	31.6	-25.6	-31.0	-31.0	34.8
10:12	-21.0	-25.4	-25.4	29.3	-21.0	-25.4	-25.4	29.3	-25.7	-31.0	-31.0	32.5
11:12	-21.0	-25.4	-25.4	27.3	-21.0	-25.4	-25.4	27.3	-25.7	-31.0	-31.0	30.5
12:12	-21.0	-25.4	-25.4	25.6	-21.0	-25.4	-25.4	25.6	-25.8	-31.1	-31.1	28.8
1:12	-25.4	-46.7	-73.4	59.4	-29.5	-54.1	-84.8	59.4	-34.2	-62.5	-98.0	59.4
2:12	-22.7	-44.1	-68.1	54.5	-26.4	-51.0	-78.7	54.5	-30.6	-59.0	-90.9	55.1
3:12	-22.7	-44.1	-68.1	49.1	-26.4	-51.0	-78.7	49.3	-30.7	-59.0	-90.9	51.1
4:12	-22.8	-44.1	-68.1	43.6	-26.4	-51.0	-78.7	45.2	-30.7	-59.0	-90.9	46.9
5:12	-22.8	-44.1	-68.1	39.6	-26.5	-51.1	-78.7	41.2	-30.7	-59.1	-91.0	42.9
6:12	-22.8	-44.2	-68.2	35.9	-26.5	-51.1	-78.8	37.4	-30.8	-59.1	-91.0	39.2
7:12	-25.6	-30.9	-30.9	40.5	-29.6	-35.8	-35.8	43.2	-34.3	-41.4	-41.4	46.4
8:12	-25.6	-30.9	-30.9	37.4	-29.7	-35.8	-35.8	40.2	-34.4	-41.5	-41.5	43.4
9:12	-25.6	-31.0	-31.0	34.8	-29.7	-35.9	-35.9	37.5	-34.4	-41.5	-41.5	40.7
10:12	-25.7	-31.0	-31.0	32.5	-29.8	-35.9	-35.9	35.2	-34.5	-41.5	-41.5	38.4
11:12	-25.7	-31.0	-31.0	30.5	-29.8	-35.9	-35.9	33.2	-34.5	-41.6	-41.6	36.4
12:12	-25.8	-31.1	-31.1	28.8	-29.8	-36.0	-36.0	31.5	-34.5	-41.6	-41.6	34.7
1:12	-31.0	-56.9	-89.2	53.9	-35.1	-64.2	-100.6	53.9	-39.8	-72.7	-113.8	53.9
2:12	-27.8	-53.7	-82.7	50.2	-31.5	-60.6	-93.3	51.7	-35.7	-68.6	-105.6	53.5
3:12	-27.8	-53.7	-82.8	46.5	-31.5	-60.6	-93.4	48.0	-35.7	-68.6	-105.6	49.8
4:12	-27.9	-53.7	-82.8	42.8	-31.5	-60.6	-93.4	44.3	-35.8	-68.6	-105.6	46.0
5:12	-27.9	-53.7	-82.8	39.1	-31.6	-60.7	-93.4	40.7	-35.8	-68.7	-105.7	42.4
6:12	-27.9	-53.8	-82.9	35.8	-31.6	-60.7	-93.5	37.3	-35.8	-68.7	-105.7	39.1
7:12	-31.2	-37.7	-37.7	42.4	-35.3	-42.6	-42.6	45.1	-40.0	-48.2	-48.2	48.3
8:12	-31.2	-37.7	-37.7	39.6	-35.3	-42.6	-42.6	42.4	-40.0	-48.2	-48.2	45.6
9:12	-31.3	-37.7	-37.7	37.2	-35.4	-42.6	-42.6	40.0	-40.1	-48.3	-48.3	43.1
10:12	-31.3	-37.8	-37.8	35.1	-35.4	-42.7	-42.7	37.9	-40.1	-48.3	-48.3	41.1
11:12	-31.4	-37.8	-37.8	33.3	-35.4	-42.7	-42.7	36.1	-40.1	-48.4	-48.4	39.8
12:12	-31.4	-37.9	-37.9	31.8	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	66.4	-20.7	-38.2	-60.2	66.4	-25.4	-46.7	-73.4	66.4
2:12	-18.5	-36.1	-55.8	60.9	-18.5	-36.1	-55.8	60.9	-22.7	-44.1	-68.1	60.9
3:12	-18.5	-36.1	-55.8	54.8	-18.5	-36.1	-55.8	54.8	-22.7	-44.1	-68.1	54.8
4:12	-18.5	-36.1	-55.9	48.6	-18.5	-36.1	-55.9	48.6	-22.8	-44.1	-68.1	48.6
5:12	-18.6	-36.1	-55.9	42.7	-18.6	-36.1	-55.9	42.7	-22.8	-44.1	-68.1	42.9
6:12	-18.6	-36.2	-55.9	37.1	-18.6	-36.2	-55.9	37.1	-22.8	-44.2	-68.2	38.7
7:12	-20.8	-25.2	-25.2	39.7	-20.8	-25.2	-25.2	39.7	-25.6	-30.9	-30.9	42.9
8:12	-20.9	-25.3	-25.3	36.3	-20.9	-25.3	-25.3	36.3	-25.6	-30.9	-30.9	39.5
9:12	-20.9	-25.3	-25.3	33.3	-20.9	-25.3	-25.3	33.3	-25.6	-31.0	-31.0	36.5
10:12	-21.0	-25.4	-25.4	30.7	-21.0	-25.4	-25.4	30.7	-25.7	-31.0	-31.0	33.9
11:12	-21.0	-25.4	-25.4	28.5	-21.0	-25.4	-25.4	28.5	-25.7	-31.0	-31.0	31.7
12:12	-21.0	-25.4	-25.4	26.6	-21.0	-25.4	-25.4	26.6	-25.8	-31.1	-31.1	29.8
Exposure Category C												
1:12	-25.4	-46.7	-73.4	66.4	-29.5	-54.1	-84.8	66.4	-34.2	-62.5	-98.0	66.4
2:12	-22.7	-44.1	-68.1	60.9	-26.4	-51.0	-78.7	60.9	-30.6	-59.0	-90.9	60.9
3:12	-22.7	-44.1	-68.1	54.8	-26.4	-51.0	-78.7	54.8	-30.7	-59.0	-90.9	55.3
4:12	-22.8	-44.1	-68.1	48.6	-26.4	-51.0	-78.7	48.9	-30.7	-59.0	-90.9	50.7
5:12	-22.8	-44.1	-68.1	42.9	-26.5	-51.1	-78.7	44.4	-30.7	-59.1	-91.0	46.2
6:12	-22.8	-44.2	-68.2	38.7	-26.5	-51.1	-78.8	40.2	-30.8	-59.1	-91.0	42.0
7:12	-25.6	-30.9	-30.9	42.9	-29.6	-35.8	-35.8	45.6	-34.3	-41.4	-41.4	48.8
8:12	-25.6	-30.9	-30.9	39.5	-29.7	-35.8	-35.8	42.2	-34.4	-41.5	-41.5	45.4
9:12	-25.6	-31.0	-31.0	36.5	-29.7	-35.9	-35.9	39.2	-34.4	-41.5	-41.5	42.4
10:12	-25.7	-31.0	-31.0	33.9	-29.8	-35.9	-35.9	36.7	-34.5	-41.5	-41.5	39.8
11:12	-25.7	-31.0	-31.0	31.7	-29.8	-35.9	-35.9	34.4	-34.5	-41.6	-41.6	37.6
12:12	-25.8	-31.1	-31.1	29.8	-29.8	-36.0	-36.0	32.6	-34.5	-41.6	-41.6	35.7
Exposure Category D												
1:12	-31.0	-56.9	-89.2	60.1	-35.1	-64.2	-100.6	60.1	-39.8	-72.7	-113.8	60.1
2:12	-27.8	-53.7	-82.7	55.2	-31.5	-60.6	-93.3	56.0	-35.7	-68.6	-105.6	57.7
3:12	-27.8	-53.7	-82.8	50.3	-31.5	-60.6	-93.4	51.8	-35.7	-68.6	-105.6	53.6
4:12	-27.9	-53.7	-82.8	46.1	-31.5	-60.6	-93.4	47.7	-35.8	-68.6	-105.6	49.4
5:12	-27.9	-53.7	-82.8	42.1	-31.6	-60.7	-93.4	43.6	-35.8	-68.7	-105.7	45.4
6:12	-27.9	-53.8	-82.9	38.3	-31.6	-60.7	-93.5	39.8	-35.8	-68.7	-105.7	41.6
7:12	-31.2	-37.7	-37.7	44.5	-35.3	-42.6	-42.6	47.3	-40.0	-48.2	-48.2	50.5
8:12	-31.2	-37.7	-37.7	41.5	-35.3	-42.6	-42.6	44.2	-40.0	-48.2	-48.2	47.4
9:12	-31.3	-37.7	-37.7	38.8	-35.4	-42.6	-42.6	41.5	-40.1	-48.3	-48.3	44.7
10:12	-31.3	-37.8	-37.8	36.4	-35.4	-42.7	-42.7	39.2	-40.1	-48.3	-48.3	42.4
11:12	-31.4	-37.8	-37.8	34.4	-35.4	-42.7	-42.7	37.2	-40.1	-48.4	-48.4	40.3
12:12	-31.4	-37.9	-37.9	32.7	-35.5	-42.8	-42.8	35.5	-40.2	-48.4	-48.4	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
155 mph

Ground Snow Load
90 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-20.7	-38.2	-60.2	73.4	-20.7	-38.2	-60.2	73.4	-25.4	-46.7	-73.4	73.4
2:12	-18.5	-36.1	-55.8	67.2	-18.5	-36.1	-55.8	67.2	-22.7	-44.1	-68.1	67.2
3:12	-18.5	-36.1	-55.8	60.5	-18.5	-36.1	-55.8	60.5	-22.7	-44.1	-68.1	60.5
4:12	-18.5	-36.1	-55.9	53.6	-18.5	-36.1	-55.9	53.6	-22.8	-44.1	-68.1	53.6
5:12	-18.6	-36.1	-55.9	47.0	-18.6	-36.1	-55.9	47.0	-22.8	-44.1	-68.1	47.0
6:12	-18.6	-36.2	-55.9	40.9	-18.6	-36.2	-55.9	40.9	-22.8	-44.2	-68.2	41.5
7:12	-20.8	-25.2	-25.2	42.1	-20.8	-25.2	-25.2	42.1	-25.6	-30.9	-30.9	45.3
8:12	-20.9	-25.3	-25.3	38.3	-20.9	-25.3	-25.3	38.3	-25.6	-30.9	-30.9	41.5
9:12	-20.9	-25.3	-25.3	35.0	-20.9	-25.3	-25.3	35.0	-25.6	-31.0	-31.0	38.2
10:12	-21.0	-25.4	-25.4	32.2	-21.0	-25.4	-25.4	32.2	-25.7	-31.0	-31.0	35.3
11:12	-21.0	-25.4	-25.4	29.7	-21.0	-25.4	-25.4	29.7	-25.7	-31.0	-31.0	32.9
12:12	-21.0	-25.4	-25.4	27.6	-21.0	-25.4	-25.4	27.6	-25.8	-31.1	-31.1	30.8
Exposure Category C												
1:12	-25.4	-46.7	-73.4	73.4	-29.5	-54.1	-84.8	73.4	-34.2	-62.5	-98.0	73.4
2:12	-22.7	-44.1	-68.1	67.2	-26.4	-51.0	-78.7	67.2	-30.6	-59.0	-90.9	67.2
3:12	-22.7	-44.1	-68.1	60.5	-26.4	-51.0	-78.7	60.5	-30.7	-59.0	-90.9	60.5
4:12	-22.8	-44.1	-68.1	53.6	-26.4	-51.0	-78.7	53.6	-30.7	-59.0	-90.9	54.4
5:12	-22.8	-44.1	-68.1	47.0	-26.5	-51.1	-78.7	47.7	-30.7	-59.1	-91.0	49.5
6:12	-22.8	-44.2	-68.2	41.5	-26.5	-51.1	-78.8	43.0	-30.8	-59.1	-91.0	44.8
7:12	-25.6	-30.9	-30.9	45.3	-29.6	-35.8	-35.8	48.0	-34.3	-41.4	-41.4	51.2
8:12	-25.6	-30.9	-30.9	41.5	-29.7	-35.8	-35.8	44.3	-34.4	-41.5	-41.5	47.4
9:12	-25.6	-31.0	-31.0	38.2	-29.7	-35.9	-35.9	41.0	-34.4	-41.5	-41.5	44.1
10:12	-25.7	-31.0	-31.0	35.3	-29.8	-35.9	-35.9	38.1	-34.5	-41.5	-41.5	41.3
11:12	-25.7	-31.0	-31.0	32.9	-29.8	-35.9	-35.9	35.7	-34.5	-41.6	-41.6	38.8
12:12	-25.8	-31.1	-31.1	30.8	-29.8	-36.0	-36.0	33.6	-34.5	-41.6	-41.6	36.7
Exposure Category D												
1:12	-31.0	-56.9	-89.2	66.4	-35.1	-64.2	-100.6	66.4	-39.8	-72.7	-113.8	66.4
2:12	-27.8	-53.7	-82.7	60.9	-31.5	-60.6	-93.3	60.9	-35.7	-68.6	-105.6	62.0
3:12	-27.8	-53.7	-82.8	54.8	-31.5	-60.6	-93.4	55.7	-35.7	-68.6	-105.6	57.4
4:12	-27.9	-53.7	-82.8	49.5	-31.5	-60.6	-93.4	51.0	-35.8	-68.6	-105.6	52.8
5:12	-27.9	-53.7	-82.8	45.0	-31.6	-60.7	-93.4	46.5	-35.8	-68.7	-105.7	48.3
6:12	-27.9	-53.8	-82.9	40.8	-31.6	-60.7	-93.5	42.3	-35.8	-68.7	-105.7	44.1
7:12	-31.2	-37.7	-37.7	46.7	-35.3	-42.6	-42.6	49.4	-40.0	-48.2	-48.2	52.6
8:12	-31.2	-37.7	-37.7	43.3	-35.3	-42.6	-42.6	46.0	-40.0	-48.2	-48.2	49.2
9:12	-31.3	-37.7	-37.7	40.3	-35.4	-42.6	-42.6	43.1	-40.1	-48.3	-48.3	46.2
10:12	-31.3	-37.8	-37.8	37.7	-35.4	-42.7	-42.7	40.5	-40.1	-48.3	-48.3	43.6
11:12	-31.4	-37.8	-37.8	35.5	-35.4	-42.7	-42.7	38.3	-40.1	-48.4	-48.4	41.4
12:12	-31.4	-37.9	-37.9	33.6	-35.5	-42.8	-42.8	36.4	-40.2	-48.4	-48.4	39.7
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **155 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-22.1	-40.8	-64.2	13.4	-22.1	-40.8	-64.2	13.4	-27.1	-49.9	-78.3	13.4
2:12	-19.8	-38.5	-59.6	15.5	-19.8	-38.5	-59.6	15.5	-24.3	-47.0	-72.6	18.0
3:12	-19.8	-38.5	-59.6	15.4	-19.8	-38.5	-59.6	15.4	-24.3	-47.1	-72.6	17.9
4:12	-19.8	-38.6	-59.6	15.3	-19.8	-38.6	-59.6	15.3	-24.4	-47.1	-72.6	17.9
5:12	-19.9	-38.6	-59.6	15.2	-19.9	-38.6	-59.6	15.2	-24.4	-47.1	-72.7	17.8
6:12	-19.9	-38.6	-59.7	15.1	-19.9	-38.6	-59.7	15.1	-24.4	-47.1	-72.7	17.6
7:12	-22.3	-27.0	-27.0	24.4	-22.3	-27.0	-27.0	24.4	-27.3	-33.0	-33.0	28.9
8:12	-22.3	-27.0	-27.0	24.3	-22.3	-27.0	-27.0	24.3	-27.3	-33.0	-33.0	28.8
9:12	-22.4	-27.0	-27.0	24.1	-22.4	-27.0	-27.0	24.1	-27.4	-33.1	-33.1	28.6
10:12	-22.4	-27.1	-27.1	24.0	-22.4	-27.1	-27.1	24.0	-27.4	-33.1	-33.1	28.5
11:12	-22.4	-27.1	-27.1	23.9	-22.4	-27.1	-27.1	23.9	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
1:12	-27.1	-49.9	-78.3	13.4	-31.5	-57.7	-90.4	13.7	-36.5	-66.7	-104.5	15.2
2:12	-24.3	-47.0	-72.6	18.0	-28.2	-54.4	-83.9	20.2	-32.7	-62.9	-96.9	22.7
3:12	-24.3	-47.1	-72.6	17.9	-28.2	-54.4	-83.9	20.1	-32.7	-63.0	-97.0	22.6
4:12	-24.4	-47.1	-72.6	17.9	-28.3	-54.5	-83.9	20.0	-32.8	-63.0	-97.0	22.5
5:12	-24.4	-47.1	-72.7	17.8	-28.3	-54.5	-84.0	19.9	-32.8	-63.0	-97.0	22.4
6:12	-24.4	-47.1	-72.7	17.6	-28.3	-54.5	-84.0	19.8	-32.8	-63.1	-97.0	22.3
7:12	-27.3	-33.0	-33.0	28.9	-31.6	-38.2	-38.2	32.8	-36.7	-44.2	-44.2	37.3
8:12	-27.3	-33.0	-33.0	28.8	-31.7	-38.2	-38.2	32.7	-36.7	-44.3	-44.3	37.2
9:12	-27.4	-33.1	-33.1	28.6	-31.7	-38.3	-38.3	32.6	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.5	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
1:12	-33.1	-60.7	-95.1	14.2	-37.5	-68.5	-107.3	15.5	-42.5	-77.5	-121.3	17.0
2:12	-29.7	-57.3	-88.2	21.0	-33.6	-64.6	-99.5	23.2	-38.1	-73.2	-112.6	25.7
3:12	-29.7	-57.3	-88.3	20.9	-33.6	-64.7	-99.6	23.1	-38.2	-73.2	-112.6	25.6
4:12	-29.8	-57.3	-88.3	20.9	-33.7	-64.7	-99.6	23.0	-38.2	-73.2	-112.6	25.5
5:12	-29.8	-57.3	-88.3	20.8	-33.7	-64.7	-99.6	22.9	-38.2	-73.2	-112.7	25.4
6:12	-29.8	-57.4	-88.4	20.7	-33.7	-64.8	-99.7	22.8	-38.3	-73.3	-112.7	25.3
7:12	-33.3	-40.2	-40.2	34.3	-37.7	-45.4	-45.4	38.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.2	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1

Basic Wind Speed
160 mph

Ground Snow Load
0 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	14.8	-22.1	-40.8	-64.2	14.8	-27.1	-49.9	-78.3	14.8
2:12	-19.8	-38.5	-59.6	16.0	-19.8	-38.5	-59.6	16.0	-24.3	-47.0	-72.6	18.0
3:12	-19.8	-38.5	-59.6	15.5	-19.8	-38.5	-59.6	15.5	-24.3	-47.1	-72.6	17.9
4:12	-19.8	-38.6	-59.6	15.3	-19.8	-38.6	-59.6	15.3	-24.4	-47.1	-72.6	17.9
5:12	-19.9	-38.6	-59.6	15.2	-19.9	-38.6	-59.6	15.2	-24.4	-47.1	-72.7	17.8
6:12	-19.9	-38.6	-59.7	15.1	-19.9	-38.6	-59.7	15.1	-24.4	-47.1	-72.7	17.6
7:12	-22.3	-27.0	-27.0	24.4	-22.3	-27.0	-27.0	24.4	-27.3	-33.0	-33.0	28.9
8:12	-22.3	-27.0	-27.0	24.3	-22.3	-27.0	-27.0	24.3	-27.3	-33.0	-33.0	28.8
9:12	-22.4	-27.0	-27.0	24.1	-22.4	-27.0	-27.0	24.1	-27.4	-33.1	-33.1	28.6
10:12	-22.4	-27.1	-27.1	24.0	-22.4	-27.1	-27.1	24.0	-27.4	-33.1	-33.1	28.5
11:12	-22.4	-27.1	-27.1	23.9	-22.4	-27.1	-27.1	23.9	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
Exposure Category C												
1:12	-27.1	-49.9	-78.3	14.8	-31.5	-57.7	-90.4	14.9	-36.5	-66.7	-104.5	16.1
2:12	-24.3	-47.0	-72.6	18.0	-28.2	-54.4	-83.9	20.2	-32.7	-62.9	-96.9	22.7
3:12	-24.3	-47.1	-72.6	17.9	-28.2	-54.4	-83.9	20.1	-32.7	-63.0	-97.0	22.6
4:12	-24.4	-47.1	-72.6	17.9	-28.3	-54.5	-83.9	20.0	-32.8	-63.0	-97.0	22.5
5:12	-24.4	-47.1	-72.7	17.8	-28.3	-54.5	-84.0	19.9	-32.8	-63.0	-97.0	22.4
6:12	-24.4	-47.1	-72.7	17.6	-28.3	-54.5	-84.0	19.8	-32.8	-63.1	-97.0	22.3
7:12	-27.3	-33.0	-33.0	28.9	-31.6	-38.2	-38.2	32.8	-36.7	-44.2	-44.2	37.3
8:12	-27.3	-33.0	-33.0	28.8	-31.7	-38.2	-38.2	32.7	-36.7	-44.3	-44.3	37.2
9:12	-27.4	-33.1	-33.1	28.6	-31.7	-38.3	-38.3	32.6	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.5	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
Exposure Category D												
1:12	-33.1	-60.7	-95.1	15.3	-37.5	-68.5	-107.3	16.3	-42.5	-77.5	-121.3	17.4
2:12	-29.7	-57.3	-88.2	21.0	-33.6	-64.6	-99.5	23.2	-38.1	-73.2	-112.6	25.7
3:12	-29.7	-57.3	-88.3	20.9	-33.6	-64.7	-99.6	23.1	-38.2	-73.2	-112.6	25.6
4:12	-29.8	-57.3	-88.3	20.9	-33.7	-64.7	-99.6	23.0	-38.2	-73.2	-112.6	25.5
5:12	-29.8	-57.3	-88.3	20.8	-33.7	-64.7	-99.6	22.9	-38.2	-73.2	-112.7	25.4
6:12	-29.8	-57.4	-88.4	20.7	-33.7	-64.8	-99.7	22.8	-38.3	-73.3	-112.7	25.3
7:12	-33.3	-40.2	-40.2	34.3	-37.7	-45.4	-45.4	38.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.2	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1

Basic Wind Speed
160 mph

Ground Snow Load
5 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-22.1	-40.8	-64.2	18.5	-22.1	-40.8	-64.2	18.5	-27.1	-49.9	-78.3	18.5
2:12	-19.8	-38.5	-59.6	19.4	-19.8	-38.5	-59.6	19.4	-24.3	-47.0	-72.6	21.2
3:12	-19.8	-38.5	-59.6	18.6	-19.8	-38.5	-59.6	18.6	-24.3	-47.1	-72.6	20.5
4:12	-19.8	-38.6	-59.6	16.2	-19.8	-38.6	-59.6	16.2	-24.4	-47.1	-72.6	18.1
5:12	-19.9	-38.6	-59.6	15.6	-19.9	-38.6	-59.6	15.6	-24.4	-47.1	-72.7	17.8
6:12	-19.9	-38.6	-59.7	15.1	-19.9	-38.6	-59.7	15.1	-24.4	-47.1	-72.7	17.6
7:12	-22.3	-27.0	-27.0	24.4	-22.3	-27.0	-27.0	24.4	-27.3	-33.0	-33.0	28.9
8:12	-22.3	-27.0	-27.0	24.3	-22.3	-27.0	-27.0	24.3	-27.3	-33.0	-33.0	28.8
9:12	-22.4	-27.0	-27.0	24.1	-22.4	-27.0	-27.0	24.1	-27.4	-33.1	-33.1	28.6
10:12	-22.4	-27.1	-27.1	24.0	-22.4	-27.1	-27.1	24.0	-27.4	-33.1	-33.1	28.5
11:12	-22.4	-27.1	-27.1	23.9	-22.4	-27.1	-27.1	23.9	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
1:12	-27.1	-49.9	-78.3	18.5	-31.5	-57.7	-90.4	18.7	-36.5	-66.7	-104.5	19.8
2:12	-24.3	-47.0	-72.6	21.2	-28.2	-54.4	-83.9	22.9	-32.7	-62.9	-96.9	24.8
3:12	-24.3	-47.1	-72.6	20.5	-28.2	-54.4	-83.9	22.1	-32.7	-63.0	-97.0	24.0
4:12	-24.4	-47.1	-72.6	18.1	-28.3	-54.5	-83.9	20.0	-32.8	-63.0	-97.0	22.5
5:12	-24.4	-47.1	-72.7	17.8	-28.3	-54.5	-84.0	19.9	-32.8	-63.0	-97.0	22.4
6:12	-24.4	-47.1	-72.7	17.6	-28.3	-54.5	-84.0	19.8	-32.8	-63.1	-97.0	22.3
7:12	-27.3	-33.0	-33.0	28.9	-31.6	-38.2	-38.2	32.8	-36.7	-44.2	-44.2	37.3
8:12	-27.3	-33.0	-33.0	28.8	-31.7	-38.2	-38.2	32.7	-36.7	-44.3	-44.3	37.2
9:12	-27.4	-33.1	-33.1	28.6	-31.7	-38.3	-38.3	32.6	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.5	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
1:12	-33.1	-60.7	-95.1	19.0	-37.5	-68.5	-107.3	20.0	-42.5	-77.5	-121.3	21.1
2:12	-29.7	-57.3	-88.2	23.5	-33.6	-64.6	-99.5	25.1	-38.1	-73.2	-112.6	27.0
3:12	-29.7	-57.3	-88.3	22.7	-33.6	-64.7	-99.6	24.3	-38.2	-73.2	-112.6	26.2
4:12	-29.8	-57.3	-88.3	20.9	-33.7	-64.7	-99.6	23.0	-38.2	-73.2	-112.6	25.5
5:12	-29.8	-57.3	-88.3	20.8	-33.7	-64.7	-99.6	22.9	-38.2	-73.2	-112.7	25.4
6:12	-29.8	-57.4	-88.4	20.7	-33.7	-64.8	-99.7	22.8	-38.3	-73.3	-112.7	25.3
7:12	-33.3	-40.2	-40.2	34.3	-37.7	-45.4	-45.4	38.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.2	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
160 mph

Ground Snow Load
10 psf

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
160 mph
Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	22.2	-22.1	-40.8	-64.2	22.2	-27.1	-49.9	-78.3	22.2
2:12	-19.8	-38.5	-59.6	22.8	-19.8	-38.5	-59.6	22.8	-24.3	-47.0	-72.6	24.6
3:12	-19.8	-38.5	-59.6	21.6	-19.8	-38.5	-59.6	21.6	-24.3	-47.1	-72.6	23.5
4:12	-19.8	-38.6	-59.6	18.0	-19.8	-38.6	-59.6	18.0	-24.4	-47.1	-72.6	19.9
5:12	-19.9	-38.6	-59.6	17.2	-19.9	-38.6	-59.6	17.2	-24.4	-47.1	-72.7	19.1
6:12	-19.9	-38.6	-59.7	16.4	-19.9	-38.6	-59.7	16.4	-24.4	-47.1	-72.7	18.3
7:12	-22.3	-27.0	-27.0	24.4	-22.3	-27.0	-27.0	24.4	-27.3	-33.0	-33.0	28.9
8:12	-22.3	-27.0	-27.0	24.3	-22.3	-27.0	-27.0	24.3	-27.3	-33.0	-33.0	28.8
9:12	-22.4	-27.0	-27.0	24.1	-22.4	-27.0	-27.0	24.1	-27.4	-33.1	-33.1	28.6
10:12	-22.4	-27.1	-27.1	24.0	-22.4	-27.1	-27.1	24.0	-27.4	-33.1	-33.1	28.5
11:12	-22.4	-27.1	-27.1	23.9	-22.4	-27.1	-27.1	23.9	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
Exposure Category C												
1:12	-27.1	-49.9	-78.3	22.2	-31.5	-57.7	-90.4	22.4	-36.5	-66.7	-104.5	23.5
2:12	-24.3	-47.0	-72.6	24.6	-28.2	-54.4	-83.9	26.3	-32.7	-62.9	-96.9	28.2
3:12	-24.3	-47.1	-72.6	23.5	-28.2	-54.4	-83.9	25.1	-32.7	-63.0	-97.0	27.0
4:12	-24.4	-47.1	-72.6	19.9	-28.3	-54.5	-83.9	21.6	-32.8	-63.0	-97.0	23.4
5:12	-24.4	-47.1	-72.7	19.1	-28.3	-54.5	-84.0	20.7	-32.8	-63.0	-97.0	22.6
6:12	-24.4	-47.1	-72.7	18.3	-28.3	-54.5	-84.0	19.9	-32.8	-63.1	-97.0	22.3
7:12	-27.3	-33.0	-33.0	28.9	-31.6	-38.2	-38.2	32.8	-36.7	-44.2	-44.2	37.3
8:12	-27.3	-33.0	-33.0	28.8	-31.7	-38.2	-38.2	32.7	-36.7	-44.3	-44.3	37.2
9:12	-27.4	-33.1	-33.1	28.6	-31.7	-38.3	-38.3	32.6	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.5	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
Exposure Category D												
1:12	-33.1	-60.7	-95.1	22.8	-37.5	-68.5	-107.3	23.7	-42.5	-77.5	-121.3	24.9
2:12	-29.7	-57.3	-88.2	26.9	-33.6	-64.6	-99.5	28.5	-38.1	-73.2	-112.6	30.4
3:12	-29.7	-57.3	-88.3	25.8	-33.6	-64.7	-99.6	27.4	-38.2	-73.2	-112.6	29.3
4:12	-29.8	-57.3	-88.3	21.6	-33.7	-64.7	-99.6	23.2	-38.2	-73.2	-112.6	25.5
5:12	-29.8	-57.3	-88.3	20.9	-33.7	-64.7	-99.6	22.9	-38.2	-73.2	-112.7	25.4
6:12	-29.8	-57.4	-88.4	20.7	-33.7	-64.8	-99.7	22.8	-38.3	-73.3	-112.7	25.3
7:12	-33.3	-40.2	-40.2	34.3	-37.7	-45.4	-45.4	38.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.2	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W160-S15

Up and Down (psf)

Basic Wind Speed
160 mph

Ground Snow Load
20 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	25.9	-22.1	-40.8	-64.2	25.9	-27.1	-49.9	-78.3	25.9
2:12	-19.8	-38.5	-59.6	26.2	-19.8	-38.5	-59.6	26.2	-24.3	-47.0	-72.6	28.0
3:12	-19.8	-38.5	-59.6	24.7	-19.8	-38.5	-59.6	24.7	-24.3	-47.1	-72.6	26.5
4:12	-19.8	-38.6	-59.6	19.9	-19.8	-38.6	-59.6	19.9	-24.4	-47.1	-72.6	21.8
5:12	-19.9	-38.6	-59.6	18.8	-19.9	-38.6	-59.6	18.8	-24.4	-47.1	-72.7	20.7
6:12	-19.9	-38.6	-59.7	17.8	-19.9	-38.6	-59.7	17.8	-24.4	-47.1	-72.7	19.7
7:12	-22.3	-27.0	-27.0	24.4	-22.3	-27.0	-27.0	24.4	-27.3	-33.0	-33.0	28.9
8:12	-22.3	-27.0	-27.0	24.3	-22.3	-27.0	-27.0	24.3	-27.3	-33.0	-33.0	28.8
9:12	-22.4	-27.0	-27.0	24.1	-22.4	-27.0	-27.0	24.1	-27.4	-33.1	-33.1	28.6
10:12	-22.4	-27.1	-27.1	24.0	-22.4	-27.1	-27.1	24.0	-27.4	-33.1	-33.1	28.5
11:12	-22.4	-27.1	-27.1	23.9	-22.4	-27.1	-27.1	23.9	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
Exposure Category C												
1:12	-27.1	-49.9	-78.3	25.9	-31.5	-57.7	-90.4	26.1	-36.5	-66.7	-104.5	27.2
2:12	-24.3	-47.0	-72.6	28.0	-28.2	-54.4	-83.9	29.7	-32.7	-62.9	-96.9	31.6
3:12	-24.3	-47.1	-72.6	26.5	-28.2	-54.4	-83.9	28.2	-32.7	-63.0	-97.0	30.1
4:12	-24.4	-47.1	-72.6	21.8	-28.3	-54.5	-83.9	23.4	-32.8	-63.0	-97.0	25.3
5:12	-24.4	-47.1	-72.7	20.7	-28.3	-54.5	-84.0	22.4	-32.8	-63.0	-97.0	24.2
6:12	-24.4	-47.1	-72.7	19.7	-28.3	-54.5	-84.0	21.3	-32.8	-63.1	-97.0	23.2
7:12	-27.3	-33.0	-33.0	28.9	-31.6	-38.2	-38.2	32.8	-36.7	-44.2	-44.2	37.3
8:12	-27.3	-33.0	-33.0	28.8	-31.7	-38.2	-38.2	32.7	-36.7	-44.3	-44.3	37.2
9:12	-27.4	-33.1	-33.1	28.6	-31.7	-38.3	-38.3	32.6	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.5	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
Exposure Category D												
1:12	-33.1	-60.7	-95.1	26.5	-37.5	-68.5	-107.3	27.5	-42.5	-77.5	-121.3	28.6
2:12	-29.7	-57.3	-88.2	30.3	-33.6	-64.6	-99.5	31.9	-38.1	-73.2	-112.6	33.8
3:12	-29.7	-57.3	-88.3	28.8	-33.6	-64.7	-99.6	30.4	-38.2	-73.2	-112.6	32.3
4:12	-29.8	-57.3	-88.3	23.3	-33.7	-64.7	-99.6	24.9	-38.2	-73.2	-112.6	26.8
5:12	-29.8	-57.3	-88.3	22.3	-33.7	-64.7	-99.6	24.0	-38.2	-73.2	-112.7	25.8
6:12	-29.8	-57.4	-88.4	21.4	-33.7	-64.8	-99.7	23.0	-38.3	-73.3	-112.7	25.3
7:12	-33.3	-40.2	-40.2	34.3	-37.7	-45.4	-45.4	38.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.2	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	25.9	-22.1	-40.8	-64.2	25.9	-27.1	-49.9	-78.3	25.9
2:12	-19.8	-38.5	-59.6	26.2	-19.8	-38.5	-59.6	26.2	-24.3	-47.0	-72.6	28.0
3:12	-19.8	-38.5	-59.6	24.7	-19.8	-38.5	-59.6	24.7	-24.3	-47.1	-72.6	26.5
4:12	-19.8	-38.6	-59.6	21.8	-19.8	-38.6	-59.6	21.8	-24.4	-47.1	-72.6	23.7
5:12	-19.9	-38.6	-59.6	20.5	-19.9	-38.6	-59.6	20.5	-24.4	-47.1	-72.7	22.4
6:12	-19.9	-38.6	-59.7	19.2	-19.9	-38.6	-59.7	19.2	-24.4	-47.1	-72.7	21.1
7:12	-22.3	-27.0	-27.0	25.1	-22.3	-27.0	-27.0	25.1	-27.3	-33.0	-33.0	28.9
8:12	-22.3	-27.0	-27.0	24.3	-22.3	-27.0	-27.0	24.3	-27.3	-33.0	-33.0	28.8
9:12	-22.4	-27.0	-27.0	24.1	-22.4	-27.0	-27.0	24.1	-27.4	-33.1	-33.1	28.6
10:12	-22.4	-27.1	-27.1	24.0	-22.4	-27.1	-27.1	24.0	-27.4	-33.1	-33.1	28.5
11:12	-22.4	-27.1	-27.1	23.9	-22.4	-27.1	-27.1	23.9	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
Exposure Category C												
1:12	-27.1	-49.9	-78.3	25.9	-31.5	-57.7	-90.4	26.1	-36.5	-66.7	-104.5	27.2
2:12	-24.3	-47.0	-72.6	28.0	-28.2	-54.4	-83.9	29.7	-32.7	-62.9	-96.9	31.6
3:12	-24.3	-47.1	-72.6	26.5	-28.2	-54.4	-83.9	28.2	-32.7	-63.0	-97.0	30.1
4:12	-24.4	-47.1	-72.6	23.7	-28.3	-54.5	-83.9	25.3	-32.8	-63.0	-97.0	27.2
5:12	-24.4	-47.1	-72.7	22.4	-28.3	-54.5	-84.0	24.0	-32.8	-63.0	-97.0	25.9
6:12	-24.4	-47.1	-72.7	21.1	-28.3	-54.5	-84.0	22.7	-32.8	-63.1	-97.0	24.6
7:12	-27.3	-33.0	-33.0	28.9	-31.6	-38.2	-38.2	32.8	-36.7	-44.2	-44.2	37.3
8:12	-27.3	-33.0	-33.0	28.8	-31.7	-38.2	-38.2	32.7	-36.7	-44.3	-44.3	37.2
9:12	-27.4	-33.1	-33.1	28.6	-31.7	-38.3	-38.3	32.6	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.5	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
Exposure Category D												
1:12	-33.1	-60.7	-95.1	26.5	-37.5	-68.5	-107.3	27.5	-42.5	-77.5	-121.3	28.6
2:12	-29.7	-57.3	-88.2	30.3	-33.6	-64.6	-99.5	31.9	-38.1	-73.2	-112.6	33.8
3:12	-29.7	-57.3	-88.3	28.8	-33.6	-64.7	-99.6	30.4	-38.2	-73.2	-112.6	32.3
4:12	-29.8	-57.3	-88.3	25.0	-33.7	-64.7	-99.6	26.6	-38.2	-73.2	-112.6	28.5
5:12	-29.8	-57.3	-88.3	23.8	-33.7	-64.7	-99.6	25.4	-38.2	-73.2	-112.7	27.3
6:12	-29.8	-57.4	-88.4	22.7	-33.7	-64.8	-99.7	24.3	-38.3	-73.3	-112.7	26.2
7:12	-33.3	-40.2	-40.2	34.3	-37.7	-45.4	-45.4	38.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.2	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **160 mph**

Ground Snow Load **25 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	26.7	-22.1	-40.8	-64.2	26.7	-27.1	-49.9	-78.3	26.7
2:12	-19.8	-38.5	-59.6	26.8	-19.8	-38.5	-59.6	26.8	-24.3	-47.0	-72.6	28.7
3:12	-19.8	-38.5	-59.6	25.3	-19.8	-38.5	-59.6	25.3	-24.3	-47.1	-72.6	27.1
4:12	-19.8	-38.6	-59.6	23.7	-19.8	-38.6	-59.6	23.7	-24.4	-47.1	-72.6	25.5
5:12	-19.9	-38.6	-59.6	22.1	-19.9	-38.6	-59.6	22.1	-24.4	-47.1	-72.7	24.0
6:12	-19.9	-38.6	-59.7	20.6	-19.9	-38.6	-59.7	20.6	-24.4	-47.1	-72.7	22.5
7:12	-22.3	-27.0	-27.0	26.3	-22.3	-27.0	-27.0	26.3	-27.3	-33.0	-33.0	29.7
8:12	-22.3	-27.0	-27.0	25.1	-22.3	-27.0	-27.0	25.1	-27.3	-33.0	-33.0	28.8
9:12	-22.4	-27.0	-27.0	24.1	-22.4	-27.0	-27.0	24.1	-27.4	-33.1	-33.1	28.6
10:12	-22.4	-27.1	-27.1	24.0	-22.4	-27.1	-27.1	24.0	-27.4	-33.1	-33.1	28.5
11:12	-22.4	-27.1	-27.1	23.9	-22.4	-27.1	-27.1	23.9	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
Exposure Category C												
1:12	-27.1	-49.9	-78.3	26.7	-31.5	-57.7	-90.4	26.8	-36.5	-66.7	-104.5	28.0
2:12	-24.3	-47.0	-72.6	28.7	-28.2	-54.4	-83.9	30.4	-32.7	-62.9	-96.9	32.2
3:12	-24.3	-47.1	-72.6	27.1	-28.2	-54.4	-83.9	28.8	-32.7	-63.0	-97.0	30.7
4:12	-24.4	-47.1	-72.6	25.5	-28.3	-54.5	-83.9	27.2	-32.8	-63.0	-97.0	29.1
5:12	-24.4	-47.1	-72.7	24.0	-28.3	-54.5	-84.0	25.6	-32.8	-63.0	-97.0	27.5
6:12	-24.4	-47.1	-72.7	22.5	-28.3	-54.5	-84.0	24.1	-32.8	-63.1	-97.0	26.0
7:12	-27.3	-33.0	-33.0	29.7	-31.6	-38.2	-38.2	32.8	-36.7	-44.2	-44.2	37.3
8:12	-27.3	-33.0	-33.0	28.8	-31.7	-38.2	-38.2	32.7	-36.7	-44.3	-44.3	37.2
9:12	-27.4	-33.1	-33.1	28.6	-31.7	-38.3	-38.3	32.6	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.5	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
Exposure Category D												
1:12	-33.1	-60.7	-95.1	26.5	-37.5	-68.5	-107.3	27.5	-42.5	-77.5	-121.3	28.6
2:12	-29.7	-57.3	-88.2	30.3	-33.6	-64.6	-99.5	31.9	-38.1	-73.2	-112.6	33.8
3:12	-29.7	-57.3	-88.3	28.8	-33.6	-64.7	-99.6	30.4	-38.2	-73.2	-112.6	32.3
4:12	-29.8	-57.3	-88.3	26.7	-33.7	-64.7	-99.6	28.3	-38.2	-73.2	-112.6	30.2
5:12	-29.8	-57.3	-88.3	25.3	-33.7	-64.7	-99.6	26.9	-38.2	-73.2	-112.7	28.8
6:12	-29.8	-57.4	-88.4	23.9	-33.7	-64.8	-99.7	25.6	-38.3	-73.3	-112.7	27.4
7:12	-33.3	-40.2	-40.2	34.3	-37.7	-45.4	-45.4	38.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.2	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **160 mph**

Ground Snow Load **30 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-22.1	-40.8	-64.2	29.3	-22.1	-40.8	-64.2	29.3	-27.1	-49.9	-78.3	29.3
2:12	-19.8	-38.5	-59.6	29.2	-19.8	-38.5	-59.6	29.2	-24.3	-47.0	-72.6	31.1
3:12	-19.8	-38.5	-59.6	27.4	-19.8	-38.5	-59.6	27.4	-24.3	-47.1	-72.6	29.3
4:12	-19.8	-38.6	-59.6	25.5	-19.8	-38.6	-59.6	25.5	-24.4	-47.1	-72.6	27.4
5:12	-19.9	-38.6	-59.6	23.7	-19.9	-38.6	-59.6	23.7	-24.4	-47.1	-72.7	25.6
6:12	-19.9	-38.6	-59.7	22.0	-19.9	-38.6	-59.7	22.0	-24.4	-47.1	-72.7	23.9
7:12	-22.3	-27.0	-27.0	27.5	-22.3	-27.0	-27.0	27.5	-27.3	-33.0	-33.0	30.9
8:12	-22.3	-27.0	-27.0	26.1	-22.3	-27.0	-27.0	26.1	-27.3	-33.0	-33.0	29.5
9:12	-22.4	-27.0	-27.0	24.9	-22.4	-27.0	-27.0	24.9	-27.4	-33.1	-33.1	28.6
10:12	-22.4	-27.1	-27.1	24.0	-22.4	-27.1	-27.1	24.0	-27.4	-33.1	-33.1	28.5
11:12	-22.4	-27.1	-27.1	23.9	-22.4	-27.1	-27.1	23.9	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
1:12	-27.1	-49.9	-78.3	29.3	-31.5	-57.7	-90.4	29.5	-36.5	-66.7	-104.5	30.6
2:12	-24.3	-47.0	-72.6	31.1	-28.2	-54.4	-83.9	32.7	-32.7	-62.9	-96.9	34.6
3:12	-24.3	-47.1	-72.6	29.3	-28.2	-54.4	-83.9	30.9	-32.7	-63.0	-97.0	32.8
4:12	-24.4	-47.1	-72.6	27.4	-28.3	-54.5	-83.9	29.1	-32.8	-63.0	-97.0	30.9
5:12	-24.4	-47.1	-72.7	25.6	-28.3	-54.5	-84.0	27.2	-32.8	-63.0	-97.0	29.1
6:12	-24.4	-47.1	-72.7	23.9	-28.3	-54.5	-84.0	25.5	-32.8	-63.1	-97.0	27.4
7:12	-27.3	-33.0	-33.0	30.9	-31.6	-38.2	-38.2	33.8	-36.7	-44.2	-44.2	37.3
8:12	-27.3	-33.0	-33.0	29.5	-31.7	-38.2	-38.2	32.7	-36.7	-44.3	-44.3	37.2
9:12	-27.4	-33.1	-33.1	28.6	-31.7	-38.3	-38.3	32.6	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.5	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
1:12	-33.1	-60.7	-95.1	28.0	-37.5	-68.5	-107.3	29.0	-42.5	-77.5	-121.3	30.1
2:12	-29.7	-57.3	-88.2	31.7	-33.6	-64.6	-99.5	33.3	-38.1	-73.2	-112.6	35.2
3:12	-29.7	-57.3	-88.3	30.0	-33.6	-64.7	-99.6	31.7	-38.2	-73.2	-112.6	33.6
4:12	-29.8	-57.3	-88.3	28.4	-33.7	-64.7	-99.6	30.0	-38.2	-73.2	-112.6	31.9
5:12	-29.8	-57.3	-88.3	26.7	-33.7	-64.7	-99.6	28.4	-38.2	-73.2	-112.7	30.2
6:12	-29.8	-57.4	-88.4	25.2	-33.7	-64.8	-99.7	26.8	-38.3	-73.3	-112.7	28.7
7:12	-33.3	-40.2	-40.2	34.3	-37.7	-45.4	-45.4	38.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.2	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **160 mph**
Ground Snow Load **35 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
160 mph
Ground Snow Load
40 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-22.1	-40.8	-64.2	31.9	-22.1	-40.8	-64.2	31.9	-27.1	-49.9	-78.3	31.9
2:12	-19.8	-38.5	-59.6	31.6	-19.8	-38.5	-59.6	31.6	-24.3	-47.0	-72.6	33.5
3:12	-19.8	-38.5	-59.6	29.5	-19.8	-38.5	-59.6	29.5	-24.3	-47.1	-72.6	31.4
4:12	-19.8	-38.6	-59.6	27.4	-19.8	-38.6	-59.6	27.4	-24.4	-47.1	-72.6	29.3
5:12	-19.9	-38.6	-59.6	25.4	-19.9	-38.6	-59.6	25.4	-24.4	-47.1	-72.7	27.2
6:12	-19.9	-38.6	-59.7	23.4	-19.9	-38.6	-59.7	23.4	-24.4	-47.1	-72.7	25.3
7:12	-22.3	-27.0	-27.0	28.7	-22.3	-27.0	-27.0	28.7	-27.3	-33.0	-33.0	32.1
8:12	-22.3	-27.0	-27.0	27.1	-22.3	-27.0	-27.0	27.1	-27.3	-33.0	-33.0	30.5
9:12	-22.4	-27.0	-27.0	25.7	-22.4	-27.0	-27.0	25.7	-27.4	-33.1	-33.1	29.1
10:12	-22.4	-27.1	-27.1	24.5	-22.4	-27.1	-27.1	24.5	-27.4	-33.1	-33.1	28.5
11:12	-22.4	-27.1	-27.1	23.9	-22.4	-27.1	-27.1	23.9	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
1:12	-27.1	-49.9	-78.3	31.9	-31.5	-57.7	-90.4	32.1	-36.5	-66.7	-104.5	33.2
2:12	-24.3	-47.0	-72.6	33.5	-28.2	-54.4	-83.9	35.1	-32.7	-62.9	-96.9	37.0
3:12	-24.3	-47.1	-72.6	31.4	-28.2	-54.4	-83.9	33.0	-32.7	-63.0	-97.0	34.9
4:12	-24.4	-47.1	-72.6	29.3	-28.3	-54.5	-83.9	30.9	-32.8	-63.0	-97.0	32.8
5:12	-24.4	-47.1	-72.7	27.2	-28.3	-54.5	-84.0	28.9	-32.8	-63.0	-97.0	30.8
6:12	-24.4	-47.1	-72.7	25.3	-28.3	-54.5	-84.0	27.0	-32.8	-63.1	-97.0	28.8
7:12	-27.3	-33.0	-33.0	32.1	-31.6	-38.2	-38.2	35.0	-36.7	-44.2	-44.2	38.4
8:12	-27.3	-33.0	-33.0	30.5	-31.7	-38.2	-38.2	33.4	-36.7	-44.3	-44.3	37.2
9:12	-27.4	-33.1	-33.1	29.1	-31.7	-38.3	-38.3	32.6	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.5	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
1:12	-33.1	-60.7	-95.1	30.3	-37.5	-68.5	-107.3	31.3	-42.5	-77.5	-121.3	32.5
2:12	-29.7	-57.3	-88.2	33.8	-33.6	-64.6	-99.5	35.5	-38.1	-73.2	-112.6	37.3
3:12	-29.7	-57.3	-88.3	32.0	-33.6	-64.7	-99.6	33.6	-38.2	-73.2	-112.6	35.5
4:12	-29.8	-57.3	-88.3	30.1	-33.7	-64.7	-99.6	31.7	-38.2	-73.2	-112.6	33.6
5:12	-29.8	-57.3	-88.3	28.2	-33.7	-64.7	-99.6	29.8	-38.2	-73.2	-112.7	31.7
6:12	-29.8	-57.4	-88.4	26.5	-33.7	-64.8	-99.7	28.1	-38.3	-73.3	-112.7	30.0
7:12	-33.3	-40.2	-40.2	35.2	-37.7	-45.4	-45.4	38.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.2	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	35.1	-22.1	-40.8	-64.2	35.1	-27.1	-49.9	-78.3	35.1
2:12	-19.8	-38.5	-59.6	34.0	-19.8	-38.5	-59.6	34.0	-24.3	-47.0	-72.6	35.9
3:12	-19.8	-38.5	-59.6	31.7	-19.8	-38.5	-59.6	31.7	-24.3	-47.1	-72.6	33.5
4:12	-19.8	-38.6	-59.6	29.3	-19.8	-38.6	-59.6	29.3	-24.4	-47.1	-72.6	31.2
5:12	-19.9	-38.6	-59.6	27.0	-19.9	-38.6	-59.6	27.0	-24.4	-47.1	-72.7	28.9
6:12	-19.9	-38.6	-59.7	24.8	-19.9	-38.6	-59.7	24.8	-24.4	-47.1	-72.7	26.7
7:12	-22.3	-27.0	-27.0	29.9	-22.3	-27.0	-27.0	29.9	-27.3	-33.0	-33.0	33.3
8:12	-22.3	-27.0	-27.0	28.1	-22.3	-27.0	-27.0	28.1	-27.3	-33.0	-33.0	31.5
9:12	-22.4	-27.0	-27.0	26.6	-22.4	-27.0	-27.0	26.6	-27.4	-33.1	-33.1	30.0
10:12	-22.4	-27.1	-27.1	25.2	-22.4	-27.1	-27.1	25.2	-27.4	-33.1	-33.1	28.6
11:12	-22.4	-27.1	-27.1	24.1	-22.4	-27.1	-27.1	24.1	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
Exposure Category C												
1:12	-27.1	-49.9	-78.3	35.1	-31.5	-57.7	-90.4	35.1	-36.5	-66.7	-104.5	35.8
2:12	-24.3	-47.0	-72.6	35.9	-28.2	-54.4	-83.9	37.5	-32.7	-62.9	-96.9	39.4
3:12	-24.3	-47.1	-72.6	33.5	-28.2	-54.4	-83.9	35.2	-32.7	-63.0	-97.0	37.0
4:12	-24.4	-47.1	-72.6	31.2	-28.3	-54.5	-83.9	32.8	-32.8	-63.0	-97.0	34.7
5:12	-24.4	-47.1	-72.7	28.9	-28.3	-54.5	-84.0	30.5	-32.8	-63.0	-97.0	32.4
6:12	-24.4	-47.1	-72.7	26.7	-28.3	-54.5	-84.0	28.4	-32.8	-63.1	-97.0	30.2
7:12	-27.3	-33.0	-33.0	33.3	-31.6	-38.2	-38.2	36.2	-36.7	-44.2	-44.2	39.6
8:12	-27.3	-33.0	-33.0	31.5	-31.7	-38.2	-38.2	34.4	-36.7	-44.3	-44.3	37.8
9:12	-27.4	-33.1	-33.1	30.0	-31.7	-38.3	-38.3	32.9	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	28.6	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
Exposure Category D												
1:12	-33.1	-60.7	-95.1	32.7	-37.5	-68.5	-107.3	33.7	-42.5	-77.5	-121.3	34.8
2:12	-29.7	-57.3	-88.2	36.0	-33.6	-64.6	-99.5	37.6	-38.1	-73.2	-112.6	39.5
3:12	-29.7	-57.3	-88.3	33.9	-33.6	-64.7	-99.6	35.5	-38.2	-73.2	-112.6	37.4
4:12	-29.8	-57.3	-88.3	31.7	-33.7	-64.7	-99.6	33.4	-38.2	-73.2	-112.6	35.3
5:12	-29.8	-57.3	-88.3	29.7	-33.7	-64.7	-99.6	31.3	-38.2	-73.2	-112.7	33.2
6:12	-29.8	-57.4	-88.4	27.7	-33.7	-64.8	-99.7	29.3	-38.3	-73.3	-112.7	31.2
7:12	-33.3	-40.2	-40.2	36.3	-37.7	-45.4	-45.4	39.2	-42.7	-51.4	-51.4	42.7
8:12	-33.4	-40.2	-40.2	34.7	-37.7	-45.5	-45.5	38.1	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
160 mph

Ground Snow Load
45 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	38.6	-22.1	-40.8	-64.2	38.6	-27.1	-49.9	-78.3	38.6
2:12	-19.8	-38.5	-59.6	36.4	-19.8	-38.5	-59.6	36.4	-24.3	-47.0	-72.6	38.2
3:12	-19.8	-38.5	-59.6	33.8	-19.8	-38.5	-59.6	33.8	-24.3	-47.1	-72.6	35.7
4:12	-19.8	-38.6	-59.6	31.2	-19.8	-38.6	-59.6	31.2	-24.4	-47.1	-72.6	33.0
5:12	-19.9	-38.6	-59.6	28.6	-19.9	-38.6	-59.6	28.6	-24.4	-47.1	-72.7	30.5
6:12	-19.9	-38.6	-59.7	26.2	-19.9	-38.6	-59.7	26.2	-24.4	-47.1	-72.7	28.1
7:12	-22.3	-27.0	-27.0	31.1	-22.3	-27.0	-27.0	31.1	-27.3	-33.0	-33.0	34.5
8:12	-22.3	-27.0	-27.0	29.1	-22.3	-27.0	-27.0	29.1	-27.3	-33.0	-33.0	32.5
9:12	-22.4	-27.0	-27.0	27.4	-22.4	-27.0	-27.0	27.4	-27.4	-33.1	-33.1	30.8
10:12	-22.4	-27.1	-27.1	25.9	-22.4	-27.1	-27.1	25.9	-27.4	-33.1	-33.1	29.3
11:12	-22.4	-27.1	-27.1	24.7	-22.4	-27.1	-27.1	24.7	-27.5	-33.1	-33.1	28.4
12:12	-22.5	-27.2	-27.2	23.8	-22.5	-27.2	-27.2	23.8	-27.5	-33.2	-33.2	28.3
Exposure Category C												
1:12	-27.1	-49.9	-78.3	38.6	-31.5	-57.7	-90.4	38.6	-36.5	-66.7	-104.5	38.6
2:12	-24.3	-47.0	-72.6	38.2	-28.2	-54.4	-83.9	39.9	-32.7	-62.9	-96.9	41.7
3:12	-24.3	-47.1	-72.6	35.7	-28.2	-54.4	-83.9	37.3	-32.7	-63.0	-97.0	39.2
4:12	-24.4	-47.1	-72.6	33.0	-28.3	-54.5	-83.9	34.7	-32.8	-63.0	-97.0	36.6
5:12	-24.4	-47.1	-72.7	30.5	-28.3	-54.5	-84.0	32.1	-32.8	-63.0	-97.0	34.0
6:12	-24.4	-47.1	-72.7	28.1	-28.3	-54.5	-84.0	29.8	-32.8	-63.1	-97.0	31.6
7:12	-27.3	-33.0	-33.0	34.5	-31.6	-38.2	-38.2	37.4	-36.7	-44.2	-44.2	40.8
8:12	-27.3	-33.0	-33.0	32.5	-31.7	-38.2	-38.2	35.5	-36.7	-44.3	-44.3	38.8
9:12	-27.4	-33.1	-33.1	30.8	-31.7	-38.3	-38.3	33.8	-36.7	-44.3	-44.3	37.1
10:12	-27.4	-33.1	-33.1	29.3	-31.8	-38.3	-38.3	32.4	-36.8	-44.3	-44.3	36.9
11:12	-27.5	-33.1	-33.1	28.4	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
Exposure Category D												
1:12	-33.1	-60.7	-95.1	35.1	-37.5	-68.5	-107.3	36.0	-42.5	-77.5	-121.3	37.1
2:12	-29.7	-57.3	-88.2	38.1	-33.6	-64.6	-99.5	39.7	-38.1	-73.2	-112.6	41.6
3:12	-29.7	-57.3	-88.3	35.8	-33.6	-64.7	-99.6	37.4	-38.2	-73.2	-112.6	39.3
4:12	-29.8	-57.3	-88.3	33.4	-33.7	-64.7	-99.6	35.1	-38.2	-73.2	-112.6	36.9
5:12	-29.8	-57.3	-88.3	31.1	-33.7	-64.7	-99.6	32.8	-38.2	-73.2	-112.7	34.6
6:12	-29.8	-57.4	-88.4	29.0	-33.7	-64.8	-99.7	30.6	-38.3	-73.3	-112.7	32.5
7:12	-33.3	-40.2	-40.2	37.3	-37.7	-45.4	-45.4	40.3	-42.7	-51.4	-51.4	43.7
8:12	-33.4	-40.2	-40.2	35.6	-37.7	-45.5	-45.5	38.5	-42.7	-51.5	-51.5	42.6
9:12	-33.4	-40.3	-40.3	34.1	-37.7	-45.5	-45.5	38.0	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	33.9	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1

Basic Wind Speed
160 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
160 mph

Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-22.1	-40.8	-64.2	45.5	-22.1	-40.8	-64.2	45.5	-27.1	-49.9	-78.3	45.5
2:12	-19.8	-38.5	-59.6	41.9	-19.8	-38.5	-59.6	41.9	-24.3	-47.0	-72.6	43.0
3:12	-19.8	-38.5	-59.6	38.0	-19.8	-38.5	-59.6	38.0	-24.3	-47.1	-72.6	39.9
4:12	-19.8	-38.6	-59.6	34.9	-19.8	-38.6	-59.6	34.9	-24.4	-47.1	-72.6	36.8
5:12	-19.9	-38.6	-59.6	31.9	-19.9	-38.6	-59.6	31.9	-24.4	-47.1	-72.7	33.8
6:12	-19.9	-38.6	-59.7	29.1	-19.9	-38.6	-59.7	29.1	-24.4	-47.1	-72.7	30.9
7:12	-22.3	-27.0	-27.0	33.5	-22.3	-27.0	-27.0	33.5	-27.3	-33.0	-33.0	36.9
8:12	-22.3	-27.0	-27.0	31.2	-22.3	-27.0	-27.0	31.2	-27.3	-33.0	-33.0	34.6
9:12	-22.4	-27.0	-27.0	29.1	-22.4	-27.0	-27.0	29.1	-27.4	-33.1	-33.1	32.5
10:12	-22.4	-27.1	-27.1	27.4	-22.4	-27.1	-27.1	27.4	-27.4	-33.1	-33.1	30.8
11:12	-22.4	-27.1	-27.1	25.9	-22.4	-27.1	-27.1	25.9	-27.5	-33.1	-33.1	29.3
12:12	-22.5	-27.2	-27.2	24.6	-22.5	-27.2	-27.2	24.6	-27.5	-33.2	-33.2	28.3
1:12	-27.1	-49.9	-78.3	45.5	-31.5	-57.7	-90.4	45.5	-36.5	-66.7	-104.5	45.5
2:12	-24.3	-47.0	-72.6	43.0	-28.2	-54.4	-83.9	44.6	-32.7	-62.9	-96.9	46.5
3:12	-24.3	-47.1	-72.6	39.9	-28.2	-54.4	-83.9	41.5	-32.7	-63.0	-97.0	43.4
4:12	-24.4	-47.1	-72.6	36.8	-28.3	-54.5	-83.9	38.4	-32.8	-63.0	-97.0	40.3
5:12	-24.4	-47.1	-72.7	33.8	-28.3	-54.5	-84.0	35.4	-32.8	-63.0	-97.0	37.3
6:12	-24.4	-47.1	-72.7	30.9	-28.3	-54.5	-84.0	32.6	-32.8	-63.1	-97.0	34.4
7:12	-27.3	-33.0	-33.0	36.9	-31.6	-38.2	-38.2	39.8	-36.7	-44.2	-44.2	43.2
8:12	-27.3	-33.0	-33.0	34.6	-31.7	-38.2	-38.2	37.5	-36.7	-44.3	-44.3	40.9
9:12	-27.4	-33.1	-33.1	32.5	-31.7	-38.3	-38.3	35.5	-36.7	-44.3	-44.3	38.8
10:12	-27.4	-33.1	-33.1	30.8	-31.8	-38.3	-38.3	33.7	-36.8	-44.3	-44.3	37.1
11:12	-27.5	-33.1	-33.1	29.3	-31.8	-38.4	-38.4	32.3	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	28.3	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
1:12	-33.1	-60.7	-95.1	41.4	-37.5	-68.5	-107.3	41.4	-42.5	-77.5	-121.3	41.8
2:12	-29.7	-57.3	-88.2	42.4	-33.6	-64.6	-99.5	44.0	-38.1	-73.2	-112.6	45.9
3:12	-29.7	-57.3	-88.3	39.6	-33.6	-64.7	-99.6	41.2	-38.2	-73.2	-112.6	43.1
4:12	-29.8	-57.3	-88.3	36.8	-33.7	-64.7	-99.6	38.4	-38.2	-73.2	-112.6	40.3
5:12	-29.8	-57.3	-88.3	34.1	-33.7	-64.7	-99.6	35.7	-38.2	-73.2	-112.7	37.6
6:12	-29.8	-57.4	-88.4	31.5	-33.7	-64.8	-99.7	33.1	-38.3	-73.3	-112.7	35.0
7:12	-33.3	-40.2	-40.2	39.5	-37.7	-45.4	-45.4	42.4	-42.7	-51.4	-51.4	45.8
8:12	-33.4	-40.2	-40.2	37.4	-37.7	-45.5	-45.5	40.3	-42.7	-51.5	-51.5	43.7
9:12	-33.4	-40.3	-40.3	35.6	-37.7	-45.5	-45.5	38.5	-42.8	-51.5	-51.5	42.5
10:12	-33.4	-40.3	-40.3	34.0	-37.8	-45.5	-45.5	37.8	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed

160 mph

Ground Snow Load

70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	52.5	-22.1	-40.8	-64.2	52.5	-27.1	-49.9	-78.3	52.5
2:12	-19.8	-38.5	-59.6	48.2	-19.8	-38.5	-59.6	48.2	-24.3	-47.0	-72.6	48.2
3:12	-19.8	-38.5	-59.6	43.4	-19.8	-38.5	-59.6	43.4	-24.3	-47.1	-72.6	44.2
4:12	-19.8	-38.6	-59.6	38.7	-19.8	-38.6	-59.6	38.7	-24.4	-47.1	-72.6	40.5
5:12	-19.9	-38.6	-59.6	35.2	-19.9	-38.6	-59.6	35.2	-24.4	-47.1	-72.7	37.0
6:12	-19.9	-38.6	-59.7	31.9	-19.9	-38.6	-59.7	31.9	-24.4	-47.1	-72.7	33.7
7:12	-22.3	-27.0	-27.0	35.9	-22.3	-27.0	-27.0	35.9	-27.3	-33.0	-33.0	39.3
8:12	-22.3	-27.0	-27.0	33.2	-22.3	-27.0	-27.0	33.2	-27.3	-33.0	-33.0	36.6
9:12	-22.4	-27.0	-27.0	30.9	-22.4	-27.0	-27.0	30.9	-27.4	-33.1	-33.1	34.2
10:12	-22.4	-27.1	-27.1	28.8	-22.4	-27.1	-27.1	28.8	-27.4	-33.1	-33.1	32.2
11:12	-22.4	-27.1	-27.1	27.1	-22.4	-27.1	-27.1	27.1	-27.5	-33.1	-33.1	30.5
12:12	-22.5	-27.2	-27.2	25.6	-22.5	-27.2	-27.2	25.6	-27.5	-33.2	-33.2	29.0
Exposure Category C												
1:12	-27.1	-49.9	-78.3	52.5	-31.5	-57.7	-90.4	52.5	-36.5	-66.7	-104.5	52.5
2:12	-24.3	-47.0	-72.6	48.2	-28.2	-54.4	-83.9	49.4	-32.7	-62.9	-96.9	51.3
3:12	-24.3	-47.1	-72.6	44.2	-28.2	-54.4	-83.9	45.8	-32.7	-63.0	-97.0	47.7
4:12	-24.4	-47.1	-72.6	40.5	-28.3	-54.5	-83.9	42.2	-32.8	-63.0	-97.0	44.1
5:12	-24.4	-47.1	-72.7	37.0	-28.3	-54.5	-84.0	38.7	-32.8	-63.0	-97.0	40.5
6:12	-24.4	-47.1	-72.7	33.7	-28.3	-54.5	-84.0	35.4	-32.8	-63.1	-97.0	37.3
7:12	-27.3	-33.0	-33.0	39.3	-31.6	-38.2	-38.2	42.2	-36.7	-44.2	-44.2	45.6
8:12	-27.3	-33.0	-33.0	36.6	-31.7	-38.2	-38.2	39.5	-36.7	-44.3	-44.3	42.9
9:12	-27.4	-33.1	-33.1	34.2	-31.7	-38.3	-38.3	37.2	-36.7	-44.3	-44.3	40.6
10:12	-27.4	-33.1	-33.1	32.2	-31.8	-38.3	-38.3	35.1	-36.8	-44.3	-44.3	38.5
11:12	-27.5	-33.1	-33.1	30.5	-31.8	-38.4	-38.4	33.4	-36.8	-44.4	-44.4	36.8
12:12	-27.5	-33.2	-33.2	29.0	-31.8	-38.4	-38.4	32.2	-36.9	-44.4	-44.4	36.7
Exposure Category D												
1:12	-33.1	-60.7	-95.1	47.6	-37.5	-68.5	-107.3	47.6	-42.5	-77.5	-121.3	47.6
2:12	-29.7	-57.3	-88.2	46.7	-33.6	-64.6	-99.5	48.3	-38.1	-73.2	-112.6	50.2
3:12	-29.7	-57.3	-88.3	43.4	-33.6	-64.7	-99.6	45.1	-38.2	-73.2	-112.6	47.0
4:12	-29.8	-57.3	-88.3	40.2	-33.7	-64.7	-99.6	41.8	-38.2	-73.2	-112.6	43.7
5:12	-29.8	-57.3	-88.3	37.0	-33.7	-64.7	-99.6	38.6	-38.2	-73.2	-112.7	40.5
6:12	-29.8	-57.4	-88.4	34.0	-33.7	-64.8	-99.7	35.7	-38.3	-73.3	-112.7	37.5
7:12	-33.3	-40.2	-40.2	41.6	-37.7	-45.4	-45.4	44.6	-42.7	-51.4	-51.4	48.0
8:12	-33.4	-40.2	-40.2	39.2	-37.7	-45.5	-45.5	42.2	-42.7	-51.5	-51.5	45.5
9:12	-33.4	-40.3	-40.3	37.1	-37.7	-45.5	-45.5	40.0	-42.8	-51.5	-51.5	43.4
10:12	-33.4	-40.3	-40.3	35.3	-37.8	-45.5	-45.5	38.2	-42.8	-51.6	-51.6	42.4
11:12	-33.5	-40.4	-40.4	33.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
160 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	59.4	-22.1	-40.8	-64.2	59.4	-27.1	-49.9	-78.3	59.4
2:12	-19.8	-38.5	-59.6	54.5	-19.8	-38.5	-59.6	54.5	-24.3	-47.0	-72.6	54.5
3:12	-19.8	-38.5	-59.6	49.1	-19.8	-38.5	-59.6	49.1	-24.3	-47.1	-72.6	49.1
4:12	-19.8	-38.6	-59.6	43.6	-19.8	-38.6	-59.6	43.6	-24.4	-47.1	-72.6	44.3
5:12	-19.9	-38.6	-59.6	38.4	-19.9	-38.6	-59.6	38.4	-24.4	-47.1	-72.7	40.3
6:12	-19.9	-38.6	-59.7	34.7	-19.9	-38.6	-59.7	34.7	-24.4	-47.1	-72.7	36.5
7:12	-22.3	-27.0	-27.0	38.3	-22.3	-27.0	-27.0	38.3	-27.3	-33.0	-33.0	41.7
8:12	-22.3	-27.0	-27.0	35.2	-22.3	-27.0	-27.0	35.2	-27.3	-33.0	-33.0	38.6
9:12	-22.4	-27.0	-27.0	32.6	-22.4	-27.0	-27.0	32.6	-27.4	-33.1	-33.1	36.0
10:12	-22.4	-27.1	-27.1	30.3	-22.4	-27.1	-27.1	30.3	-27.4	-33.1	-33.1	33.6
11:12	-22.4	-27.1	-27.1	28.3	-22.4	-27.1	-27.1	28.3	-27.5	-33.1	-33.1	31.7
12:12	-22.5	-27.2	-27.2	26.6	-22.5	-27.2	-27.2	26.6	-27.5	-33.2	-33.2	30.0
Exposure Category C												
1:12	-27.1	-49.9	-78.3	59.4	-31.5	-57.7	-90.4	59.4	-36.5	-66.7	-104.5	59.4
2:12	-24.3	-47.0	-72.6	54.5	-28.2	-54.4	-83.9	54.5	-32.7	-62.9	-96.9	56.0
3:12	-24.3	-47.1	-72.6	49.1	-28.2	-54.4	-83.9	50.0	-32.7	-63.0	-97.0	51.9
4:12	-24.4	-47.1	-72.6	44.3	-28.3	-54.5	-83.9	45.9	-32.8	-63.0	-97.0	47.8
5:12	-24.4	-47.1	-72.7	40.3	-28.3	-54.5	-84.0	41.9	-32.8	-63.0	-97.0	43.8
6:12	-24.4	-47.1	-72.7	36.5	-28.3	-54.5	-84.0	38.2	-32.8	-63.1	-97.0	40.1
7:12	-27.3	-33.0	-33.0	41.7	-31.6	-38.2	-38.2	44.6	-36.7	-44.2	-44.2	48.0
8:12	-27.3	-33.0	-33.0	38.6	-31.7	-38.2	-38.2	41.6	-36.7	-44.3	-44.3	44.9
9:12	-27.4	-33.1	-33.1	36.0	-31.7	-38.3	-38.3	38.9	-36.7	-44.3	-44.3	42.3
10:12	-27.4	-33.1	-33.1	33.6	-31.8	-38.3	-38.3	36.6	-36.8	-44.3	-44.3	40.0
11:12	-27.5	-33.1	-33.1	31.7	-31.8	-38.4	-38.4	34.6	-36.8	-44.4	-44.4	38.0
12:12	-27.5	-33.2	-33.2	30.0	-31.8	-38.4	-38.4	32.9	-36.9	-44.4	-44.4	36.7
Exposure Category D												
1:12	-33.1	-60.7	-95.1	53.9	-37.5	-68.5	-107.3	53.9	-42.5	-77.5	-121.3	53.9
2:12	-29.7	-57.3	-88.2	51.0	-33.6	-64.6	-99.5	52.6	-38.1	-73.2	-112.6	54.5
3:12	-29.7	-57.3	-88.3	47.3	-33.6	-64.7	-99.6	48.9	-38.2	-73.2	-112.6	50.8
4:12	-29.8	-57.3	-88.3	43.5	-33.7	-64.7	-99.6	45.2	-38.2	-73.2	-112.6	47.1
5:12	-29.8	-57.3	-88.3	39.9	-33.7	-64.7	-99.6	41.6	-38.2	-73.2	-112.7	43.4
6:12	-29.8	-57.4	-88.4	36.6	-33.7	-64.8	-99.7	38.2	-38.3	-73.3	-112.7	40.1
7:12	-33.3	-40.2	-40.2	43.8	-37.7	-45.4	-45.4	46.7	-42.7	-51.4	-51.4	50.1
8:12	-33.4	-40.2	-40.2	41.1	-37.7	-45.5	-45.5	44.0	-42.7	-51.5	-51.5	47.4
9:12	-33.4	-40.3	-40.3	38.6	-37.7	-45.5	-45.5	41.6	-42.8	-51.5	-51.5	45.0
10:12	-33.4	-40.3	-40.3	36.6	-37.8	-45.5	-45.5	39.5	-42.8	-51.6	-51.6	42.9
11:12	-33.5	-40.4	-40.4	34.8	-37.8	-45.6	-45.6	37.7	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	33.7	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed
160 mph

Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	66.4	-22.1	-40.8	-64.2	66.4	-27.1	-49.9	-78.3	66.4
2:12	-19.8	-38.5	-59.6	60.9	-19.8	-38.5	-59.6	60.9	-24.3	-47.0	-72.6	60.9
3:12	-19.8	-38.5	-59.6	54.8	-19.8	-38.5	-59.6	54.8	-24.3	-47.1	-72.6	54.8
4:12	-19.8	-38.6	-59.6	48.6	-19.8	-38.6	-59.6	48.6	-24.4	-47.1	-72.6	48.6
5:12	-19.9	-38.6	-59.6	42.7	-19.9	-38.6	-59.6	42.7	-24.4	-47.1	-72.7	43.6
6:12	-19.9	-38.6	-59.7	37.5	-19.9	-38.6	-59.7	37.5	-24.4	-47.1	-72.7	39.4
7:12	-22.3	-27.0	-27.0	40.7	-22.3	-27.0	-27.0	40.7	-27.3	-33.0	-33.0	44.1
8:12	-22.3	-27.0	-27.0	37.3	-22.3	-27.0	-27.0	37.3	-27.3	-33.0	-33.0	40.7
9:12	-22.4	-27.0	-27.0	34.3	-22.4	-27.0	-27.0	34.3	-27.4	-33.1	-33.1	37.7
10:12	-22.4	-27.1	-27.1	31.7	-22.4	-27.1	-27.1	31.7	-27.4	-33.1	-33.1	35.1
11:12	-22.4	-27.1	-27.1	29.5	-22.4	-27.1	-27.1	29.5	-27.5	-33.1	-33.1	32.9
12:12	-22.5	-27.2	-27.2	27.6	-22.5	-27.2	-27.2	27.6	-27.5	-33.2	-33.2	31.0
Exposure Category C												
1:12	-27.1	-49.9	-78.3	66.4	-31.5	-57.7	-90.4	66.4	-36.5	-66.7	-104.5	66.4
2:12	-24.3	-47.0	-72.6	60.9	-28.2	-54.4	-83.9	60.9	-32.7	-62.9	-96.9	60.9
3:12	-24.3	-47.1	-72.6	54.8	-28.2	-54.4	-83.9	54.8	-32.7	-63.0	-97.0	56.2
4:12	-24.4	-47.1	-72.6	48.6	-28.3	-54.5	-83.9	49.7	-32.8	-63.0	-97.0	51.5
5:12	-24.4	-47.1	-72.7	43.6	-28.3	-54.5	-84.0	45.2	-32.8	-63.0	-97.0	47.1
6:12	-24.4	-47.1	-72.7	39.4	-28.3	-54.5	-84.0	41.0	-32.8	-63.1	-97.0	42.9
7:12	-27.3	-33.0	-33.0	44.1	-31.6	-38.2	-38.2	47.0	-36.7	-44.2	-44.2	50.4
8:12	-27.3	-33.0	-33.0	40.7	-31.7	-38.2	-38.2	43.6	-36.7	-44.3	-44.3	47.0
9:12	-27.4	-33.1	-33.1	37.7	-31.7	-38.3	-38.3	40.6	-36.7	-44.3	-44.3	44.0
10:12	-27.4	-33.1	-33.1	35.1	-31.8	-38.3	-38.3	38.0	-36.8	-44.3	-44.3	41.4
11:12	-27.5	-33.1	-33.1	32.9	-31.8	-38.4	-38.4	35.8	-36.8	-44.4	-44.4	39.2
12:12	-27.5	-33.2	-33.2	31.0	-31.8	-38.4	-38.4	33.9	-36.9	-44.4	-44.4	37.3
Exposure Category D												
1:12	-33.1	-60.7	-95.1	60.1	-37.5	-68.5	-107.3	60.1	-42.5	-77.5	-121.3	60.1
2:12	-29.7	-57.3	-88.2	55.2	-33.6	-64.6	-99.5	56.9	-38.1	-73.2	-112.6	58.7
3:12	-29.7	-57.3	-88.3	51.1	-33.6	-64.7	-99.6	52.7	-38.2	-73.2	-112.6	54.6
4:12	-29.8	-57.3	-88.3	46.9	-33.7	-64.7	-99.6	48.6	-38.2	-73.2	-112.6	50.4
5:12	-29.8	-57.3	-88.3	42.9	-33.7	-64.7	-99.6	44.5	-38.2	-73.2	-112.7	46.4
6:12	-29.8	-57.4	-88.4	39.1	-33.7	-64.8	-99.7	40.7	-38.3	-73.3	-112.7	42.6
7:12	-33.3	-40.2	-40.2	46.0	-37.7	-45.4	-45.4	48.9	-42.7	-51.4	-51.4	52.3
8:12	-33.4	-40.2	-40.2	42.9	-37.7	-45.5	-45.5	45.8	-42.7	-51.5	-51.5	49.2
9:12	-33.4	-40.3	-40.3	40.2	-37.7	-45.5	-45.5	43.1	-42.8	-51.5	-51.5	46.5
10:12	-33.4	-40.3	-40.3	37.9	-37.8	-45.5	-45.5	40.8	-42.8	-51.6	-51.6	44.2
11:12	-33.5	-40.4	-40.4	35.8	-37.8	-45.6	-45.6	38.8	-42.8	-51.6	-51.6	42.2
12:12	-33.5	-40.4	-40.4	34.1	-37.9	-45.6	-45.6	37.6	-42.9	-51.6	-51.6	42.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-22.1	-40.8	-64.2	73.4	-22.1	-40.8	-64.2	73.4	-27.1	-49.9	-78.3	73.4
2:12	-19.8	-38.5	-59.6	67.2	-19.8	-38.5	-59.6	67.2	-24.3	-47.0	-72.6	67.2
3:12	-19.8	-38.5	-59.6	60.5	-19.8	-38.5	-59.6	60.5	-24.3	-47.1	-72.6	60.5
4:12	-19.8	-38.6	-59.6	53.6	-19.8	-38.6	-59.6	53.6	-24.4	-47.1	-72.6	53.6
5:12	-19.9	-38.6	-59.6	47.0	-19.9	-38.6	-59.6	47.0	-24.4	-47.1	-72.7	47.0
6:12	-19.9	-38.6	-59.7	40.9	-19.9	-38.6	-59.7	40.9	-24.4	-47.1	-72.7	42.2
7:12	-22.3	-27.0	-27.0	43.1	-22.3	-27.0	-27.0	43.1	-27.3	-33.0	-33.0	46.5
8:12	-22.3	-27.0	-27.0	39.3	-22.3	-27.0	-27.0	39.3	-27.3	-33.0	-33.0	42.7
9:12	-22.4	-27.0	-27.0	36.0	-22.4	-27.0	-27.0	36.0	-27.4	-33.1	-33.1	39.4
10:12	-22.4	-27.1	-27.1	33.1	-22.4	-27.1	-27.1	33.1	-27.4	-33.1	-33.1	36.5
11:12	-22.4	-27.1	-27.1	30.7	-22.4	-27.1	-27.1	30.7	-27.5	-33.1	-33.1	34.1
12:12	-22.5	-27.2	-27.2	28.6	-22.5	-27.2	-27.2	28.6	-27.5	-33.2	-33.2	32.0
Exposure Category C												
1:12	-27.1	-49.9	-78.3	73.4	-31.5	-57.7	-90.4	73.4	-36.5	-66.7	-104.5	73.4
2:12	-24.3	-47.0	-72.6	67.2	-28.2	-54.4	-83.9	67.2	-32.7	-62.9	-96.9	67.2
3:12	-24.3	-47.1	-72.6	60.5	-28.2	-54.4	-83.9	60.5	-32.7	-63.0	-97.0	60.5
4:12	-24.4	-47.1	-72.6	53.6	-28.3	-54.5	-83.9	53.6	-32.8	-63.0	-97.0	55.3
5:12	-24.4	-47.1	-72.7	47.0	-28.3	-54.5	-84.0	48.4	-32.8	-63.0	-97.0	50.3
6:12	-24.4	-47.1	-72.7	42.2	-28.3	-54.5	-84.0	43.8	-32.8	-63.1	-97.0	45.7
7:12	-27.3	-33.0	-33.0	46.5	-31.6	-38.2	-38.2	49.4	-36.7	-44.2	-44.2	52.8
8:12	-27.3	-33.0	-33.0	42.7	-31.7	-38.2	-38.2	45.6	-36.7	-44.3	-44.3	49.0
9:12	-27.4	-33.1	-33.1	39.4	-31.7	-38.3	-38.3	42.3	-36.7	-44.3	-44.3	45.7
10:12	-27.4	-33.1	-33.1	36.5	-31.8	-38.3	-38.3	39.5	-36.8	-44.3	-44.3	42.8
11:12	-27.5	-33.1	-33.1	34.1	-31.8	-38.4	-38.4	37.0	-36.8	-44.4	-44.4	40.4
12:12	-27.5	-33.2	-33.2	32.0	-31.8	-38.4	-38.4	34.9	-36.9	-44.4	-44.4	38.3
Exposure Category D												
1:12	-33.1	-60.7	-95.1	66.4	-37.5	-68.5	-107.3	66.4	-42.5	-77.5	-121.3	66.4
2:12	-29.7	-57.3	-88.2	60.9	-33.6	-64.6	-99.5	61.2	-38.1	-73.2	-112.6	63.0
3:12	-29.7	-57.3	-88.3	54.9	-33.6	-64.7	-99.6	56.6	-38.2	-73.2	-112.6	58.4
4:12	-29.8	-57.3	-88.3	50.3	-33.7	-64.7	-99.6	51.9	-38.2	-73.2	-112.6	53.8
5:12	-29.8	-57.3	-88.3	45.8	-33.7	-64.7	-99.6	47.4	-38.2	-73.2	-112.7	49.3
6:12	-29.8	-57.4	-88.4	41.6	-33.7	-64.8	-99.7	43.2	-38.3	-73.3	-112.7	45.1
7:12	-33.3	-40.2	-40.2	48.1	-37.7	-45.4	-45.4	51.0	-42.7	-51.4	-51.4	54.4
8:12	-33.4	-40.2	-40.2	44.7	-37.7	-45.5	-45.5	47.6	-42.7	-51.5	-51.5	51.0
9:12	-33.4	-40.3	-40.3	41.7	-37.7	-45.5	-45.5	44.7	-42.8	-51.5	-51.5	48.0
10:12	-33.4	-40.3	-40.3	39.1	-37.8	-45.5	-45.5	42.1	-42.8	-51.6	-51.6	45.5
11:12	-33.5	-40.4	-40.4	36.9	-37.8	-45.6	-45.6	39.9	-42.8	-51.6	-51.6	43.2
12:12	-33.5	-40.4	-40.4	35.0	-37.9	-45.6	-45.6	38.0	-42.9	-51.6	-51.6	42.1
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

160 mph

Ground Snow Load

100 psf

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	13.4	-23.6	-43.5	-68.4	13.4	-28.9	-53.1	-83.3	13.4
2:12	-21.1	-41.0	-63.4	16.2	-21.1	-41.0	-63.4	16.2	-25.9	-50.1	-77.3	18.9
3:12	-21.1	-41.1	-63.4	16.2	-21.1	-41.1	-63.4	16.2	-25.9	-50.1	-77.3	18.8
4:12	-21.2	-41.1	-63.5	16.1	-21.2	-41.1	-63.5	16.1	-26.0	-50.1	-77.3	18.8
5:12	-21.2	-41.1	-63.5	16.0	-21.2	-41.1	-63.5	16.0	-26.0	-50.2	-77.4	18.7
6:12	-21.2	-41.1	-63.5	15.9	-21.2	-41.1	-63.5	15.9	-26.0	-50.2	-77.4	18.5
7:12	-23.8	-28.7	-28.7	25.7	-23.8	-28.7	-28.7	25.7	-29.1	-35.1	-35.1	30.5
8:12	-23.8	-28.8	-28.8	25.6	-23.8	-28.8	-28.8	25.6	-29.1	-35.2	-35.2	30.4
9:12	-23.9	-28.8	-28.8	25.5	-23.9	-28.8	-28.8	25.5	-29.2	-35.2	-35.2	30.3
10:12	-23.9	-28.9	-28.9	25.3	-23.9	-28.9	-28.9	25.3	-29.2	-35.3	-35.3	30.1
11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
Exposure Category C												
1:12	-28.9	-53.1	-83.3	13.4	-33.6	-61.4	-96.3	14.3	-38.9	-71.0	-111.2	15.9
2:12	-25.9	-50.1	-77.3	18.9	-30.1	-58.0	-89.3	21.2	-34.9	-67.0	-103.2	23.9
3:12	-25.9	-50.1	-77.3	18.8	-30.1	-58.0	-89.3	21.1	-34.9	-67.0	-103.2	23.8
4:12	-26.0	-50.1	-77.3	18.8	-30.1	-58.0	-89.4	21.1	-34.9	-67.1	-103.2	23.7
5:12	-26.0	-50.2	-77.4	18.7	-30.2	-58.0	-89.4	21.0	-35.0	-67.1	-103.2	23.6
6:12	-26.0	-50.2	-77.4	18.5	-30.2	-58.1	-89.4	20.9	-35.0	-67.1	-103.3	23.5
7:12	-29.1	-35.1	-35.1	30.5	-33.7	-40.7	-40.7	34.7	-39.1	-47.1	-47.1	39.5
8:12	-29.1	-35.2	-35.2	30.4	-33.8	-40.7	-40.7	34.6	-39.1	-47.1	-47.1	39.4
9:12	-29.2	-35.2	-35.2	30.3	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	14.8	-40.0	-72.9	-114.2	16.2	-45.3	-82.5	-129.1	17.8
2:12	-31.7	-61.0	-93.9	22.1	-35.8	-68.8	-105.9	24.4	-40.6	-77.9	-119.8	27.1
3:12	-31.7	-61.0	-93.9	22.0	-35.9	-68.8	-106.0	24.3	-40.7	-77.9	-119.8	27.0
4:12	-31.7	-61.0	-94.0	22.0	-35.9	-68.9	-106.0	24.3	-40.7	-77.9	-119.8	26.9
5:12	-31.8	-61.1	-94.0	21.9	-35.9	-68.9	-106.0	24.2	-40.7	-78.0	-119.9	26.8
6:12	-31.8	-61.1	-94.0	21.7	-36.0	-68.9	-106.1	24.1	-40.8	-78.0	-119.9	26.7
7:12	-35.5	-42.8	-42.8	36.3	-40.1	-48.4	-48.4	40.4	-45.5	-54.8	-54.8	45.2
8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6

Basic Wind Speed
165 mph

Ground Snow Load
0 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	14.8	-23.6	-43.5	-68.4	14.8	-28.9	-53.1	-83.3	14.8
2:12	-21.1	-41.0	-63.4	16.5	-21.1	-41.0	-63.4	16.5	-25.9	-50.1	-77.3	18.9
3:12	-21.1	-41.1	-63.4	16.2	-21.1	-41.1	-63.4	16.2	-25.9	-50.1	-77.3	18.8
4:12	-21.2	-41.1	-63.5	16.1	-21.2	-41.1	-63.5	16.1	-26.0	-50.1	-77.3	18.8
5:12	-21.2	-41.1	-63.5	16.0	-21.2	-41.1	-63.5	16.0	-26.0	-50.2	-77.4	18.7
6:12	-21.2	-41.1	-63.5	15.9	-21.2	-41.1	-63.5	15.9	-26.0	-50.2	-77.4	18.5
7:12	-23.8	-28.7	-28.7	25.7	-23.8	-28.7	-28.7	25.7	-29.1	-35.1	-35.1	30.5
8:12	-23.8	-28.8	-28.8	25.6	-23.8	-28.8	-28.8	25.6	-29.1	-35.2	-35.2	30.4
9:12	-23.9	-28.8	-28.8	25.5	-23.9	-28.8	-28.8	25.5	-29.2	-35.2	-35.2	30.3
10:12	-23.9	-28.9	-28.9	25.3	-23.9	-28.9	-28.9	25.3	-29.2	-35.3	-35.3	30.1
11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
Exposure Category C												
1:12	-28.9	-53.1	-83.3	14.8	-33.6	-61.4	-96.3	15.4	-38.9	-71.0	-111.2	16.6
2:12	-25.9	-50.1	-77.3	18.9	-30.1	-58.0	-89.3	21.2	-34.9	-67.0	-103.2	23.9
3:12	-25.9	-50.1	-77.3	18.8	-30.1	-58.0	-89.3	21.1	-34.9	-67.0	-103.2	23.8
4:12	-26.0	-50.1	-77.3	18.8	-30.1	-58.0	-89.4	21.1	-34.9	-67.1	-103.2	23.7
5:12	-26.0	-50.2	-77.4	18.7	-30.2	-58.0	-89.4	21.0	-35.0	-67.1	-103.2	23.6
6:12	-26.0	-50.2	-77.4	18.5	-30.2	-58.1	-89.4	20.9	-35.0	-67.1	-103.3	23.5
7:12	-29.1	-35.1	-35.1	30.5	-33.7	-40.7	-40.7	34.7	-39.1	-47.1	-47.1	39.5
8:12	-29.1	-35.2	-35.2	30.4	-33.8	-40.7	-40.7	34.6	-39.1	-47.1	-47.1	39.4
9:12	-29.2	-35.2	-35.2	30.3	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	15.8	-40.0	-72.9	-114.2	16.8	-45.3	-82.5	-129.1	18.0
2:12	-31.7	-61.0	-93.9	22.1	-35.8	-68.8	-105.9	24.4	-40.6	-77.9	-119.8	27.1
3:12	-31.7	-61.0	-93.9	22.0	-35.9	-68.8	-106.0	24.3	-40.7	-77.9	-119.8	27.0
4:12	-31.7	-61.0	-94.0	22.0	-35.9	-68.9	-106.0	24.3	-40.7	-77.9	-119.8	26.9
5:12	-31.8	-61.1	-94.0	21.9	-35.9	-68.9	-106.0	24.2	-40.7	-78.0	-119.9	26.8
6:12	-31.8	-61.1	-94.0	21.7	-36.0	-68.9	-106.1	24.1	-40.8	-78.0	-119.9	26.7
7:12	-35.5	-42.8	-42.8	36.3	-40.1	-48.4	-48.4	40.4	-45.5	-54.8	-54.8	45.2
8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6

Basic Wind Speed
165 mph

Ground Snow Load
5 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-23.6	-43.5	-68.4	18.5	-23.6	-43.5	-68.4	18.5	-28.9	-53.1	-83.3	18.5
	2:12	-21.1	-41.0	-63.4	19.9	-21.1	-41.0	-63.4	19.9	-25.9	-50.1	-77.3	21.9
	3:12	-21.1	-41.1	-63.4	19.1	-21.1	-41.1	-63.4	19.1	-25.9	-50.1	-77.3	21.1
	4:12	-21.2	-41.1	-63.5	16.7	-21.2	-41.1	-63.5	16.7	-26.0	-50.1	-77.3	18.8
	5:12	-21.2	-41.1	-63.5	16.1	-21.2	-41.1	-63.5	16.1	-26.0	-50.2	-77.4	18.7
	6:12	-21.2	-41.1	-63.5	15.9	-21.2	-41.1	-63.5	15.9	-26.0	-50.2	-77.4	18.5
	7:12	-23.8	-28.7	-28.7	25.7	-23.8	-28.7	-28.7	25.7	-29.1	-35.1	-35.1	30.5
	8:12	-23.8	-28.8	-28.8	25.6	-23.8	-28.8	-28.8	25.6	-29.1	-35.2	-35.2	30.4
	9:12	-23.9	-28.8	-28.8	25.5	-23.9	-28.8	-28.8	25.5	-29.2	-35.2	-35.2	30.3
	10:12	-23.9	-28.9	-28.9	25.3	-23.9	-28.9	-28.9	25.3	-29.2	-35.3	-35.3	30.1
	11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
	12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
Exposure Category C	1:12	-28.9	-53.1	-83.3	18.5	-33.6	-61.4	-96.3	19.1	-38.9	-71.0	-111.2	20.3
	2:12	-25.9	-50.1	-77.3	21.9	-30.1	-58.0	-89.3	23.7	-34.9	-67.0	-103.2	25.7
	3:12	-25.9	-50.1	-77.3	21.1	-30.1	-58.0	-89.3	22.9	-34.9	-67.0	-103.2	24.9
	4:12	-26.0	-50.1	-77.3	18.8	-30.1	-58.0	-89.4	21.1	-34.9	-67.1	-103.2	23.7
	5:12	-26.0	-50.2	-77.4	18.7	-30.2	-58.0	-89.4	21.0	-35.0	-67.1	-103.2	23.6
	6:12	-26.0	-50.2	-77.4	18.5	-30.2	-58.1	-89.4	20.9	-35.0	-67.1	-103.3	23.5
	7:12	-29.1	-35.1	-35.1	30.5	-33.7	-40.7	-40.7	34.7	-39.1	-47.1	-47.1	39.5
	8:12	-29.1	-35.2	-35.2	30.4	-33.8	-40.7	-40.7	34.6	-39.1	-47.1	-47.1	39.4
	9:12	-29.2	-35.2	-35.2	30.3	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
	10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
	11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
	12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D	1:12	-35.3	-64.6	-101.2	19.5	-40.0	-72.9	-114.2	20.6	-45.3	-82.5	-129.1	21.8
	2:12	-31.7	-61.0	-93.9	24.3	-35.8	-68.8	-105.9	26.1	-40.6	-77.9	-119.8	28.1
	3:12	-31.7	-61.0	-93.9	23.5	-35.9	-68.8	-106.0	25.3	-40.7	-77.9	-119.8	27.3
	4:12	-31.7	-61.0	-94.0	22.0	-35.9	-68.9	-106.0	24.3	-40.7	-77.9	-119.8	26.9
	5:12	-31.8	-61.1	-94.0	21.9	-35.9	-68.9	-106.0	24.2	-40.7	-78.0	-119.9	26.8
	6:12	-31.8	-61.1	-94.0	21.7	-36.0	-68.9	-106.1	24.1	-40.8	-78.0	-119.9	26.7
	7:12	-35.5	-42.8	-42.8	36.3	-40.1	-48.4	-48.4	40.4	-45.5	-54.8	-54.8	45.2
	8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
	9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
	10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
	11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
	12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
	2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
	3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
	4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
	5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
	6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
	7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
	8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
	9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
	10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
	11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
165 mph

Ground Snow Load
10 psf

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
165 mph
Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	22.2	-23.6	-43.5	-68.4	22.2	-28.9	-53.1	-83.3	22.2
2:12	-21.1	-41.0	-63.4	23.3	-21.1	-41.0	-63.4	23.3	-25.9	-50.1	-77.3	25.3
3:12	-21.1	-41.1	-63.4	22.2	-21.1	-41.1	-63.4	22.2	-25.9	-50.1	-77.3	24.2
4:12	-21.2	-41.1	-63.5	18.6	-21.2	-41.1	-63.5	18.6	-26.0	-50.1	-77.3	20.6
5:12	-21.2	-41.1	-63.5	17.8	-21.2	-41.1	-63.5	17.8	-26.0	-50.2	-77.4	19.8
6:12	-21.2	-41.1	-63.5	17.0	-21.2	-41.1	-63.5	17.0	-26.0	-50.2	-77.4	19.0
7:12	-23.8	-28.7	-28.7	25.7	-23.8	-28.7	-28.7	25.7	-29.1	-35.1	-35.1	30.5
8:12	-23.8	-28.8	-28.8	25.6	-23.8	-28.8	-28.8	25.6	-29.1	-35.2	-35.2	30.4
9:12	-23.9	-28.8	-28.8	25.5	-23.9	-28.8	-28.8	25.5	-29.2	-35.2	-35.2	30.3
10:12	-23.9	-28.9	-28.9	25.3	-23.9	-28.9	-28.9	25.3	-29.2	-35.3	-35.3	30.1
11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
Exposure Category C												
1:12	-28.9	-53.1	-83.3	22.2	-33.6	-61.4	-96.3	22.8	-38.9	-71.0	-111.2	24.0
2:12	-25.9	-50.1	-77.3	25.3	-30.1	-58.0	-89.3	27.1	-34.9	-67.0	-103.2	29.1
3:12	-25.9	-50.1	-77.3	24.2	-30.1	-58.0	-89.3	25.9	-34.9	-67.0	-103.2	27.9
4:12	-26.0	-50.1	-77.3	20.6	-30.1	-58.0	-89.4	22.3	-34.9	-67.1	-103.2	24.3
5:12	-26.0	-50.2	-77.4	19.8	-30.2	-58.0	-89.4	21.5	-35.0	-67.1	-103.2	23.6
6:12	-26.0	-50.2	-77.4	19.0	-30.2	-58.1	-89.4	20.9	-35.0	-67.1	-103.3	23.5
7:12	-29.1	-35.1	-35.1	30.5	-33.7	-40.7	-40.7	34.7	-39.1	-47.1	-47.1	39.5
8:12	-29.1	-35.2	-35.2	30.4	-33.8	-40.7	-40.7	34.6	-39.1	-47.1	-47.1	39.4
9:12	-29.2	-35.2	-35.2	30.3	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	23.2	-40.0	-72.9	-114.2	24.3	-45.3	-82.5	-129.1	25.5
2:12	-31.7	-61.0	-93.9	27.7	-35.8	-68.8	-105.9	29.5	-40.6	-77.9	-119.8	31.5
3:12	-31.7	-61.0	-93.9	26.6	-35.9	-68.8	-106.0	28.3	-40.7	-77.9	-119.8	30.3
4:12	-31.7	-61.0	-94.0	22.4	-35.9	-68.9	-106.0	24.3	-40.7	-77.9	-119.8	26.9
5:12	-31.8	-61.1	-94.0	21.9	-35.9	-68.9	-106.0	24.2	-40.7	-78.0	-119.9	26.8
6:12	-31.8	-61.1	-94.0	21.7	-36.0	-68.9	-106.1	24.1	-40.8	-78.0	-119.9	26.7
7:12	-35.5	-42.8	-42.8	36.3	-40.1	-48.4	-48.4	40.4	-45.5	-54.8	-54.8	45.2
8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-23.6	-43.5	-68.4	25.9	-23.6	-43.5	-68.4	25.9	-28.9	-53.1	-83.3	25.9
2:12	-21.1	-41.0	-63.4	26.7	-21.1	-41.0	-63.4	26.7	-25.9	-50.1	-77.3	28.7
3:12	-21.1	-41.1	-63.4	25.2	-21.1	-41.1	-63.4	25.2	-25.9	-50.1	-77.3	27.2
4:12	-21.2	-41.1	-63.5	20.5	-21.2	-41.1	-63.5	20.5	-26.0	-50.1	-77.3	22.5
5:12	-21.2	-41.1	-63.5	19.4	-21.2	-41.1	-63.5	19.4	-26.0	-50.2	-77.4	21.4
6:12	-21.2	-41.1	-63.5	18.4	-21.2	-41.1	-63.5	18.4	-26.0	-50.2	-77.4	20.4
7:12	-23.8	-28.7	-28.7	25.7	-23.8	-28.7	-28.7	25.7	-29.1	-35.1	-35.1	30.5
8:12	-23.8	-28.8	-28.8	25.6	-23.8	-28.8	-28.8	25.6	-29.1	-35.2	-35.2	30.4
9:12	-23.9	-28.8	-28.8	25.5	-23.9	-28.8	-28.8	25.5	-29.2	-35.2	-35.2	30.3
10:12	-23.9	-28.9	-28.9	25.3	-23.9	-28.9	-28.9	25.3	-29.2	-35.3	-35.3	30.1
11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
1:12	-28.9	-53.1	-83.3	25.9	-33.6	-61.4	-96.3	26.6	-38.9	-71.0	-111.2	27.8
2:12	-25.9	-50.1	-77.3	28.7	-30.1	-58.0	-89.3	30.5	-34.9	-67.0	-103.2	32.4
3:12	-25.9	-50.1	-77.3	27.2	-30.1	-58.0	-89.3	29.0	-34.9	-67.0	-103.2	30.9
4:12	-26.0	-50.1	-77.3	22.5	-30.1	-58.0	-89.4	24.2	-34.9	-67.1	-103.2	26.2
5:12	-26.0	-50.2	-77.4	21.4	-30.2	-58.0	-89.4	23.1	-35.0	-67.1	-103.2	25.1
6:12	-26.0	-50.2	-77.4	20.4	-30.2	-58.1	-89.4	22.1	-35.0	-67.1	-103.3	24.1
7:12	-29.1	-35.1	-35.1	30.5	-33.7	-40.7	-40.7	34.7	-39.1	-47.1	-47.1	39.5
8:12	-29.1	-35.2	-35.2	30.4	-33.8	-40.7	-40.7	34.6	-39.1	-47.1	-47.1	39.4
9:12	-29.2	-35.2	-35.2	30.3	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
1:12	-35.3	-64.6	-101.2	27.0	-40.0	-72.9	-114.2	28.0	-45.3	-82.5	-129.1	29.2
2:12	-31.7	-61.0	-93.9	31.1	-35.8	-68.8	-105.9	32.8	-40.6	-77.9	-119.8	34.8
3:12	-31.7	-61.0	-93.9	29.6	-35.9	-68.8	-106.0	31.3	-40.7	-77.9	-119.8	33.3
4:12	-31.7	-61.0	-94.0	24.1	-35.9	-68.9	-106.0	25.9	-40.7	-77.9	-119.8	27.9
5:12	-31.8	-61.1	-94.0	23.2	-35.9	-68.9	-106.0	24.9	-40.7	-78.0	-119.9	26.9
6:12	-31.8	-61.1	-94.0	22.2	-36.0	-68.9	-106.1	24.1	-40.8	-78.0	-119.9	26.7
7:12	-35.5	-42.8	-42.8	36.3	-40.1	-48.4	-48.4	40.4	-45.5	-54.8	-54.8	45.2
8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6

Basic Wind Speed
165 mph

Ground Snow Load
20 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	25.9	-23.6	-43.5	-68.4	25.9	-28.9	-53.1	-83.3	25.9
2:12	-21.1	-41.0	-63.4	26.7	-21.1	-41.0	-63.4	26.7	-25.9	-50.1	-77.3	28.7
3:12	-21.1	-41.1	-63.4	25.2	-21.1	-41.1	-63.4	25.2	-25.9	-50.1	-77.3	27.2
4:12	-21.2	-41.1	-63.5	22.4	-21.2	-41.1	-63.5	22.4	-26.0	-50.1	-77.3	24.4
5:12	-21.2	-41.1	-63.5	21.0	-21.2	-41.1	-63.5	21.0	-26.0	-50.2	-77.4	23.0
6:12	-21.2	-41.1	-63.5	19.8	-21.2	-41.1	-63.5	19.8	-26.0	-50.2	-77.4	21.8
7:12	-23.8	-28.7	-28.7	26.1	-23.8	-28.7	-28.7	26.1	-29.1	-35.1	-35.1	30.5
8:12	-23.8	-28.8	-28.8	25.6	-23.8	-28.8	-28.8	25.6	-29.1	-35.2	-35.2	30.4
9:12	-23.9	-28.8	-28.8	25.5	-23.9	-28.8	-28.8	25.5	-29.2	-35.2	-35.2	30.3
10:12	-23.9	-28.9	-28.9	25.3	-23.9	-28.9	-28.9	25.3	-29.2	-35.3	-35.3	30.1
11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
Exposure Category C												
1:12	-28.9	-53.1	-83.3	25.9	-33.6	-61.4	-96.3	26.6	-38.9	-71.0	-111.2	27.8
2:12	-25.9	-50.1	-77.3	28.7	-30.1	-58.0	-89.3	30.5	-34.9	-67.0	-103.2	32.4
3:12	-25.9	-50.1	-77.3	27.2	-30.1	-58.0	-89.3	29.0	-34.9	-67.0	-103.2	30.9
4:12	-26.0	-50.1	-77.3	24.4	-30.1	-58.0	-89.4	26.1	-34.9	-67.1	-103.2	28.1
5:12	-26.0	-50.2	-77.4	23.0	-30.2	-58.0	-89.4	24.8	-35.0	-67.1	-103.2	26.8
6:12	-26.0	-50.2	-77.4	21.8	-30.2	-58.1	-89.4	23.5	-35.0	-67.1	-103.3	25.5
7:12	-29.1	-35.1	-35.1	30.5	-33.7	-40.7	-40.7	34.7	-39.1	-47.1	-47.1	39.5
8:12	-29.1	-35.2	-35.2	30.4	-33.8	-40.7	-40.7	34.6	-39.1	-47.1	-47.1	39.4
9:12	-29.2	-35.2	-35.2	30.3	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	27.0	-40.0	-72.9	-114.2	28.0	-45.3	-82.5	-129.1	29.2
2:12	-31.7	-61.0	-93.9	31.1	-35.8	-68.8	-105.9	32.8	-40.6	-77.9	-119.8	34.8
3:12	-31.7	-61.0	-93.9	29.6	-35.9	-68.8	-106.0	31.3	-40.7	-77.9	-119.8	33.3
4:12	-31.7	-61.0	-94.0	25.8	-35.9	-68.9	-106.0	27.5	-40.7	-77.9	-119.8	29.5
5:12	-31.8	-61.1	-94.0	24.6	-35.9	-68.9	-106.0	26.4	-40.7	-78.0	-119.9	28.3
6:12	-31.8	-61.1	-94.0	23.5	-36.0	-68.9	-106.1	25.2	-40.8	-78.0	-119.9	27.2
7:12	-35.5	-42.8	-42.8	36.3	-40.1	-48.4	-48.4	40.4	-45.5	-54.8	-54.8	45.2
8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6

Basic Wind Speed
165 mph

Ground Snow Load
25 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	26.7	-23.6	-43.5	-68.4	26.7	-28.9	-53.1	-83.3	26.7
2:12	-21.1	-41.0	-63.4	27.4	-21.1	-41.0	-63.4	27.4	-25.9	-50.1	-77.3	29.4
3:12	-21.1	-41.1	-63.4	25.8	-21.1	-41.1	-63.4	25.8	-25.9	-50.1	-77.3	27.8
4:12	-21.2	-41.1	-63.5	24.2	-21.2	-41.1	-63.5	24.2	-26.0	-50.1	-77.3	26.2
5:12	-21.2	-41.1	-63.5	22.7	-21.2	-41.1	-63.5	22.7	-26.0	-50.2	-77.4	24.7
6:12	-21.2	-41.1	-63.5	21.2	-21.2	-41.1	-63.5	21.2	-26.0	-50.2	-77.4	23.2
7:12	-23.8	-28.7	-28.7	27.3	-23.8	-28.7	-28.7	27.3	-29.1	-35.1	-35.1	30.9
8:12	-23.8	-28.8	-28.8	26.1	-23.8	-28.8	-28.8	26.1	-29.1	-35.2	-35.2	30.4
9:12	-23.9	-28.8	-28.8	25.5	-23.9	-28.8	-28.8	25.5	-29.2	-35.2	-35.2	30.3
10:12	-23.9	-28.9	-28.9	25.3	-23.9	-28.9	-28.9	25.3	-29.2	-35.3	-35.3	30.1
11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
Exposure Category C												
1:12	-28.9	-53.1	-83.3	26.7	-33.6	-61.4	-96.3	27.3	-38.9	-71.0	-111.2	28.5
2:12	-25.9	-50.1	-77.3	29.4	-30.1	-58.0	-89.3	31.1	-34.9	-67.0	-103.2	33.1
3:12	-25.9	-50.1	-77.3	27.8	-30.1	-58.0	-89.3	29.6	-34.9	-67.0	-103.2	31.6
4:12	-26.0	-50.1	-77.3	26.2	-30.1	-58.0	-89.4	28.0	-34.9	-67.1	-103.2	30.0
5:12	-26.0	-50.2	-77.4	24.7	-30.2	-58.0	-89.4	26.4	-35.0	-67.1	-103.2	28.4
6:12	-26.0	-50.2	-77.4	23.2	-30.2	-58.1	-89.4	24.9	-35.0	-67.1	-103.3	26.9
7:12	-29.1	-35.1	-35.1	30.9	-33.7	-40.7	-40.7	34.7	-39.1	-47.1	-47.1	39.5
8:12	-29.1	-35.2	-35.2	30.4	-33.8	-40.7	-40.7	34.6	-39.1	-47.1	-47.1	39.4
9:12	-29.2	-35.2	-35.2	30.3	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	27.0	-40.0	-72.9	-114.2	28.0	-45.3	-82.5	-129.1	29.2
2:12	-31.7	-61.0	-93.9	31.1	-35.8	-68.8	-105.9	32.8	-40.6	-77.9	-119.8	34.8
3:12	-31.7	-61.0	-93.9	29.6	-35.9	-68.8	-106.0	31.3	-40.7	-77.9	-119.8	33.3
4:12	-31.7	-61.0	-94.0	27.5	-35.9	-68.9	-106.0	29.2	-40.7	-77.9	-119.8	31.2
5:12	-31.8	-61.1	-94.0	26.1	-35.9	-68.9	-106.0	27.8	-40.7	-78.0	-119.9	29.8
6:12	-31.8	-61.1	-94.0	24.7	-36.0	-68.9	-106.1	26.5	-40.8	-78.0	-119.9	28.5
7:12	-35.5	-42.8	-42.8	36.3	-40.1	-48.4	-48.4	40.4	-45.5	-54.8	-54.8	45.2
8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **165 mph**

Ground Snow Load **30 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-23.6	-43.5	-68.4	29.3	-23.6	-43.5	-68.4	29.3	-28.9	-53.1	-83.3	29.3
2:12	-21.1	-41.0	-63.4	29.8	-21.1	-41.0	-63.4	29.8	-25.9	-50.1	-77.3	31.8
3:12	-21.1	-41.1	-63.4	28.0	-21.1	-41.1	-63.4	28.0	-25.9	-50.1	-77.3	30.0
4:12	-21.2	-41.1	-63.5	26.1	-21.2	-41.1	-63.5	26.1	-26.0	-50.1	-77.3	28.1
5:12	-21.2	-41.1	-63.5	24.3	-21.2	-41.1	-63.5	24.3	-26.0	-50.2	-77.4	26.3
6:12	-21.2	-41.1	-63.5	22.6	-21.2	-41.1	-63.5	22.6	-26.0	-50.2	-77.4	24.6
7:12	-23.8	-28.7	-28.7	28.5	-23.8	-28.7	-28.7	28.5	-29.1	-35.1	-35.1	32.1
8:12	-23.8	-28.8	-28.8	27.1	-23.8	-28.8	-28.8	27.1	-29.1	-35.2	-35.2	30.7
9:12	-23.9	-28.8	-28.8	25.9	-23.9	-28.8	-28.8	25.9	-29.2	-35.2	-35.2	30.3
10:12	-23.9	-28.9	-28.9	25.3	-23.9	-28.9	-28.9	25.3	-29.2	-35.3	-35.3	30.1
11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
1:12	-28.9	-53.1	-83.3	29.3	-33.6	-61.4	-96.3	29.9	-38.9	-71.0	-111.2	31.1
2:12	-25.9	-50.1	-77.3	31.8	-30.1	-58.0	-89.3	33.5	-34.9	-67.0	-103.2	35.5
3:12	-25.9	-50.1	-77.3	30.0	-30.1	-58.0	-89.3	31.7	-34.9	-67.0	-103.2	33.7
4:12	-26.0	-50.1	-77.3	28.1	-30.1	-58.0	-89.4	29.8	-34.9	-67.1	-103.2	31.8
5:12	-26.0	-50.2	-77.4	26.3	-30.2	-58.0	-89.4	28.0	-35.0	-67.1	-103.2	30.0
6:12	-26.0	-50.2	-77.4	24.6	-30.2	-58.1	-89.4	26.3	-35.0	-67.1	-103.3	28.3
7:12	-29.1	-35.1	-35.1	32.1	-33.7	-40.7	-40.7	35.2	-39.1	-47.1	-47.1	39.5
8:12	-29.1	-35.2	-35.2	30.7	-33.8	-40.7	-40.7	34.6	-39.1	-47.1	-47.1	39.4
9:12	-29.2	-35.2	-35.2	30.3	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
1:12	-35.3	-64.6	-101.2	28.5	-40.0	-72.9	-114.2	29.5	-45.3	-82.5	-129.1	30.7
2:12	-31.7	-61.0	-93.9	32.5	-35.8	-68.8	-105.9	34.2	-40.6	-77.9	-119.8	36.2
3:12	-31.7	-61.0	-93.9	30.9	-35.9	-68.8	-106.0	32.6	-40.7	-77.9	-119.8	34.6
4:12	-31.7	-61.0	-94.0	29.2	-35.9	-68.9	-106.0	30.9	-40.7	-77.9	-119.8	32.9
5:12	-31.8	-61.1	-94.0	27.6	-35.9	-68.9	-106.0	29.3	-40.7	-78.0	-119.9	31.3
6:12	-31.8	-61.1	-94.0	26.0	-36.0	-68.9	-106.1	27.7	-40.8	-78.0	-119.9	29.7
7:12	-35.5	-42.8	-42.8	36.3	-40.1	-48.4	-48.4	40.4	-45.5	-54.8	-54.8	45.2
8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **165 mph**
Ground Snow Load **35 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	31.9	-23.6	-43.5	-68.4	31.9	-28.9	-53.1	-83.3	31.9
2:12	-21.1	-41.0	-63.4	32.2	-21.1	-41.0	-63.4	32.2	-25.9	-50.1	-77.3	34.2
3:12	-21.1	-41.1	-63.4	30.1	-21.1	-41.1	-63.4	30.1	-25.9	-50.1	-77.3	32.1
4:12	-21.2	-41.1	-63.5	28.0	-21.2	-41.1	-63.5	28.0	-26.0	-50.1	-77.3	30.0
5:12	-21.2	-41.1	-63.5	25.9	-21.2	-41.1	-63.5	25.9	-26.0	-50.2	-77.4	27.9
6:12	-21.2	-41.1	-63.5	24.0	-21.2	-41.1	-63.5	24.0	-26.0	-50.2	-77.4	26.0
7:12	-23.8	-28.7	-28.7	29.7	-23.8	-28.7	-28.7	29.7	-29.1	-35.1	-35.1	33.3
8:12	-23.8	-28.8	-28.8	28.1	-23.8	-28.8	-28.8	28.1	-29.1	-35.2	-35.2	31.7
9:12	-23.9	-28.8	-28.8	26.7	-23.9	-28.8	-28.8	26.7	-29.2	-35.2	-35.2	30.3
10:12	-23.9	-28.9	-28.9	25.5	-23.9	-28.9	-28.9	25.5	-29.2	-35.3	-35.3	30.1
11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
Exposure Category C												
1:12	-28.9	-53.1	-83.3	31.9	-33.6	-61.4	-96.3	32.5	-38.9	-71.0	-111.2	33.7
2:12	-25.9	-50.1	-77.3	34.2	-30.1	-58.0	-89.3	35.9	-34.9	-67.0	-103.2	37.9
3:12	-25.9	-50.1	-77.3	32.1	-30.1	-58.0	-89.3	33.8	-34.9	-67.0	-103.2	35.8
4:12	-26.0	-50.1	-77.3	30.0	-30.1	-58.0	-89.4	31.7	-34.9	-67.1	-103.2	33.7
5:12	-26.0	-50.2	-77.4	27.9	-30.2	-58.0	-89.4	29.7	-35.0	-67.1	-103.2	31.7
6:12	-26.0	-50.2	-77.4	26.0	-30.2	-58.1	-89.4	27.7	-35.0	-67.1	-103.3	29.7
7:12	-29.1	-35.1	-35.1	33.3	-33.7	-40.7	-40.7	36.4	-39.1	-47.1	-47.1	40.0
8:12	-29.1	-35.2	-35.2	31.7	-33.8	-40.7	-40.7	34.8	-39.1	-47.1	-47.1	39.4
9:12	-29.2	-35.2	-35.2	30.3	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	30.8	-40.0	-72.9	-114.2	31.9	-45.3	-82.5	-129.1	33.1
2:12	-31.7	-61.0	-93.9	34.7	-35.8	-68.8	-105.9	36.4	-40.6	-77.9	-119.8	38.4
3:12	-31.7	-61.0	-93.9	32.8	-35.9	-68.8	-106.0	34.5	-40.7	-77.9	-119.8	36.5
4:12	-31.7	-61.0	-94.0	30.9	-35.9	-68.9	-106.0	32.6	-40.7	-77.9	-119.8	34.6
5:12	-31.8	-61.1	-94.0	29.0	-35.9	-68.9	-106.0	30.8	-40.7	-78.0	-119.9	32.8
6:12	-31.8	-61.1	-94.0	27.3	-36.0	-68.9	-106.1	29.0	-40.8	-78.0	-119.9	31.0
7:12	-35.5	-42.8	-42.8	36.7	-40.1	-48.4	-48.4	40.4	-45.5	-54.8	-54.8	45.2
8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6

Basic Wind Speed **165 mph**
Ground Snow Load **40 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-23.6	-43.5	-68.4	35.1	-23.6	-43.5	-68.4	35.1	-28.9	-53.1	-83.3	35.1
	2:12	-21.1	-41.0	-63.4	34.5	-21.1	-41.0	-63.4	34.5	-25.9	-50.1	-77.3	36.5
	3:12	-21.1	-41.1	-63.4	32.2	-21.1	-41.1	-63.4	32.2	-25.9	-50.1	-77.3	34.2
	4:12	-21.2	-41.1	-63.5	29.8	-21.2	-41.1	-63.5	29.8	-26.0	-50.1	-77.3	31.8
	5:12	-21.2	-41.1	-63.5	27.6	-21.2	-41.1	-63.5	27.6	-26.0	-50.2	-77.4	29.6
	6:12	-21.2	-41.1	-63.5	25.4	-21.2	-41.1	-63.5	25.4	-26.0	-50.2	-77.4	27.4
	7:12	-23.8	-28.7	-28.7	30.9	-23.8	-28.7	-28.7	30.9	-29.1	-35.1	-35.1	34.5
	8:12	-23.8	-28.8	-28.8	29.1	-23.8	-28.8	-28.8	29.1	-29.1	-35.2	-35.2	32.7
	9:12	-23.9	-28.8	-28.8	27.6	-23.9	-28.8	-28.8	27.6	-29.2	-35.2	-35.2	31.2
	10:12	-23.9	-28.9	-28.9	26.2	-23.9	-28.9	-28.9	26.2	-29.2	-35.3	-35.3	30.1
	11:12	-23.9	-28.9	-28.9	25.2	-23.9	-28.9	-28.9	25.2	-29.3	-35.3	-35.3	30.0
	12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
Exposure Category C	1:12	-28.9	-53.1	-83.3	35.1	-33.6	-61.4	-96.3	35.1	-38.9	-71.0	-111.2	36.3
	2:12	-25.9	-50.1	-77.3	36.5	-30.1	-58.0	-89.3	38.3	-34.9	-67.0	-103.2	40.3
	3:12	-25.9	-50.1	-77.3	34.2	-30.1	-58.0	-89.3	35.9	-34.9	-67.0	-103.2	37.9
	4:12	-26.0	-50.1	-77.3	31.8	-30.1	-58.0	-89.4	33.6	-34.9	-67.1	-103.2	35.6
	5:12	-26.0	-50.2	-77.4	29.6	-30.2	-58.0	-89.4	31.3	-35.0	-67.1	-103.2	33.3
	6:12	-26.0	-50.2	-77.4	27.4	-30.2	-58.1	-89.4	29.1	-35.0	-67.1	-103.3	31.1
	7:12	-29.1	-35.1	-35.1	34.5	-33.7	-40.7	-40.7	37.6	-39.1	-47.1	-47.1	41.2
	8:12	-29.1	-35.2	-35.2	32.7	-33.8	-40.7	-40.7	35.9	-39.1	-47.1	-47.1	39.4
	9:12	-29.2	-35.2	-35.2	31.2	-33.8	-40.8	-40.8	34.4	-39.1	-47.2	-47.2	39.2
	10:12	-29.2	-35.3	-35.3	30.1	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
	11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
	12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D	1:12	-35.3	-64.6	-101.2	33.2	-40.0	-72.9	-114.2	34.2	-45.3	-82.5	-129.1	35.4
	2:12	-31.7	-61.0	-93.9	36.8	-35.8	-68.8	-105.9	38.5	-40.6	-77.9	-119.8	40.5
	3:12	-31.7	-61.0	-93.9	34.7	-35.9	-68.8	-106.0	36.4	-40.7	-77.9	-119.8	38.4
	4:12	-31.7	-61.0	-94.0	32.6	-35.9	-68.9	-106.0	34.3	-40.7	-77.9	-119.8	36.3
	5:12	-31.8	-61.1	-94.0	30.5	-35.9	-68.9	-106.0	32.2	-40.7	-78.0	-119.9	34.2
	6:12	-31.8	-61.1	-94.0	28.5	-36.0	-68.9	-106.1	30.3	-40.8	-78.0	-119.9	32.3
	7:12	-35.5	-42.8	-42.8	37.7	-40.1	-48.4	-48.4	40.9	-45.5	-54.8	-54.8	45.2
	8:12	-35.5	-42.9	-42.9	36.2	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
	9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
	10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
	11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
	12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
	3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
	4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
	5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
	6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
	7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
	8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
	9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
	10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
	11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	9.4	9.9	10.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **165 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Table W165-S45

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-23.6	-43.5	-68.4	38.6	-23.6	-43.5	-68.4	38.6	-28.9	-53.1	-83.3	38.6
2:12	-21.1	-41.0	-63.4	36.9	-21.1	-41.0	-63.4	36.9	-25.9	-50.1	-77.3	38.9
3:12	-21.1	-41.1	-63.4	34.3	-21.1	-41.1	-63.4	34.3	-25.9	-50.1	-77.3	36.3
4:12	-21.2	-41.1	-63.5	31.7	-21.2	-41.1	-63.5	31.7	-26.0	-50.1	-77.3	33.7
5:12	-21.2	-41.1	-63.5	29.2	-21.2	-41.1	-63.5	29.2	-26.0	-50.2	-77.4	31.2
6:12	-21.2	-41.1	-63.5	26.8	-21.2	-41.1	-63.5	26.8	-26.0	-50.2	-77.4	28.8
7:12	-23.8	-28.7	-28.7	32.1	-23.8	-28.7	-28.7	32.1	-29.1	-35.1	-35.1	35.7
8:12	-23.8	-28.8	-28.8	30.1	-23.8	-28.8	-28.8	30.1	-29.1	-35.2	-35.2	33.7
9:12	-23.9	-28.8	-28.8	28.4	-23.9	-28.8	-28.8	28.4	-29.2	-35.2	-35.2	32.0
10:12	-23.9	-28.9	-28.9	26.9	-23.9	-28.9	-28.9	26.9	-29.2	-35.3	-35.3	30.5
11:12	-23.9	-28.9	-28.9	25.7	-23.9	-28.9	-28.9	25.7	-29.3	-35.3	-35.3	30.0
12:12	-24.0	-28.9	-28.9	25.1	-24.0	-28.9	-28.9	25.1	-29.3	-35.3	-35.3	29.9
1:12	-28.9	-53.1	-83.3	38.6	-33.6	-61.4	-96.3	38.6	-38.9	-71.0	-111.2	38.9
2:12	-25.9	-50.1	-77.3	38.9	-30.1	-58.0	-89.3	40.6	-34.9	-67.0	-103.2	42.6
3:12	-25.9	-50.1	-77.3	36.3	-30.1	-58.0	-89.3	38.1	-34.9	-67.0	-103.2	40.1
4:12	-26.0	-50.1	-77.3	33.7	-30.1	-58.0	-89.4	35.5	-34.9	-67.1	-103.2	37.5
5:12	-26.0	-50.2	-77.4	31.2	-30.2	-58.0	-89.4	32.9	-35.0	-67.1	-103.2	34.9
6:12	-26.0	-50.2	-77.4	28.8	-30.2	-58.1	-89.4	30.5	-35.0	-67.1	-103.3	32.5
7:12	-29.1	-35.1	-35.1	35.7	-33.7	-40.7	-40.7	38.8	-39.1	-47.1	-47.1	42.4
8:12	-29.1	-35.2	-35.2	33.7	-33.8	-40.7	-40.7	36.9	-39.1	-47.1	-47.1	40.5
9:12	-29.2	-35.2	-35.2	32.0	-33.8	-40.8	-40.8	35.2	-39.1	-47.2	-47.2	39.2
10:12	-29.2	-35.3	-35.3	30.5	-33.8	-40.8	-40.8	34.3	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.0	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
1:12	-35.3	-64.6	-101.2	35.5	-40.0	-72.9	-114.2	36.6	-45.3	-82.5	-129.1	37.8
2:12	-31.7	-61.0	-93.9	38.9	-35.8	-68.8	-105.9	40.7	-40.6	-77.9	-119.8	42.7
3:12	-31.7	-61.0	-93.9	36.6	-35.9	-68.8	-106.0	38.3	-40.7	-77.9	-119.8	40.3
4:12	-31.7	-61.0	-94.0	34.2	-35.9	-68.9	-106.0	36.0	-40.7	-77.9	-119.8	38.0
5:12	-31.8	-61.1	-94.0	32.0	-35.9	-68.9	-106.0	33.7	-40.7	-78.0	-119.9	35.7
6:12	-31.8	-61.1	-94.0	29.8	-36.0	-68.9	-106.1	31.5	-40.8	-78.0	-119.9	33.5
7:12	-35.5	-42.8	-42.8	38.8	-40.1	-48.4	-48.4	41.9	-45.5	-54.8	-54.8	45.5
8:12	-35.5	-42.9	-42.9	37.1	-40.2	-48.4	-48.4	40.3	-45.5	-54.8	-54.8	45.1
9:12	-35.6	-42.9	-42.9	36.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6

Basic Wind Speed
165 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Basic Wind Speed
165 mph

Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	45.5	-23.6	-43.5	-68.4	45.5	-28.9	-53.1	-83.3	45.5
2:12	-21.1	-41.0	-63.4	41.9	-21.1	-41.0	-63.4	41.9	-25.9	-50.1	-77.3	43.7
3:12	-21.1	-41.1	-63.4	38.6	-21.1	-41.1	-63.4	38.6	-25.9	-50.1	-77.3	40.6
4:12	-21.2	-41.1	-63.5	35.5	-21.2	-41.1	-63.5	35.5	-26.0	-50.1	-77.3	37.5
5:12	-21.2	-41.1	-63.5	32.4	-21.2	-41.1	-63.5	32.4	-26.0	-50.2	-77.4	34.4
6:12	-21.2	-41.1	-63.5	29.6	-21.2	-41.1	-63.5	29.6	-26.0	-50.2	-77.4	31.6
7:12	-23.8	-28.7	-28.7	34.5	-23.8	-28.7	-28.7	34.5	-29.1	-35.1	-35.1	38.1
8:12	-23.8	-28.8	-28.8	32.2	-23.8	-28.8	-28.8	32.2	-29.1	-35.2	-35.2	35.8
9:12	-23.9	-28.8	-28.8	30.1	-23.9	-28.8	-28.8	30.1	-29.2	-35.2	-35.2	33.7
10:12	-23.9	-28.9	-28.9	28.4	-23.9	-28.9	-28.9	28.4	-29.2	-35.3	-35.3	32.0
11:12	-23.9	-28.9	-28.9	26.9	-23.9	-28.9	-28.9	26.9	-29.3	-35.3	-35.3	30.5
12:12	-24.0	-28.9	-28.9	25.6	-24.0	-28.9	-28.9	25.6	-29.3	-35.3	-35.3	29.9
Exposure Category C												
1:12	-28.9	-53.1	-83.3	45.5	-33.6	-61.4	-96.3	45.5	-38.9	-71.0	-111.2	45.5
2:12	-25.9	-50.1	-77.3	43.7	-30.1	-58.0	-89.3	45.4	-34.9	-67.0	-103.2	47.4
3:12	-25.9	-50.1	-77.3	40.6	-30.1	-58.0	-89.3	42.3	-34.9	-67.0	-103.2	44.3
4:12	-26.0	-50.1	-77.3	37.5	-30.1	-58.0	-89.4	39.2	-34.9	-67.1	-103.2	41.2
5:12	-26.0	-50.2	-77.4	34.4	-30.2	-58.0	-89.4	36.2	-35.0	-67.1	-103.2	38.2
6:12	-26.0	-50.2	-77.4	31.6	-30.2	-58.1	-89.4	33.3	-35.0	-67.1	-103.3	35.3
7:12	-29.1	-35.1	-35.1	38.1	-33.7	-40.7	-40.7	41.2	-39.1	-47.1	-47.1	44.8
8:12	-29.1	-35.2	-35.2	35.8	-33.8	-40.7	-40.7	38.9	-39.1	-47.1	-47.1	42.5
9:12	-29.2	-35.2	-35.2	33.7	-33.8	-40.8	-40.8	36.9	-39.1	-47.2	-47.2	40.5
10:12	-29.2	-35.3	-35.3	32.0	-33.8	-40.8	-40.8	35.1	-39.2	-47.2	-47.2	39.1
11:12	-29.3	-35.3	-35.3	30.5	-33.9	-40.9	-40.9	34.2	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	29.9	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	41.4	-40.0	-72.9	-114.2	41.4	-45.3	-82.5	-129.1	42.5
2:12	-31.7	-61.0	-93.9	43.2	-35.8	-68.8	-105.9	44.9	-40.6	-77.9	-119.8	46.9
3:12	-31.7	-61.0	-93.9	40.4	-35.9	-68.8	-106.0	42.2	-40.7	-77.9	-119.8	44.2
4:12	-31.7	-61.0	-94.0	37.6	-35.9	-68.9	-106.0	39.4	-40.7	-77.9	-119.8	41.4
5:12	-31.8	-61.1	-94.0	34.9	-35.9	-68.9	-106.0	36.6	-40.7	-78.0	-119.9	38.6
6:12	-31.8	-61.1	-94.0	32.3	-36.0	-68.9	-106.1	34.1	-40.8	-78.0	-119.9	36.1
7:12	-35.5	-42.8	-42.8	41.0	-40.1	-48.4	-48.4	44.1	-45.5	-54.8	-54.8	47.7
8:12	-35.5	-42.9	-42.9	38.9	-40.2	-48.4	-48.4	42.0	-45.5	-54.8	-54.8	45.6
9:12	-35.6	-42.9	-42.9	37.0	-40.2	-48.5	-48.5	40.2	-45.5	-54.8	-54.8	45.0
10:12	-35.6	-42.9	-42.9	35.9	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
165 mph

Ground Snow Load
70 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	52.5	-23.6	-43.5	-68.4	52.5	-28.9	-53.1	-83.3	52.5
2:12	-21.1	-41.0	-63.4	48.2	-21.1	-41.0	-63.4	48.2	-25.9	-50.1	-77.3	48.4
3:12	-21.1	-41.1	-63.4	43.4	-21.1	-41.1	-63.4	43.4	-25.9	-50.1	-77.3	44.8
4:12	-21.2	-41.1	-63.5	39.2	-21.2	-41.1	-63.5	39.2	-26.0	-50.1	-77.3	41.2
5:12	-21.2	-41.1	-63.5	35.7	-21.2	-41.1	-63.5	35.7	-26.0	-50.2	-77.4	37.7
6:12	-21.2	-41.1	-63.5	32.4	-21.2	-41.1	-63.5	32.4	-26.0	-50.2	-77.4	34.4
7:12	-23.8	-28.7	-28.7	36.9	-23.8	-28.7	-28.7	36.9	-29.1	-35.1	-35.1	40.5
8:12	-23.8	-28.8	-28.8	34.2	-23.8	-28.8	-28.8	34.2	-29.1	-35.2	-35.2	37.8
9:12	-23.9	-28.8	-28.8	31.9	-23.9	-28.8	-28.8	31.9	-29.2	-35.2	-35.2	35.5
10:12	-23.9	-28.9	-28.9	29.8	-23.9	-28.9	-28.9	29.8	-29.2	-35.3	-35.3	33.4
11:12	-23.9	-28.9	-28.9	28.1	-23.9	-28.9	-28.9	28.1	-29.3	-35.3	-35.3	31.7
12:12	-24.0	-28.9	-28.9	26.6	-24.0	-28.9	-28.9	26.6	-29.3	-35.3	-35.3	30.2
Exposure Category C												
1:12	-28.9	-53.1	-83.3	52.5	-33.6	-61.4	-96.3	52.5	-38.9	-71.0	-111.2	52.5
2:12	-25.9	-50.1	-77.3	48.4	-30.1	-58.0	-89.3	50.2	-34.9	-67.0	-103.2	52.2
3:12	-25.9	-50.1	-77.3	44.8	-30.1	-58.0	-89.3	46.6	-34.9	-67.0	-103.2	48.6
4:12	-26.0	-50.1	-77.3	41.2	-30.1	-58.0	-89.4	43.0	-34.9	-67.1	-103.2	45.0
5:12	-26.0	-50.2	-77.4	37.7	-30.2	-58.0	-89.4	39.4	-35.0	-67.1	-103.2	41.4
6:12	-26.0	-50.2	-77.4	34.4	-30.2	-58.1	-89.4	36.1	-35.0	-67.1	-103.3	38.1
7:12	-29.1	-35.1	-35.1	40.5	-33.7	-40.7	-40.7	43.6	-39.1	-47.1	-47.1	47.2
8:12	-29.1	-35.2	-35.2	37.8	-33.8	-40.7	-40.7	40.9	-39.1	-47.1	-47.1	44.5
9:12	-29.2	-35.2	-35.2	35.5	-33.8	-40.8	-40.8	38.6	-39.1	-47.2	-47.2	42.2
10:12	-29.2	-35.3	-35.3	33.4	-33.8	-40.8	-40.8	36.5	-39.2	-47.2	-47.2	40.1
11:12	-29.3	-35.3	-35.3	31.7	-33.9	-40.9	-40.9	34.8	-39.2	-47.3	-47.3	39.0
12:12	-29.3	-35.3	-35.3	30.2	-33.9	-40.9	-40.9	34.1	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	47.6	-40.0	-72.9	-114.2	47.6	-45.3	-82.5	-129.1	47.6
2:12	-31.7	-61.0	-93.9	47.5	-35.8	-68.8	-105.9	49.2	-40.6	-77.9	-119.8	51.2
3:12	-31.7	-61.0	-93.9	44.3	-35.9	-68.8	-106.0	46.0	-40.7	-77.9	-119.8	48.0
4:12	-31.7	-61.0	-94.0	41.0	-35.9	-68.9	-106.0	42.7	-40.7	-77.9	-119.8	44.7
5:12	-31.8	-61.1	-94.0	37.8	-35.9	-68.9	-106.0	39.6	-40.7	-78.0	-119.9	41.6
6:12	-31.8	-61.1	-94.0	34.9	-36.0	-68.9	-106.1	36.6	-40.8	-78.0	-119.9	38.6
7:12	-35.5	-42.8	-42.8	43.1	-40.1	-48.4	-48.4	46.2	-45.5	-54.8	-54.8	49.8
8:12	-35.5	-42.9	-42.9	40.7	-40.2	-48.4	-48.4	43.8	-45.5	-54.8	-54.8	47.4
9:12	-35.6	-42.9	-42.9	38.6	-40.2	-48.5	-48.5	41.7	-45.5	-54.8	-54.8	45.3
10:12	-35.6	-42.9	-42.9	36.7	-40.2	-48.5	-48.5	40.1	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	35.8	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	59.4	-23.6	-43.5	-68.4	59.4	-28.9	-53.1	-83.3	59.4
2:12	-21.1	-41.0	-63.4	54.5	-21.1	-41.0	-63.4	54.5	-25.9	-50.1	-77.3	54.5
3:12	-21.1	-41.1	-63.4	49.1	-21.1	-41.1	-63.4	49.1	-25.9	-50.1	-77.3	49.1
4:12	-21.2	-41.1	-63.5	43.6	-21.2	-41.1	-63.5	43.6	-26.0	-50.1	-77.3	45.0
5:12	-21.2	-41.1	-63.5	39.0	-21.2	-41.1	-63.5	39.0	-26.0	-50.2	-77.4	41.0
6:12	-21.2	-41.1	-63.5	35.2	-21.2	-41.1	-63.5	35.2	-26.0	-50.2	-77.4	37.2
7:12	-23.8	-28.7	-28.7	39.3	-23.8	-28.7	-28.7	39.3	-29.1	-35.1	-35.1	42.9
8:12	-23.8	-28.8	-28.8	36.2	-23.8	-28.8	-28.8	36.2	-29.1	-35.2	-35.2	39.8
9:12	-23.9	-28.8	-28.8	33.6	-23.9	-28.8	-28.8	33.6	-29.2	-35.2	-35.2	37.2
10:12	-23.9	-28.9	-28.9	31.3	-23.9	-28.9	-28.9	31.3	-29.2	-35.3	-35.3	34.9
11:12	-23.9	-28.9	-28.9	29.3	-23.9	-28.9	-28.9	29.3	-29.3	-35.3	-35.3	32.9
12:12	-24.0	-28.9	-28.9	27.6	-24.0	-28.9	-28.9	27.6	-29.3	-35.3	-35.3	31.2
Exposure Category C												
1:12	-28.9	-53.1	-83.3	59.4	-33.6	-61.4	-96.3	59.4	-38.9	-71.0	-111.2	59.4
2:12	-25.9	-50.1	-77.3	54.5	-30.1	-58.0	-89.3	54.9	-34.9	-67.0	-103.2	56.9
3:12	-25.9	-50.1	-77.3	49.1	-30.1	-58.0	-89.3	50.8	-34.9	-67.0	-103.2	52.8
4:12	-26.0	-50.1	-77.3	45.0	-30.1	-58.0	-89.4	46.7	-34.9	-67.1	-103.2	48.7
5:12	-26.0	-50.2	-77.4	41.0	-30.2	-58.0	-89.4	42.7	-35.0	-67.1	-103.2	44.7
6:12	-26.0	-50.2	-77.4	37.2	-30.2	-58.1	-89.4	39.0	-35.0	-67.1	-103.3	41.0
7:12	-29.1	-35.1	-35.1	42.9	-33.7	-40.7	-40.7	46.0	-39.1	-47.1	-47.1	49.6
8:12	-29.1	-35.2	-35.2	39.8	-33.8	-40.7	-40.7	43.0	-39.1	-47.1	-47.1	46.6
9:12	-29.2	-35.2	-35.2	37.2	-33.8	-40.8	-40.8	40.3	-39.1	-47.2	-47.2	43.9
10:12	-29.2	-35.3	-35.3	34.9	-33.8	-40.8	-40.8	38.0	-39.2	-47.2	-47.2	41.6
11:12	-29.3	-35.3	-35.3	32.9	-33.9	-40.9	-40.9	36.0	-39.2	-47.3	-47.3	39.6
12:12	-29.3	-35.3	-35.3	31.2	-33.9	-40.9	-40.9	34.3	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	53.9	-40.0	-72.9	-114.2	53.9	-45.3	-82.5	-129.1	53.9
2:12	-31.7	-61.0	-93.9	51.8	-35.8	-68.8	-105.9	53.5	-40.6	-77.9	-119.8	55.5
3:12	-31.7	-61.0	-93.9	48.1	-35.9	-68.8	-106.0	49.8	-40.7	-77.9	-119.8	51.8
4:12	-31.7	-61.0	-94.0	44.4	-35.9	-68.9	-106.0	46.1	-40.7	-77.9	-119.8	48.1
5:12	-31.8	-61.1	-94.0	40.8	-35.9	-68.9	-106.0	42.5	-40.7	-78.0	-119.9	44.5
6:12	-31.8	-61.1	-94.0	37.4	-36.0	-68.9	-106.1	39.1	-40.8	-78.0	-119.9	41.1
7:12	-35.5	-42.8	-42.8	45.3	-40.1	-48.4	-48.4	48.4	-45.5	-54.8	-54.8	52.0
8:12	-35.5	-42.9	-42.9	42.5	-40.2	-48.4	-48.4	45.7	-45.5	-54.8	-54.8	49.3
9:12	-35.6	-42.9	-42.9	40.1	-40.2	-48.5	-48.5	43.2	-45.5	-54.8	-54.8	46.8
10:12	-35.6	-42.9	-42.9	38.0	-40.2	-48.5	-48.5	41.2	-45.6	-54.9	-54.9	44.9
11:12	-35.7	-43.0	-43.0	36.2	-40.3	-48.5	-48.5	39.9	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **165 mph**

Ground Snow Load **80 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	66.4	-23.6	-43.5	-68.4	66.4	-28.9	-53.1	-83.3	66.4
2:12	-21.1	-41.0	-63.4	60.9	-21.1	-41.0	-63.4	60.9	-25.9	-50.1	-77.3	60.9
3:12	-21.1	-41.1	-63.4	54.8	-21.1	-41.1	-63.4	54.8	-25.9	-50.1	-77.3	54.8
4:12	-21.2	-41.1	-63.5	48.6	-21.2	-41.1	-63.5	48.6	-26.0	-50.1	-77.3	48.7
5:12	-21.2	-41.1	-63.5	42.7	-21.2	-41.1	-63.5	42.7	-26.0	-50.2	-77.4	44.2
6:12	-21.2	-41.1	-63.5	38.0	-21.2	-41.1	-63.5	38.0	-26.0	-50.2	-77.4	40.0
7:12	-23.8	-28.7	-28.7	41.7	-23.8	-28.7	-28.7	41.7	-29.1	-35.1	-35.1	45.3
8:12	-23.8	-28.8	-28.8	38.3	-23.8	-28.8	-28.8	38.3	-29.1	-35.2	-35.2	41.9
9:12	-23.9	-28.8	-28.8	35.3	-23.9	-28.8	-28.8	35.3	-29.2	-35.2	-35.2	38.9
10:12	-23.9	-28.9	-28.9	32.7	-23.9	-28.9	-28.9	32.7	-29.2	-35.3	-35.3	36.3
11:12	-23.9	-28.9	-28.9	30.5	-23.9	-28.9	-28.9	30.5	-29.3	-35.3	-35.3	34.1
12:12	-24.0	-28.9	-28.9	28.6	-24.0	-28.9	-28.9	28.6	-29.3	-35.3	-35.3	32.2
Exposure Category C												
1:12	-28.9	-53.1	-83.3	66.4	-33.6	-61.4	-96.3	66.4	-38.9	-71.0	-111.2	66.4
2:12	-25.9	-50.1	-77.3	60.9	-30.1	-58.0	-89.3	60.9	-34.9	-67.0	-103.2	61.7
3:12	-25.9	-50.1	-77.3	54.8	-30.1	-58.0	-89.3	55.1	-34.9	-67.0	-103.2	57.1
4:12	-26.0	-50.1	-77.3	48.7	-30.1	-58.0	-89.4	50.4	-34.9	-67.1	-103.2	52.4
5:12	-26.0	-50.2	-77.4	44.2	-30.2	-58.0	-89.4	46.0	-35.0	-67.1	-103.2	48.0
6:12	-26.0	-50.2	-77.4	40.0	-30.2	-58.1	-89.4	41.8	-35.0	-67.1	-103.3	43.8
7:12	-29.1	-35.1	-35.1	45.3	-33.7	-40.7	-40.7	48.4	-39.1	-47.1	-47.1	52.0
8:12	-29.1	-35.2	-35.2	41.9	-33.8	-40.7	-40.7	45.0	-39.1	-47.1	-47.1	48.6
9:12	-29.2	-35.2	-35.2	38.9	-33.8	-40.8	-40.8	42.0	-39.1	-47.2	-47.2	45.6
10:12	-29.2	-35.3	-35.3	36.3	-33.8	-40.8	-40.8	39.4	-39.2	-47.2	-47.2	43.0
11:12	-29.3	-35.3	-35.3	34.1	-33.9	-40.9	-40.9	37.2	-39.2	-47.3	-47.3	40.8
12:12	-29.3	-35.3	-35.3	32.2	-33.9	-40.9	-40.9	35.3	-39.3	-47.3	-47.3	38.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	60.1	-40.0	-72.9	-114.2	60.1	-45.3	-82.5	-129.1	60.1
2:12	-31.7	-61.0	-93.9	56.1	-35.8	-68.8	-105.9	57.8	-40.6	-77.9	-119.8	59.8
3:12	-31.7	-61.0	-93.9	51.9	-35.9	-68.8	-106.0	53.7	-40.7	-77.9	-119.8	55.7
4:12	-31.7	-61.0	-94.0	47.7	-35.9	-68.9	-106.0	49.5	-40.7	-77.9	-119.8	51.5
5:12	-31.8	-61.1	-94.0	43.7	-35.9	-68.9	-106.0	45.4	-40.7	-78.0	-119.9	47.4
6:12	-31.8	-61.1	-94.0	39.9	-36.0	-68.9	-106.1	41.6	-40.8	-78.0	-119.9	43.6
7:12	-35.5	-42.8	-42.8	47.4	-40.1	-48.4	-48.4	50.6	-45.5	-54.8	-54.8	54.2
8:12	-35.5	-42.9	-42.9	44.4	-40.2	-48.4	-48.4	47.5	-45.5	-54.8	-54.8	51.1
9:12	-35.6	-42.9	-42.9	41.7	-40.2	-48.5	-48.5	44.8	-45.5	-54.8	-54.8	48.4
10:12	-35.6	-42.9	-42.9	39.3	-40.2	-48.5	-48.5	42.4	-45.6	-54.9	-54.9	46.0
11:12	-35.7	-43.0	-43.0	37.3	-40.3	-48.5	-48.5	40.4	-45.6	-54.9	-54.9	44.7
12:12	-35.7	-43.0	-43.0	35.7	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6

Basic Wind Speed
165 mph

Ground Snow Load
90 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-23.6	-43.5	-68.4	73.4	-23.6	-43.5	-68.4	73.4	-28.9	-53.1	-83.3	73.4
2:12	-21.1	-41.0	-63.4	67.2	-21.1	-41.0	-63.4	67.2	-25.9	-50.1	-77.3	67.2
3:12	-21.1	-41.1	-63.4	60.5	-21.1	-41.1	-63.4	60.5	-25.9	-50.1	-77.3	60.5
4:12	-21.2	-41.1	-63.5	53.6	-21.2	-41.1	-63.5	53.6	-26.0	-50.1	-77.3	53.6
5:12	-21.2	-41.1	-63.5	47.0	-21.2	-41.1	-63.5	47.0	-26.0	-50.2	-77.4	47.5
6:12	-21.2	-41.1	-63.5	40.9	-21.2	-41.1	-63.5	40.9	-26.0	-50.2	-77.4	42.8
7:12	-23.8	-28.7	-28.7	44.1	-23.8	-28.7	-28.7	44.1	-29.1	-35.1	-35.1	47.7
8:12	-23.8	-28.8	-28.8	40.3	-23.8	-28.8	-28.8	40.3	-29.1	-35.2	-35.2	43.9
9:12	-23.9	-28.8	-28.8	37.0	-23.9	-28.8	-28.8	37.0	-29.2	-35.2	-35.2	40.6
10:12	-23.9	-28.9	-28.9	34.1	-23.9	-28.9	-28.9	34.1	-29.2	-35.3	-35.3	37.7
11:12	-23.9	-28.9	-28.9	31.7	-23.9	-28.9	-28.9	31.7	-29.3	-35.3	-35.3	35.3
12:12	-24.0	-28.9	-28.9	29.6	-24.0	-28.9	-28.9	29.6	-29.3	-35.3	-35.3	33.2
Exposure Category C												
1:12	-28.9	-53.1	-83.3	73.4	-33.6	-61.4	-96.3	73.4	-38.9	-71.0	-111.2	73.4
2:12	-25.9	-50.1	-77.3	67.2	-30.1	-58.0	-89.3	67.2	-34.9	-67.0	-103.2	67.2
3:12	-25.9	-50.1	-77.3	60.5	-30.1	-58.0	-89.3	60.5	-34.9	-67.0	-103.2	61.3
4:12	-26.0	-50.1	-77.3	53.6	-30.1	-58.0	-89.4	54.2	-34.9	-67.1	-103.2	56.2
5:12	-26.0	-50.2	-77.4	47.5	-30.2	-58.0	-89.4	49.2	-35.0	-67.1	-103.2	51.2
6:12	-26.0	-50.2	-77.4	42.8	-30.2	-58.1	-89.4	44.6	-35.0	-67.1	-103.3	46.6
7:12	-29.1	-35.1	-35.1	47.7	-33.7	-40.7	-40.7	50.8	-39.1	-47.1	-47.1	54.4
8:12	-29.1	-35.2	-35.2	43.9	-33.8	-40.7	-40.7	47.0	-39.1	-47.1	-47.1	50.6
9:12	-29.2	-35.2	-35.2	40.6	-33.8	-40.8	-40.8	43.7	-39.1	-47.2	-47.2	47.3
10:12	-29.2	-35.3	-35.3	37.7	-33.8	-40.8	-40.8	40.9	-39.2	-47.2	-47.2	44.5
11:12	-29.3	-35.3	-35.3	35.3	-33.9	-40.9	-40.9	38.4	-39.2	-47.3	-47.3	42.0
12:12	-29.3	-35.3	-35.3	33.2	-33.9	-40.9	-40.9	36.3	-39.3	-47.3	-47.3	39.9
Exposure Category D												
1:12	-35.3	-64.6	-101.2	66.4	-40.0	-72.9	-114.2	66.4	-45.3	-82.5	-129.1	66.4
2:12	-31.7	-61.0	-93.9	60.9	-35.8	-68.8	-105.9	62.1	-40.6	-77.9	-119.8	64.1
3:12	-31.7	-61.0	-93.9	55.8	-35.9	-68.8	-106.0	57.5	-40.7	-77.9	-119.8	59.5
4:12	-31.7	-61.0	-94.0	51.1	-35.9	-68.9	-106.0	52.8	-40.7	-77.9	-119.8	54.8
5:12	-31.8	-61.1	-94.0	46.6	-35.9	-68.9	-106.0	48.4	-40.7	-78.0	-119.9	50.4
6:12	-31.8	-61.1	-94.0	42.4	-36.0	-68.9	-106.1	44.2	-40.8	-78.0	-119.9	46.2
7:12	-35.5	-42.8	-42.8	49.6	-40.1	-48.4	-48.4	52.7	-45.5	-54.8	-54.8	56.3
8:12	-35.5	-42.9	-42.9	46.2	-40.2	-48.4	-48.4	49.3	-45.5	-54.8	-54.8	52.9
9:12	-35.6	-42.9	-42.9	43.2	-40.2	-48.5	-48.5	46.3	-45.5	-54.8	-54.8	49.9
10:12	-35.6	-42.9	-42.9	40.6	-40.2	-48.5	-48.5	43.7	-45.6	-54.9	-54.9	47.3
11:12	-35.7	-43.0	-43.0	38.4	-40.3	-48.5	-48.5	41.5	-45.6	-54.9	-54.9	45.1
12:12	-35.7	-43.0	-43.0	36.5	-40.3	-48.6	-48.6	39.8	-45.7	-55.0	-55.0	44.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

165 mph

Ground Snow Load

100 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	13.4	-25.1	-46.3	-72.7	13.4	-30.8	-56.4	-88.5	13.5
2:12	-22.5	-43.6	-67.4	17.0	-22.5	-43.6	-67.4	17.0	-27.6	-53.3	-82.1	19.8
3:12	-22.5	-43.7	-67.4	16.9	-22.5	-43.7	-67.4	16.9	-27.6	-53.3	-82.1	19.8
4:12	-22.6	-43.7	-67.5	16.9	-22.6	-43.7	-67.5	16.9	-27.6	-53.3	-82.2	19.7
5:12	-22.6	-43.7	-67.5	16.8	-22.6	-43.7	-67.5	16.8	-27.7	-53.3	-82.2	19.6
6:12	-22.6	-43.8	-67.5	16.6	-22.6	-43.8	-67.5	16.6	-27.7	-53.4	-82.2	19.5
7:12	-25.3	-30.6	-30.6	27.1	-25.3	-30.6	-30.6	27.1	-31.0	-37.4	-37.4	32.2
8:12	-25.3	-30.6	-30.6	27.0	-25.3	-30.6	-30.6	27.0	-31.0	-37.4	-37.4	32.1
9:12	-25.4	-30.7	-30.7	26.8	-25.4	-30.7	-30.7	26.8	-31.0	-37.5	-37.5	31.9
10:12	-25.4	-30.7	-30.7	26.7	-25.4	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.8
11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
Exposure Category C												
1:12	-30.8	-56.4	-88.5	13.5	-35.7	-65.3	-102.3	14.9	-41.4	-75.5	-118.1	16.6
2:12	-27.6	-53.3	-82.1	19.8	-32.0	-61.6	-94.9	22.3	-37.1	-71.2	-109.6	25.1
3:12	-27.6	-53.3	-82.1	19.8	-32.0	-61.6	-94.9	22.2	-37.1	-71.2	-109.6	25.1
4:12	-27.6	-53.3	-82.2	19.7	-32.1	-61.6	-94.9	22.1	-37.2	-71.3	-109.6	25.0
5:12	-27.7	-53.3	-82.2	19.6	-32.1	-61.7	-95.0	22.0	-37.2	-71.3	-109.7	24.9
6:12	-27.7	-53.4	-82.2	19.5	-32.1	-61.7	-95.0	21.9	-37.2	-71.3	-109.7	24.8
7:12	-31.0	-37.4	-37.4	32.2	-35.9	-43.3	-43.3	36.6	-41.5	-50.1	-50.1	41.7
8:12	-31.0	-37.4	-37.4	32.1	-35.9	-43.3	-43.3	36.5	-41.6	-50.1	-50.1	41.6
9:12	-31.0	-37.5	-37.5	31.9	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	15.5	-42.5	-77.5	-121.3	17.0	-48.1	-87.7	-137.1	18.7
2:12	-33.7	-64.8	-99.8	23.2	-38.1	-73.1	-112.5	25.7	-43.2	-82.8	-127.2	28.5
3:12	-33.7	-64.8	-99.8	23.2	-38.1	-73.2	-112.6	25.6	-43.2	-82.8	-127.3	28.4
4:12	-33.8	-64.9	-99.8	23.1	-38.2	-73.2	-112.6	25.5	-43.3	-82.8	-127.3	28.4
5:12	-33.8	-64.9	-99.9	23.0	-38.2	-73.2	-112.6	25.4	-43.3	-82.8	-127.3	28.3
6:12	-33.8	-64.9	-99.9	22.9	-38.2	-73.3	-112.7	25.3	-43.3	-82.9	-127.4	28.2
7:12	-37.8	-45.5	-45.5	38.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
170 mph

Ground Snow Load
0 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	14.8	-25.1	-46.3	-72.7	14.8	-30.8	-56.4	-88.5	14.8
2:12	-22.5	-43.6	-67.4	17.1	-22.5	-43.6	-67.4	17.1	-27.6	-53.3	-82.1	19.8
3:12	-22.5	-43.7	-67.4	16.9	-22.5	-43.7	-67.4	16.9	-27.6	-53.3	-82.1	19.8
4:12	-22.6	-43.7	-67.5	16.9	-22.6	-43.7	-67.5	16.9	-27.6	-53.3	-82.2	19.7
5:12	-22.6	-43.7	-67.5	16.8	-22.6	-43.7	-67.5	16.8	-27.7	-53.3	-82.2	19.6
6:12	-22.6	-43.8	-67.5	16.6	-22.6	-43.8	-67.5	16.6	-27.7	-53.4	-82.2	19.5
7:12	-25.3	-30.6	-30.6	27.1	-25.3	-30.6	-30.6	27.1	-31.0	-37.4	-37.4	32.2
8:12	-25.3	-30.6	-30.6	27.0	-25.3	-30.6	-30.6	27.0	-31.0	-37.4	-37.4	32.1
9:12	-25.4	-30.7	-30.7	26.8	-25.4	-30.7	-30.7	26.8	-31.0	-37.5	-37.5	31.9
10:12	-25.4	-30.7	-30.7	26.7	-25.4	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.8
11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
Exposure Category C												
1:12	-30.8	-56.4	-88.5	14.8	-35.7	-65.3	-102.3	15.9	-41.4	-75.5	-118.1	17.2
2:12	-27.6	-53.3	-82.1	19.8	-32.0	-61.6	-94.9	22.3	-37.1	-71.2	-109.6	25.1
3:12	-27.6	-53.3	-82.1	19.8	-32.0	-61.6	-94.9	22.2	-37.1	-71.2	-109.6	25.1
4:12	-27.6	-53.3	-82.2	19.7	-32.1	-61.6	-94.9	22.1	-37.2	-71.3	-109.6	25.0
5:12	-27.7	-53.3	-82.2	19.6	-32.1	-61.7	-95.0	22.0	-37.2	-71.3	-109.7	24.9
6:12	-27.7	-53.4	-82.2	19.5	-32.1	-61.7	-95.0	21.9	-37.2	-71.3	-109.7	24.8
7:12	-31.0	-37.4	-37.4	32.2	-35.9	-43.3	-43.3	36.6	-41.5	-50.1	-50.1	41.7
8:12	-31.0	-37.4	-37.4	32.1	-35.9	-43.3	-43.3	36.5	-41.6	-50.1	-50.1	41.6
9:12	-31.0	-37.5	-37.5	31.9	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	16.3	-42.5	-77.5	-121.3	17.4	-48.1	-87.7	-137.1	18.7
2:12	-33.7	-64.8	-99.8	23.2	-38.1	-73.1	-112.5	25.7	-43.2	-82.8	-127.2	28.5
3:12	-33.7	-64.8	-99.8	23.2	-38.1	-73.2	-112.6	25.6	-43.2	-82.8	-127.3	28.4
4:12	-33.8	-64.9	-99.8	23.1	-38.2	-73.2	-112.6	25.5	-43.3	-82.8	-127.3	28.4
5:12	-33.8	-64.9	-99.9	23.0	-38.2	-73.2	-112.6	25.4	-43.3	-82.8	-127.3	28.3
6:12	-33.8	-64.9	-99.9	22.9	-38.2	-73.3	-112.7	25.3	-43.3	-82.9	-127.4	28.2
7:12	-37.8	-45.5	-45.5	38.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **170 mph**

Ground Snow Load **5 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	18.5	-25.1	-46.3	-72.7	18.5	-30.8	-56.4	-88.5	18.5
2:12	-22.5	-43.6	-67.4	20.5	-22.5	-43.6	-67.4	20.5	-27.6	-53.3	-82.1	22.6
3:12	-22.5	-43.7	-67.4	19.7	-22.5	-43.7	-67.4	19.7	-27.6	-53.3	-82.1	21.8
4:12	-22.6	-43.7	-67.5	17.3	-22.6	-43.7	-67.5	17.3	-27.6	-53.3	-82.2	19.7
5:12	-22.6	-43.7	-67.5	16.8	-22.6	-43.7	-67.5	16.8	-27.7	-53.3	-82.2	19.6
6:12	-22.6	-43.8	-67.5	16.6	-22.6	-43.8	-67.5	16.6	-27.7	-53.4	-82.2	19.5
7:12	-25.3	-30.6	-30.6	27.1	-25.3	-30.6	-30.6	27.1	-31.0	-37.4	-37.4	32.2
8:12	-25.3	-30.6	-30.6	27.0	-25.3	-30.6	-30.6	27.0	-31.0	-37.4	-37.4	32.1
9:12	-25.4	-30.7	-30.7	26.8	-25.4	-30.7	-30.7	26.8	-31.0	-37.5	-37.5	31.9
10:12	-25.4	-30.7	-30.7	26.7	-25.4	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.8
11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
Exposure Category C												
1:12	-30.8	-56.4	-88.5	18.5	-35.7	-65.3	-102.3	19.6	-41.4	-75.5	-118.1	20.9
2:12	-27.6	-53.3	-82.1	22.6	-32.0	-61.6	-94.9	24.5	-37.1	-71.2	-109.6	26.6
3:12	-27.6	-53.3	-82.1	21.8	-32.0	-61.6	-94.9	23.7	-37.1	-71.2	-109.6	25.8
4:12	-27.6	-53.3	-82.2	19.7	-32.1	-61.6	-94.9	22.1	-37.2	-71.3	-109.6	25.0
5:12	-27.7	-53.3	-82.2	19.6	-32.1	-61.7	-95.0	22.0	-37.2	-71.3	-109.7	24.9
6:12	-27.7	-53.4	-82.2	19.5	-32.1	-61.7	-95.0	21.9	-37.2	-71.3	-109.7	24.8
7:12	-31.0	-37.4	-37.4	32.2	-35.9	-43.3	-43.3	36.6	-41.5	-50.1	-50.1	41.7
8:12	-31.0	-37.4	-37.4	32.1	-35.9	-43.3	-43.3	36.5	-41.6	-50.1	-50.1	41.6
9:12	-31.0	-37.5	-37.5	31.9	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	20.0	-42.5	-77.5	-121.3	21.1	-48.1	-87.7	-137.1	22.4
2:12	-33.7	-64.8	-99.8	25.2	-38.1	-73.1	-112.5	27.0	-43.2	-82.8	-127.2	29.1
3:12	-33.7	-64.8	-99.8	24.4	-38.1	-73.2	-112.6	26.2	-43.2	-82.8	-127.3	28.4
4:12	-33.8	-64.9	-99.8	23.1	-38.2	-73.2	-112.6	25.5	-43.3	-82.8	-127.3	28.4
5:12	-33.8	-64.9	-99.9	23.0	-38.2	-73.2	-112.6	25.4	-43.3	-82.8	-127.3	28.3
6:12	-33.8	-64.9	-99.9	22.9	-38.2	-73.3	-112.7	25.3	-43.3	-82.9	-127.4	28.2
7:12	-37.8	-45.5	-45.5	38.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **170 mph**

Ground Snow Load **10 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	22.2	-25.1	-46.3	-72.7	22.2	-30.8	-56.4	-88.5	22.2
2:12	-22.5	-43.6	-67.4	23.9	-22.5	-43.6	-67.4	23.9	-27.6	-53.3	-82.1	26.0
3:12	-22.5	-43.7	-67.4	22.8	-22.5	-43.7	-67.4	22.8	-27.6	-53.3	-82.1	24.9
4:12	-22.6	-43.7	-67.5	19.2	-22.6	-43.7	-67.5	19.2	-27.6	-53.3	-82.2	21.3
5:12	-22.6	-43.7	-67.5	18.3	-22.6	-43.7	-67.5	18.3	-27.7	-53.3	-82.2	20.5
6:12	-22.6	-43.8	-67.5	17.6	-22.6	-43.8	-67.5	17.6	-27.7	-53.4	-82.2	19.7
7:12	-25.3	-30.6	-30.6	27.1	-25.3	-30.6	-30.6	27.1	-31.0	-37.4	-37.4	32.2
8:12	-25.3	-30.6	-30.6	27.0	-25.3	-30.6	-30.6	27.0	-31.0	-37.4	-37.4	32.1
9:12	-25.4	-30.7	-30.7	26.8	-25.4	-30.7	-30.7	26.8	-31.0	-37.5	-37.5	31.9
10:12	-25.4	-30.7	-30.7	26.7	-25.4	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.8
11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
Exposure Category C												
1:12	-30.8	-56.4	-88.5	22.2	-35.7	-65.3	-102.3	23.3	-41.4	-75.5	-118.1	24.6
2:12	-27.6	-53.3	-82.1	26.0	-32.0	-61.6	-94.9	27.9	-37.1	-71.2	-109.6	30.0
3:12	-27.6	-53.3	-82.1	24.9	-32.0	-61.6	-94.9	26.7	-37.1	-71.2	-109.6	28.8
4:12	-27.6	-53.3	-82.2	21.3	-32.1	-61.6	-94.9	23.1	-37.2	-71.3	-109.6	25.3
5:12	-27.7	-53.3	-82.2	20.5	-32.1	-61.7	-95.0	22.3	-37.2	-71.3	-109.7	24.9
6:12	-27.7	-53.4	-82.2	19.7	-32.1	-61.7	-95.0	21.9	-37.2	-71.3	-109.7	24.8
7:12	-31.0	-37.4	-37.4	32.2	-35.9	-43.3	-43.3	36.6	-41.5	-50.1	-50.1	41.7
8:12	-31.0	-37.4	-37.4	32.1	-35.9	-43.3	-43.3	36.5	-41.6	-50.1	-50.1	41.6
9:12	-31.0	-37.5	-37.5	31.9	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	23.8	-42.5	-77.5	-121.3	24.9	-48.1	-87.7	-137.1	26.1
2:12	-33.7	-64.8	-99.8	28.6	-38.1	-73.1	-112.5	30.4	-43.2	-82.8	-127.2	32.5
3:12	-33.7	-64.8	-99.8	27.4	-38.1	-73.2	-112.6	29.3	-43.2	-82.8	-127.3	31.4
4:12	-33.8	-64.9	-99.8	23.3	-38.2	-73.2	-112.6	25.5	-43.3	-82.8	-127.3	28.4
5:12	-33.8	-64.9	-99.9	23.0	-38.2	-73.2	-112.6	25.4	-43.3	-82.8	-127.3	28.3
6:12	-33.8	-64.9	-99.9	22.9	-38.2	-73.3	-112.7	25.3	-43.3	-82.9	-127.4	28.2
7:12	-37.8	-45.5	-45.5	38.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **170 mph**

Ground Snow Load **15 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-25.1	-46.3	-72.7	25.9	-25.1	-46.3	-72.7	25.9	-30.8	-56.4	-88.5	25.9
	2:12	-22.5	-43.6	-67.4	27.3	-22.5	-43.6	-67.4	27.3	-27.6	-53.3	-82.1	29.4
	3:12	-22.5	-43.7	-67.4	25.8	-22.5	-43.7	-67.4	25.8	-27.6	-53.3	-82.1	27.9
	4:12	-22.6	-43.7	-67.5	21.1	-22.6	-43.7	-67.5	21.1	-27.6	-53.3	-82.2	23.2
	5:12	-22.6	-43.7	-67.5	20.0	-22.6	-43.7	-67.5	20.0	-27.7	-53.3	-82.2	22.1
	6:12	-22.6	-43.8	-67.5	19.0	-22.6	-43.8	-67.5	19.0	-27.7	-53.4	-82.2	21.1
	7:12	-25.3	-30.6	-30.6	27.1	-25.3	-30.6	-30.6	27.1	-31.0	-37.4	-37.4	32.2
	8:12	-25.3	-30.6	-30.6	27.0	-25.3	-30.6	-30.6	27.0	-31.0	-37.4	-37.4	32.1
	9:12	-25.4	-30.7	-30.7	26.8	-25.4	-30.7	-30.7	26.8	-31.0	-37.5	-37.5	31.9
	10:12	-25.4	-30.7	-30.7	26.7	-25.4	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.8
	11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
	12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
Exposure Category C	1:12	-30.8	-56.4	-88.5	25.9	-35.7	-65.3	-102.3	27.1	-41.4	-75.5	-118.1	28.3
	2:12	-27.6	-53.3	-82.1	29.4	-32.0	-61.6	-94.9	31.3	-37.1	-71.2	-109.6	33.4
	3:12	-27.6	-53.3	-82.1	27.9	-32.0	-61.6	-94.9	29.8	-37.1	-71.2	-109.6	31.9
	4:12	-27.6	-53.3	-82.2	23.2	-32.1	-61.6	-94.9	25.0	-37.2	-71.3	-109.6	27.1
	5:12	-27.7	-53.3	-82.2	22.1	-32.1	-61.7	-95.0	23.9	-37.2	-71.3	-109.7	26.1
	6:12	-27.7	-53.4	-82.2	21.1	-32.1	-61.7	-95.0	22.9	-37.2	-71.3	-109.7	25.0
	7:12	-31.0	-37.4	-37.4	32.2	-35.9	-43.3	-43.3	36.6	-41.5	-50.1	-50.1	41.7
	8:12	-31.0	-37.4	-37.4	32.1	-35.9	-43.3	-43.3	36.5	-41.6	-50.1	-50.1	41.6
	9:12	-31.0	-37.5	-37.5	31.9	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
	10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
	11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
	12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D	1:12	-37.6	-68.7	-107.5	27.5	-42.5	-77.5	-121.3	28.6	-48.1	-87.7	-137.1	29.9
	2:12	-33.7	-64.8	-99.8	32.0	-38.1	-73.1	-112.5	33.8	-43.2	-82.8	-127.2	35.9
	3:12	-33.7	-64.8	-99.8	30.5	-38.1	-73.2	-112.6	32.3	-43.2	-82.8	-127.3	34.4
	4:12	-33.8	-64.9	-99.8	25.0	-38.2	-73.2	-112.6	26.8	-43.3	-82.8	-127.3	28.9
	5:12	-33.8	-64.9	-99.9	24.0	-38.2	-73.2	-112.6	25.8	-43.3	-82.8	-127.3	28.3
	6:12	-33.8	-64.9	-99.9	23.1	-38.2	-73.3	-112.7	25.3	-43.3	-82.9	-127.4	28.2
	7:12	-37.8	-45.5	-45.5	38.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
	8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
	9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
	10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
	11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
	12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed
170 mph

Ground Snow Load
20 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-25.1	-46.3	-72.7	25.9	-25.1	-46.3	-72.7	25.9	-30.8	-56.4	-88.5	25.9
2:12	-22.5	-43.6	-67.4	27.3	-22.5	-43.6	-67.4	27.3	-27.6	-53.3	-82.1	29.4
3:12	-22.5	-43.7	-67.4	25.8	-22.5	-43.7	-67.4	25.8	-27.6	-53.3	-82.1	27.9
4:12	-22.6	-43.7	-67.5	22.9	-22.6	-43.7	-67.5	22.9	-27.6	-53.3	-82.2	25.0
5:12	-22.6	-43.7	-67.5	21.6	-22.6	-43.7	-67.5	21.6	-27.7	-53.3	-82.2	23.7
6:12	-22.6	-43.8	-67.5	20.4	-22.6	-43.8	-67.5	20.4	-27.7	-53.4	-82.2	22.5
7:12	-25.3	-30.6	-30.6	27.1	-25.3	-30.6	-30.6	27.1	-31.0	-37.4	-37.4	32.2
8:12	-25.3	-30.6	-30.6	27.0	-25.3	-30.6	-30.6	27.0	-31.0	-37.4	-37.4	32.1
9:12	-25.4	-30.7	-30.7	26.8	-25.4	-30.7	-30.7	26.8	-31.0	-37.5	-37.5	31.9
10:12	-25.4	-30.7	-30.7	26.7	-25.4	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.8
11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
1:12	-30.8	-56.4	-88.5	25.9	-35.7	-65.3	-102.3	27.1	-41.4	-75.5	-118.1	28.3
2:12	-27.6	-53.3	-82.1	29.4	-32.0	-61.6	-94.9	31.3	-37.1	-71.2	-109.6	33.4
3:12	-27.6	-53.3	-82.1	27.9	-32.0	-61.6	-94.9	29.8	-37.1	-71.2	-109.6	31.9
4:12	-27.6	-53.3	-82.2	25.0	-32.1	-61.6	-94.9	26.9	-37.2	-71.3	-109.6	29.0
5:12	-27.7	-53.3	-82.2	23.7	-32.1	-61.7	-95.0	25.6	-37.2	-71.3	-109.7	27.7
6:12	-27.7	-53.4	-82.2	22.5	-32.1	-61.7	-95.0	24.3	-37.2	-71.3	-109.7	26.4
7:12	-31.0	-37.4	-37.4	32.2	-35.9	-43.3	-43.3	36.6	-41.5	-50.1	-50.1	41.7
8:12	-31.0	-37.4	-37.4	32.1	-35.9	-43.3	-43.3	36.5	-41.6	-50.1	-50.1	41.6
9:12	-31.0	-37.5	-37.5	31.9	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
1:12	-37.6	-68.7	-107.5	27.5	-42.5	-77.5	-121.3	28.6	-48.1	-87.7	-137.1	29.9
2:12	-33.7	-64.8	-99.8	32.0	-38.1	-73.1	-112.5	33.8	-43.2	-82.8	-127.2	35.9
3:12	-33.7	-64.8	-99.8	30.5	-38.1	-73.2	-112.6	32.3	-43.2	-82.8	-127.3	34.4
4:12	-33.8	-64.9	-99.8	26.7	-38.2	-73.2	-112.6	28.5	-43.3	-82.8	-127.3	30.6
5:12	-33.8	-64.9	-99.9	25.5	-38.2	-73.2	-112.6	27.3	-43.3	-82.8	-127.3	29.4
6:12	-33.8	-64.9	-99.9	24.3	-38.2	-73.3	-112.7	26.2	-43.3	-82.9	-127.4	28.3
7:12	-37.8	-45.5	-45.5	38.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **170 mph**
Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed **170 mph**
Ground Snow Load **30 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-25.1	-46.3	-72.7	26.7	-25.1	-46.3	-72.7	26.7	-30.8	-56.4	-88.5	26.7
2:12	-22.5	-43.6	-67.4	28.0	-22.5	-43.6	-67.4	28.0	-27.6	-53.3	-82.1	30.1
3:12	-22.5	-43.7	-67.4	26.4	-22.5	-43.7	-67.4	26.4	-27.6	-53.3	-82.1	28.5
4:12	-22.6	-43.7	-67.5	24.8	-22.6	-43.7	-67.5	24.8	-27.6	-53.3	-82.2	26.9
5:12	-22.6	-43.7	-67.5	23.2	-22.6	-43.7	-67.5	23.2	-27.7	-53.3	-82.2	25.4
6:12	-22.6	-43.8	-67.5	21.8	-22.6	-43.8	-67.5	21.8	-27.7	-53.4	-82.2	23.9
7:12	-25.3	-30.6	-30.6	28.3	-25.3	-30.6	-30.6	28.3	-31.0	-37.4	-37.4	32.2
8:12	-25.3	-30.6	-30.6	27.1	-25.3	-30.6	-30.6	27.1	-31.0	-37.4	-37.4	32.1
9:12	-25.4	-30.7	-30.7	26.8	-25.4	-30.7	-30.7	26.8	-31.0	-37.5	-37.5	31.9
10:12	-25.4	-30.7	-30.7	26.7	-25.4	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.8
11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
1:12	-30.8	-56.4	-88.5	26.7	-35.7	-65.3	-102.3	27.8	-41.4	-75.5	-118.1	29.1
2:12	-27.6	-53.3	-82.1	30.1	-32.0	-61.6	-94.9	31.9	-37.1	-71.2	-109.6	34.1
3:12	-27.6	-53.3	-82.1	28.5	-32.0	-61.6	-94.9	30.4	-37.1	-71.2	-109.6	32.5
4:12	-27.6	-53.3	-82.2	26.9	-32.1	-61.6	-94.9	28.8	-37.2	-71.3	-109.6	30.9
5:12	-27.7	-53.3	-82.2	25.4	-32.1	-61.7	-95.0	27.2	-37.2	-71.3	-109.7	29.3
6:12	-27.7	-53.4	-82.2	23.9	-32.1	-61.7	-95.0	25.7	-37.2	-71.3	-109.7	27.8
7:12	-31.0	-37.4	-37.4	32.2	-35.9	-43.3	-43.3	36.6	-41.5	-50.1	-50.1	41.7
8:12	-31.0	-37.4	-37.4	32.1	-35.9	-43.3	-43.3	36.5	-41.6	-50.1	-50.1	41.6
9:12	-31.0	-37.5	-37.5	31.9	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
1:12	-37.6	-68.7	-107.5	27.5	-42.5	-77.5	-121.3	28.6	-48.1	-87.7	-137.1	29.9
2:12	-33.7	-64.8	-99.8	32.0	-38.1	-73.1	-112.5	33.8	-43.2	-82.8	-127.2	35.9
3:12	-33.7	-64.8	-99.8	30.5	-38.1	-73.2	-112.6	32.3	-43.2	-82.8	-127.3	34.4
4:12	-33.8	-64.9	-99.8	28.3	-38.2	-73.2	-112.6	30.2	-43.3	-82.8	-127.3	32.3
5:12	-33.8	-64.9	-99.9	26.9	-38.2	-73.2	-112.6	28.8	-43.3	-82.8	-127.3	30.9
6:12	-33.8	-64.9	-99.9	25.6	-38.2	-73.3	-112.7	27.4	-43.3	-82.9	-127.4	29.6
7:12	-37.8	-45.5	-45.5	38.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
170 mph
Ground Snow Load
35 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-25.1	-46.3	-72.7	29.3	-25.1	-46.3	-72.7	29.3	-30.8	-56.4	-88.5	29.3
	2:12	-22.5	-43.6	-67.4	30.4	-22.5	-43.6	-67.4	30.4	-27.6	-53.3	-82.1	32.5
	3:12	-22.5	-43.7	-67.4	28.5	-22.5	-43.7	-67.4	28.5	-27.6	-53.3	-82.1	30.6
	4:12	-22.6	-43.7	-67.5	26.7	-22.6	-43.7	-67.5	26.7	-27.6	-53.3	-82.2	28.8
	5:12	-22.6	-43.7	-67.5	24.9	-22.6	-43.7	-67.5	24.9	-27.7	-53.3	-82.2	27.0
	6:12	-22.6	-43.8	-67.5	23.2	-22.6	-43.8	-67.5	23.2	-27.7	-53.4	-82.2	25.3
	7:12	-25.3	-30.6	-30.6	29.5	-25.3	-30.6	-30.6	29.5	-31.0	-37.4	-37.4	33.4
	8:12	-25.3	-30.6	-30.6	28.1	-25.3	-30.6	-30.6	28.1	-31.0	-37.4	-37.4	32.1
	9:12	-25.4	-30.7	-30.7	26.9	-25.4	-30.7	-30.7	26.9	-31.0	-37.5	-37.5	31.9
	10:12	-25.4	-30.7	-30.7	26.7	-25.4	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.8
	11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
	12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
Exposure Category C	1:12	-30.8	-56.4	-88.5	29.3	-35.7	-65.3	-102.3	30.4	-41.4	-75.5	-118.1	31.7
	2:12	-27.6	-53.3	-82.1	32.5	-32.0	-61.6	-94.9	34.3	-37.1	-71.2	-109.6	36.4
	3:12	-27.6	-53.3	-82.1	30.6	-32.0	-61.6	-94.9	32.5	-37.1	-71.2	-109.6	34.6
	4:12	-27.6	-53.3	-82.2	28.8	-32.1	-61.6	-94.9	30.6	-37.2	-71.3	-109.6	32.8
	5:12	-27.7	-53.3	-82.2	27.0	-32.1	-61.7	-95.0	28.8	-37.2	-71.3	-109.7	31.0
	6:12	-27.7	-53.4	-82.2	25.3	-32.1	-61.7	-95.0	27.1	-37.2	-71.3	-109.7	29.3
	7:12	-31.0	-37.4	-37.4	33.4	-35.9	-43.3	-43.3	36.7	-41.5	-50.1	-50.1	41.7
	8:12	-31.0	-37.4	-37.4	32.1	-35.9	-43.3	-43.3	36.5	-41.6	-50.1	-50.1	41.6
	9:12	-31.0	-37.5	-37.5	31.9	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
	10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
	11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
	12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D	1:12	-37.6	-68.7	-107.5	29.0	-42.5	-77.5	-121.3	30.1	-48.1	-87.7	-137.1	31.4
	2:12	-33.7	-64.8	-99.8	33.4	-38.1	-73.1	-112.5	35.2	-43.2	-82.8	-127.2	37.3
	3:12	-33.7	-64.8	-99.8	31.7	-38.1	-73.2	-112.6	33.5	-43.2	-82.8	-127.3	35.7
	4:12	-33.8	-64.9	-99.8	30.0	-38.2	-73.2	-112.6	31.9	-43.3	-82.8	-127.3	34.0
	5:12	-33.8	-64.9	-99.9	28.4	-38.2	-73.2	-112.6	30.2	-43.3	-82.8	-127.3	32.4
	6:12	-33.8	-64.9	-99.9	26.9	-38.2	-73.3	-112.7	28.7	-43.3	-82.9	-127.4	30.8
	7:12	-37.8	-45.5	-45.5	38.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
	8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
	9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
	10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
	11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
	12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
	2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
	3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
	4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
	5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
	6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
	7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
	8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
	9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
	10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
	11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-25.1	-46.3	-72.7	31.9	-25.1	-46.3	-72.7	31.9	-30.8	-56.4	-88.5	31.9
2:12	-22.5	-43.6	-67.4	32.7	-22.5	-43.6	-67.4	32.7	-27.6	-53.3	-82.1	34.9
3:12	-22.5	-43.7	-67.4	30.7	-22.5	-43.7	-67.4	30.7	-27.6	-53.3	-82.1	32.8
4:12	-22.6	-43.7	-67.5	28.5	-22.6	-43.7	-67.5	28.5	-27.6	-53.3	-82.2	30.7
5:12	-22.6	-43.7	-67.5	26.5	-22.6	-43.7	-67.5	26.5	-27.7	-53.3	-82.2	28.6
6:12	-22.6	-43.8	-67.5	24.6	-22.6	-43.8	-67.5	24.6	-27.7	-53.4	-82.2	26.7
7:12	-25.3	-30.6	-30.6	30.7	-25.3	-30.6	-30.6	30.7	-31.0	-37.4	-37.4	34.6
8:12	-25.3	-30.6	-30.6	29.2	-25.3	-30.6	-30.6	29.2	-31.0	-37.4	-37.4	33.0
9:12	-25.4	-30.7	-30.7	27.8	-25.4	-30.7	-30.7	27.8	-31.0	-37.5	-37.5	31.9
10:12	-25.4	-30.7	-30.7	26.7	-25.4	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.8
11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
1:12	-30.8	-56.4	-88.5	31.9	-35.7	-65.3	-102.3	33.0	-41.4	-75.5	-118.1	34.3
2:12	-27.6	-53.3	-82.1	34.9	-32.0	-61.6	-94.9	36.7	-37.1	-71.2	-109.6	38.8
3:12	-27.6	-53.3	-82.1	32.8	-32.0	-61.6	-94.9	34.6	-37.1	-71.2	-109.6	36.7
4:12	-27.6	-53.3	-82.2	30.7	-32.1	-61.6	-94.9	32.5	-37.2	-71.3	-109.6	34.6
5:12	-27.7	-53.3	-82.2	28.6	-32.1	-61.7	-95.0	30.5	-37.2	-71.3	-109.7	32.6
6:12	-27.7	-53.4	-82.2	26.7	-32.1	-61.7	-95.0	28.5	-37.2	-71.3	-109.7	30.7
7:12	-31.0	-37.4	-37.4	34.6	-35.9	-43.3	-43.3	37.9	-41.5	-50.1	-50.1	41.7
8:12	-31.0	-37.4	-37.4	33.0	-35.9	-43.3	-43.3	36.5	-41.6	-50.1	-50.1	41.6
9:12	-31.0	-37.5	-37.5	31.9	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
1:12	-37.6	-68.7	-107.5	31.3	-42.5	-77.5	-121.3	32.5	-48.1	-87.7	-137.1	33.7
2:12	-33.7	-64.8	-99.8	35.5	-38.1	-73.1	-112.5	37.3	-43.2	-82.8	-127.2	39.5
3:12	-33.7	-64.8	-99.8	33.6	-38.1	-73.2	-112.6	35.5	-43.2	-82.8	-127.3	37.6
4:12	-33.8	-64.9	-99.8	31.7	-38.2	-73.2	-112.6	33.6	-43.3	-82.8	-127.3	35.7
5:12	-33.8	-64.9	-99.9	29.9	-38.2	-73.2	-112.6	31.7	-43.3	-82.8	-127.3	33.8
6:12	-33.8	-64.9	-99.9	28.1	-38.2	-73.3	-112.7	30.0	-43.3	-82.9	-127.4	32.1
7:12	-37.8	-45.5	-45.5	38.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
170 mph

Ground Snow Load
40 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	35.1	-25.1	-46.3	-72.7	35.1	-30.8	-56.4	-88.5	35.1
2:12	-22.5	-43.6	-67.4	35.1	-22.5	-43.6	-67.4	35.1	-27.6	-53.3	-82.1	37.2
3:12	-22.5	-43.7	-67.4	32.8	-22.5	-43.7	-67.4	32.8	-27.6	-53.3	-82.1	34.9
4:12	-22.6	-43.7	-67.5	30.4	-22.6	-43.7	-67.5	30.4	-27.6	-53.3	-82.2	32.5
5:12	-22.6	-43.7	-67.5	28.1	-22.6	-43.7	-67.5	28.1	-27.7	-53.3	-82.2	30.3
6:12	-22.6	-43.8	-67.5	26.0	-22.6	-43.8	-67.5	26.0	-27.7	-53.4	-82.2	28.1
7:12	-25.3	-30.6	-30.6	31.9	-25.3	-30.6	-30.6	31.9	-31.0	-37.4	-37.4	35.7
8:12	-25.3	-30.6	-30.6	30.2	-25.3	-30.6	-30.6	30.2	-31.0	-37.4	-37.4	34.0
9:12	-25.4	-30.7	-30.7	28.6	-25.4	-30.7	-30.7	28.6	-31.0	-37.5	-37.5	32.4
10:12	-25.4	-30.7	-30.7	27.3	-25.4	-30.7	-30.7	27.3	-31.1	-37.5	-37.5	31.8
11:12	-25.5	-30.7	-30.7	26.6	-25.5	-30.7	-30.7	26.6	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
Exposure Category C												
1:12	-30.8	-56.4	-88.5	35.1	-35.7	-65.3	-102.3	35.6	-41.4	-75.5	-118.1	36.9
2:12	-27.6	-53.3	-82.1	37.2	-32.0	-61.6	-94.9	39.1	-37.1	-71.2	-109.6	41.2
3:12	-27.6	-53.3	-82.1	34.9	-32.0	-61.6	-94.9	36.7	-37.1	-71.2	-109.6	38.9
4:12	-27.6	-53.3	-82.2	32.5	-32.1	-61.6	-94.9	34.4	-37.2	-71.3	-109.6	36.5
5:12	-27.7	-53.3	-82.2	30.3	-32.1	-61.7	-95.0	32.1	-37.2	-71.3	-109.7	34.2
6:12	-27.7	-53.4	-82.2	28.1	-32.1	-61.7	-95.0	29.9	-37.2	-71.3	-109.7	32.1
7:12	-31.0	-37.4	-37.4	35.7	-35.9	-43.3	-43.3	39.1	-41.5	-50.1	-50.1	42.9
8:12	-31.0	-37.4	-37.4	34.0	-35.9	-43.3	-43.3	37.3	-41.6	-50.1	-50.1	41.6
9:12	-31.0	-37.5	-37.5	32.4	-35.9	-43.3	-43.3	36.4	-41.6	-50.1	-50.1	41.5
10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	33.7	-42.5	-77.5	-121.3	34.8	-48.1	-87.7	-137.1	36.1
2:12	-33.7	-64.8	-99.8	37.6	-38.1	-73.1	-112.5	39.5	-43.2	-82.8	-127.2	41.6
3:12	-33.7	-64.8	-99.8	35.5	-38.1	-73.2	-112.6	37.4	-43.2	-82.8	-127.3	39.5
4:12	-33.8	-64.9	-99.8	33.4	-38.2	-73.2	-112.6	35.2	-43.3	-82.8	-127.3	37.4
5:12	-33.8	-64.9	-99.9	31.3	-38.2	-73.2	-112.6	33.2	-43.3	-82.8	-127.3	35.3
6:12	-33.8	-64.9	-99.9	29.4	-38.2	-73.3	-112.7	31.2	-43.3	-82.9	-127.4	33.3
7:12	-37.8	-45.5	-45.5	39.3	-42.7	-51.4	-51.4	42.7	-48.3	-58.2	-58.2	47.8
8:12	-37.8	-45.6	-45.6	38.2	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **170 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	38.6	-25.1	-46.3	-72.7	38.6	-30.8	-56.4	-88.5	38.6
2:12	-22.5	-43.6	-67.4	37.5	-22.5	-43.6	-67.4	37.5	-27.6	-53.3	-82.1	39.6
3:12	-22.5	-43.7	-67.4	34.9	-22.5	-43.7	-67.4	34.9	-27.6	-53.3	-82.1	37.0
4:12	-22.6	-43.7	-67.5	32.3	-22.6	-43.7	-67.5	32.3	-27.6	-53.3	-82.2	34.4
5:12	-22.6	-43.7	-67.5	29.8	-22.6	-43.7	-67.5	29.8	-27.7	-53.3	-82.2	31.9
6:12	-22.6	-43.8	-67.5	27.4	-22.6	-43.8	-67.5	27.4	-27.7	-53.4	-82.2	29.5
7:12	-25.3	-30.6	-30.6	33.1	-25.3	-30.6	-30.6	33.1	-31.0	-37.4	-37.4	36.9
8:12	-25.3	-30.6	-30.6	31.2	-25.3	-30.6	-30.6	31.2	-31.0	-37.4	-37.4	35.0
9:12	-25.4	-30.7	-30.7	29.5	-25.4	-30.7	-30.7	29.5	-31.0	-37.5	-37.5	33.3
10:12	-25.4	-30.7	-30.7	28.0	-25.4	-30.7	-30.7	28.0	-31.1	-37.5	-37.5	31.8
11:12	-25.5	-30.7	-30.7	26.7	-25.5	-30.7	-30.7	26.7	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.5	-25.5	-30.8	-30.8	26.5	-31.2	-37.6	-37.6	31.6
Exposure Category C												
1:12	-30.8	-56.4	-88.5	38.6	-35.7	-65.3	-102.3	38.6	-41.4	-75.5	-118.1	39.5
2:12	-27.6	-53.3	-82.1	39.6	-32.0	-61.6	-94.9	41.4	-37.1	-71.2	-109.6	43.6
3:12	-27.6	-53.3	-82.1	37.0	-32.0	-61.6	-94.9	38.9	-37.1	-71.2	-109.6	41.0
4:12	-27.6	-53.3	-82.2	34.4	-32.1	-61.6	-94.9	36.3	-37.2	-71.3	-109.6	38.4
5:12	-27.7	-53.3	-82.2	31.9	-32.1	-61.7	-95.0	33.7	-37.2	-71.3	-109.7	35.8
6:12	-27.7	-53.4	-82.2	29.5	-32.1	-61.7	-95.0	31.3	-37.2	-71.3	-109.7	33.5
7:12	-31.0	-37.4	-37.4	36.9	-35.9	-43.3	-43.3	40.3	-41.5	-50.1	-50.1	44.1
8:12	-31.0	-37.4	-37.4	35.0	-35.9	-43.3	-43.3	38.3	-41.6	-50.1	-50.1	42.1
9:12	-31.0	-37.5	-37.5	33.3	-35.9	-43.3	-43.3	36.6	-41.6	-50.1	-50.1	41.5
10:12	-31.1	-37.5	-37.5	31.8	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	36.0	-42.5	-77.5	-121.3	37.1	-48.1	-87.7	-137.1	38.4
2:12	-33.7	-64.8	-99.8	39.8	-38.1	-73.1	-112.5	41.6	-43.2	-82.8	-127.2	43.7
3:12	-33.7	-64.8	-99.8	37.5	-38.1	-73.2	-112.6	39.3	-43.2	-82.8	-127.3	41.4
4:12	-33.8	-64.9	-99.8	35.1	-38.2	-73.2	-112.6	36.9	-43.3	-82.8	-127.3	39.1
5:12	-33.8	-64.9	-99.9	32.8	-38.2	-73.2	-112.6	34.6	-43.3	-82.8	-127.3	36.8
6:12	-33.8	-64.9	-99.9	30.6	-38.2	-73.3	-112.7	32.5	-43.3	-82.9	-127.4	34.6
7:12	-37.8	-45.5	-45.5	40.3	-42.7	-51.4	-51.4	43.6	-48.3	-58.2	-58.2	47.8
8:12	-37.8	-45.6	-45.6	38.6	-42.7	-51.5	-51.5	42.6	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.1	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2

Basic Wind Speed
170 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	45.5	-25.1	-46.3	-72.7	45.5	-30.8	-56.4	-88.5	45.5
2:12	-22.5	-43.6	-67.4	42.2	-22.5	-43.6	-67.4	42.2	-27.6	-53.3	-82.1	44.4
3:12	-22.5	-43.7	-67.4	39.2	-22.5	-43.7	-67.4	39.2	-27.6	-53.3	-82.1	41.3
4:12	-22.6	-43.7	-67.5	36.0	-22.6	-43.7	-67.5	36.0	-27.6	-53.3	-82.2	38.2
5:12	-22.6	-43.7	-67.5	33.0	-22.6	-43.7	-67.5	33.0	-27.7	-53.3	-82.2	35.1
6:12	-22.6	-43.8	-67.5	30.2	-22.6	-43.8	-67.5	30.2	-27.7	-53.4	-82.2	32.3
7:12	-25.3	-30.6	-30.6	35.5	-25.3	-30.6	-30.6	35.5	-31.0	-37.4	-37.4	39.3
8:12	-25.3	-30.6	-30.6	33.2	-25.3	-30.6	-30.6	33.2	-31.0	-37.4	-37.4	37.0
9:12	-25.4	-30.7	-30.7	31.2	-25.4	-30.7	-30.7	31.2	-31.0	-37.5	-37.5	35.0
10:12	-25.4	-30.7	-30.7	29.4	-25.4	-30.7	-30.7	29.4	-31.1	-37.5	-37.5	33.2
11:12	-25.5	-30.7	-30.7	27.9	-25.5	-30.7	-30.7	27.9	-31.1	-37.5	-37.5	31.7
12:12	-25.5	-30.8	-30.8	26.6	-25.5	-30.8	-30.8	26.6	-31.2	-37.6	-37.6	31.6
Exposure Category C												
1:12	-30.8	-56.4	-88.5	45.5	-35.7	-65.3	-102.3	45.5	-41.4	-75.5	-118.1	45.5
2:12	-27.6	-53.3	-82.1	44.4	-32.0	-61.6	-94.9	46.2	-37.1	-71.2	-109.6	48.3
3:12	-27.6	-53.3	-82.1	41.3	-32.0	-61.6	-94.9	43.1	-37.1	-71.2	-109.6	45.2
4:12	-27.6	-53.3	-82.2	38.2	-32.1	-61.6	-94.9	40.0	-37.2	-71.3	-109.6	42.1
5:12	-27.7	-53.3	-82.2	35.1	-32.1	-61.7	-95.0	37.0	-37.2	-71.3	-109.7	39.1
6:12	-27.7	-53.4	-82.2	32.3	-32.1	-61.7	-95.0	34.1	-37.2	-71.3	-109.7	36.3
7:12	-31.0	-37.4	-37.4	39.3	-35.9	-43.3	-43.3	42.7	-41.5	-50.1	-50.1	46.5
8:12	-31.0	-37.4	-37.4	37.0	-35.9	-43.3	-43.3	40.3	-41.6	-50.1	-50.1	44.2
9:12	-31.0	-37.5	-37.5	35.0	-35.9	-43.3	-43.3	38.3	-41.6	-50.1	-50.1	42.1
10:12	-31.1	-37.5	-37.5	33.2	-36.0	-43.4	-43.4	36.6	-41.7	-50.2	-50.2	41.3
11:12	-31.1	-37.5	-37.5	31.7	-36.0	-43.4	-43.4	36.1	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	41.4	-42.5	-77.5	-121.3	41.8	-48.1	-87.7	-137.1	43.1
2:12	-33.7	-64.8	-99.8	44.1	-38.1	-73.1	-112.5	45.9	-43.2	-82.8	-127.2	48.0
3:12	-33.7	-64.8	-99.8	41.3	-38.1	-73.2	-112.6	43.1	-43.2	-82.8	-127.3	45.2
4:12	-33.8	-64.9	-99.8	38.5	-38.2	-73.2	-112.6	40.3	-43.3	-82.8	-127.3	42.4
5:12	-33.8	-64.9	-99.9	35.7	-38.2	-73.2	-112.6	37.6	-43.3	-82.8	-127.3	39.7
6:12	-33.8	-64.9	-99.9	33.2	-38.2	-73.3	-112.7	35.0	-43.3	-82.9	-127.4	37.1
7:12	-37.8	-45.5	-45.5	42.5	-42.7	-51.4	-51.4	45.8	-48.3	-58.2	-58.2	49.6
8:12	-37.8	-45.6	-45.6	40.4	-42.7	-51.5	-51.5	43.7	-48.4	-58.2	-58.2	47.7
9:12	-37.8	-45.6	-45.6	38.6	-42.7	-51.5	-51.5	42.5	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	37.9	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2

Basic Wind Speed
170 mph

Ground Snow Load
60 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	52.5	-25.1	-46.3	-72.7	52.5	-30.8	-56.4	-88.5	52.5
2:12	-22.5	-43.6	-67.4	48.2	-22.5	-43.6	-67.4	48.2	-27.6	-53.3	-82.1	49.1
3:12	-22.5	-43.7	-67.4	43.4	-22.5	-43.7	-67.4	43.4	-27.6	-53.3	-82.1	45.5
4:12	-22.6	-43.7	-67.5	39.8	-22.6	-43.7	-67.5	39.8	-27.6	-53.3	-82.2	41.9
5:12	-22.6	-43.7	-67.5	36.3	-22.6	-43.7	-67.5	36.3	-27.7	-53.3	-82.2	38.4
6:12	-22.6	-43.8	-67.5	33.0	-22.6	-43.8	-67.5	33.0	-27.7	-53.4	-82.2	35.1
7:12	-25.3	-30.6	-30.6	37.9	-25.3	-30.6	-30.6	37.9	-31.0	-37.4	-37.4	41.7
8:12	-25.3	-30.6	-30.6	35.2	-25.3	-30.6	-30.6	35.2	-31.0	-37.4	-37.4	39.1
9:12	-25.4	-30.7	-30.7	32.9	-25.4	-30.7	-30.7	32.9	-31.0	-37.5	-37.5	36.7
10:12	-25.4	-30.7	-30.7	30.9	-25.4	-30.7	-30.7	30.9	-31.1	-37.5	-37.5	34.7
11:12	-25.5	-30.7	-30.7	29.1	-25.5	-30.7	-30.7	29.1	-31.1	-37.5	-37.5	32.9
12:12	-25.5	-30.8	-30.8	27.6	-25.5	-30.8	-30.8	27.6	-31.2	-37.6	-37.6	31.6
Exposure Category C												
1:12	-30.8	-56.4	-88.5	52.5	-35.7	-65.3	-102.3	52.5	-41.4	-75.5	-118.1	52.5
2:12	-27.6	-53.3	-82.1	49.1	-32.0	-61.6	-94.9	51.0	-37.1	-71.2	-109.6	53.1
3:12	-27.6	-53.3	-82.1	45.5	-32.0	-61.6	-94.9	47.4	-37.1	-71.2	-109.6	49.5
4:12	-27.6	-53.3	-82.2	41.9	-32.1	-61.6	-94.9	43.8	-37.2	-71.3	-109.6	45.9
5:12	-27.7	-53.3	-82.2	38.4	-32.1	-61.7	-95.0	40.2	-37.2	-71.3	-109.7	42.4
6:12	-27.7	-53.4	-82.2	35.1	-32.1	-61.7	-95.0	37.0	-37.2	-71.3	-109.7	39.1
7:12	-31.0	-37.4	-37.4	41.7	-35.9	-43.3	-43.3	45.0	-41.5	-50.1	-50.1	48.9
8:12	-31.0	-37.4	-37.4	39.1	-35.9	-43.3	-43.3	42.4	-41.6	-50.1	-50.1	46.2
9:12	-31.0	-37.5	-37.5	36.7	-35.9	-43.3	-43.3	40.0	-41.6	-50.1	-50.1	43.8
10:12	-31.1	-37.5	-37.5	34.7	-36.0	-43.4	-43.4	38.0	-41.7	-50.2	-50.2	41.8
11:12	-31.1	-37.5	-37.5	32.9	-36.0	-43.4	-43.4	36.2	-41.7	-50.2	-50.2	41.2
12:12	-31.2	-37.6	-37.6	31.6	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	47.6	-42.5	-77.5	-121.3	47.6	-48.1	-87.7	-137.1	47.8
2:12	-33.7	-64.8	-99.8	48.3	-38.1	-73.1	-112.5	50.2	-43.2	-82.8	-127.2	52.3
3:12	-33.7	-64.8	-99.8	45.1	-38.1	-73.2	-112.6	46.9	-43.2	-82.8	-127.3	49.1
4:12	-33.8	-64.9	-99.8	41.8	-38.2	-73.2	-112.6	43.7	-43.3	-82.8	-127.3	45.8
5:12	-33.8	-64.9	-99.9	38.7	-38.2	-73.2	-112.6	40.5	-43.3	-82.8	-127.3	42.6
6:12	-33.8	-64.9	-99.9	35.7	-38.2	-73.3	-112.7	37.5	-43.3	-82.9	-127.4	39.7
7:12	-37.8	-45.5	-45.5	44.6	-42.7	-51.4	-51.4	48.0	-48.3	-58.2	-58.2	51.8
8:12	-37.8	-45.6	-45.6	42.2	-42.7	-51.5	-51.5	45.5	-48.4	-58.2	-58.2	49.4
9:12	-37.8	-45.6	-45.6	40.1	-42.7	-51.5	-51.5	43.4	-48.4	-58.3	-58.3	47.6
10:12	-37.9	-45.6	-45.6	38.3	-42.8	-51.5	-51.5	42.3	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2

Basic Wind Speed **170 mph**
Ground Snow Load **70 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	59.4	-25.1	-46.3	-72.7	59.4	-30.8	-56.4	-88.5	59.4
2:12	-22.5	-43.6	-67.4	54.5	-22.5	-43.6	-67.4	54.5	-27.6	-53.3	-82.1	54.5
3:12	-22.5	-43.7	-67.4	49.1	-22.5	-43.7	-67.4	49.1	-27.6	-53.3	-82.1	49.8
4:12	-22.6	-43.7	-67.5	43.6	-22.6	-43.7	-67.5	43.6	-27.6	-53.3	-82.2	45.7
5:12	-22.6	-43.7	-67.5	39.5	-22.6	-43.7	-67.5	39.5	-27.7	-53.3	-82.2	41.7
6:12	-22.6	-43.8	-67.5	35.8	-22.6	-43.8	-67.5	35.8	-27.7	-53.4	-82.2	37.9
7:12	-25.3	-30.6	-30.6	40.3	-25.3	-30.6	-30.6	40.3	-31.0	-37.4	-37.4	44.1
8:12	-25.3	-30.6	-30.6	37.3	-25.3	-30.6	-30.6	37.3	-31.0	-37.4	-37.4	41.1
9:12	-25.4	-30.7	-30.7	34.6	-25.4	-30.7	-30.7	34.6	-31.0	-37.5	-37.5	38.4
10:12	-25.4	-30.7	-30.7	32.3	-25.4	-30.7	-30.7	32.3	-31.1	-37.5	-37.5	36.1
11:12	-25.5	-30.7	-30.7	30.3	-25.5	-30.7	-30.7	30.3	-31.1	-37.5	-37.5	34.1
12:12	-25.5	-30.8	-30.8	28.6	-25.5	-30.8	-30.8	28.6	-31.2	-37.6	-37.6	32.4
Exposure Category C												
1:12	-30.8	-56.4	-88.5	59.4	-35.7	-65.3	-102.3	59.4	-41.4	-75.5	-118.1	59.4
2:12	-27.6	-53.3	-82.1	54.5	-32.0	-61.6	-94.9	55.7	-37.1	-71.2	-109.6	57.8
3:12	-27.6	-53.3	-82.1	49.8	-32.0	-61.6	-94.9	51.6	-37.1	-71.2	-109.6	53.8
4:12	-27.6	-53.3	-82.2	45.7	-32.1	-61.6	-94.9	47.5	-37.2	-71.3	-109.6	49.6
5:12	-27.7	-53.3	-82.2	41.7	-32.1	-61.7	-95.0	43.5	-37.2	-71.3	-109.7	45.6
6:12	-27.7	-53.4	-82.2	37.9	-32.1	-61.7	-95.0	39.8	-37.2	-71.3	-109.7	41.9
7:12	-31.0	-37.4	-37.4	44.1	-35.9	-43.3	-43.3	47.4	-41.5	-50.1	-50.1	51.3
8:12	-31.0	-37.4	-37.4	41.1	-35.9	-43.3	-43.3	44.4	-41.6	-50.1	-50.1	48.2
9:12	-31.0	-37.5	-37.5	38.4	-35.9	-43.3	-43.3	41.7	-41.6	-50.1	-50.1	45.6
10:12	-31.1	-37.5	-37.5	36.1	-36.0	-43.4	-43.4	39.4	-41.7	-50.2	-50.2	43.2
11:12	-31.1	-37.5	-37.5	34.1	-36.0	-43.4	-43.4	37.4	-41.7	-50.2	-50.2	41.3
12:12	-31.2	-37.6	-37.6	32.4	-36.1	-43.5	-43.5	36.0	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	53.9	-42.5	-77.5	-121.3	53.9	-48.1	-87.7	-137.1	53.9
2:12	-33.7	-64.8	-99.8	52.6	-38.1	-73.1	-112.5	54.5	-43.2	-82.8	-127.2	56.6
3:12	-33.7	-64.8	-99.8	48.9	-38.1	-73.2	-112.6	50.8	-43.2	-82.8	-127.3	52.9
4:12	-33.8	-64.9	-99.8	45.2	-38.2	-73.2	-112.6	47.1	-43.3	-82.8	-127.3	49.2
5:12	-33.8	-64.9	-99.9	41.6	-38.2	-73.2	-112.6	43.4	-43.3	-82.8	-127.3	45.6
6:12	-33.8	-64.9	-99.9	38.2	-38.2	-73.3	-112.7	40.1	-43.3	-82.9	-127.4	42.2
7:12	-37.8	-45.5	-45.5	46.8	-42.7	-51.4	-51.4	50.1	-48.3	-58.2	-58.2	53.9
8:12	-37.8	-45.6	-45.6	44.1	-42.7	-51.5	-51.5	47.4	-48.4	-58.2	-58.2	51.2
9:12	-37.8	-45.6	-45.6	41.6	-42.7	-51.5	-51.5	45.0	-48.4	-58.3	-58.3	48.8
10:12	-37.9	-45.6	-45.6	39.6	-42.8	-51.5	-51.5	42.9	-48.4	-58.3	-58.3	47.4
11:12	-37.9	-45.7	-45.7	37.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2

Basic Wind Speed
170 mph
Ground Snow Load
80 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-25.1	-46.3	-72.7	66.4	-25.1	-46.3	-72.7	66.4	-30.8	-56.4	-88.5	66.4
2:12	-22.5	-43.6	-67.4	60.9	-22.5	-43.6	-67.4	60.9	-27.6	-53.3	-82.1	60.9
3:12	-22.5	-43.7	-67.4	54.8	-22.5	-43.7	-67.4	54.8	-27.6	-53.3	-82.1	54.8
4:12	-22.6	-43.7	-67.5	48.6	-22.6	-43.7	-67.5	48.6	-27.6	-53.3	-82.2	49.4
5:12	-22.6	-43.7	-67.5	42.8	-22.6	-43.7	-67.5	42.8	-27.7	-53.3	-82.2	44.9
6:12	-22.6	-43.8	-67.5	38.6	-22.6	-43.8	-67.5	38.6	-27.7	-53.4	-82.2	40.7
7:12	-25.3	-30.6	-30.6	42.7	-25.3	-30.6	-30.6	42.7	-31.0	-37.4	-37.4	46.5
8:12	-25.3	-30.6	-30.6	39.3	-25.3	-30.6	-30.6	39.3	-31.0	-37.4	-37.4	43.1
9:12	-25.4	-30.7	-30.7	36.3	-25.4	-30.7	-30.7	36.3	-31.0	-37.5	-37.5	40.1
10:12	-25.4	-30.7	-30.7	33.7	-25.4	-30.7	-30.7	33.7	-31.1	-37.5	-37.5	37.6
11:12	-25.5	-30.7	-30.7	31.5	-25.5	-30.7	-30.7	31.5	-31.1	-37.5	-37.5	35.3
12:12	-25.5	-30.8	-30.8	29.6	-25.5	-30.8	-30.8	29.6	-31.2	-37.6	-37.6	33.5
Exposure Category C												
1:12	-30.8	-56.4	-88.5	66.4	-35.7	-65.3	-102.3	66.4	-41.4	-75.5	-118.1	66.4
2:12	-27.6	-53.3	-82.1	60.9	-32.0	-61.6	-94.9	60.9	-37.1	-71.2	-109.6	62.6
3:12	-27.6	-53.3	-82.1	54.8	-32.0	-61.6	-94.9	55.9	-37.1	-71.2	-109.6	58.0
4:12	-27.6	-53.3	-82.2	49.4	-32.1	-61.6	-94.9	51.3	-37.2	-71.3	-109.6	53.4
5:12	-27.7	-53.3	-82.2	44.9	-32.1	-61.7	-95.0	46.8	-37.2	-71.3	-109.7	48.9
6:12	-27.7	-53.4	-82.2	40.7	-32.1	-61.7	-95.0	42.6	-37.2	-71.3	-109.7	44.7
7:12	-31.0	-37.4	-37.4	46.5	-35.9	-43.3	-43.3	49.8	-41.5	-50.1	-50.1	53.7
8:12	-31.0	-37.4	-37.4	43.1	-35.9	-43.3	-43.3	46.4	-41.6	-50.1	-50.1	50.3
9:12	-31.0	-37.5	-37.5	40.1	-35.9	-43.3	-43.3	43.5	-41.6	-50.1	-50.1	47.3
10:12	-31.1	-37.5	-37.5	37.6	-36.0	-43.4	-43.4	40.9	-41.7	-50.2	-50.2	44.7
11:12	-31.1	-37.5	-37.5	35.3	-36.0	-43.4	-43.4	38.7	-41.7	-50.2	-50.2	42.5
12:12	-31.2	-37.6	-37.6	33.5	-36.1	-43.5	-43.5	36.8	-41.7	-50.3	-50.3	41.1
Exposure Category D												
1:12	-37.6	-68.7	-107.5	60.1	-42.5	-77.5	-121.3	60.1	-48.1	-87.7	-137.1	60.1
2:12	-33.7	-64.8	-99.8	56.9	-38.1	-73.1	-112.5	58.7	-43.2	-82.8	-127.2	60.9
3:12	-33.7	-64.8	-99.8	52.8	-38.1	-73.2	-112.6	54.6	-43.2	-82.8	-127.3	56.7
4:12	-33.8	-64.9	-99.8	48.6	-38.2	-73.2	-112.6	50.4	-43.3	-82.8	-127.3	52.5
5:12	-33.8	-64.9	-99.9	44.5	-38.2	-73.2	-112.6	46.4	-43.3	-82.8	-127.3	48.5
6:12	-33.8	-64.9	-99.9	40.7	-38.2	-73.3	-112.7	42.6	-43.3	-82.9	-127.4	44.7
7:12	-37.8	-45.5	-45.5	49.0	-42.7	-51.4	-51.4	52.3	-48.3	-58.2	-58.2	56.1
8:12	-37.8	-45.6	-45.6	45.9	-42.7	-51.5	-51.5	49.2	-48.4	-58.2	-58.2	53.0
9:12	-37.8	-45.6	-45.6	43.2	-42.7	-51.5	-51.5	46.5	-48.4	-58.3	-58.3	50.3
10:12	-37.9	-45.6	-45.6	40.8	-42.8	-51.5	-51.5	44.2	-48.4	-58.3	-58.3	48.0
11:12	-37.9	-45.7	-45.7	38.8	-42.8	-51.6	-51.6	42.2	-48.5	-58.4	-58.4	47.3
12:12	-38.0	-45.7	-45.7	37.7	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **170 mph**

Ground Snow Load **90 psf**

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-25.1	-46.3	-72.7	73.4	-25.1	-46.3	-72.7	73.4	-30.8	-56.4	-88.5	73.4
	2:12	-22.5	-43.6	-67.4	67.2	-22.5	-43.6	-67.4	67.2	-27.6	-53.3	-82.1	67.2
	3:12	-22.5	-43.7	-67.4	60.5	-22.5	-43.7	-67.4	60.5	-27.6	-53.3	-82.1	60.5
	4:12	-22.6	-43.7	-67.5	53.6	-22.6	-43.7	-67.5	53.6	-27.6	-53.3	-82.2	53.6
	5:12	-22.6	-43.7	-67.5	47.0	-22.6	-43.7	-67.5	47.0	-27.7	-53.3	-82.2	48.2
	6:12	-22.6	-43.8	-67.5	41.4	-22.6	-43.8	-67.5	41.4	-27.7	-53.4	-82.2	43.5
	7:12	-25.3	-30.6	-30.6	45.1	-25.3	-30.6	-30.6	45.1	-31.0	-37.4	-37.4	48.9
	8:12	-25.3	-30.6	-30.6	41.3	-25.3	-30.6	-30.6	41.3	-31.0	-37.4	-37.4	45.2
	9:12	-25.4	-30.7	-30.7	38.0	-25.4	-30.7	-30.7	38.0	-31.0	-37.5	-37.5	41.9
	10:12	-25.4	-30.7	-30.7	35.2	-25.4	-30.7	-30.7	35.2	-31.1	-37.5	-37.5	39.0
	11:12	-25.5	-30.7	-30.7	32.7	-25.5	-30.7	-30.7	32.7	-31.1	-37.5	-37.5	36.5
	12:12	-25.5	-30.8	-30.8	30.6	-25.5	-30.8	-30.8	30.6	-31.2	-37.6	-37.6	34.5
Exposure Category C	1:12	-30.8	-56.4	-88.5	73.4	-35.7	-65.3	-102.3	73.4	-41.4	-75.5	-118.1	73.4
	2:12	-27.6	-53.3	-82.1	67.2	-32.0	-61.6	-94.9	67.2	-37.1	-71.2	-109.6	67.4
	3:12	-27.6	-53.3	-82.1	60.5	-32.0	-61.6	-94.9	60.5	-37.1	-71.2	-109.6	62.3
	4:12	-27.6	-53.3	-82.2	53.6	-32.1	-61.6	-94.9	55.0	-37.2	-71.3	-109.6	57.1
	5:12	-27.7	-53.3	-82.2	48.2	-32.1	-61.7	-95.0	50.0	-37.2	-71.3	-109.7	52.1
	6:12	-27.7	-53.4	-82.2	43.5	-32.1	-61.7	-95.0	45.4	-37.2	-71.3	-109.7	47.5
	7:12	-31.0	-37.4	-37.4	48.9	-35.9	-43.3	-43.3	52.2	-41.5	-50.1	-50.1	56.1
	8:12	-31.0	-37.4	-37.4	45.2	-35.9	-43.3	-43.3	48.5	-41.6	-50.1	-50.1	52.3
	9:12	-31.0	-37.5	-37.5	41.9	-35.9	-43.3	-43.3	45.2	-41.6	-50.1	-50.1	49.0
	10:12	-31.1	-37.5	-37.5	39.0	-36.0	-43.4	-43.4	42.3	-41.7	-50.2	-50.2	46.1
	11:12	-31.1	-37.5	-37.5	36.5	-36.0	-43.4	-43.4	39.9	-41.7	-50.2	-50.2	43.7
	12:12	-31.2	-37.6	-37.6	34.5	-36.1	-43.5	-43.5	37.8	-41.7	-50.3	-50.3	41.6
Exposure Category D	1:12	-37.6	-68.7	-107.5	66.4	-42.5	-77.5	-121.3	66.4	-48.1	-87.7	-137.1	66.4
	2:12	-33.7	-64.8	-99.8	61.2	-38.1	-73.1	-112.5	63.0	-43.2	-82.8	-127.2	65.1
	3:12	-33.7	-64.8	-99.8	56.6	-38.1	-73.2	-112.6	58.4	-43.2	-82.8	-127.3	60.6
	4:12	-33.8	-64.9	-99.8	52.0	-38.2	-73.2	-112.6	53.8	-43.3	-82.8	-127.3	55.9
	5:12	-33.8	-64.9	-99.9	47.5	-38.2	-73.2	-112.6	49.3	-43.3	-82.8	-127.3	51.4
	6:12	-33.8	-64.9	-99.9	43.3	-38.2	-73.3	-112.7	45.1	-43.3	-82.9	-127.4	47.2
	7:12	-37.8	-45.5	-45.5	51.1	-42.7	-51.4	-51.4	54.4	-48.3	-58.2	-58.2	58.2
	8:12	-37.8	-45.6	-45.6	47.7	-42.7	-51.5	-51.5	51.0	-48.4	-58.2	-58.2	54.8
	9:12	-37.8	-45.6	-45.6	44.7	-42.7	-51.5	-51.5	48.0	-48.4	-58.3	-58.3	51.9
	10:12	-37.9	-45.6	-45.6	42.1	-42.8	-51.5	-51.5	45.5	-48.4	-58.3	-58.3	49.3
	11:12	-37.9	-45.7	-45.7	39.9	-42.8	-51.6	-51.6	43.2	-48.5	-58.4	-58.4	47.3
	12:12	-38.0	-45.7	-45.7	38.0	-42.9	-51.6	-51.6	42.1	-48.5	-58.4	-58.4	47.2
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
	2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
	3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
	4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
	5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
	6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
	7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
	8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
	9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
	10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
	11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **170 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Side Load (psf)

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-26.7	-49.1	-77.1	13.4	-26.7	-49.1	-77.1	13.4	-32.7	-59.9	-93.9	14.0
2:12	-23.9	-46.3	-71.5	17.8	-23.9	-46.3	-71.5	17.8	-29.3	-56.5	-87.1	20.8
3:12	-23.9	-46.3	-71.5	17.7	-23.9	-46.3	-71.5	17.7	-29.3	-56.5	-87.1	20.7
4:12	-24.0	-46.4	-71.6	17.6	-24.0	-46.4	-71.6	17.6	-29.4	-56.6	-87.1	20.6
5:12	-24.0	-46.4	-71.6	17.5	-24.0	-46.4	-71.6	17.5	-29.4	-56.6	-87.2	20.5
6:12	-24.0	-46.4	-71.6	17.4	-24.0	-46.4	-71.6	17.4	-29.4	-56.6	-87.2	20.4
7:12	-26.9	-32.5	-32.5	28.5	-26.9	-32.5	-32.5	28.5	-32.9	-39.7	-39.7	33.9
8:12	-26.9	-32.5	-32.5	28.4	-26.9	-32.5	-32.5	28.4	-32.9	-39.7	-39.7	33.8
9:12	-27.0	-32.6	-32.6	28.3	-27.0	-32.6	-32.6	28.3	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.1	-27.0	-32.6	-32.6	28.1	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
Exposure Category C												
1:12	-32.7	-59.9	-93.9	14.0	-37.9	-69.3	-108.4	15.6	-43.9	-80.0	-125.2	17.4
2:12	-29.3	-56.5	-87.1	20.8	-34.0	-65.3	-100.6	23.4	-39.4	-75.5	-116.2	26.4
3:12	-29.3	-56.5	-87.1	20.7	-34.0	-65.4	-100.6	23.3	-39.4	-75.6	-116.2	26.3
4:12	-29.4	-56.6	-87.1	20.6	-34.0	-65.4	-100.7	23.2	-39.4	-75.6	-116.3	26.2
5:12	-29.4	-56.6	-87.2	20.5	-34.1	-65.4	-100.7	23.1	-39.5	-75.6	-116.3	26.1
6:12	-29.4	-56.6	-87.2	20.4	-34.1	-65.5	-100.7	23.0	-39.5	-75.7	-116.3	26.0
7:12	-32.9	-39.7	-39.7	33.9	-38.1	-45.9	-45.9	38.6	-44.1	-53.1	-53.1	44.0
8:12	-32.9	-39.7	-39.7	33.8	-38.1	-46.0	-46.0	38.5	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
Exposure Category D												
1:12	-39.9	-72.9	-114.0	16.2	-45.1	-82.2	-128.6	17.7	-51.1	-93.0	-145.4	19.5
2:12	-35.8	-68.7	-105.8	24.4	-40.5	-77.6	-119.3	27.0	-45.9	-87.8	-134.9	30.0
3:12	-35.8	-68.8	-105.8	24.3	-40.5	-77.6	-119.3	26.9	-45.9	-87.8	-134.9	29.9
4:12	-35.8	-68.8	-105.9	24.2	-40.5	-77.6	-119.4	26.8	-45.9	-87.8	-135.0	29.8
5:12	-35.9	-68.8	-105.9	24.1	-40.6	-77.7	-119.4	26.7	-46.0	-87.9	-135.0	29.7
6:12	-35.9	-68.9	-105.9	24.0	-40.6	-77.7	-119.4	26.6	-46.0	-87.9	-135.0	29.6
7:12	-40.1	-48.3	-48.3	40.4	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
175 mph

Ground Snow Load
0 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	14.8	-26.7	-49.1	-77.1	14.8	-32.7	-59.9	-93.9	15.2
2:12	-23.9	-46.3	-71.5	17.8	-23.9	-46.3	-71.5	17.8	-29.3	-56.5	-87.1	20.8
3:12	-23.9	-46.3	-71.5	17.7	-23.9	-46.3	-71.5	17.7	-29.3	-56.5	-87.1	20.7
4:12	-24.0	-46.4	-71.6	17.6	-24.0	-46.4	-71.6	17.6	-29.4	-56.6	-87.1	20.6
5:12	-24.0	-46.4	-71.6	17.5	-24.0	-46.4	-71.6	17.5	-29.4	-56.6	-87.2	20.5
6:12	-24.0	-46.4	-71.6	17.4	-24.0	-46.4	-71.6	17.4	-29.4	-56.6	-87.2	20.4
7:12	-26.9	-32.5	-32.5	28.5	-26.9	-32.5	-32.5	28.5	-32.9	-39.7	-39.7	33.9
8:12	-26.9	-32.5	-32.5	28.4	-26.9	-32.5	-32.5	28.4	-32.9	-39.7	-39.7	33.8
9:12	-27.0	-32.6	-32.6	28.3	-27.0	-32.6	-32.6	28.3	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.1	-27.0	-32.6	-32.6	28.1	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
1:12	-32.7	-59.9	-93.9	15.2	-37.9	-69.3	-108.4	16.4	-43.9	-80.0	-125.2	17.7
2:12	-29.3	-56.5	-87.1	20.8	-34.0	-65.3	-100.6	23.4	-39.4	-75.5	-116.2	26.4
3:12	-29.3	-56.5	-87.1	20.7	-34.0	-65.4	-100.6	23.3	-39.4	-75.6	-116.2	26.3
4:12	-29.4	-56.6	-87.1	20.6	-34.0	-65.4	-100.7	23.2	-39.4	-75.6	-116.3	26.2
5:12	-29.4	-56.6	-87.2	20.5	-34.1	-65.4	-100.7	23.1	-39.5	-75.6	-116.3	26.1
6:12	-29.4	-56.6	-87.2	20.4	-34.1	-65.5	-100.7	23.0	-39.5	-75.7	-116.3	26.0
7:12	-32.9	-39.7	-39.7	33.9	-38.1	-45.9	-45.9	38.6	-44.1	-53.1	-53.1	44.0
8:12	-32.9	-39.7	-39.7	33.8	-38.1	-46.0	-46.0	38.5	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	16.8	-45.1	-82.2	-128.6	18.0	-51.1	-93.0	-145.4	19.5
2:12	-35.8	-68.7	-105.8	24.4	-40.5	-77.6	-119.3	27.0	-45.9	-87.8	-134.9	30.0
3:12	-35.8	-68.8	-105.8	24.3	-40.5	-77.6	-119.3	26.9	-45.9	-87.8	-134.9	29.9
4:12	-35.8	-68.8	-105.9	24.2	-40.5	-77.6	-119.4	26.8	-45.9	-87.8	-135.0	29.8
5:12	-35.9	-68.8	-105.9	24.1	-40.6	-77.7	-119.4	26.7	-46.0	-87.9	-135.0	29.7
6:12	-35.9	-68.9	-105.9	24.0	-40.6	-77.7	-119.4	26.6	-46.0	-87.9	-135.0	29.6
7:12	-40.1	-48.3	-48.3	40.4	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **175 mph**
Ground Snow Load **5 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	18.5	-26.7	-49.1	-77.1	18.5	-32.7	-59.9	-93.9	18.9
2:12	-23.9	-46.3	-71.5	21.1	-23.9	-46.3	-71.5	21.1	-29.3	-56.5	-87.1	23.3
3:12	-23.9	-46.3	-71.5	20.3	-23.9	-46.3	-71.5	20.3	-29.3	-56.5	-87.1	22.6
4:12	-24.0	-46.4	-71.6	17.9	-24.0	-46.4	-71.6	17.9	-29.4	-56.6	-87.1	20.6
5:12	-24.0	-46.4	-71.6	17.5	-24.0	-46.4	-71.6	17.5	-29.4	-56.6	-87.2	20.5
6:12	-24.0	-46.4	-71.6	17.4	-24.0	-46.4	-71.6	17.4	-29.4	-56.6	-87.2	20.4
7:12	-26.9	-32.5	-32.5	28.5	-26.9	-32.5	-32.5	28.5	-32.9	-39.7	-39.7	33.9
8:12	-26.9	-32.5	-32.5	28.4	-26.9	-32.5	-32.5	28.4	-32.9	-39.7	-39.7	33.8
9:12	-27.0	-32.6	-32.6	28.3	-27.0	-32.6	-32.6	28.3	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.1	-27.0	-32.6	-32.6	28.1	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
1:12	-32.7	-59.9	-93.9	18.9	-37.9	-69.3	-108.4	20.1	-43.9	-80.0	-125.2	21.4
2:12	-29.3	-56.5	-87.1	23.3	-34.0	-65.3	-100.6	25.3	-39.4	-75.5	-116.2	27.5
3:12	-29.3	-56.5	-87.1	22.6	-34.0	-65.4	-100.6	24.5	-39.4	-75.6	-116.2	26.8
4:12	-29.4	-56.6	-87.1	20.6	-34.0	-65.4	-100.7	23.2	-39.4	-75.6	-116.3	26.2
5:12	-29.4	-56.6	-87.2	20.5	-34.1	-65.4	-100.7	23.1	-39.5	-75.6	-116.3	26.1
6:12	-29.4	-56.6	-87.2	20.4	-34.1	-65.5	-100.7	23.0	-39.5	-75.7	-116.3	26.0
7:12	-32.9	-39.7	-39.7	33.9	-38.1	-45.9	-45.9	38.6	-44.1	-53.1	-53.1	44.0
8:12	-32.9	-39.7	-39.7	33.8	-38.1	-46.0	-46.0	38.5	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	20.5	-45.1	-82.2	-128.6	21.7	-51.1	-93.0	-145.4	23.1
2:12	-35.8	-68.7	-105.8	26.0	-40.5	-77.6	-119.3	28.0	-45.9	-87.8	-134.9	30.2
3:12	-35.8	-68.8	-105.8	25.3	-40.5	-77.6	-119.3	27.2	-45.9	-87.8	-134.9	29.9
4:12	-35.8	-68.8	-105.9	24.2	-40.5	-77.6	-119.4	26.8	-45.9	-87.8	-135.0	29.8
5:12	-35.9	-68.8	-105.9	24.1	-40.6	-77.7	-119.4	26.7	-46.0	-87.9	-135.0	29.7
6:12	-35.9	-68.9	-105.9	24.0	-40.6	-77.7	-119.4	26.6	-46.0	-87.9	-135.0	29.6
7:12	-40.1	-48.3	-48.3	40.4	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **175 mph**
Ground Snow Load **10 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	22.2	-26.7	-49.1	-77.1	22.2	-32.7	-59.9	-93.9	22.7
2:12	-23.9	-46.3	-71.5	24.5	-23.9	-46.3	-71.5	24.5	-29.3	-56.5	-87.1	26.7
3:12	-23.9	-46.3	-71.5	23.3	-23.9	-46.3	-71.5	23.3	-29.3	-56.5	-87.1	25.6
4:12	-24.0	-46.4	-71.6	19.8	-24.0	-46.4	-71.6	19.8	-29.4	-56.6	-87.1	22.0
5:12	-24.0	-46.4	-71.6	18.9	-24.0	-46.4	-71.6	18.9	-29.4	-56.6	-87.2	21.2
6:12	-24.0	-46.4	-71.6	18.1	-24.0	-46.4	-71.6	18.1	-29.4	-56.6	-87.2	20.4
7:12	-26.9	-32.5	-32.5	28.5	-26.9	-32.5	-32.5	28.5	-32.9	-39.7	-39.7	33.9
8:12	-26.9	-32.5	-32.5	28.4	-26.9	-32.5	-32.5	28.4	-32.9	-39.7	-39.7	33.8
9:12	-27.0	-32.6	-32.6	28.3	-27.0	-32.6	-32.6	28.3	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.1	-27.0	-32.6	-32.6	28.1	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
1:12	-32.7	-59.9	-93.9	22.7	-37.9	-69.3	-108.4	23.8	-43.9	-80.0	-125.2	25.2
2:12	-29.3	-56.5	-87.1	26.7	-34.0	-65.3	-100.6	28.7	-39.4	-75.5	-116.2	30.9
3:12	-29.3	-56.5	-87.1	25.6	-34.0	-65.4	-100.6	27.5	-39.4	-75.6	-116.2	29.8
4:12	-29.4	-56.6	-87.1	22.0	-34.0	-65.4	-100.7	24.0	-39.4	-75.6	-116.3	26.2
5:12	-29.4	-56.6	-87.2	21.2	-34.1	-65.4	-100.7	23.1	-39.5	-75.6	-116.3	26.1
6:12	-29.4	-56.6	-87.2	20.4	-34.1	-65.5	-100.7	23.0	-39.5	-75.7	-116.3	26.0
7:12	-32.9	-39.7	-39.7	33.9	-38.1	-45.9	-45.9	38.6	-44.1	-53.1	-53.1	44.0
8:12	-32.9	-39.7	-39.7	33.8	-38.1	-46.0	-46.0	38.5	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	24.3	-45.1	-82.2	-128.6	25.4	-51.1	-93.0	-145.4	26.8
2:12	-35.8	-68.7	-105.8	29.4	-40.5	-77.6	-119.3	31.4	-45.9	-87.8	-134.9	33.6
3:12	-35.8	-68.8	-105.8	28.3	-40.5	-77.6	-119.3	30.2	-45.9	-87.8	-134.9	32.5
4:12	-35.8	-68.8	-105.9	24.2	-40.5	-77.6	-119.4	26.8	-45.9	-87.8	-135.0	29.8
5:12	-35.9	-68.8	-105.9	24.1	-40.6	-77.7	-119.4	26.7	-46.0	-87.9	-135.0	29.7
6:12	-35.9	-68.9	-105.9	24.0	-40.6	-77.7	-119.4	26.6	-46.0	-87.9	-135.0	29.6
7:12	-40.1	-48.3	-48.3	40.4	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **175 mph**
Ground Snow Load **15 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-26.7	-49.1	-77.1	25.9	-26.7	-49.1	-77.1	25.9	-32.7	-59.9	-93.9	26.4
2:12	-23.9	-46.3	-71.5	27.9	-23.9	-46.3	-71.5	27.9	-29.3	-56.5	-87.1	30.1
3:12	-23.9	-46.3	-71.5	26.4	-23.9	-46.3	-71.5	26.4	-29.3	-56.5	-87.1	28.6
4:12	-24.0	-46.4	-71.6	21.6	-24.0	-46.4	-71.6	21.6	-29.4	-56.6	-87.1	23.9
5:12	-24.0	-46.4	-71.6	20.6	-24.0	-46.4	-71.6	20.6	-29.4	-56.6	-87.2	22.8
6:12	-24.0	-46.4	-71.6	19.6	-24.0	-46.4	-71.6	19.6	-29.4	-56.6	-87.2	21.8
7:12	-26.9	-32.5	-32.5	28.5	-26.9	-32.5	-32.5	28.5	-32.9	-39.7	-39.7	33.9
8:12	-26.9	-32.5	-32.5	28.4	-26.9	-32.5	-32.5	28.4	-32.9	-39.7	-39.7	33.8
9:12	-27.0	-32.6	-32.6	28.3	-27.0	-32.6	-32.6	28.3	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.1	-27.0	-32.6	-32.6	28.1	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
Exposure Category C												
1:12	-32.7	-59.9	-93.9	26.4	-37.9	-69.3	-108.4	27.5	-43.9	-80.0	-125.2	28.9
2:12	-29.3	-56.5	-87.1	30.1	-34.0	-65.3	-100.6	32.1	-39.4	-75.5	-116.2	34.3
3:12	-29.3	-56.5	-87.1	28.6	-34.0	-65.4	-100.6	30.6	-39.4	-75.6	-116.2	32.8
4:12	-29.4	-56.6	-87.1	23.9	-34.0	-65.4	-100.7	25.8	-39.4	-75.6	-116.3	28.1
5:12	-29.4	-56.6	-87.2	22.8	-34.1	-65.4	-100.7	24.8	-39.5	-75.6	-116.3	27.0
6:12	-29.4	-56.6	-87.2	21.8	-34.1	-65.5	-100.7	23.7	-39.5	-75.7	-116.3	26.0
7:12	-32.9	-39.7	-39.7	33.9	-38.1	-45.9	-45.9	38.6	-44.1	-53.1	-53.1	44.0
8:12	-32.9	-39.7	-39.7	33.8	-38.1	-46.0	-46.0	38.5	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
Exposure Category D												
1:12	-39.9	-72.9	-114.0	28.0	-45.1	-82.2	-128.6	29.2	-51.1	-93.0	-145.4	30.5
2:12	-35.8	-68.7	-105.8	32.8	-40.5	-77.6	-119.3	34.8	-45.9	-87.8	-134.9	37.0
3:12	-35.8	-68.8	-105.8	31.3	-40.5	-77.6	-119.3	33.3	-45.9	-87.8	-134.9	35.5
4:12	-35.8	-68.8	-105.9	25.8	-40.5	-77.6	-119.4	27.8	-45.9	-87.8	-135.0	30.0
5:12	-35.9	-68.8	-105.9	24.9	-40.6	-77.7	-119.4	26.8	-46.0	-87.9	-135.0	29.7
6:12	-35.9	-68.9	-105.9	24.0	-40.6	-77.7	-119.4	26.6	-46.0	-87.9	-135.0	29.6
7:12	-40.1	-48.3	-48.3	40.4	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
175 mph

Ground Snow Load
20 psf

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-26.7	-49.1	-77.1	25.9	-26.7	-49.1	-77.1	25.9	-32.7	-59.9	-93.9	26.4
2:12	-23.9	-46.3	-71.5	27.9	-23.9	-46.3	-71.5	27.9	-29.3	-56.5	-87.1	30.1
3:12	-23.9	-46.3	-71.5	26.4	-23.9	-46.3	-71.5	26.4	-29.3	-56.5	-87.1	28.6
4:12	-24.0	-46.4	-71.6	23.5	-24.0	-46.4	-71.6	23.5	-29.4	-56.6	-87.1	25.8
5:12	-24.0	-46.4	-71.6	22.2	-24.0	-46.4	-71.6	22.2	-29.4	-56.6	-87.2	24.4
6:12	-24.0	-46.4	-71.6	21.0	-24.0	-46.4	-71.6	21.0	-29.4	-56.6	-87.2	23.2
7:12	-26.9	-32.5	-32.5	28.5	-26.9	-32.5	-32.5	28.5	-32.9	-39.7	-39.7	33.9
8:12	-26.9	-32.5	-32.5	28.4	-26.9	-32.5	-32.5	28.4	-32.9	-39.7	-39.7	33.8
9:12	-27.0	-32.6	-32.6	28.3	-27.0	-32.6	-32.6	28.3	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.1	-27.0	-32.6	-32.6	28.1	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
Exposure Category C												
1:12	-32.7	-59.9	-93.9	26.4	-37.9	-69.3	-108.4	27.5	-43.9	-80.0	-125.2	28.9
2:12	-29.3	-56.5	-87.1	30.1	-34.0	-65.3	-100.6	32.1	-39.4	-75.5	-116.2	34.3
3:12	-29.3	-56.5	-87.1	28.6	-34.0	-65.4	-100.6	30.6	-39.4	-75.6	-116.2	32.8
4:12	-29.4	-56.6	-87.1	25.8	-34.0	-65.4	-100.7	27.7	-39.4	-75.6	-116.3	30.0
5:12	-29.4	-56.6	-87.2	24.4	-34.1	-65.4	-100.7	26.4	-39.5	-75.6	-116.3	28.6
6:12	-29.4	-56.6	-87.2	23.2	-34.1	-65.5	-100.7	25.2	-39.5	-75.7	-116.3	27.4
7:12	-32.9	-39.7	-39.7	33.9	-38.1	-45.9	-45.9	38.6	-44.1	-53.1	-53.1	44.0
8:12	-32.9	-39.7	-39.7	33.8	-38.1	-46.0	-46.0	38.5	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
Exposure Category D												
1:12	-39.9	-72.9	-114.0	28.0	-45.1	-82.2	-128.6	29.2	-51.1	-93.0	-145.4	30.5
2:12	-35.8	-68.7	-105.8	32.8	-40.5	-77.6	-119.3	34.8	-45.9	-87.8	-134.9	37.0
3:12	-35.8	-68.8	-105.8	31.3	-40.5	-77.6	-119.3	33.3	-45.9	-87.8	-134.9	35.5
4:12	-35.8	-68.8	-105.9	27.5	-40.5	-77.6	-119.4	29.5	-45.9	-87.8	-135.0	31.7
5:12	-35.9	-68.8	-105.9	26.3	-40.6	-77.7	-119.4	28.3	-46.0	-87.9	-135.0	30.5
6:12	-35.9	-68.9	-105.9	25.2	-40.6	-77.7	-119.4	27.1	-46.0	-87.9	-135.0	29.6
7:12	-40.1	-48.3	-48.3	40.4	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **175 mph**

Ground Snow Load **25 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-26.7	-49.1	-77.1	26.7	-26.7	-49.1	-77.1	26.7	-32.7	-59.9	-93.9	27.1
2:12	-23.9	-46.3	-71.5	28.6	-23.9	-46.3	-71.5	28.6	-29.3	-56.5	-87.1	30.8
3:12	-23.9	-46.3	-71.5	27.0	-23.9	-46.3	-71.5	27.0	-29.3	-56.5	-87.1	29.2
4:12	-24.0	-46.4	-71.6	25.4	-24.0	-46.4	-71.6	25.4	-29.4	-56.6	-87.1	27.6
5:12	-24.0	-46.4	-71.6	23.8	-24.0	-46.4	-71.6	23.8	-29.4	-56.6	-87.2	26.1
6:12	-24.0	-46.4	-71.6	22.4	-24.0	-46.4	-71.6	22.4	-29.4	-56.6	-87.2	24.6
7:12	-26.9	-32.5	-32.5	29.4	-26.9	-32.5	-32.5	29.4	-32.9	-39.7	-39.7	33.9
8:12	-26.9	-32.5	-32.5	28.4	-26.9	-32.5	-32.5	28.4	-32.9	-39.7	-39.7	33.8
9:12	-27.0	-32.6	-32.6	28.3	-27.0	-32.6	-32.6	28.3	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.1	-27.0	-32.6	-32.6	28.1	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
Exposure Category C												
1:12	-32.7	-59.9	-93.9	27.1	-37.9	-69.3	-108.4	28.3	-43.9	-80.0	-125.2	29.6
2:12	-29.3	-56.5	-87.1	30.8	-34.0	-65.3	-100.6	32.8	-39.4	-75.5	-116.2	35.0
3:12	-29.3	-56.5	-87.1	29.2	-34.0	-65.4	-100.6	31.2	-39.4	-75.6	-116.2	33.4
4:12	-29.4	-56.6	-87.1	27.6	-34.0	-65.4	-100.7	29.6	-39.4	-75.6	-116.3	31.8
5:12	-29.4	-56.6	-87.2	26.1	-34.1	-65.4	-100.7	28.0	-39.5	-75.6	-116.3	30.3
6:12	-29.4	-56.6	-87.2	24.6	-34.1	-65.5	-100.7	26.6	-39.5	-75.7	-116.3	28.8
7:12	-32.9	-39.7	-39.7	33.9	-38.1	-45.9	-45.9	38.6	-44.1	-53.1	-53.1	44.0
8:12	-32.9	-39.7	-39.7	33.8	-38.1	-46.0	-46.0	38.5	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
Exposure Category D												
1:12	-39.9	-72.9	-114.0	28.0	-45.1	-82.2	-128.6	29.2	-51.1	-93.0	-145.4	30.5
2:12	-35.8	-68.7	-105.8	32.8	-40.5	-77.6	-119.3	34.8	-45.9	-87.8	-134.9	37.0
3:12	-35.8	-68.8	-105.8	31.3	-40.5	-77.6	-119.3	33.3	-45.9	-87.8	-134.9	35.5
4:12	-35.8	-68.8	-105.9	29.2	-40.5	-77.6	-119.4	31.2	-45.9	-87.8	-135.0	33.4
5:12	-35.9	-68.8	-105.9	27.8	-40.6	-77.7	-119.4	29.7	-46.0	-87.9	-135.0	32.0
6:12	-35.9	-68.9	-105.9	26.5	-40.6	-77.7	-119.4	28.4	-46.0	-87.9	-135.0	30.7
7:12	-40.1	-48.3	-48.3	40.4	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **175 mph**

Ground Snow Load **30 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	29.3	-26.7	-49.1	-77.1	29.3	-32.7	-59.9	-93.9	29.7
2:12	-23.9	-46.3	-71.5	30.9	-23.9	-46.3	-71.5	30.9	-29.3	-56.5	-87.1	33.2
3:12	-23.9	-46.3	-71.5	29.1	-23.9	-46.3	-71.5	29.1	-29.3	-56.5	-87.1	31.4
4:12	-24.0	-46.4	-71.6	27.3	-24.0	-46.4	-71.6	27.3	-29.4	-56.6	-87.1	29.5
5:12	-24.0	-46.4	-71.6	25.5	-24.0	-46.4	-71.6	25.5	-29.4	-56.6	-87.2	27.7
6:12	-24.0	-46.4	-71.6	23.8	-24.0	-46.4	-71.6	23.8	-29.4	-56.6	-87.2	26.0
7:12	-26.9	-32.5	-32.5	30.6	-26.9	-32.5	-32.5	30.6	-32.9	-39.7	-39.7	34.6
8:12	-26.9	-32.5	-32.5	29.2	-26.9	-32.5	-32.5	29.2	-32.9	-39.7	-39.7	33.8
9:12	-27.0	-32.6	-32.6	28.3	-27.0	-32.6	-32.6	28.3	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.1	-27.0	-32.6	-32.6	28.1	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
1:12	-32.7	-59.9	-93.9	29.7	-37.9	-69.3	-108.4	30.9	-43.9	-80.0	-125.2	32.2
2:12	-29.3	-56.5	-87.1	33.2	-34.0	-65.3	-100.6	35.1	-39.4	-75.5	-116.2	37.4
3:12	-29.3	-56.5	-87.1	31.4	-34.0	-65.4	-100.6	33.3	-39.4	-75.6	-116.2	35.6
4:12	-29.4	-56.6	-87.1	29.5	-34.0	-65.4	-100.7	31.5	-39.4	-75.6	-116.3	33.7
5:12	-29.4	-56.6	-87.2	27.7	-34.1	-65.4	-100.7	29.7	-39.5	-75.6	-116.3	31.9
6:12	-29.4	-56.6	-87.2	26.0	-34.1	-65.5	-100.7	28.0	-39.5	-75.7	-116.3	30.2
7:12	-32.9	-39.7	-39.7	34.6	-38.1	-45.9	-45.9	38.6	-44.1	-53.1	-53.1	44.0
8:12	-32.9	-39.7	-39.7	33.8	-38.1	-46.0	-46.0	38.5	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	29.5	-45.1	-82.2	-128.6	30.7	-51.1	-93.0	-145.4	32.0
2:12	-35.8	-68.7	-105.8	34.2	-40.5	-77.6	-119.3	36.2	-45.9	-87.8	-134.9	38.4
3:12	-35.8	-68.8	-105.8	32.6	-40.5	-77.6	-119.3	34.5	-45.9	-87.8	-134.9	36.8
4:12	-35.8	-68.8	-105.9	30.9	-40.5	-77.6	-119.4	32.9	-45.9	-87.8	-135.0	35.1
5:12	-35.9	-68.8	-105.9	29.3	-40.6	-77.7	-119.4	31.2	-46.0	-87.9	-135.0	33.5
6:12	-35.9	-68.9	-105.9	27.7	-40.6	-77.7	-119.4	29.7	-46.0	-87.9	-135.0	31.9
7:12	-40.1	-48.3	-48.3	40.4	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9

Basic Wind Speed **175 mph**
Ground Snow Load **35 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed **175 mph**
Ground Snow Load **40 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	31.9	-26.7	-49.1	-77.1	31.9	-32.7	-59.9	-93.9	32.3
2:12	-23.9	-46.3	-71.5	33.3	-23.9	-46.3	-71.5	33.3	-29.3	-56.5	-87.1	35.6
3:12	-23.9	-46.3	-71.5	31.2	-23.9	-46.3	-71.5	31.2	-29.3	-56.5	-87.1	33.5
4:12	-24.0	-46.4	-71.6	29.1	-24.0	-46.4	-71.6	29.1	-29.4	-56.6	-87.1	31.4
5:12	-24.0	-46.4	-71.6	27.1	-24.0	-46.4	-71.6	27.1	-29.4	-56.6	-87.2	29.3
6:12	-24.0	-46.4	-71.6	25.2	-24.0	-46.4	-71.6	25.2	-29.4	-56.6	-87.2	27.4
7:12	-26.9	-32.5	-32.5	31.8	-26.9	-32.5	-32.5	31.8	-32.9	-39.7	-39.7	35.8
8:12	-26.9	-32.5	-32.5	30.2	-26.9	-32.5	-32.5	30.2	-32.9	-39.7	-39.7	34.3
9:12	-27.0	-32.6	-32.6	28.8	-27.0	-32.6	-32.6	28.8	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.1	-27.0	-32.6	-32.6	28.1	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
1:12	-32.7	-59.9	-93.9	32.3	-37.9	-69.3	-108.4	33.5	-43.9	-80.0	-125.2	34.9
2:12	-29.3	-56.5	-87.1	35.6	-34.0	-65.3	-100.6	37.5	-39.4	-75.5	-116.2	39.8
3:12	-29.3	-56.5	-87.1	33.5	-34.0	-65.4	-100.6	35.4	-39.4	-75.6	-116.2	37.7
4:12	-29.4	-56.6	-87.1	31.4	-34.0	-65.4	-100.7	33.3	-39.4	-75.6	-116.3	35.6
5:12	-29.4	-56.6	-87.2	29.3	-34.1	-65.4	-100.7	31.3	-39.5	-75.6	-116.3	33.5
6:12	-29.4	-56.6	-87.2	27.4	-34.1	-65.5	-100.7	29.4	-39.5	-75.7	-116.3	31.6
7:12	-32.9	-39.7	-39.7	35.8	-38.1	-45.9	-45.9	39.4	-44.1	-53.1	-53.1	44.0
8:12	-32.9	-39.7	-39.7	34.3	-38.1	-46.0	-46.0	38.5	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	31.9	-45.1	-82.2	-128.6	33.0	-51.1	-93.0	-145.4	34.4
2:12	-35.8	-68.7	-105.8	36.4	-40.5	-77.6	-119.3	38.3	-45.9	-87.8	-134.9	40.6
3:12	-35.8	-68.8	-105.8	34.5	-40.5	-77.6	-119.3	36.4	-45.9	-87.8	-134.9	38.7
4:12	-35.8	-68.8	-105.9	32.6	-40.5	-77.6	-119.4	34.5	-45.9	-87.8	-135.0	36.8
5:12	-35.9	-68.8	-105.9	30.7	-40.6	-77.7	-119.4	32.7	-46.0	-87.9	-135.0	34.9
6:12	-35.9	-68.9	-105.9	29.0	-40.6	-77.7	-119.4	30.9	-46.0	-87.9	-135.0	33.2
7:12	-40.1	-48.3	-48.3	40.4	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	35.1	-26.7	-49.1	-77.1	35.1	-32.7	-59.9	-93.9	35.1
2:12	-23.9	-46.3	-71.5	35.7	-23.9	-46.3	-71.5	35.7	-29.3	-56.5	-87.1	37.9
3:12	-23.9	-46.3	-71.5	33.4	-23.9	-46.3	-71.5	33.4	-29.3	-56.5	-87.1	35.6
4:12	-24.0	-46.4	-71.6	31.0	-24.0	-46.4	-71.6	31.0	-29.4	-56.6	-87.1	33.3
5:12	-24.0	-46.4	-71.6	28.7	-24.0	-46.4	-71.6	28.7	-29.4	-56.6	-87.2	31.0
6:12	-24.0	-46.4	-71.6	26.6	-24.0	-46.4	-71.6	26.6	-29.4	-56.6	-87.2	28.8
7:12	-26.9	-32.5	-32.5	33.0	-26.9	-32.5	-32.5	33.0	-32.9	-39.7	-39.7	37.0
8:12	-26.9	-32.5	-32.5	31.2	-26.9	-32.5	-32.5	31.2	-32.9	-39.7	-39.7	35.3
9:12	-27.0	-32.6	-32.6	29.7	-27.0	-32.6	-32.6	29.7	-33.0	-39.8	-39.8	33.7
10:12	-27.0	-32.6	-32.6	28.3	-27.0	-32.6	-32.6	28.3	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
1:12	-32.7	-59.9	-93.9	35.1	-37.9	-69.3	-108.4	36.1	-43.9	-80.0	-125.2	37.5
2:12	-29.3	-56.5	-87.1	37.9	-34.0	-65.3	-100.6	39.9	-39.4	-75.5	-116.2	42.1
3:12	-29.3	-56.5	-87.1	35.6	-34.0	-65.4	-100.6	37.6	-39.4	-75.6	-116.2	39.8
4:12	-29.4	-56.6	-87.1	33.3	-34.0	-65.4	-100.7	35.2	-39.4	-75.6	-116.3	37.5
5:12	-29.4	-56.6	-87.2	31.0	-34.1	-65.4	-100.7	32.9	-39.5	-75.6	-116.3	35.2
6:12	-29.4	-56.6	-87.2	28.8	-34.1	-65.5	-100.7	30.8	-39.5	-75.7	-116.3	33.0
7:12	-32.9	-39.7	-39.7	37.0	-38.1	-45.9	-45.9	40.6	-44.1	-53.1	-53.1	44.6
8:12	-32.9	-39.7	-39.7	35.3	-38.1	-46.0	-46.0	38.8	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	33.7	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	34.2	-45.1	-82.2	-128.6	35.4	-51.1	-93.0	-145.4	36.7
2:12	-35.8	-68.7	-105.8	38.5	-40.5	-77.6	-119.3	40.5	-45.9	-87.8	-134.9	42.7
3:12	-35.8	-68.8	-105.8	36.4	-40.5	-77.6	-119.3	38.4	-45.9	-87.8	-134.9	40.6
4:12	-35.8	-68.8	-105.9	34.3	-40.5	-77.6	-119.4	36.2	-45.9	-87.8	-135.0	38.5
5:12	-35.9	-68.8	-105.9	32.2	-40.6	-77.7	-119.4	34.2	-46.0	-87.9	-135.0	36.4
6:12	-35.9	-68.9	-105.9	30.3	-40.6	-77.7	-119.4	32.2	-46.0	-87.9	-135.0	34.4
7:12	-40.1	-48.3	-48.3	40.8	-45.3	-54.5	-54.5	45.1	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9

Basic Wind Speed **175 mph**
Ground Snow Load **45 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-26.7	-49.1	-77.1	38.6	-26.7	-49.1	-77.1	38.6	-32.7	-59.9	-93.9	38.6
2:12	-23.9	-46.3	-71.5	38.1	-23.9	-46.3	-71.5	38.1	-29.3	-56.5	-87.1	40.3
3:12	-23.9	-46.3	-71.5	35.5	-23.9	-46.3	-71.5	35.5	-29.3	-56.5	-87.1	37.7
4:12	-24.0	-46.4	-71.6	32.9	-24.0	-46.4	-71.6	32.9	-29.4	-56.6	-87.1	35.1
5:12	-24.0	-46.4	-71.6	30.4	-24.0	-46.4	-71.6	30.4	-29.4	-56.6	-87.2	32.6
6:12	-24.0	-46.4	-71.6	28.0	-24.0	-46.4	-71.6	28.0	-29.4	-56.6	-87.2	30.2
7:12	-26.9	-32.5	-32.5	34.2	-26.9	-32.5	-32.5	34.2	-32.9	-39.7	-39.7	38.2
8:12	-26.9	-32.5	-32.5	32.2	-26.9	-32.5	-32.5	32.2	-32.9	-39.7	-39.7	36.3
9:12	-27.0	-32.6	-32.6	30.5	-27.0	-32.6	-32.6	30.5	-33.0	-39.8	-39.8	34.6
10:12	-27.0	-32.6	-32.6	29.0	-27.0	-32.6	-32.6	29.0	-33.0	-39.8	-39.8	33.5
11:12	-27.0	-32.6	-32.6	28.0	-27.0	-32.6	-32.6	28.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
Exposure Category C												
1:12	-32.7	-59.9	-93.9	38.6	-37.9	-69.3	-108.4	38.7	-43.9	-80.0	-125.2	40.1
2:12	-29.3	-56.5	-87.1	40.3	-34.0	-65.3	-100.6	42.3	-39.4	-75.5	-116.2	44.5
3:12	-29.3	-56.5	-87.1	37.7	-34.0	-65.4	-100.6	39.7	-39.4	-75.6	-116.2	41.9
4:12	-29.4	-56.6	-87.1	35.1	-34.0	-65.4	-100.7	37.1	-39.4	-75.6	-116.3	39.3
5:12	-29.4	-56.6	-87.2	32.6	-34.1	-65.4	-100.7	34.5	-39.5	-75.6	-116.3	36.8
6:12	-29.4	-56.6	-87.2	30.2	-34.1	-65.5	-100.7	32.2	-39.5	-75.7	-116.3	34.4
7:12	-32.9	-39.7	-39.7	38.2	-38.1	-45.9	-45.9	41.7	-44.1	-53.1	-53.1	45.8
8:12	-32.9	-39.7	-39.7	36.3	-38.1	-46.0	-46.0	39.8	-44.1	-53.1	-53.1	43.9
9:12	-33.0	-39.8	-39.8	34.6	-38.2	-46.0	-46.0	38.3	-44.2	-53.2	-53.2	43.7
10:12	-33.0	-39.8	-39.8	33.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
Exposure Category D												
1:12	-39.9	-72.9	-114.0	36.6	-45.1	-82.2	-128.6	37.7	-51.1	-93.0	-145.4	39.1
2:12	-35.8	-68.7	-105.8	40.6	-40.5	-77.6	-119.3	42.6	-45.9	-87.8	-134.9	44.8
3:12	-35.8	-68.8	-105.8	38.3	-40.5	-77.6	-119.3	40.3	-45.9	-87.8	-134.9	42.5
4:12	-35.8	-68.8	-105.9	36.0	-40.5	-77.6	-119.4	37.9	-45.9	-87.8	-135.0	40.2
5:12	-35.9	-68.8	-105.9	33.7	-40.6	-77.7	-119.4	35.6	-46.0	-87.9	-135.0	37.9
6:12	-35.9	-68.9	-105.9	31.5	-40.6	-77.7	-119.4	33.5	-46.0	-87.9	-135.0	35.7
7:12	-40.1	-48.3	-48.3	41.9	-45.3	-54.5	-54.5	45.4	-51.3	-61.7	-61.7	50.5
8:12	-40.1	-48.4	-48.4	40.3	-45.3	-54.6	-54.6	44.9	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **175 mph**

Ground Snow Load **50 psf**

Up and Down (psf)

Basic Wind Speed
175 mph
Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	45.5	-26.7	-49.1	-77.1	45.5	-32.7	-59.9	-93.9	45.5
2:12	-23.9	-46.3	-71.5	42.8	-23.9	-46.3	-71.5	42.8	-29.3	-56.5	-87.1	45.1
3:12	-23.9	-46.3	-71.5	39.8	-23.9	-46.3	-71.5	39.8	-29.3	-56.5	-87.1	42.0
4:12	-24.0	-46.4	-71.6	36.6	-24.0	-46.4	-71.6	36.6	-29.4	-56.6	-87.1	38.9
5:12	-24.0	-46.4	-71.6	33.6	-24.0	-46.4	-71.6	33.6	-29.4	-56.6	-87.2	35.9
6:12	-24.0	-46.4	-71.6	30.8	-24.0	-46.4	-71.6	30.8	-29.4	-56.6	-87.2	33.0
7:12	-26.9	-32.5	-32.5	36.6	-26.9	-32.5	-32.5	36.6	-32.9	-39.7	-39.7	40.6
8:12	-26.9	-32.5	-32.5	34.3	-26.9	-32.5	-32.5	34.3	-32.9	-39.7	-39.7	38.3
9:12	-27.0	-32.6	-32.6	32.2	-27.0	-32.6	-32.6	32.2	-33.0	-39.8	-39.8	36.3
10:12	-27.0	-32.6	-32.6	30.5	-27.0	-32.6	-32.6	30.5	-33.0	-39.8	-39.8	34.5
11:12	-27.0	-32.6	-32.6	29.0	-27.0	-32.6	-32.6	29.0	-33.0	-39.8	-39.8	33.4
12:12	-27.1	-32.7	-32.7	27.9	-27.1	-32.7	-32.7	27.9	-33.1	-39.9	-39.9	33.3
1:12	-32.7	-59.9	-93.9	45.5	-37.9	-69.3	-108.4	45.5	-43.9	-80.0	-125.2	45.5
2:12	-29.3	-56.5	-87.1	45.1	-34.0	-65.3	-100.6	47.0	-39.4	-75.5	-116.2	49.3
3:12	-29.3	-56.5	-87.1	42.0	-34.0	-65.4	-100.6	44.0	-39.4	-75.6	-116.2	46.2
4:12	-29.4	-56.6	-87.1	38.9	-34.0	-65.4	-100.7	40.8	-39.4	-75.6	-116.3	43.1
5:12	-29.4	-56.6	-87.2	35.9	-34.1	-65.4	-100.7	37.8	-39.5	-75.6	-116.3	40.1
6:12	-29.4	-56.6	-87.2	33.0	-34.1	-65.5	-100.7	35.0	-39.5	-75.7	-116.3	37.2
7:12	-32.9	-39.7	-39.7	40.6	-38.1	-45.9	-45.9	44.1	-44.1	-53.1	-53.1	48.2
8:12	-32.9	-39.7	-39.7	38.3	-38.1	-46.0	-46.0	41.8	-44.1	-53.1	-53.1	45.9
9:12	-33.0	-39.8	-39.8	36.3	-38.2	-46.0	-46.0	39.8	-44.2	-53.2	-53.2	43.9
10:12	-33.0	-39.8	-39.8	34.5	-38.2	-46.0	-46.0	38.2	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	33.4	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	41.4	-45.1	-82.2	-128.6	42.4	-51.1	-93.0	-145.4	43.8
2:12	-35.8	-68.7	-105.8	44.9	-40.5	-77.6	-119.3	46.9	-45.9	-87.8	-134.9	49.1
3:12	-35.8	-68.8	-105.8	42.1	-40.5	-77.6	-119.3	44.1	-45.9	-87.8	-134.9	46.3
4:12	-35.8	-68.8	-105.9	39.3	-40.5	-77.6	-119.4	41.3	-45.9	-87.8	-135.0	43.5
5:12	-35.9	-68.8	-105.9	36.6	-40.6	-77.7	-119.4	38.6	-46.0	-87.9	-135.0	40.8
6:12	-35.9	-68.9	-105.9	34.0	-40.6	-77.7	-119.4	36.0	-46.0	-87.9	-135.0	38.2
7:12	-40.1	-48.3	-48.3	44.1	-45.3	-54.5	-54.5	47.6	-51.3	-61.7	-61.7	51.6
8:12	-40.1	-48.4	-48.4	42.0	-45.3	-54.6	-54.6	45.5	-51.3	-61.8	-61.8	50.3
9:12	-40.2	-48.4	-48.4	40.1	-45.4	-54.6	-54.6	44.8	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	52.5	-26.7	-49.1	-77.1	52.5	-32.7	-59.9	-93.9	52.5
2:12	-23.9	-46.3	-71.5	48.2	-23.9	-46.3	-71.5	48.2	-29.3	-56.5	-87.1	49.8
3:12	-23.9	-46.3	-71.5	44.0	-23.9	-46.3	-71.5	44.0	-29.3	-56.5	-87.1	46.3
4:12	-24.0	-46.4	-71.6	40.4	-24.0	-46.4	-71.6	40.4	-29.4	-56.6	-87.1	42.6
5:12	-24.0	-46.4	-71.6	36.9	-24.0	-46.4	-71.6	36.9	-29.4	-56.6	-87.2	39.1
6:12	-24.0	-46.4	-71.6	33.6	-24.0	-46.4	-71.6	33.6	-29.4	-56.6	-87.2	35.8
7:12	-26.9	-32.5	-32.5	39.0	-26.9	-32.5	-32.5	39.0	-32.9	-39.7	-39.7	43.0
8:12	-26.9	-32.5	-32.5	36.3	-26.9	-32.5	-32.5	36.3	-32.9	-39.7	-39.7	40.4
9:12	-27.0	-32.6	-32.6	34.0	-27.0	-32.6	-32.6	34.0	-33.0	-39.8	-39.8	38.0
10:12	-27.0	-32.6	-32.6	31.9	-27.0	-32.6	-32.6	31.9	-33.0	-39.8	-39.8	36.0
11:12	-27.0	-32.6	-32.6	30.2	-27.0	-32.6	-32.6	30.2	-33.0	-39.8	-39.8	34.2
12:12	-27.1	-32.7	-32.7	28.7	-27.1	-32.7	-32.7	28.7	-33.1	-39.9	-39.9	33.3
1:12	-32.7	-59.9	-93.9	52.5	-37.9	-69.3	-108.4	52.5	-43.9	-80.0	-125.2	52.5
2:12	-29.3	-56.5	-87.1	49.8	-34.0	-65.3	-100.6	51.8	-39.4	-75.5	-116.2	54.0
3:12	-29.3	-56.5	-87.1	46.3	-34.0	-65.4	-100.6	48.2	-39.4	-75.6	-116.2	50.5
4:12	-29.4	-56.6	-87.1	42.6	-34.0	-65.4	-100.7	44.6	-39.4	-75.6	-116.3	46.8
5:12	-29.4	-56.6	-87.2	39.1	-34.1	-65.4	-100.7	41.1	-39.5	-75.6	-116.3	43.3
6:12	-29.4	-56.6	-87.2	35.8	-34.1	-65.5	-100.7	37.8	-39.5	-75.7	-116.3	40.0
7:12	-32.9	-39.7	-39.7	43.0	-38.1	-45.9	-45.9	46.5	-44.1	-53.1	-53.1	50.6
8:12	-32.9	-39.7	-39.7	40.4	-38.1	-46.0	-46.0	43.9	-44.1	-53.1	-53.1	47.9
9:12	-33.0	-39.8	-39.8	38.0	-38.2	-46.0	-46.0	41.5	-44.2	-53.2	-53.2	45.6
10:12	-33.0	-39.8	-39.8	36.0	-38.2	-46.0	-46.0	39.5	-44.2	-53.2	-53.2	43.6
11:12	-33.0	-39.8	-39.8	34.2	-38.2	-46.1	-46.1	38.1	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.3	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	47.6	-45.1	-82.2	-128.6	47.6	-51.1	-93.0	-145.4	48.5
2:12	-35.8	-68.7	-105.8	49.2	-40.5	-77.6	-119.3	51.2	-45.9	-87.8	-134.9	53.4
3:12	-35.8	-68.8	-105.8	46.0	-40.5	-77.6	-119.3	47.9	-45.9	-87.8	-134.9	50.2
4:12	-35.8	-68.8	-105.9	42.7	-40.5	-77.6	-119.4	44.7	-45.9	-87.8	-135.0	46.9
5:12	-35.9	-68.8	-105.9	39.5	-40.6	-77.7	-119.4	41.5	-46.0	-87.9	-135.0	43.7
6:12	-35.9	-68.9	-105.9	36.6	-40.6	-77.7	-119.4	38.5	-46.0	-87.9	-135.0	40.8
7:12	-40.1	-48.3	-48.3	46.2	-45.3	-54.5	-54.5	49.7	-51.3	-61.7	-61.7	53.8
8:12	-40.1	-48.4	-48.4	43.8	-45.3	-54.6	-54.6	47.3	-51.3	-61.8	-61.8	51.3
9:12	-40.2	-48.4	-48.4	41.7	-45.4	-54.6	-54.6	45.2	-51.4	-61.8	-61.8	50.2
10:12	-40.2	-48.4	-48.4	40.0	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9

Basic Wind Speed **175 mph**
Ground Snow Load **70 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Side Load (psf)

Basic Wind Speed
175 mph

Ground Snow Load
80 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	59.4	-26.7	-49.1	-77.1	59.4	-32.7	-59.9	-93.9	59.4
2:12	-23.9	-46.3	-71.5	54.5	-23.9	-46.3	-71.5	54.5	-29.3	-56.5	-87.1	54.6
3:12	-23.9	-46.3	-71.5	49.1	-23.9	-46.3	-71.5	49.1	-29.3	-56.5	-87.1	50.5
4:12	-24.0	-46.4	-71.6	44.1	-24.0	-46.4	-71.6	44.1	-29.4	-56.6	-87.1	46.4
5:12	-24.0	-46.4	-71.6	40.1	-24.0	-46.4	-71.6	40.1	-29.4	-56.6	-87.2	42.4
6:12	-24.0	-46.4	-71.6	36.4	-24.0	-46.4	-71.6	36.4	-29.4	-56.6	-87.2	38.6
7:12	-26.9	-32.5	-32.5	41.4	-26.9	-32.5	-32.5	41.4	-32.9	-39.7	-39.7	45.4
8:12	-26.9	-32.5	-32.5	38.3	-26.9	-32.5	-32.5	38.3	-32.9	-39.7	-39.7	42.4
9:12	-27.0	-32.6	-32.6	35.7	-27.0	-32.6	-32.6	35.7	-33.0	-39.8	-39.8	39.7
10:12	-27.0	-32.6	-32.6	33.4	-27.0	-32.6	-32.6	33.4	-33.0	-39.8	-39.8	37.4
11:12	-27.0	-32.6	-32.6	31.4	-27.0	-32.6	-32.6	31.4	-33.0	-39.8	-39.8	35.4
12:12	-27.1	-32.7	-32.7	29.7	-27.1	-32.7	-32.7	29.7	-33.1	-39.9	-39.9	33.7
1:12	-32.7	-59.9	-93.9	59.4	-37.9	-69.3	-108.4	59.4	-43.9	-80.0	-125.2	59.4
2:12	-29.3	-56.5	-87.1	54.6	-34.0	-65.3	-100.6	56.5	-39.4	-75.5	-116.2	58.8
3:12	-29.3	-56.5	-87.1	50.5	-34.0	-65.4	-100.6	52.5	-39.4	-75.6	-116.2	54.7
4:12	-29.4	-56.6	-87.1	46.4	-34.0	-65.4	-100.7	48.3	-39.4	-75.6	-116.3	50.6
5:12	-29.4	-56.6	-87.2	42.4	-34.1	-65.4	-100.7	44.3	-39.5	-75.6	-116.3	46.6
6:12	-29.4	-56.6	-87.2	38.6	-34.1	-65.5	-100.7	40.6	-39.5	-75.7	-116.3	42.8
7:12	-32.9	-39.7	-39.7	45.4	-38.1	-45.9	-45.9	48.9	-44.1	-53.1	-53.1	53.0
8:12	-32.9	-39.7	-39.7	42.4	-38.1	-46.0	-46.0	45.9	-44.1	-53.1	-53.1	49.9
9:12	-33.0	-39.8	-39.8	39.7	-38.2	-46.0	-46.0	43.2	-44.2	-53.2	-53.2	47.3
10:12	-33.0	-39.8	-39.8	37.4	-38.2	-46.0	-46.0	40.9	-44.2	-53.2	-53.2	45.0
11:12	-33.0	-39.8	-39.8	35.4	-38.2	-46.1	-46.1	38.9	-44.2	-53.3	-53.3	43.5
12:12	-33.1	-39.9	-39.9	33.7	-38.3	-46.1	-46.1	38.0	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	53.9	-45.1	-82.2	-128.6	53.9	-51.1	-93.0	-145.4	53.9
2:12	-35.8	-68.7	-105.8	53.5	-40.5	-77.6	-119.3	55.4	-45.9	-87.8	-134.9	57.7
3:12	-35.8	-68.8	-105.8	49.8	-40.5	-77.6	-119.3	51.8	-45.9	-87.8	-134.9	54.0
4:12	-35.8	-68.8	-105.9	46.1	-40.5	-77.6	-119.4	48.0	-45.9	-87.8	-135.0	50.3
5:12	-35.9	-68.8	-105.9	42.5	-40.6	-77.7	-119.4	44.4	-46.0	-87.9	-135.0	46.7
6:12	-35.9	-68.9	-105.9	39.1	-40.6	-77.7	-119.4	41.0	-46.0	-87.9	-135.0	43.3
7:12	-40.1	-48.3	-48.3	48.4	-45.3	-54.5	-54.5	51.9	-51.3	-61.7	-61.7	55.9
8:12	-40.1	-48.4	-48.4	45.6	-45.3	-54.6	-54.6	49.1	-51.3	-61.8	-61.8	53.2
9:12	-40.2	-48.4	-48.4	43.2	-45.4	-54.6	-54.6	46.7	-51.4	-61.8	-61.8	50.8
10:12	-40.2	-48.4	-48.4	41.1	-45.4	-54.7	-54.7	44.7	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	39.9	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Table W175-S80

Up and Down (psf)

Basic Wind Speed
175 mph
Ground Snow Load
90 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	66.4	-26.7	-49.1	-77.1	66.4	-32.7	-59.9	-93.9	66.4
2:12	-23.9	-46.3	-71.5	60.9	-23.9	-46.3	-71.5	60.9	-29.3	-56.5	-87.1	60.9
3:12	-23.9	-46.3	-71.5	54.8	-23.9	-46.3	-71.5	54.8	-29.3	-56.5	-87.1	54.8
4:12	-24.0	-46.4	-71.6	48.6	-24.0	-46.4	-71.6	48.6	-29.4	-56.6	-87.1	50.1
5:12	-24.0	-46.4	-71.6	43.4	-24.0	-46.4	-71.6	43.4	-29.4	-56.6	-87.2	45.6
6:12	-24.0	-46.4	-71.6	39.2	-24.0	-46.4	-71.6	39.2	-29.4	-56.6	-87.2	41.4
7:12	-26.9	-32.5	-32.5	43.8	-26.9	-32.5	-32.5	43.8	-32.9	-39.7	-39.7	47.8
8:12	-26.9	-32.5	-32.5	40.4	-26.9	-32.5	-32.5	40.4	-32.9	-39.7	-39.7	44.4
9:12	-27.0	-32.6	-32.6	37.4	-27.0	-32.6	-32.6	37.4	-33.0	-39.8	-39.8	41.4
10:12	-27.0	-32.6	-32.6	34.8	-27.0	-32.6	-32.6	34.8	-33.0	-39.8	-39.8	38.9
11:12	-27.0	-32.6	-32.6	32.6	-27.0	-32.6	-32.6	32.6	-33.0	-39.8	-39.8	36.6
12:12	-27.1	-32.7	-32.7	30.7	-27.1	-32.7	-32.7	30.7	-33.1	-39.9	-39.9	34.7
1:12	-32.7	-59.9	-93.9	66.4	-37.9	-69.3	-108.4	66.4	-43.9	-80.0	-125.2	66.4
2:12	-29.3	-56.5	-87.1	60.9	-34.0	-65.3	-100.6	61.3	-39.4	-75.5	-116.2	63.6
3:12	-29.3	-56.5	-87.1	54.8	-34.0	-65.4	-100.6	56.7	-39.4	-75.6	-116.2	59.0
4:12	-29.4	-56.6	-87.1	50.1	-34.0	-65.4	-100.7	52.1	-39.4	-75.6	-116.3	54.3
5:12	-29.4	-56.6	-87.2	45.6	-34.1	-65.4	-100.7	47.6	-39.5	-75.6	-116.3	49.8
6:12	-29.4	-56.6	-87.2	41.4	-34.1	-65.5	-100.7	43.4	-39.5	-75.7	-116.3	45.6
7:12	-32.9	-39.7	-39.7	47.8	-38.1	-45.9	-45.9	51.3	-44.1	-53.1	-53.1	55.4
8:12	-32.9	-39.7	-39.7	44.4	-38.1	-46.0	-46.0	47.9	-44.1	-53.1	-53.1	52.0
9:12	-33.0	-39.8	-39.8	41.4	-38.2	-46.0	-46.0	44.9	-44.2	-53.2	-53.2	49.0
10:12	-33.0	-39.8	-39.8	38.9	-38.2	-46.0	-46.0	42.4	-44.2	-53.2	-53.2	46.4
11:12	-33.0	-39.8	-39.8	36.6	-38.2	-46.1	-46.1	40.1	-44.2	-53.3	-53.3	44.2
12:12	-33.1	-39.9	-39.9	34.7	-38.3	-46.1	-46.1	38.3	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	60.1	-45.1	-82.2	-128.6	60.1	-51.1	-93.0	-145.4	60.1
2:12	-35.8	-68.7	-105.8	57.8	-40.5	-77.6	-119.3	59.7	-45.9	-87.8	-134.9	62.0
3:12	-35.8	-68.8	-105.8	53.6	-40.5	-77.6	-119.3	55.6	-45.9	-87.8	-134.9	57.8
4:12	-35.8	-68.8	-105.9	49.5	-40.5	-77.6	-119.4	51.4	-45.9	-87.8	-135.0	53.7
5:12	-35.9	-68.8	-105.9	45.4	-40.6	-77.7	-119.4	47.4	-46.0	-87.9	-135.0	49.6
6:12	-35.9	-68.9	-105.9	41.6	-40.6	-77.7	-119.4	43.6	-46.0	-87.9	-135.0	45.8
7:12	-40.1	-48.3	-48.3	50.5	-45.3	-54.5	-54.5	54.0	-51.3	-61.7	-61.7	58.1
8:12	-40.1	-48.4	-48.4	47.4	-45.3	-54.6	-54.6	51.0	-51.3	-61.8	-61.8	55.0
9:12	-40.2	-48.4	-48.4	44.7	-45.4	-54.6	-54.6	48.3	-51.4	-61.8	-61.8	52.3
10:12	-40.2	-48.4	-48.4	42.4	-45.4	-54.7	-54.7	45.9	-51.4	-61.9	-61.9	50.1
11:12	-40.2	-48.5	-48.5	40.4	-45.4	-54.7	-54.7	44.6	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
175 mph
Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-26.7	-49.1	-77.1	73.4	-26.7	-49.1	-77.1	73.4	-32.7	-59.9	-93.9	73.4
2:12	-23.9	-46.3	-71.5	67.2	-23.9	-46.3	-71.5	67.2	-29.3	-56.5	-87.1	67.2
3:12	-23.9	-46.3	-71.5	60.5	-23.9	-46.3	-71.5	60.5	-29.3	-56.5	-87.1	60.5
4:12	-24.0	-46.4	-71.6	53.6	-24.0	-46.4	-71.6	53.6	-29.4	-56.6	-87.1	53.9
5:12	-24.0	-46.4	-71.6	47.0	-24.0	-46.4	-71.6	47.0	-29.4	-56.6	-87.2	48.9
6:12	-24.0	-46.4	-71.6	42.0	-24.0	-46.4	-71.6	42.0	-29.4	-56.6	-87.2	44.3
7:12	-26.9	-32.5	-32.5	46.2	-26.9	-32.5	-32.5	46.2	-32.9	-39.7	-39.7	50.2
8:12	-26.9	-32.5	-32.5	42.4	-26.9	-32.5	-32.5	42.4	-32.9	-39.7	-39.7	46.4
9:12	-27.0	-32.6	-32.6	39.1	-27.0	-32.6	-32.6	39.1	-33.0	-39.8	-39.8	43.1
10:12	-27.0	-32.6	-32.6	36.2	-27.0	-32.6	-32.6	36.2	-33.0	-39.8	-39.8	40.3
11:12	-27.0	-32.6	-32.6	33.8	-27.0	-32.6	-32.6	33.8	-33.0	-39.8	-39.8	37.8
12:12	-27.1	-32.7	-32.7	31.7	-27.1	-32.7	-32.7	31.7	-33.1	-39.9	-39.9	35.8
1:12	-32.7	-59.9	-93.9	73.4	-37.9	-69.3	-108.4	73.4	-43.9	-80.0	-125.2	73.4
2:12	-29.3	-56.5	-87.1	67.2	-34.0	-65.3	-100.6	67.2	-39.4	-75.5	-116.2	68.3
3:12	-29.3	-56.5	-87.1	60.5	-34.0	-65.4	-100.6	61.0	-39.4	-75.6	-116.2	63.2
4:12	-29.4	-56.6	-87.1	53.9	-34.0	-65.4	-100.7	55.8	-39.4	-75.6	-116.3	58.1
5:12	-29.4	-56.6	-87.2	48.9	-34.1	-65.4	-100.7	50.9	-39.5	-75.6	-116.3	53.1
6:12	-29.4	-56.6	-87.2	44.3	-34.1	-65.5	-100.7	46.2	-39.5	-75.7	-116.3	48.5
7:12	-32.9	-39.7	-39.7	50.2	-38.1	-45.9	-45.9	53.7	-44.1	-53.1	-53.1	57.8
8:12	-32.9	-39.7	-39.7	46.4	-38.1	-46.0	-46.0	50.0	-44.1	-53.1	-53.1	54.0
9:12	-33.0	-39.8	-39.8	43.1	-38.2	-46.0	-46.0	46.7	-44.2	-53.2	-53.2	50.7
10:12	-33.0	-39.8	-39.8	40.3	-38.2	-46.0	-46.0	43.8	-44.2	-53.2	-53.2	47.8
11:12	-33.0	-39.8	-39.8	37.8	-38.2	-46.1	-46.1	41.4	-44.2	-53.3	-53.3	45.4
12:12	-33.1	-39.9	-39.9	35.8	-38.3	-46.1	-46.1	39.3	-44.3	-53.3	-53.3	43.4
1:12	-39.9	-72.9	-114.0	66.4	-45.1	-82.2	-128.6	66.4	-51.1	-93.0	-145.4	66.4
2:12	-35.8	-68.7	-105.8	62.1	-40.5	-77.6	-119.3	64.0	-45.9	-87.8	-134.9	66.3
3:12	-35.8	-68.8	-105.8	57.5	-40.5	-77.6	-119.3	59.4	-45.9	-87.8	-134.9	61.7
4:12	-35.8	-68.8	-105.9	52.8	-40.5	-77.6	-119.4	54.8	-45.9	-87.8	-135.0	57.0
5:12	-35.9	-68.8	-105.9	48.3	-40.6	-77.7	-119.4	50.3	-46.0	-87.9	-135.0	52.5
6:12	-35.9	-68.9	-105.9	44.1	-40.6	-77.7	-119.4	46.1	-46.0	-87.9	-135.0	48.3
7:12	-40.1	-48.3	-48.3	52.7	-45.3	-54.5	-54.5	56.2	-51.3	-61.7	-61.7	60.2
8:12	-40.1	-48.4	-48.4	49.3	-45.3	-54.6	-54.6	52.8	-51.3	-61.8	-61.8	56.8
9:12	-40.2	-48.4	-48.4	46.3	-45.4	-54.6	-54.6	49.8	-51.4	-61.8	-61.8	53.8
10:12	-40.2	-48.4	-48.4	43.7	-45.4	-54.7	-54.7	47.2	-51.4	-61.9	-61.9	51.3
11:12	-40.2	-48.5	-48.5	41.5	-45.4	-54.7	-54.7	45.0	-51.4	-61.9	-61.9	50.0
12:12	-40.3	-48.5	-48.5	39.8	-45.5	-54.7	-54.7	44.5	-51.5	-61.9	-61.9	49.9
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
180 mph

Ground Snow Load
0 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-28.3	-52.0	-81.6	13.4	-28.3	-52.0	-81.6	13.4	-34.7	-63.4	-99.4	14.6
2:12	-25.4	-49.1	-75.7	18.6	-25.4	-49.1	-75.7	18.6	-31.1	-59.9	-92.2	21.8
3:12	-25.4	-49.1	-75.7	18.5	-25.4	-49.1	-75.7	18.5	-31.1	-59.9	-92.2	21.7
4:12	-25.4	-49.1	-75.8	18.5	-25.4	-49.1	-75.8	18.5	-31.1	-59.9	-92.3	21.6
5:12	-25.5	-49.2	-75.8	18.4	-25.5	-49.2	-75.8	18.4	-31.2	-59.9	-92.3	21.5
6:12	-25.5	-49.2	-75.8	18.2	-25.5	-49.2	-75.8	18.2	-31.2	-60.0	-92.3	21.4
7:12	-28.5	-34.4	-34.4	30.0	-28.5	-34.4	-34.4	30.0	-34.8	-42.0	-42.0	35.7
8:12	-28.5	-34.5	-34.5	29.9	-28.5	-34.5	-34.5	29.9	-34.9	-42.1	-42.1	35.6
9:12	-28.6	-34.5	-34.5	29.7	-28.6	-34.5	-34.5	29.7	-34.9	-42.1	-42.1	35.4
10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
1:12	-34.7	-63.4	-99.4	14.6	-40.2	-73.3	-114.8	16.3	-46.5	-84.8	-132.6	18.2
2:12	-31.1	-59.9	-92.2	21.8	-36.0	-69.2	-106.5	24.5	-41.8	-80.0	-123.0	27.7
3:12	-31.1	-59.9	-92.2	21.7	-36.1	-69.2	-106.5	24.5	-41.8	-80.0	-123.0	27.6
4:12	-31.1	-59.9	-92.3	21.6	-36.1	-69.3	-106.6	24.4	-41.8	-80.0	-123.1	27.6
5:12	-31.2	-59.9	-92.3	21.5	-36.1	-69.3	-106.6	24.3	-41.8	-80.1	-123.1	27.5
6:12	-31.2	-60.0	-92.3	21.4	-36.2	-69.3	-106.6	24.2	-41.9	-80.1	-123.1	27.3
7:12	-34.8	-42.0	-42.0	35.7	-40.3	-48.6	-48.6	40.6	-46.7	-56.3	-56.3	46.3
8:12	-34.9	-42.1	-42.1	35.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
1:12	-42.3	-77.1	-120.7	16.9	-47.8	-87.0	-136.1	18.6	-54.1	-98.5	-153.9	20.5
2:12	-37.9	-72.8	-112.0	25.6	-42.9	-82.2	-126.3	28.3	-48.6	-92.9	-142.8	31.5
3:12	-38.0	-72.8	-112.0	25.5	-42.9	-82.2	-126.3	28.3	-48.6	-93.0	-142.8	31.4
4:12	-38.0	-72.9	-112.1	25.4	-42.9	-82.2	-126.4	28.2	-48.7	-93.0	-142.9	31.4
5:12	-38.0	-72.9	-112.1	25.3	-43.0	-82.2	-126.4	28.1	-48.7	-93.0	-142.9	31.3
6:12	-38.1	-72.9	-112.1	25.2	-43.0	-82.3	-126.4	28.0	-48.7	-93.1	-142.9	31.1
7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
180 mph

Ground Snow Load
5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.3	-52.0	-81.6	14.8	-28.3	-52.0	-81.6	14.8	-34.7	-63.4	-99.4	15.6
2:12	-25.4	-49.1	-75.7	18.6	-25.4	-49.1	-75.7	18.6	-31.1	-59.9	-92.2	21.8
3:12	-25.4	-49.1	-75.7	18.5	-25.4	-49.1	-75.7	18.5	-31.1	-59.9	-92.2	21.7
4:12	-25.4	-49.1	-75.8	18.5	-25.4	-49.1	-75.8	18.5	-31.1	-59.9	-92.3	21.6
5:12	-25.5	-49.2	-75.8	18.4	-25.5	-49.2	-75.8	18.4	-31.2	-59.9	-92.3	21.5
6:12	-25.5	-49.2	-75.8	18.2	-25.5	-49.2	-75.8	18.2	-31.2	-60.0	-92.3	21.4
7:12	-28.5	-34.4	-34.4	30.0	-28.5	-34.4	-34.4	30.0	-34.8	-42.0	-42.0	35.7
8:12	-28.5	-34.5	-34.5	29.9	-28.5	-34.5	-34.5	29.9	-34.9	-42.1	-42.1	35.6
9:12	-28.6	-34.5	-34.5	29.7	-28.6	-34.5	-34.5	29.7	-34.9	-42.1	-42.1	35.4
10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
Exposure Category C												
1:12	-34.7	-63.4	-99.4	15.6	-40.2	-73.3	-114.8	16.9	-46.5	-84.8	-132.6	18.3
2:12	-31.1	-59.9	-92.2	21.8	-36.0	-69.2	-106.5	24.5	-41.8	-80.0	-123.0	27.7
3:12	-31.1	-59.9	-92.2	21.7	-36.1	-69.2	-106.5	24.5	-41.8	-80.0	-123.0	27.6
4:12	-31.1	-59.9	-92.3	21.6	-36.1	-69.3	-106.6	24.4	-41.8	-80.0	-123.1	27.6
5:12	-31.2	-59.9	-92.3	21.5	-36.1	-69.3	-106.6	24.3	-41.8	-80.1	-123.1	27.5
6:12	-31.2	-60.0	-92.3	21.4	-36.2	-69.3	-106.6	24.2	-41.9	-80.1	-123.1	27.3
7:12	-34.8	-42.0	-42.0	35.7	-40.3	-48.6	-48.6	40.6	-46.7	-56.3	-56.3	46.3
8:12	-34.9	-42.1	-42.1	35.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D												
1:12	-42.3	-77.1	-120.7	17.4	-47.8	-87.0	-136.1	18.6	-54.1	-98.5	-153.9	20.5
2:12	-37.9	-72.8	-112.0	25.6	-42.9	-82.2	-126.3	28.3	-48.6	-92.9	-142.8	31.5
3:12	-38.0	-72.8	-112.0	25.5	-42.9	-82.2	-126.3	28.3	-48.6	-93.0	-142.8	31.4
4:12	-38.0	-72.9	-112.1	25.4	-42.9	-82.2	-126.4	28.2	-48.7	-93.0	-142.9	31.4
5:12	-38.0	-72.9	-112.1	25.3	-43.0	-82.2	-126.4	28.1	-48.7	-93.0	-142.9	31.3
6:12	-38.1	-72.9	-112.1	25.2	-43.0	-82.3	-126.4	28.0	-48.7	-93.1	-142.9	31.1
7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-28.3	-52.0	-81.6	18.5	-28.3	-52.0	-81.6	18.5	-34.7	-63.4	-99.4	19.4
	2:12	-25.4	-49.1	-75.7	21.7	-25.4	-49.1	-75.7	21.7	-31.1	-59.9	-92.2	24.1
	3:12	-25.4	-49.1	-75.7	20.9	-25.4	-49.1	-75.7	20.9	-31.1	-59.9	-92.2	23.3
	4:12	-25.4	-49.1	-75.8	18.5	-25.4	-49.1	-75.8	18.5	-31.1	-59.9	-92.3	21.6
	5:12	-25.5	-49.2	-75.8	18.4	-25.5	-49.2	-75.8	18.4	-31.2	-59.9	-92.3	21.5
	6:12	-25.5	-49.2	-75.8	18.2	-25.5	-49.2	-75.8	18.2	-31.2	-60.0	-92.3	21.4
	7:12	-28.5	-34.4	-34.4	30.0	-28.5	-34.4	-34.4	30.0	-34.8	-42.0	-42.0	35.7
	8:12	-28.5	-34.5	-34.5	29.9	-28.5	-34.5	-34.5	29.9	-34.9	-42.1	-42.1	35.6
	9:12	-28.6	-34.5	-34.5	29.7	-28.6	-34.5	-34.5	29.7	-34.9	-42.1	-42.1	35.4
	10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
	11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
	12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
Exposure Category C	1:12	-34.7	-63.4	-99.4	19.4	-40.2	-73.3	-114.8	20.6	-46.5	-84.8	-132.6	22.0
	2:12	-31.1	-59.9	-92.2	24.1	-36.0	-69.2	-106.5	26.1	-41.8	-80.0	-123.0	28.5
	3:12	-31.1	-59.9	-92.2	23.3	-36.1	-69.2	-106.5	25.4	-41.8	-80.0	-123.0	27.7
	4:12	-31.1	-59.9	-92.3	21.6	-36.1	-69.3	-106.6	24.4	-41.8	-80.0	-123.1	27.6
	5:12	-31.2	-59.9	-92.3	21.5	-36.1	-69.3	-106.6	24.3	-41.8	-80.1	-123.1	27.5
	6:12	-31.2	-60.0	-92.3	21.4	-36.2	-69.3	-106.6	24.2	-41.9	-80.1	-123.1	27.3
	7:12	-34.8	-42.0	-42.0	35.7	-40.3	-48.6	-48.6	40.6	-46.7	-56.3	-56.3	46.3
	8:12	-34.9	-42.1	-42.1	35.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
	9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
	10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
	11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
	12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D	1:12	-42.3	-77.1	-120.7	21.1	-47.8	-87.0	-136.1	22.3	-54.1	-98.5	-153.9	23.8
	2:12	-37.9	-72.8	-112.0	26.9	-42.9	-82.2	-126.3	29.0	-48.6	-92.9	-142.8	31.5
	3:12	-38.0	-72.8	-112.0	26.1	-42.9	-82.2	-126.3	28.3	-48.6	-93.0	-142.8	31.4
	4:12	-38.0	-72.9	-112.1	25.4	-42.9	-82.2	-126.4	28.2	-48.7	-93.0	-142.9	31.4
	5:12	-38.0	-72.9	-112.1	25.3	-43.0	-82.2	-126.4	28.1	-48.7	-93.0	-142.9	31.3
	6:12	-38.1	-72.9	-112.1	25.2	-43.0	-82.3	-126.4	28.0	-48.7	-93.1	-142.9	31.1
	7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
	8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
	9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
	10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
	11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
	12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
	2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
	3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
	4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
	5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
	6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
	7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
	8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
	9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
	10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
	11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **180 mph**

Ground Snow Load **10 psf**

Up and Down (psf)

Side Load (psf)

Table W180-S10

Up and Down (psf)

Basic Wind Speed
180 mph
Ground Snow Load
15 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-28.3	-52.0	-81.6	22.2	-28.3	-52.0	-81.6	22.2	-34.7	-63.4	-99.4	23.1
2:12	-25.4	-49.1	-75.7	25.1	-25.4	-49.1	-75.7	25.1	-31.1	-59.9	-92.2	27.5
3:12	-25.4	-49.1	-75.7	24.0	-25.4	-49.1	-75.7	24.0	-31.1	-59.9	-92.2	26.3
4:12	-25.4	-49.1	-75.8	20.4	-25.4	-49.1	-75.8	20.4	-31.1	-59.9	-92.3	22.8
5:12	-25.5	-49.2	-75.8	19.5	-25.5	-49.2	-75.8	19.5	-31.2	-59.9	-92.3	21.9
6:12	-25.5	-49.2	-75.8	18.8	-25.5	-49.2	-75.8	18.8	-31.2	-60.0	-92.3	21.4
7:12	-28.5	-34.4	-34.4	30.0	-28.5	-34.4	-34.4	30.0	-34.8	-42.0	-42.0	35.7
8:12	-28.5	-34.5	-34.5	29.9	-28.5	-34.5	-34.5	29.9	-34.9	-42.1	-42.1	35.6
9:12	-28.6	-34.5	-34.5	29.7	-28.6	-34.5	-34.5	29.7	-34.9	-42.1	-42.1	35.4
10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
1:12	-34.7	-63.4	-99.4	23.1	-40.2	-73.3	-114.8	24.3	-46.5	-84.8	-132.6	25.8
2:12	-31.1	-59.9	-92.2	27.5	-36.0	-69.2	-106.5	29.5	-41.8	-80.0	-123.0	31.9
3:12	-31.1	-59.9	-92.2	26.3	-36.1	-69.2	-106.5	28.4	-41.8	-80.0	-123.0	30.8
4:12	-31.1	-59.9	-92.3	22.8	-36.1	-69.3	-106.6	24.8	-41.8	-80.0	-123.1	27.6
5:12	-31.2	-59.9	-92.3	21.9	-36.1	-69.3	-106.6	24.3	-41.8	-80.1	-123.1	27.5
6:12	-31.2	-60.0	-92.3	21.4	-36.2	-69.3	-106.6	24.2	-41.9	-80.1	-123.1	27.3
7:12	-34.8	-42.0	-42.0	35.7	-40.3	-48.6	-48.6	40.6	-46.7	-56.3	-56.3	46.3
8:12	-34.9	-42.1	-42.1	35.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
1:12	-42.3	-77.1	-120.7	24.8	-47.8	-87.0	-136.1	26.0	-54.1	-98.5	-153.9	27.5
2:12	-37.9	-72.8	-112.0	30.3	-42.9	-82.2	-126.3	32.4	-48.6	-92.9	-142.8	34.8
3:12	-38.0	-72.8	-112.0	29.2	-42.9	-82.2	-126.3	31.2	-48.6	-93.0	-142.8	33.6
4:12	-38.0	-72.9	-112.1	25.4	-42.9	-82.2	-126.4	28.2	-48.7	-93.0	-142.9	31.4
5:12	-38.0	-72.9	-112.1	25.3	-43.0	-82.2	-126.4	28.1	-48.7	-93.0	-142.9	31.3
6:12	-38.1	-72.9	-112.1	25.2	-43.0	-82.3	-126.4	28.0	-48.7	-93.1	-142.9	31.1
7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Up and Down (psf)													
Exposure Category B	1:12	-28.3	-52.0	-81.6	25.9	-28.3	-52.0	-81.6	25.9	-34.7	-63.4	-99.4	26.8
	2:12	-25.4	-49.1	-75.7	28.5	-25.4	-49.1	-75.7	28.5	-31.1	-59.9	-92.2	30.9
	3:12	-25.4	-49.1	-75.7	27.0	-25.4	-49.1	-75.7	27.0	-31.1	-59.9	-92.2	29.4
	4:12	-25.4	-49.1	-75.8	22.3	-25.4	-49.1	-75.8	22.3	-31.1	-59.9	-92.3	24.6
	5:12	-25.5	-49.2	-75.8	21.2	-25.5	-49.2	-75.8	21.2	-31.2	-59.9	-92.3	23.6
	6:12	-25.5	-49.2	-75.8	20.2	-25.5	-49.2	-75.8	20.2	-31.2	-60.0	-92.3	22.5
	7:12	-28.5	-34.4	-34.4	30.0	-28.5	-34.4	-34.4	30.0	-34.8	-42.0	-42.0	35.7
	8:12	-28.5	-34.5	-34.5	29.9	-28.5	-34.5	-34.5	29.9	-34.9	-42.1	-42.1	35.6
	9:12	-28.6	-34.5	-34.5	29.7	-28.6	-34.5	-34.5	29.7	-34.9	-42.1	-42.1	35.4
	10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
	11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
	12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
Exposure Category C	1:12	-34.7	-63.4	-99.4	26.8	-40.2	-73.3	-114.8	28.1	-46.5	-84.8	-132.6	29.5
	2:12	-31.1	-59.9	-92.2	30.9	-36.0	-69.2	-106.5	32.9	-41.8	-80.0	-123.0	35.3
	3:12	-31.1	-59.9	-92.2	29.4	-36.1	-69.2	-106.5	31.4	-41.8	-80.0	-123.0	33.8
	4:12	-31.1	-59.9	-92.3	24.6	-36.1	-69.3	-106.6	26.7	-41.8	-80.0	-123.1	29.1
	5:12	-31.2	-59.9	-92.3	23.6	-36.1	-69.3	-106.6	25.6	-41.8	-80.1	-123.1	28.0
	6:12	-31.2	-60.0	-92.3	22.5	-36.2	-69.3	-106.6	24.6	-41.9	-80.1	-123.1	27.3
	7:12	-34.8	-42.0	-42.0	35.7	-40.3	-48.6	-48.6	40.6	-46.7	-56.3	-56.3	46.3
	8:12	-34.9	-42.1	-42.1	35.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
	9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
	10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
	11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
	12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D	1:12	-42.3	-77.1	-120.7	28.5	-47.8	-87.0	-136.1	29.8	-54.1	-98.5	-153.9	31.2
	2:12	-37.9	-72.8	-112.0	33.7	-42.9	-82.2	-126.3	35.8	-48.6	-92.9	-142.8	38.2
	3:12	-38.0	-72.8	-112.0	32.2	-42.9	-82.2	-126.3	34.3	-48.6	-93.0	-142.8	36.7
	4:12	-38.0	-72.9	-112.1	26.7	-42.9	-82.2	-126.4	28.8	-48.7	-93.0	-142.9	31.4
	5:12	-38.0	-72.9	-112.1	25.8	-43.0	-82.2	-126.4	28.1	-48.7	-93.0	-142.9	31.3
	6:12	-38.1	-72.9	-112.1	25.2	-43.0	-82.3	-126.4	28.0	-48.7	-93.1	-142.9	31.1
	7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
	8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
	9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
	10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
	11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
	12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Side Load (psf)													
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
	2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
	3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
	4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
	5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
	6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
	7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
	8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
	9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
	10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
	11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7	
Lateral													
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed **180 mph**

Ground Snow Load **20 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.3	-52.0	-81.6	25.9	-28.3	-52.0	-81.6	25.9	-34.7	-63.4	-99.4	26.8
2:12	-25.4	-49.1	-75.7	28.5	-25.4	-49.1	-75.7	28.5	-31.1	-59.9	-92.2	30.9
3:12	-25.4	-49.1	-75.7	27.0	-25.4	-49.1	-75.7	27.0	-31.1	-59.9	-92.2	29.4
4:12	-25.4	-49.1	-75.8	24.1	-25.4	-49.1	-75.8	24.1	-31.1	-59.9	-92.3	26.5
5:12	-25.5	-49.2	-75.8	22.8	-25.5	-49.2	-75.8	22.8	-31.2	-59.9	-92.3	25.2
6:12	-25.5	-49.2	-75.8	21.6	-25.5	-49.2	-75.8	21.6	-31.2	-60.0	-92.3	23.9
7:12	-28.5	-34.4	-34.4	30.0	-28.5	-34.4	-34.4	30.0	-34.8	-42.0	-42.0	35.7
8:12	-28.5	-34.5	-34.5	29.9	-28.5	-34.5	-34.5	29.9	-34.9	-42.1	-42.1	35.6
9:12	-28.6	-34.5	-34.5	29.7	-28.6	-34.5	-34.5	29.7	-34.9	-42.1	-42.1	35.4
10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
Exposure Category C												
1:12	-34.7	-63.4	-99.4	26.8	-40.2	-73.3	-114.8	28.1	-46.5	-84.8	-132.6	29.5
2:12	-31.1	-59.9	-92.2	30.9	-36.0	-69.2	-106.5	32.9	-41.8	-80.0	-123.0	35.3
3:12	-31.1	-59.9	-92.2	29.4	-36.1	-69.2	-106.5	31.4	-41.8	-80.0	-123.0	33.8
4:12	-31.1	-59.9	-92.3	26.5	-36.1	-69.3	-106.6	28.6	-41.8	-80.0	-123.1	30.9
5:12	-31.2	-59.9	-92.3	25.2	-36.1	-69.3	-106.6	27.2	-41.8	-80.1	-123.1	29.6
6:12	-31.2	-60.0	-92.3	23.9	-36.2	-69.3	-106.6	26.0	-41.9	-80.1	-123.1	28.4
7:12	-34.8	-42.0	-42.0	35.7	-40.3	-48.6	-48.6	40.6	-46.7	-56.3	-56.3	46.3
8:12	-34.9	-42.1	-42.1	35.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D												
1:12	-42.3	-77.1	-120.7	28.5	-47.8	-87.0	-136.1	29.8	-54.1	-98.5	-153.9	31.2
2:12	-37.9	-72.8	-112.0	33.7	-42.9	-82.2	-126.3	35.8	-48.6	-92.9	-142.8	38.2
3:12	-38.0	-72.8	-112.0	32.2	-42.9	-82.2	-126.3	34.3	-48.6	-93.0	-142.8	36.7
4:12	-38.0	-72.9	-112.1	28.4	-42.9	-82.2	-126.4	30.5	-48.7	-93.0	-142.9	32.9
5:12	-38.0	-72.9	-112.1	27.2	-43.0	-82.2	-126.4	29.3	-48.7	-93.0	-142.9	31.7
6:12	-38.1	-72.9	-112.1	26.1	-43.0	-82.3	-126.4	28.2	-48.7	-93.1	-142.9	31.1
7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6

Basic Wind Speed **180 mph**
Ground Snow Load **25 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
180 mph
Ground Snow Load
30 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-28.3	-52.0	-81.6	26.7	-28.3	-52.0	-81.6	26.7	-34.7	-63.4	-99.4	27.6
2:12	-25.4	-49.1	-75.7	29.2	-25.4	-49.1	-75.7	29.2	-31.1	-59.9	-92.2	31.6
3:12	-25.4	-49.1	-75.7	27.6	-25.4	-49.1	-75.7	27.6	-31.1	-59.9	-92.2	30.0
4:12	-25.4	-49.1	-75.8	26.0	-25.4	-49.1	-75.8	26.0	-31.1	-59.9	-92.3	28.4
5:12	-25.5	-49.2	-75.8	24.4	-25.5	-49.2	-75.8	24.4	-31.2	-59.9	-92.3	26.8
6:12	-25.5	-49.2	-75.8	23.0	-25.5	-49.2	-75.8	23.0	-31.2	-60.0	-92.3	25.3
7:12	-28.5	-34.4	-34.4	30.5	-28.5	-34.4	-34.4	30.5	-34.8	-42.0	-42.0	35.7
8:12	-28.5	-34.5	-34.5	29.9	-28.5	-34.5	-34.5	29.9	-34.9	-42.1	-42.1	35.6
9:12	-28.6	-34.5	-34.5	29.7	-28.6	-34.5	-34.5	29.7	-34.9	-42.1	-42.1	35.4
10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
1:12	-34.7	-63.4	-99.4	27.6	-40.2	-73.3	-114.8	28.8	-46.5	-84.8	-132.6	30.2
2:12	-31.1	-59.9	-92.2	31.6	-36.0	-69.2	-106.5	33.6	-41.8	-80.0	-123.0	36.0
3:12	-31.1	-59.9	-92.2	30.0	-36.1	-69.2	-106.5	32.0	-41.8	-80.0	-123.0	34.4
4:12	-31.1	-59.9	-92.3	28.4	-36.1	-69.3	-106.6	30.4	-41.8	-80.0	-123.1	32.8
5:12	-31.2	-59.9	-92.3	26.8	-36.1	-69.3	-106.6	28.9	-41.8	-80.1	-123.1	31.3
6:12	-31.2	-60.0	-92.3	25.3	-36.2	-69.3	-106.6	27.4	-41.9	-80.1	-123.1	29.8
7:12	-34.8	-42.0	-42.0	35.7	-40.3	-48.6	-48.6	40.6	-46.7	-56.3	-56.3	46.3
8:12	-34.9	-42.1	-42.1	35.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
1:12	-42.3	-77.1	-120.7	28.5	-47.8	-87.0	-136.1	29.8	-54.1	-98.5	-153.9	31.2
2:12	-37.9	-72.8	-112.0	33.7	-42.9	-82.2	-126.3	35.8	-48.6	-92.9	-142.8	38.2
3:12	-38.0	-72.8	-112.0	32.2	-42.9	-82.2	-126.3	34.3	-48.6	-93.0	-142.8	36.7
4:12	-38.0	-72.9	-112.1	30.1	-42.9	-82.2	-126.4	32.2	-48.7	-93.0	-142.9	34.6
5:12	-38.0	-72.9	-112.1	28.7	-43.0	-82.2	-126.4	30.8	-48.7	-93.0	-142.9	33.1
6:12	-38.1	-72.9	-112.1	27.4	-43.0	-82.3	-126.4	29.4	-48.7	-93.1	-142.9	31.8
7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.3	-52.0	-81.6	29.3	-28.3	-52.0	-81.6	29.3	-34.7	-63.4	-99.4	30.2
2:12	-25.4	-49.1	-75.7	31.6	-25.4	-49.1	-75.7	31.6	-31.1	-59.9	-92.2	33.9
3:12	-25.4	-49.1	-75.7	29.7	-25.4	-49.1	-75.7	29.7	-31.1	-59.9	-92.2	32.1
4:12	-25.4	-49.1	-75.8	27.9	-25.4	-49.1	-75.8	27.9	-31.1	-59.9	-92.3	30.3
5:12	-25.5	-49.2	-75.8	26.1	-25.5	-49.2	-75.8	26.1	-31.2	-59.9	-92.3	28.4
6:12	-25.5	-49.2	-75.8	24.4	-25.5	-49.2	-75.8	24.4	-31.2	-60.0	-92.3	26.7
7:12	-28.5	-34.4	-34.4	31.7	-28.5	-34.4	-34.4	31.7	-34.8	-42.0	-42.0	36.0
8:12	-28.5	-34.5	-34.5	30.3	-28.5	-34.5	-34.5	30.3	-34.9	-42.1	-42.1	35.6
9:12	-28.6	-34.5	-34.5	29.7	-28.6	-34.5	-34.5	29.7	-34.9	-42.1	-42.1	35.4
10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
Exposure Category C												
1:12	-34.7	-63.4	-99.4	30.2	-40.2	-73.3	-114.8	31.4	-46.5	-84.8	-132.6	32.8
2:12	-31.1	-59.9	-92.2	33.9	-36.0	-69.2	-106.5	36.0	-41.8	-80.0	-123.0	38.4
3:12	-31.1	-59.9	-92.2	32.1	-36.1	-69.2	-106.5	34.2	-41.8	-80.0	-123.0	36.5
4:12	-31.1	-59.9	-92.3	30.3	-36.1	-69.3	-106.6	32.3	-41.8	-80.0	-123.1	34.7
5:12	-31.2	-59.9	-92.3	28.4	-36.1	-69.3	-106.6	30.5	-41.8	-80.1	-123.1	32.9
6:12	-31.2	-60.0	-92.3	26.7	-36.2	-69.3	-106.6	28.8	-41.9	-80.1	-123.1	31.2
7:12	-34.8	-42.0	-42.0	36.0	-40.3	-48.6	-48.6	40.6	-46.7	-56.3	-56.3	46.3
8:12	-34.9	-42.1	-42.1	35.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D												
1:12	-42.3	-77.1	-120.7	30.1	-47.8	-87.0	-136.1	31.3	-54.1	-98.5	-153.9	32.7
2:12	-37.9	-72.8	-112.0	35.1	-42.9	-82.2	-126.3	37.2	-48.6	-92.9	-142.8	39.6
3:12	-38.0	-72.8	-112.0	33.5	-42.9	-82.2	-126.3	35.5	-48.6	-93.0	-142.8	37.9
4:12	-38.0	-72.9	-112.1	31.8	-42.9	-82.2	-126.4	33.9	-48.7	-93.0	-142.9	36.2
5:12	-38.0	-72.9	-112.1	30.2	-43.0	-82.2	-126.4	32.2	-48.7	-93.0	-142.9	34.6
6:12	-38.1	-72.9	-112.1	28.6	-43.0	-82.3	-126.4	30.7	-48.7	-93.1	-142.9	33.1
7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6

Basic Wind Speed
180 mph

Ground Snow Load
35 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6
2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-28.3	-52.0	-81.6	31.9	-28.3	-52.0	-81.6	31.9	-34.7	-63.4	-99.4	32.8
	2:12	-25.4	-49.1	-75.7	33.9	-25.4	-49.1	-75.7	33.9	-31.1	-59.9	-92.2	36.3
	3:12	-25.4	-49.1	-75.7	31.9	-25.4	-49.1	-75.7	31.9	-31.1	-59.9	-92.2	34.2
	4:12	-25.4	-49.1	-75.8	29.7	-25.4	-49.1	-75.8	29.7	-31.1	-59.9	-92.3	32.1
	5:12	-25.5	-49.2	-75.8	27.7	-25.5	-49.2	-75.8	27.7	-31.2	-59.9	-92.3	30.1
	6:12	-25.5	-49.2	-75.8	25.8	-25.5	-49.2	-75.8	25.8	-31.2	-60.0	-92.3	28.2
	7:12	-28.5	-34.4	-34.4	32.9	-28.5	-34.4	-34.4	32.9	-34.8	-42.0	-42.0	37.2
	8:12	-28.5	-34.5	-34.5	31.3	-28.5	-34.5	-34.5	31.3	-34.9	-42.1	-42.1	35.6
	9:12	-28.6	-34.5	-34.5	29.9	-28.6	-34.5	-34.5	29.9	-34.9	-42.1	-42.1	35.4
	10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
	11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
	12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
Exposure Category C	1:12	-34.7	-63.4	-99.4	32.8	-40.2	-73.3	-114.8	34.0	-46.5	-84.8	-132.6	35.4
	2:12	-31.1	-59.9	-92.2	36.3	-36.0	-69.2	-106.5	38.4	-41.8	-80.0	-123.0	40.8
	3:12	-31.1	-59.9	-92.2	34.2	-36.1	-69.2	-106.5	36.3	-41.8	-80.0	-123.0	38.7
	4:12	-31.1	-59.9	-92.3	32.1	-36.1	-69.3	-106.6	34.2	-41.8	-80.0	-123.1	36.6
	5:12	-31.2	-59.9	-92.3	30.1	-36.1	-69.3	-106.6	32.1	-41.8	-80.1	-123.1	34.5
	6:12	-31.2	-60.0	-92.3	28.2	-36.2	-69.3	-106.6	30.2	-41.9	-80.1	-123.1	32.6
	7:12	-34.8	-42.0	-42.0	37.2	-40.3	-48.6	-48.6	40.9	-46.7	-56.3	-56.3	46.3
	8:12	-34.9	-42.1	-42.1	35.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
	9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
	10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
	11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
	12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D	1:12	-42.3	-77.1	-120.7	32.4	-47.8	-87.0	-136.1	33.6	-54.1	-98.5	-153.9	35.1
	2:12	-37.9	-72.8	-112.0	37.3	-42.9	-82.2	-126.3	39.3	-48.6	-92.9	-142.8	41.7
	3:12	-38.0	-72.8	-112.0	35.4	-42.9	-82.2	-126.3	37.4	-48.6	-93.0	-142.8	39.8
	4:12	-38.0	-72.9	-112.1	33.5	-42.9	-82.2	-126.4	35.5	-48.7	-93.0	-142.9	37.9
	5:12	-38.0	-72.9	-112.1	31.6	-43.0	-82.2	-126.4	33.7	-48.7	-93.0	-142.9	36.1
	6:12	-38.1	-72.9	-112.1	29.9	-43.0	-82.3	-126.4	31.9	-48.7	-93.1	-142.9	34.3
	7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
	8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
	9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
	10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
	11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
	12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8	5.5
	2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
	3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
	4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
	5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
	6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
	7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
	8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
	9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
	10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
	11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.7	9.1	9.7	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Basic Wind Speed **180 mph**

Ground Snow Load **40 psf**

Up and Down (psf)

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-28.3	-52.0	-81.6	35.1	-28.3	-52.0	-81.6	35.1	-34.7	-63.4	-99.4	35.4
	2:12	-25.4	-49.1	-75.7	36.3	-25.4	-49.1	-75.7	36.3	-31.1	-59.9	-92.2	38.7
	3:12	-25.4	-49.1	-75.7	34.0	-25.4	-49.1	-75.7	34.0	-31.1	-59.9	-92.2	36.4
	4:12	-25.4	-49.1	-75.8	31.6	-25.4	-49.1	-75.8	31.6	-31.1	-59.9	-92.3	34.0
	5:12	-25.5	-49.2	-75.8	29.3	-25.5	-49.2	-75.8	29.3	-31.2	-59.9	-92.3	31.7
	6:12	-25.5	-49.2	-75.8	27.2	-25.5	-49.2	-75.8	27.2	-31.2	-60.0	-92.3	29.6
	7:12	-28.5	-34.4	-34.4	34.1	-28.5	-34.4	-34.4	34.1	-34.8	-42.0	-42.0	38.4
	8:12	-28.5	-34.5	-34.5	32.3	-28.5	-34.5	-34.5	32.3	-34.9	-42.1	-42.1	36.6
	9:12	-28.6	-34.5	-34.5	30.8	-28.6	-34.5	-34.5	30.8	-34.9	-42.1	-42.1	35.4
	10:12	-28.6	-34.5	-34.5	29.6	-28.6	-34.5	-34.5	29.6	-35.0	-42.2	-42.2	35.3
	11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
	12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
Exposure Category C	1:12	-34.7	-63.4	-99.4	35.4	-40.2	-73.3	-114.8	36.6	-46.5	-84.8	-132.6	38.1
	2:12	-31.1	-59.9	-92.2	38.7	-36.0	-69.2	-106.5	40.7	-41.8	-80.0	-123.0	43.1
	3:12	-31.1	-59.9	-92.2	36.4	-36.1	-69.2	-106.5	38.4	-41.8	-80.0	-123.0	40.8
	4:12	-31.1	-59.9	-92.3	34.0	-36.1	-69.3	-106.6	36.1	-41.8	-80.0	-123.1	38.4
	5:12	-31.2	-59.9	-92.3	31.7	-36.1	-69.3	-106.6	33.8	-41.8	-80.1	-123.1	36.2
	6:12	-31.2	-60.0	-92.3	29.6	-36.2	-69.3	-106.6	31.6	-41.9	-80.1	-123.1	34.0
	7:12	-34.8	-42.0	-42.0	38.4	-40.3	-48.6	-48.6	42.1	-46.7	-56.3	-56.3	46.4
	8:12	-34.9	-42.1	-42.1	36.6	-40.4	-48.7	-48.7	40.5	-46.7	-56.3	-56.3	46.2
	9:12	-34.9	-42.1	-42.1	35.4	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
	10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
	11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
	12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D	1:12	-42.3	-77.1	-120.7	34.8	-47.8	-87.0	-136.1	36.0	-54.1	-98.5	-153.9	37.4
	2:12	-37.9	-72.8	-112.0	39.4	-42.9	-82.2	-126.3	41.5	-48.6	-92.9	-142.8	43.8
	3:12	-38.0	-72.8	-112.0	37.3	-42.9	-82.2	-126.3	39.4	-48.6	-93.0	-142.8	41.7
	4:12	-38.0	-72.9	-112.1	35.2	-42.9	-82.2	-126.4	37.2	-48.7	-93.0	-142.9	39.6
	5:12	-38.0	-72.9	-112.1	33.1	-43.0	-82.2	-126.4	35.2	-48.7	-93.0	-142.9	37.5
	6:12	-38.1	-72.9	-112.1	31.1	-43.0	-82.3	-126.4	33.2	-48.7	-93.1	-142.9	35.6
	7:12	-42.5	-51.2	-51.2	42.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
	8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
	9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
	10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
	11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
	12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
	2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
	3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
	4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
	5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
	6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
	7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
	8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
	9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
	10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
	11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	9.4	9.9	10.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **180 mph**

Ground Snow Load **45 psf**

Up and Down (psf)

Side Load (psf)

Table W180-S45

Up and Down (psf)

Basic Wind Speed
180 mph
Ground Snow Load
50 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.3	-52.0	-81.6	38.6	-28.3	-52.0	-81.6	38.6	-34.7	-63.4	-99.4	38.6
2:12	-25.4	-49.1	-75.7	38.7	-25.4	-49.1	-75.7	38.7	-31.1	-59.9	-92.2	41.1
3:12	-25.4	-49.1	-75.7	36.1	-25.4	-49.1	-75.7	36.1	-31.1	-59.9	-92.2	38.5
4:12	-25.4	-49.1	-75.8	33.5	-25.4	-49.1	-75.8	33.5	-31.1	-59.9	-92.3	35.9
5:12	-25.5	-49.2	-75.8	31.0	-25.5	-49.2	-75.8	31.0	-31.2	-59.9	-92.3	33.3
6:12	-25.5	-49.2	-75.8	28.6	-25.5	-49.2	-75.8	28.6	-31.2	-60.0	-92.3	31.0
7:12	-28.5	-34.4	-34.4	35.3	-28.5	-34.4	-34.4	35.3	-34.8	-42.0	-42.0	39.6
8:12	-28.5	-34.5	-34.5	33.3	-28.5	-34.5	-34.5	33.3	-34.9	-42.1	-42.1	37.6
9:12	-28.6	-34.5	-34.5	31.6	-28.6	-34.5	-34.5	31.6	-34.9	-42.1	-42.1	35.9
10:12	-28.6	-34.5	-34.5	30.1	-28.6	-34.5	-34.5	30.1	-35.0	-42.2	-42.2	35.3
11:12	-28.7	-34.6	-34.6	29.5	-28.7	-34.6	-34.6	29.5	-35.0	-42.2	-42.2	35.2
12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
Exposure Category C												
1:12	-34.7	-63.4	-99.4	38.6	-40.2	-73.3	-114.8	39.2	-46.5	-84.8	-132.6	40.7
2:12	-31.1	-59.9	-92.2	41.1	-36.0	-69.2	-106.5	43.1	-41.8	-80.0	-123.0	45.5
3:12	-31.1	-59.9	-92.2	38.5	-36.1	-69.2	-106.5	40.5	-41.8	-80.0	-123.0	42.9
4:12	-31.1	-59.9	-92.3	35.9	-36.1	-69.3	-106.6	37.9	-41.8	-80.0	-123.1	40.3
5:12	-31.2	-59.9	-92.3	33.3	-36.1	-69.3	-106.6	35.4	-41.8	-80.1	-123.1	37.8
6:12	-31.2	-60.0	-92.3	31.0	-36.2	-69.3	-106.6	33.0	-41.9	-80.1	-123.1	35.4
7:12	-34.8	-42.0	-42.0	39.6	-40.3	-48.6	-48.6	43.3	-46.7	-56.3	-56.3	47.6
8:12	-34.9	-42.1	-42.1	37.6	-40.4	-48.7	-48.7	41.3	-46.7	-56.3	-56.3	46.2
9:12	-34.9	-42.1	-42.1	35.9	-40.4	-48.7	-48.7	40.4	-46.8	-56.3	-56.3	46.1
10:12	-35.0	-42.2	-42.2	35.3	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D												
1:12	-42.3	-77.1	-120.7	37.1	-47.8	-87.0	-136.1	38.3	-54.1	-98.5	-153.9	39.8
2:12	-37.9	-72.8	-112.0	41.5	-42.9	-82.2	-126.3	43.6	-48.6	-92.9	-142.8	46.0
3:12	-38.0	-72.8	-112.0	39.2	-42.9	-82.2	-126.3	41.3	-48.6	-93.0	-142.8	43.7
4:12	-38.0	-72.9	-112.1	36.9	-42.9	-82.2	-126.4	38.9	-48.7	-93.0	-142.9	41.3
5:12	-38.0	-72.9	-112.1	34.6	-43.0	-82.2	-126.4	36.6	-48.7	-93.0	-142.9	39.0
6:12	-38.1	-72.9	-112.1	32.4	-43.0	-82.3	-126.4	34.5	-48.7	-93.1	-142.9	36.9
7:12	-42.5	-51.2	-51.2	43.5	-48.0	-57.8	-57.8	47.5	-54.3	-65.4	-65.4	53.2
8:12	-42.5	-51.2	-51.2	42.4	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Basic Wind Speed
180 mph
Ground Snow Load
60 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.3	-52.0	-81.6	45.5	-28.3	-52.0	-81.6	45.5	-34.7	-63.4	-99.4	45.5
2:12	-25.4	-49.1	-75.7	43.4	-25.4	-49.1	-75.7	43.4	-31.1	-59.9	-92.2	45.8
3:12	-25.4	-49.1	-75.7	40.4	-25.4	-49.1	-75.7	40.4	-31.1	-59.9	-92.2	42.7
4:12	-25.4	-49.1	-75.8	37.2	-25.4	-49.1	-75.8	37.2	-31.1	-59.9	-92.3	39.6
5:12	-25.5	-49.2	-75.8	34.2	-25.5	-49.2	-75.8	34.2	-31.2	-59.9	-92.3	36.6
6:12	-25.5	-49.2	-75.8	31.4	-25.5	-49.2	-75.8	31.4	-31.2	-60.0	-92.3	33.8
7:12	-28.5	-34.4	-34.4	37.7	-28.5	-34.4	-34.4	37.7	-34.8	-42.0	-42.0	42.0
8:12	-28.5	-34.5	-34.5	35.4	-28.5	-34.5	-34.5	35.4	-34.9	-42.1	-42.1	39.7
9:12	-28.6	-34.5	-34.5	33.3	-28.6	-34.5	-34.5	33.3	-34.9	-42.1	-42.1	37.6
10:12	-28.6	-34.5	-34.5	31.6	-28.6	-34.5	-34.5	31.6	-35.0	-42.2	-42.2	35.9
11:12	-28.7	-34.6	-34.6	30.1	-28.7	-34.6	-34.6	30.1	-35.0	-42.2	-42.2	35.2
12:12	-28.7	-34.6	-34.6	29.4	-28.7	-34.6	-34.6	29.4	-35.0	-42.2	-42.2	35.1
Exposure Category C												
1:12	-34.7	-63.4	-99.4	45.5	-40.2	-73.3	-114.8	45.5	-46.5	-84.8	-132.6	45.9
2:12	-31.1	-59.9	-92.2	45.8	-36.0	-69.2	-106.5	47.9	-41.8	-80.0	-123.0	50.3
3:12	-31.1	-59.9	-92.2	42.7	-36.1	-69.2	-106.5	44.8	-41.8	-80.0	-123.0	47.2
4:12	-31.1	-59.9	-92.3	39.6	-36.1	-69.3	-106.6	41.7	-41.8	-80.0	-123.1	44.1
5:12	-31.2	-59.9	-92.3	36.6	-36.1	-69.3	-106.6	38.7	-41.8	-80.1	-123.1	41.0
6:12	-31.2	-60.0	-92.3	33.8	-36.2	-69.3	-106.6	35.8	-41.9	-80.1	-123.1	38.2
7:12	-34.8	-42.0	-42.0	42.0	-40.3	-48.6	-48.6	45.7	-46.7	-56.3	-56.3	50.0
8:12	-34.9	-42.1	-42.1	39.7	-40.4	-48.7	-48.7	43.4	-46.7	-56.3	-56.3	47.6
9:12	-34.9	-42.1	-42.1	37.6	-40.4	-48.7	-48.7	41.3	-46.8	-56.3	-56.3	46.1
10:12	-35.0	-42.2	-42.2	35.9	-40.5	-48.8	-48.8	40.3	-46.8	-56.4	-56.4	46.0
11:12	-35.0	-42.2	-42.2	35.2	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D												
1:12	-42.3	-77.1	-120.7	41.8	-47.8	-87.0	-136.1	43.0	-54.1	-98.5	-153.9	44.5
2:12	-37.9	-72.8	-112.0	45.8	-42.9	-82.2	-126.3	47.9	-48.6	-92.9	-142.8	50.3
3:12	-38.0	-72.8	-112.0	43.0	-42.9	-82.2	-126.3	45.1	-48.6	-93.0	-142.8	47.5
4:12	-38.0	-72.9	-112.1	40.2	-42.9	-82.2	-126.4	42.3	-48.7	-93.0	-142.9	44.7
5:12	-38.0	-72.9	-112.1	37.5	-43.0	-82.2	-126.4	39.6	-48.7	-93.0	-142.9	41.9
6:12	-38.1	-72.9	-112.1	34.9	-43.0	-82.3	-126.4	37.0	-48.7	-93.1	-142.9	39.4
7:12	-42.5	-51.2	-51.2	45.7	-48.0	-57.8	-57.8	49.4	-54.3	-65.4	-65.4	53.7
8:12	-42.5	-51.2	-51.2	43.6	-48.0	-57.8	-57.8	47.4	-54.3	-65.4	-65.4	53.1
9:12	-42.5	-51.3	-51.3	42.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-28.3	-52.0	-81.6	52.5	-28.3	-52.0	-81.6	52.5	-34.7	-63.4	-99.4	52.5
2:12	-25.4	-49.1	-75.7	48.2	-25.4	-49.1	-75.7	48.2	-31.1	-59.9	-92.2	50.6
3:12	-25.4	-49.1	-75.7	44.6	-25.4	-49.1	-75.7	44.6	-31.1	-59.9	-92.2	47.0
4:12	-25.4	-49.1	-75.8	41.0	-25.4	-49.1	-75.8	41.0	-31.1	-59.9	-92.3	43.4
5:12	-25.5	-49.2	-75.8	37.5	-25.5	-49.2	-75.8	37.5	-31.2	-59.9	-92.3	39.9
6:12	-25.5	-49.2	-75.8	34.2	-25.5	-49.2	-75.8	34.2	-31.2	-60.0	-92.3	36.6
7:12	-28.5	-34.4	-34.4	40.1	-28.5	-34.4	-34.4	40.1	-34.8	-42.0	-42.0	44.4
8:12	-28.5	-34.5	-34.5	37.4	-28.5	-34.5	-34.5	37.4	-34.9	-42.1	-42.1	41.7
9:12	-28.6	-34.5	-34.5	35.1	-28.6	-34.5	-34.5	35.1	-34.9	-42.1	-42.1	39.3
10:12	-28.6	-34.5	-34.5	33.0	-28.6	-34.5	-34.5	33.0	-35.0	-42.2	-42.2	37.3
11:12	-28.7	-34.6	-34.6	31.3	-28.7	-34.6	-34.6	31.3	-35.0	-42.2	-42.2	35.6
12:12	-28.7	-34.6	-34.6	29.8	-28.7	-34.6	-34.6	29.8	-35.0	-42.2	-42.2	35.1
Exposure Category C												
1:12	-34.7	-63.4	-99.4	52.5	-40.2	-73.3	-114.8	52.5	-46.5	-84.8	-132.6	52.5
2:12	-31.1	-59.9	-92.2	50.6	-36.0	-69.2	-106.5	52.6	-41.8	-80.0	-123.0	55.0
3:12	-31.1	-59.9	-92.2	47.0	-36.1	-69.2	-106.5	49.1	-41.8	-80.0	-123.0	51.4
4:12	-31.1	-59.9	-92.3	43.4	-36.1	-69.3	-106.6	45.4	-41.8	-80.0	-123.1	47.8
5:12	-31.2	-59.9	-92.3	39.9	-36.1	-69.3	-106.6	41.9	-41.8	-80.1	-123.1	44.3
6:12	-31.2	-60.0	-92.3	36.6	-36.2	-69.3	-106.6	38.6	-41.9	-80.1	-123.1	41.0
7:12	-34.8	-42.0	-42.0	44.4	-40.3	-48.6	-48.6	48.1	-46.7	-56.3	-56.3	52.4
8:12	-34.9	-42.1	-42.1	41.7	-40.4	-48.7	-48.7	45.4	-46.7	-56.3	-56.3	49.7
9:12	-34.9	-42.1	-42.1	39.3	-40.4	-48.7	-48.7	43.0	-46.8	-56.3	-56.3	47.3
10:12	-35.0	-42.2	-42.2	37.3	-40.5	-48.8	-48.8	41.0	-46.8	-56.4	-56.4	46.0
11:12	-35.0	-42.2	-42.2	35.6	-40.5	-48.8	-48.8	40.1	-46.9	-56.4	-56.4	45.9
12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D												
1:12	-42.3	-77.1	-120.7	47.6	-47.8	-87.0	-136.1	47.7	-54.1	-98.5	-153.9	49.1
2:12	-37.9	-72.8	-112.0	50.1	-42.9	-82.2	-126.3	52.2	-48.6	-92.9	-142.8	54.5
3:12	-38.0	-72.8	-112.0	46.9	-42.9	-82.2	-126.3	48.9	-48.6	-93.0	-142.8	51.3
4:12	-38.0	-72.9	-112.1	43.6	-42.9	-82.2	-126.4	45.7	-48.7	-93.0	-142.9	48.0
5:12	-38.0	-72.9	-112.1	40.4	-43.0	-82.2	-126.4	42.5	-48.7	-93.0	-142.9	44.9
6:12	-38.1	-72.9	-112.1	37.5	-43.0	-82.3	-126.4	39.5	-48.7	-93.1	-142.9	41.9
7:12	-42.5	-51.2	-51.2	47.8	-48.0	-57.8	-57.8	51.5	-54.3	-65.4	-65.4	55.8
8:12	-42.5	-51.2	-51.2	45.4	-48.0	-57.8	-57.8	49.1	-54.3	-65.4	-65.4	53.4
9:12	-42.5	-51.3	-51.3	43.3	-48.0	-57.9	-57.9	47.2	-54.4	-65.5	-65.5	53.0
10:12	-42.6	-51.3	-51.3	42.2	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6

Basic Wind Speed **180 mph**
Ground Snow Load **70 psf**

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-28.3	-52.0	-81.6	59.4	-28.3	-52.0	-81.6	59.4	-34.7	-63.4	-99.4	59.4
	2:12	-25.4	-49.1	-75.7	54.5	-25.4	-49.1	-75.7	54.5	-31.1	-59.9	-92.2	55.3
	3:12	-25.4	-49.1	-75.7	49.1	-25.4	-49.1	-75.7	49.1	-31.1	-59.9	-92.2	51.3
	4:12	-25.4	-49.1	-75.8	44.7	-25.4	-49.1	-75.8	44.7	-31.1	-59.9	-92.3	47.1
	5:12	-25.5	-49.2	-75.8	40.7	-25.5	-49.2	-75.8	40.7	-31.2	-59.9	-92.3	43.1
	6:12	-25.5	-49.2	-75.8	37.0	-25.5	-49.2	-75.8	37.0	-31.2	-60.0	-92.3	39.4
	7:12	-28.5	-34.4	-34.4	42.5	-28.5	-34.4	-34.4	42.5	-34.8	-42.0	-42.0	46.8
	8:12	-28.5	-34.5	-34.5	39.4	-28.5	-34.5	-34.5	39.4	-34.9	-42.1	-42.1	43.7
	9:12	-28.6	-34.5	-34.5	36.8	-28.6	-34.5	-34.5	36.8	-34.9	-42.1	-42.1	41.0
	10:12	-28.6	-34.5	-34.5	34.5	-28.6	-34.5	-34.5	34.5	-35.0	-42.2	-42.2	38.7
	11:12	-28.7	-34.6	-34.6	32.5	-28.7	-34.6	-34.6	32.5	-35.0	-42.2	-42.2	36.8
	12:12	-28.7	-34.6	-34.6	30.8	-28.7	-34.6	-34.6	30.8	-35.0	-42.2	-42.2	35.1
Exposure Category C	1:12	-34.7	-63.4	-99.4	59.4	-40.2	-73.3	-114.8	59.4	-46.5	-84.8	-132.6	59.4
	2:12	-31.1	-59.9	-92.2	55.3	-36.0	-69.2	-106.5	57.4	-41.8	-80.0	-123.0	59.8
	3:12	-31.1	-59.9	-92.2	51.3	-36.1	-69.2	-106.5	53.3	-41.8	-80.0	-123.0	55.7
	4:12	-31.1	-59.9	-92.3	47.1	-36.1	-69.3	-106.6	49.2	-41.8	-80.0	-123.1	51.6
	5:12	-31.2	-59.9	-92.3	43.1	-36.1	-69.3	-106.6	45.2	-41.8	-80.1	-123.1	47.6
	6:12	-31.2	-60.0	-92.3	39.4	-36.2	-69.3	-106.6	41.4	-41.9	-80.1	-123.1	43.8
	7:12	-34.8	-42.0	-42.0	46.8	-40.3	-48.6	-48.6	50.5	-46.7	-56.3	-56.3	54.7
	8:12	-34.9	-42.1	-42.1	43.7	-40.4	-48.7	-48.7	47.4	-46.7	-56.3	-56.3	51.7
	9:12	-34.9	-42.1	-42.1	41.0	-40.4	-48.7	-48.7	44.8	-46.8	-56.3	-56.3	49.0
	10:12	-35.0	-42.2	-42.2	38.7	-40.5	-48.8	-48.8	42.5	-46.8	-56.4	-56.4	46.7
	11:12	-35.0	-42.2	-42.2	36.8	-40.5	-48.8	-48.8	40.5	-46.9	-56.4	-56.4	45.9
	12:12	-35.0	-42.2	-42.2	35.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
Exposure Category D	1:12	-42.3	-77.1	-120.7	53.9	-47.8	-87.0	-136.1	53.9	-54.1	-98.5	-153.9	53.9
	2:12	-37.9	-72.8	-112.0	54.4	-42.9	-82.2	-126.3	56.4	-48.6	-92.9	-142.8	58.8
	3:12	-38.0	-72.8	-112.0	50.7	-42.9	-82.2	-126.3	52.8	-48.6	-93.0	-142.8	55.1
	4:12	-38.0	-72.9	-112.1	47.0	-42.9	-82.2	-126.4	49.0	-48.7	-93.0	-142.9	51.4
	5:12	-38.0	-72.9	-112.1	43.4	-43.0	-82.2	-126.4	45.4	-48.7	-93.0	-142.9	47.8
	6:12	-38.1	-72.9	-112.1	40.0	-43.0	-82.3	-126.4	42.0	-48.7	-93.1	-142.9	44.4
	7:12	-42.5	-51.2	-51.2	50.0	-48.0	-57.8	-57.8	53.7	-54.3	-65.4	-65.4	58.0
	8:12	-42.5	-51.2	-51.2	47.2	-48.0	-57.8	-57.8	50.9	-54.3	-65.4	-65.4	55.2
	9:12	-42.5	-51.3	-51.3	44.8	-48.0	-57.9	-57.9	48.5	-54.4	-65.5	-65.5	53.0
	10:12	-42.6	-51.3	-51.3	42.7	-48.1	-57.9	-57.9	47.1	-54.4	-65.5	-65.5	52.8
	11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
	12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
	2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
	3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
	4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
	5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
	6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
	7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
	8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
	9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
	10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
	11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **180 mph**

Ground Snow Load **80 psf**

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-28.3	-52.0	-81.6	66.4	-28.3	-52.0	-81.6	66.4	-34.7	-63.4	-99.4	66.4
2:12	-25.4	-49.1	-75.7	60.9	-25.4	-49.1	-75.7	60.9	-31.1	-59.9	-92.2	60.9
3:12	-25.4	-49.1	-75.7	54.8	-25.4	-49.1	-75.7	54.8	-31.1	-59.9	-92.2	55.5
4:12	-25.4	-49.1	-75.8	48.6	-25.4	-49.1	-75.8	48.6	-31.1	-59.9	-92.3	50.9
5:12	-25.5	-49.2	-75.8	44.0	-25.5	-49.2	-75.8	44.0	-31.2	-59.9	-92.3	46.4
6:12	-25.5	-49.2	-75.8	39.8	-25.5	-49.2	-75.8	39.8	-31.2	-60.0	-92.3	42.2
7:12	-28.5	-34.4	-34.4	44.9	-28.5	-34.4	-34.4	44.9	-34.8	-42.0	-42.0	49.1
8:12	-28.5	-34.5	-34.5	41.5	-28.5	-34.5	-34.5	41.5	-34.9	-42.1	-42.1	45.7
9:12	-28.6	-34.5	-34.5	38.5	-28.6	-34.5	-34.5	38.5	-34.9	-42.1	-42.1	42.8
10:12	-28.6	-34.5	-34.5	35.9	-28.6	-34.5	-34.5	35.9	-35.0	-42.2	-42.2	40.2
11:12	-28.7	-34.6	-34.6	33.7	-28.7	-34.6	-34.6	33.7	-35.0	-42.2	-42.2	38.0
12:12	-28.7	-34.6	-34.6	31.8	-28.7	-34.6	-34.6	31.8	-35.0	-42.2	-42.2	36.1
1:12	-34.7	-63.4	-99.4	66.4	-40.2	-73.3	-114.8	66.4	-46.5	-84.8	-132.6	66.4
2:12	-31.1	-59.9	-92.2	60.9	-36.0	-69.2	-106.5	62.2	-41.8	-80.0	-123.0	64.5
3:12	-31.1	-59.9	-92.2	55.5	-36.1	-69.2	-106.5	57.6	-41.8	-80.0	-123.0	59.9
4:12	-31.1	-59.9	-92.3	50.9	-36.1	-69.3	-106.6	52.9	-41.8	-80.0	-123.1	55.3
5:12	-31.2	-59.9	-92.3	46.4	-36.1	-69.3	-106.6	48.4	-41.8	-80.1	-123.1	50.8
6:12	-31.2	-60.0	-92.3	42.2	-36.2	-69.3	-106.6	44.2	-41.9	-80.1	-123.1	46.6
7:12	-34.8	-42.0	-42.0	49.1	-40.3	-48.6	-48.6	52.9	-46.7	-56.3	-56.3	57.1
8:12	-34.9	-42.1	-42.1	45.7	-40.4	-48.7	-48.7	49.5	-46.7	-56.3	-56.3	53.7
9:12	-34.9	-42.1	-42.1	42.8	-40.4	-48.7	-48.7	46.5	-46.8	-56.3	-56.3	50.8
10:12	-35.0	-42.2	-42.2	40.2	-40.5	-48.8	-48.8	43.9	-46.8	-56.4	-56.4	48.2
11:12	-35.0	-42.2	-42.2	38.0	-40.5	-48.8	-48.8	41.7	-46.9	-56.4	-56.4	46.0
12:12	-35.0	-42.2	-42.2	36.1	-40.5	-48.8	-48.8	40.0	-46.9	-56.5	-56.5	45.7
1:12	-42.3	-77.1	-120.7	60.1	-47.8	-87.0	-136.1	60.1	-54.1	-98.5	-153.9	60.1
2:12	-37.9	-72.8	-112.0	58.7	-42.9	-82.2	-126.3	60.7	-48.6	-92.9	-142.8	63.1
3:12	-38.0	-72.8	-112.0	54.5	-42.9	-82.2	-126.3	56.6	-48.6	-93.0	-142.8	59.0
4:12	-38.0	-72.9	-112.1	50.4	-42.9	-82.2	-126.4	52.4	-48.7	-93.0	-142.9	54.8
5:12	-38.0	-72.9	-112.1	46.3	-43.0	-82.2	-126.4	48.4	-48.7	-93.0	-142.9	50.7
6:12	-38.1	-72.9	-112.1	42.5	-43.0	-82.3	-126.4	44.6	-48.7	-93.1	-142.9	47.0
7:12	-42.5	-51.2	-51.2	52.1	-48.0	-57.8	-57.8	55.8	-54.3	-65.4	-65.4	60.1
8:12	-42.5	-51.2	-51.2	49.1	-48.0	-57.8	-57.8	52.8	-54.3	-65.4	-65.4	57.1
9:12	-42.5	-51.3	-51.3	46.4	-48.0	-57.9	-57.9	50.1	-54.4	-65.5	-65.5	54.4
10:12	-42.6	-51.3	-51.3	44.0	-48.1	-57.9	-57.9	47.7	-54.4	-65.5	-65.5	52.8
11:12	-42.6	-51.3	-51.3	42.0	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **180 mph**
Ground Snow Load **90 psf**

Up and Down (psf)

Side Load (psf)

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-28.3	-52.0	-81.6	73.4	-28.3	-52.0	-81.6	73.4	-34.7	-63.4	-99.4	73.4
	2:12	-25.4	-49.1	-75.7	67.2	-25.4	-49.1	-75.7	67.2	-31.1	-59.9	-92.2	67.2
	3:12	-25.4	-49.1	-75.7	60.5	-25.4	-49.1	-75.7	60.5	-31.1	-59.9	-92.2	60.5
	4:12	-25.4	-49.1	-75.8	53.6	-25.4	-49.1	-75.8	53.6	-31.1	-59.9	-92.3	54.6
	5:12	-25.5	-49.2	-75.8	47.3	-25.5	-49.2	-75.8	47.3	-31.2	-59.9	-92.3	49.6
	6:12	-25.5	-49.2	-75.8	42.6	-25.5	-49.2	-75.8	42.6	-31.2	-60.0	-92.3	45.0
	7:12	-28.5	-34.4	-34.4	47.3	-28.5	-34.4	-34.4	47.3	-34.8	-42.0	-42.0	51.5
	8:12	-28.5	-34.5	-34.5	43.5	-28.5	-34.5	-34.5	43.5	-34.9	-42.1	-42.1	47.8
	9:12	-28.6	-34.5	-34.5	40.2	-28.6	-34.5	-34.5	40.2	-34.9	-42.1	-42.1	44.5
	10:12	-28.6	-34.5	-34.5	37.3	-28.6	-34.5	-34.5	37.3	-35.0	-42.2	-42.2	41.6
	11:12	-28.7	-34.6	-34.6	34.9	-28.7	-34.6	-34.6	34.9	-35.0	-42.2	-42.2	39.2
	12:12	-28.7	-34.6	-34.6	32.8	-28.7	-34.6	-34.6	32.8	-35.0	-42.2	-42.2	37.1
Exposure Category C	1:12	-34.7	-63.4	-99.4	73.4	-40.2	-73.3	-114.8	73.4	-46.5	-84.8	-132.6	73.4
	2:12	-31.1	-59.9	-92.2	67.2	-36.0	-69.2	-106.5	67.2	-41.8	-80.0	-123.0	69.3
	3:12	-31.1	-59.9	-92.2	60.5	-36.1	-69.2	-106.5	61.8	-41.8	-80.0	-123.0	64.2
	4:12	-31.1	-59.9	-92.3	54.6	-36.1	-69.3	-106.6	56.7	-41.8	-80.0	-123.1	59.1
	5:12	-31.2	-59.9	-92.3	49.6	-36.1	-69.3	-106.6	51.7	-41.8	-80.1	-123.1	54.1
	6:12	-31.2	-60.0	-92.3	45.0	-36.2	-69.3	-106.6	47.1	-41.9	-80.1	-123.1	49.4
	7:12	-34.8	-42.0	-42.0	51.5	-40.3	-48.6	-48.6	55.3	-46.7	-56.3	-56.3	59.5
	8:12	-34.9	-42.1	-42.1	47.8	-40.4	-48.7	-48.7	51.5	-46.7	-56.3	-56.3	55.8
	9:12	-34.9	-42.1	-42.1	44.5	-40.4	-48.7	-48.7	48.2	-46.8	-56.3	-56.3	52.5
	10:12	-35.0	-42.2	-42.2	41.6	-40.5	-48.8	-48.8	45.3	-46.8	-56.4	-56.4	49.6
	11:12	-35.0	-42.2	-42.2	39.2	-40.5	-48.8	-48.8	42.9	-46.9	-56.4	-56.4	47.2
	12:12	-35.0	-42.2	-42.2	37.1	-40.5	-48.8	-48.8	40.8	-46.9	-56.5	-56.5	45.7
Exposure Category D	1:12	-42.3	-77.1	-120.7	66.4	-47.8	-87.0	-136.1	66.4	-54.1	-98.5	-153.9	66.4
	2:12	-37.9	-72.8	-112.0	63.0	-42.9	-82.2	-126.3	65.0	-48.6	-92.9	-142.8	67.4
	3:12	-38.0	-72.8	-112.0	58.4	-42.9	-82.2	-126.3	60.4	-48.6	-93.0	-142.8	62.8
	4:12	-38.0	-72.9	-112.1	53.7	-42.9	-82.2	-126.4	55.8	-48.7	-93.0	-142.9	58.2
	5:12	-38.0	-72.9	-112.1	49.2	-43.0	-82.2	-126.4	51.3	-48.7	-93.0	-142.9	53.7
	6:12	-38.1	-72.9	-112.1	45.0	-43.0	-82.3	-126.4	47.1	-48.7	-93.1	-142.9	49.5
	7:12	-42.5	-51.2	-51.2	54.3	-48.0	-57.8	-57.8	58.0	-54.3	-65.4	-65.4	62.3
	8:12	-42.5	-51.2	-51.2	50.9	-48.0	-57.8	-57.8	54.6	-54.3	-65.4	-65.4	58.9
	9:12	-42.5	-51.3	-51.3	47.9	-48.0	-57.9	-57.9	51.6	-54.4	-65.5	-65.5	55.9
	10:12	-42.6	-51.3	-51.3	45.3	-48.1	-57.9	-57.9	49.0	-54.4	-65.5	-65.5	53.3
	11:12	-42.6	-51.3	-51.3	43.1	-48.1	-57.9	-57.9	47.0	-54.5	-65.6	-65.6	52.7
	12:12	-42.7	-51.4	-51.4	41.9	-48.2	-58.0	-58.0	46.9	-54.5	-65.6	-65.6	52.6
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
	2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
	3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
	4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
	5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
	6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
	7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
	8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
	9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
	10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
	11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **180 mph**

Ground Snow Load **100 psf**

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-31.7	-58.1	-91.1	13.7	-31.7	-58.1	-91.1	13.7	-38.8	-70.8	-110.9	15.9
	2:12	-28.4	-54.8	-84.5	20.3	-28.4	-54.8	-84.5	20.3	-34.8	-66.8	-102.9	23.8
	3:12	-28.4	-54.8	-84.5	20.2	-28.4	-54.8	-84.5	20.2	-34.8	-66.9	-102.9	23.8
	4:12	-28.5	-54.9	-84.6	20.1	-28.5	-54.9	-84.6	20.1	-34.8	-66.9	-102.9	23.7
	5:12	-28.5	-54.9	-84.6	20.0	-28.5	-54.9	-84.6	20.0	-34.9	-66.9	-103.0	23.6
	6:12	-28.5	-54.9	-84.6	19.9	-28.5	-54.9	-84.6	19.9	-34.9	-67.0	-103.0	23.5
	7:12	-31.9	-38.5	-38.5	33.0	-31.9	-38.5	-38.5	33.0	-39.0	-47.0	-47.0	39.4
	8:12	-31.9	-38.5	-38.5	32.9	-31.9	-38.5	-38.5	32.9	-39.0	-47.0	-47.0	39.3
	9:12	-32.0	-38.6	-38.6	32.8	-32.0	-38.6	-38.6	32.8	-39.0	-47.0	-47.0	39.1
	10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
	11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
	12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
Exposure Category C	1:12	-38.8	-70.8	-110.9	15.9	-44.9	-81.9	-128.1	17.7	-52.0	-94.6	-147.8	19.8
	2:12	-34.8	-66.8	-102.9	23.8	-40.3	-77.3	-118.8	26.9	-46.7	-89.3	-137.2	30.4
	3:12	-34.8	-66.9	-102.9	23.8	-40.3	-77.3	-118.8	26.8	-46.7	-89.3	-137.2	30.4
	4:12	-34.8	-66.9	-102.9	23.7	-40.4	-77.3	-118.9	26.7	-46.7	-89.3	-137.3	30.3
	5:12	-34.9	-66.9	-103.0	23.6	-40.4	-77.3	-118.9	26.6	-46.7	-89.4	-137.3	30.2
	6:12	-34.9	-67.0	-103.0	23.5	-40.4	-77.4	-118.9	26.5	-46.8	-89.4	-137.3	30.1
	7:12	-39.0	-47.0	-47.0	39.4	-45.1	-54.3	-54.3	44.9	-52.2	-62.8	-62.8	51.3
	8:12	-39.0	-47.0	-47.0	39.3	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
	9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
	10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
	11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
	12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
Exposure Category D	1:12	-47.3	-86.1	-134.6	18.4	-53.4	-97.1	-151.8	20.2	-60.5	-109.9	-171.6	22.4
	2:12	-42.4	-81.3	-125.0	28.1	-47.9	-91.7	-140.9	31.1	-54.3	-103.7	-159.3	34.7
	3:12	-42.4	-81.3	-125.0	28.0	-48.0	-91.7	-140.9	31.1	-54.3	-103.7	-159.3	34.6
	4:12	-42.5	-81.3	-125.0	27.9	-48.0	-91.7	-140.9	31.0	-54.4	-103.7	-159.3	34.5
	5:12	-42.5	-81.3	-125.0	27.8	-48.0	-91.8	-141.0	30.9	-54.4	-103.8	-159.3	34.4
	6:12	-42.5	-81.4	-125.1	27.7	-48.1	-91.8	-141.0	30.8	-54.4	-103.8	-159.4	34.3
	7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
	8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
	9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
	10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
	11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
	12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	0.3	0.6	0.8	1.0	1.2	1.3	1.9	2.1	2.5	3.2	4.0	4.8
	2:12	0.6	0.9	1.1	1.3	1.5	1.7	2.3	2.5	2.8	3.6	4.3	5.2
	3:12	0.9	1.2	1.4	1.6	1.8	2.0	2.6	2.8	3.2	3.9	4.6	5.5
	4:12	1.2	1.5	1.7	1.9	2.1	2.3	2.8	3.1	3.4	4.2	4.9	5.8
	5:12	1.5	1.7	1.9	2.2	2.3	2.5	3.1	3.3	3.7	4.4	5.1	6.0
	6:12	1.7	2.0	2.2	2.4	2.6	2.7	3.3	3.5	3.9	4.6	5.3	6.2
	7:12	1.9	2.2	2.4	2.6	2.8	2.9	3.5	3.7	4.1	4.8	5.5	6.3
	8:12	2.1	2.4	2.6	2.8	3.0	3.1	3.7	3.9	4.2	4.9	5.6	6.5
	9:12	2.3	2.5	2.7	2.9	3.1	3.3	3.8	4.0	4.4	5.0	5.7	6.5
	10:12	2.5	2.7	2.9	3.1	3.3	3.4	3.9	4.1	4.5	5.1	5.8	6.6
	11:12	2.6	2.8	3.0	3.2	3.4	3.5	4.0	4.2	4.6	5.2	5.9	6.6
	12:12	2.7	2.9	3.1	3.3	3.5	3.6	4.1	4.3	4.6	5.3	5.9	6.7
		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed

190 mph

Ground Snow Load

0 psf

Up and Down (psf)

Basic Wind Speed
190 mph
Ground Snow Load
5 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-31.7	-58.1	-91.1	15.0	-31.7	-58.1	-91.1	15.0	-38.8	-70.8	-110.9	16.6
2:12	-28.4	-54.8	-84.5	20.3	-28.4	-54.8	-84.5	20.3	-34.8	-66.8	-102.9	23.8
3:12	-28.4	-54.8	-84.5	20.2	-28.4	-54.8	-84.5	20.2	-34.8	-66.9	-102.9	23.8
4:12	-28.5	-54.9	-84.6	20.1	-28.5	-54.9	-84.6	20.1	-34.8	-66.9	-102.9	23.7
5:12	-28.5	-54.9	-84.6	20.0	-28.5	-54.9	-84.6	20.0	-34.9	-66.9	-103.0	23.6
6:12	-28.5	-54.9	-84.6	19.9	-28.5	-54.9	-84.6	19.9	-34.9	-67.0	-103.0	23.5
7:12	-31.9	-38.5	-38.5	33.0	-31.9	-38.5	-38.5	33.0	-39.0	-47.0	-47.0	39.4
8:12	-31.9	-38.5	-38.5	32.9	-31.9	-38.5	-38.5	32.9	-39.0	-47.0	-47.0	39.3
9:12	-32.0	-38.6	-38.6	32.8	-32.0	-38.6	-38.6	32.8	-39.0	-47.0	-47.0	39.1
10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
1:12	-38.8	-70.8	-110.9	16.6	-44.9	-81.9	-128.1	18.0	-52.0	-94.6	-147.8	19.8
2:12	-34.8	-66.8	-102.9	23.8	-40.3	-77.3	-118.8	26.9	-46.7	-89.3	-137.2	30.4
3:12	-34.8	-66.9	-102.9	23.8	-40.3	-77.3	-118.8	26.8	-46.7	-89.3	-137.2	30.4
4:12	-34.8	-66.9	-102.9	23.7	-40.4	-77.3	-118.9	26.7	-46.7	-89.3	-137.3	30.3
5:12	-34.9	-66.9	-103.0	23.6	-40.4	-77.3	-118.9	26.6	-46.7	-89.4	-137.3	30.2
6:12	-34.9	-67.0	-103.0	23.5	-40.4	-77.4	-118.9	26.5	-46.8	-89.4	-137.3	30.1
7:12	-39.0	-47.0	-47.0	39.4	-45.1	-54.3	-54.3	44.9	-52.2	-62.8	-62.8	51.3
8:12	-39.0	-47.0	-47.0	39.3	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
1:12	-47.3	-86.1	-134.6	18.5	-53.4	-97.1	-151.8	20.2	-60.5	-109.9	-171.6	22.4
2:12	-42.4	-81.3	-125.0	28.1	-47.9	-91.7	-140.9	31.1	-54.3	-103.7	-159.3	34.7
3:12	-42.4	-81.3	-125.0	28.0	-48.0	-91.7	-140.9	31.1	-54.3	-103.7	-159.3	34.6
4:12	-42.5	-81.3	-125.0	27.9	-48.0	-91.7	-140.9	31.0	-54.4	-103.7	-159.3	34.5
5:12	-42.5	-81.3	-125.0	27.8	-48.0	-91.8	-141.0	30.9	-54.4	-103.8	-159.3	34.4
6:12	-42.5	-81.4	-125.1	27.7	-48.1	-91.8	-141.0	30.8	-54.4	-103.8	-159.4	34.3
7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	0.7	0.8	1.0	1.1	1.3	1.4	1.9	2.1	2.5	3.2	4.0	4.8
2:12	1.4	1.4	1.6	1.7	1.9	2.0	2.4	2.6	2.9	3.6	4.3	5.2
3:12	1.9	1.9	2.0	2.2	2.4	2.5	2.9	3.1	3.4	3.9	4.6	5.5
4:12	2.0	2.0	2.2	2.4	2.5	2.6	3.1	3.2	3.5	4.2	4.9	5.8
5:12	2.4	2.4	2.5	2.7	2.8	2.9	3.4	3.5	3.8	4.4	5.1	6.0
6:12	2.7	2.7	2.8	2.9	3.1	3.2	3.6	3.8	4.0	4.6	5.3	6.2
7:12	2.9	2.9	3.0	3.1	3.3	3.4	3.8	4.0	4.2	4.8	5.5	6.3
8:12	3.0	3.0	3.1	3.3	3.4	3.5	4.0	4.1	4.4	4.9	5.6	6.5
9:12	3.2	3.2	3.3	3.4	3.6	3.7	4.1	4.2	4.5	5.0	5.7	6.5
10:12	3.3	3.3	3.4	3.5	3.7	3.8	4.2	4.3	4.6	5.1	5.8	6.6
11:12	3.3	3.3	3.5	3.6	3.7	3.8	4.2	4.4	4.6	5.2	5.9	6.6
12:12	3.4	3.4	3.5	3.7	3.8	3.9	4.3	4.4	4.7	5.3	5.9	6.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Lateral

Basic Wind Speed
190 mph

Ground Snow Load
10 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-31.7	-58.1	-91.1	18.7	-31.7	-58.1	-91.1	18.7	-38.8	-70.8	-110.9	20.3
2:12	-28.4	-54.8	-84.5	23.0	-28.4	-54.8	-84.5	23.0	-34.8	-66.8	-102.9	25.6
3:12	-28.4	-54.8	-84.5	22.2	-28.4	-54.8	-84.5	22.2	-34.8	-66.9	-102.9	24.8
4:12	-28.5	-54.9	-84.6	20.1	-28.5	-54.9	-84.6	20.1	-34.8	-66.9	-102.9	23.7
5:12	-28.5	-54.9	-84.6	20.0	-28.5	-54.9	-84.6	20.0	-34.9	-66.9	-103.0	23.6
6:12	-28.5	-54.9	-84.6	19.9	-28.5	-54.9	-84.6	19.9	-34.9	-67.0	-103.0	23.5
7:12	-31.9	-38.5	-38.5	33.0	-31.9	-38.5	-38.5	33.0	-39.0	-47.0	-47.0	39.4
8:12	-31.9	-38.5	-38.5	32.9	-31.9	-38.5	-38.5	32.9	-39.0	-47.0	-47.0	39.3
9:12	-32.0	-38.6	-38.6	32.8	-32.0	-38.6	-38.6	32.8	-39.0	-47.0	-47.0	39.1
10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
Exposure Category C												
1:12	-38.8	-70.8	-110.9	20.3	-44.9	-81.9	-128.1	21.7	-52.0	-94.6	-147.8	23.3
2:12	-34.8	-66.8	-102.9	25.6	-40.3	-77.3	-118.8	27.9	-46.7	-89.3	-137.2	30.6
3:12	-34.8	-66.9	-102.9	24.8	-40.3	-77.3	-118.8	27.1	-46.7	-89.3	-137.2	30.4
4:12	-34.8	-66.9	-102.9	23.7	-40.4	-77.3	-118.9	26.7	-46.7	-89.3	-137.3	30.3
5:12	-34.9	-66.9	-103.0	23.6	-40.4	-77.3	-118.9	26.6	-46.7	-89.4	-137.3	30.2
6:12	-34.9	-67.0	-103.0	23.5	-40.4	-77.4	-118.9	26.5	-46.8	-89.4	-137.3	30.1
7:12	-39.0	-47.0	-47.0	39.4	-45.1	-54.3	-54.3	44.9	-52.2	-62.8	-62.8	51.3
8:12	-39.0	-47.0	-47.0	39.3	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
Exposure Category D												
1:12	-47.3	-86.1	-134.6	22.2	-53.4	-97.1	-151.8	23.6	-60.5	-109.9	-171.6	25.2
2:12	-42.4	-81.3	-125.0	28.8	-47.9	-91.7	-140.9	31.1	-54.3	-103.7	-159.3	34.7
3:12	-42.4	-81.3	-125.0	28.0	-48.0	-91.7	-140.9	31.1	-54.3	-103.7	-159.3	34.6
4:12	-42.5	-81.3	-125.0	27.9	-48.0	-91.7	-140.9	31.0	-54.4	-103.7	-159.3	34.5
5:12	-42.5	-81.3	-125.0	27.8	-48.0	-91.8	-141.0	30.9	-54.4	-103.8	-159.3	34.4
6:12	-42.5	-81.4	-125.1	27.7	-48.1	-91.8	-141.0	30.8	-54.4	-103.8	-159.4	34.3
7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Down Slope												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.1	1.1	1.3	1.5	1.6	1.7	2.1	2.3	2.6	3.2	4.0	4.8
2:12	2.1	2.1	2.1	2.3	2.4	2.5	3.0	3.1	3.4	4.0	4.5	5.2
3:12	3.0	3.0	3.0	3.0	3.1	3.2	3.7	3.8	4.1	4.7	5.2	5.9
4:12	2.9	2.9	2.9	3.0	3.1	3.2	3.7	3.9	4.1	4.7	5.2	5.9
5:12	3.3	3.3	3.3	3.4	3.5	3.6	4.0	4.2	4.5	5.0	5.6	6.2
6:12	3.6	3.6	3.6	3.6	3.8	3.9	4.3	4.5	4.7	5.3	5.8	6.5
7:12	3.8	3.8	3.8	3.8	4.0	4.1	4.5	4.7	4.9	5.5	6.0	6.6
8:12	3.9	3.9	3.9	4.0	4.1	4.2	4.6	4.8	5.1	5.6	6.1	6.7
9:12	4.0	4.0	4.0	4.1	4.2	4.3	4.7	4.9	5.1	5.6	6.2	6.8
10:12	4.1	4.1	4.1	4.1	4.3	4.4	4.8	4.9	5.2	5.7	6.2	6.8
11:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.7	6.1	6.7
12:12	4.1	4.1	4.1	4.2	4.3	4.4	4.8	4.9	5.2	5.6	6.1	6.7
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
190 mph

Ground Snow Load
15 psf

Up and Down (psf)

Side Load (psf)

Lateral

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-31.7	-58.1	-91.1	22.4	-31.7	-58.1	-91.1	22.4	-38.8	-70.8	-110.9	24.0
2:12	-28.4	-54.8	-84.5	26.4	-28.4	-54.8	-84.5	26.4	-34.8	-66.8	-102.9	29.0
3:12	-28.4	-54.8	-84.5	25.2	-28.4	-54.8	-84.5	25.2	-34.8	-66.9	-102.9	27.9
4:12	-28.5	-54.9	-84.6	21.6	-28.5	-54.9	-84.6	21.6	-34.8	-66.9	-102.9	24.3
5:12	-28.5	-54.9	-84.6	20.8	-28.5	-54.9	-84.6	20.8	-34.9	-66.9	-103.0	23.6
6:12	-28.5	-54.9	-84.6	20.0	-28.5	-54.9	-84.6	20.0	-34.9	-67.0	-103.0	23.5
7:12	-31.9	-38.5	-38.5	33.0	-31.9	-38.5	-38.5	33.0	-39.0	-47.0	-47.0	39.4
8:12	-31.9	-38.5	-38.5	32.9	-31.9	-38.5	-38.5	32.9	-39.0	-47.0	-47.0	39.3
9:12	-32.0	-38.6	-38.6	32.8	-32.0	-38.6	-38.6	32.8	-39.0	-47.0	-47.0	39.1
10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
Exposure Category C												
1:12	-38.8	-70.8	-110.9	24.0	-44.9	-81.9	-128.1	25.4	-52.0	-94.6	-147.8	27.0
2:12	-34.8	-66.8	-102.9	29.0	-40.3	-77.3	-118.8	31.3	-46.7	-89.3	-137.2	34.0
3:12	-34.8	-66.9	-102.9	27.9	-40.3	-77.3	-118.8	30.2	-46.7	-89.3	-137.2	32.8
4:12	-34.8	-66.9	-102.9	24.3	-40.4	-77.3	-118.9	26.7	-46.7	-89.3	-137.3	30.3
5:12	-34.9	-66.9	-103.0	23.6	-40.4	-77.3	-118.9	26.6	-46.7	-89.4	-137.3	30.2
6:12	-34.9	-67.0	-103.0	23.5	-40.4	-77.4	-118.9	26.5	-46.8	-89.4	-137.3	30.1
7:12	-39.0	-47.0	-47.0	39.4	-45.1	-54.3	-54.3	44.9	-52.2	-62.8	-62.8	51.3
8:12	-39.0	-47.0	-47.0	39.3	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
Exposure Category D												
1:12	-47.3	-86.1	-134.6	25.9	-53.4	-97.1	-151.8	27.3	-60.5	-109.9	-171.6	28.9
2:12	-42.4	-81.3	-125.0	32.2	-47.9	-91.7	-140.9	34.5	-54.3	-103.7	-159.3	37.1
3:12	-42.4	-81.3	-125.0	31.1	-48.0	-91.7	-140.9	33.4	-54.3	-103.7	-159.3	36.0
4:12	-42.5	-81.3	-125.0	27.9	-48.0	-91.7	-140.9	31.0	-54.4	-103.7	-159.3	34.5
5:12	-42.5	-81.3	-125.0	27.8	-48.0	-91.8	-141.0	30.9	-54.4	-103.8	-159.3	34.4
6:12	-42.5	-81.4	-125.1	27.7	-48.1	-91.8	-141.0	30.8	-54.4	-103.8	-159.4	34.3
7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	1.6	1.6	1.6	1.8	1.9	2.0	2.5	2.6	2.9	3.4	4.0	4.8
2:12	2.9	2.9	2.9	2.9	3.0	3.1	3.5	3.7	4.0	4.5	5.1	5.8
3:12	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.6	4.9	5.4	6.0	6.7
4:12	3.7	3.7	3.7	3.7	3.7	3.9	4.3	4.5	4.8	5.3	5.9	6.5
5:12	4.2	4.2	4.2	4.2	4.2	4.3	4.7	4.9	5.2	5.7	6.3	6.9
6:12	4.5	4.5	4.5	4.5	4.5	4.6	5.0	5.2	5.5	6.0	6.5	7.2
7:12	4.7	4.7	4.7	4.7	4.7	4.8	5.2	5.4	5.6	6.2	6.7	7.3
8:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.3	6.8	7.4
9:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
10:12	4.9	4.9	4.9	4.9	4.9	5.0	5.4	5.5	5.8	6.3	6.8	7.4
11:12	4.8	4.8	4.8	4.8	4.8	4.9	5.3	5.5	5.7	6.2	6.7	7.3
12:12	4.7	4.7	4.7	4.7	4.8	4.9	5.3	5.4	5.7	6.1	6.6	7.2
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
190 mph

Ground Snow Load
20 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-31.7	-58.1	-91.1	26.2	-31.7	-58.1	-91.1	26.2	-38.8	-70.8	-110.9	27.7
2:12	-28.4	-54.8	-84.5	29.8	-28.4	-54.8	-84.5	29.8	-34.8	-66.8	-102.9	32.4
3:12	-28.4	-54.8	-84.5	28.3	-28.4	-54.8	-84.5	28.3	-34.8	-66.9	-102.9	30.9
4:12	-28.5	-54.9	-84.6	23.5	-28.5	-54.9	-84.6	23.5	-34.8	-66.9	-102.9	26.2
5:12	-28.5	-54.9	-84.6	22.4	-28.5	-54.9	-84.6	22.4	-34.9	-66.9	-103.0	25.1
6:12	-28.5	-54.9	-84.6	21.4	-28.5	-54.9	-84.6	21.4	-34.9	-67.0	-103.0	24.1
7:12	-31.9	-38.5	-38.5	33.0	-31.9	-38.5	-38.5	33.0	-39.0	-47.0	-47.0	39.4
8:12	-31.9	-38.5	-38.5	32.9	-31.9	-38.5	-38.5	32.9	-39.0	-47.0	-47.0	39.3
9:12	-32.0	-38.6	-38.6	32.8	-32.0	-38.6	-38.6	32.8	-39.0	-47.0	-47.0	39.1
10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
1:12	-38.8	-70.8	-110.9	27.7	-44.9	-81.9	-128.1	29.1	-52.0	-94.6	-147.8	30.7
2:12	-34.8	-66.8	-102.9	32.4	-40.3	-77.3	-118.8	34.7	-46.7	-89.3	-137.2	37.4
3:12	-34.8	-66.9	-102.9	30.9	-40.3	-77.3	-118.8	33.2	-46.7	-89.3	-137.2	35.9
4:12	-34.8	-66.9	-102.9	26.2	-40.4	-77.3	-118.9	28.5	-46.7	-89.3	-137.3	31.1
5:12	-34.9	-66.9	-103.0	25.1	-40.4	-77.3	-118.9	27.4	-46.7	-89.4	-137.3	30.2
6:12	-34.9	-67.0	-103.0	24.1	-40.4	-77.4	-118.9	26.5	-46.8	-89.4	-137.3	30.1
7:12	-39.0	-47.0	-47.0	39.4	-45.1	-54.3	-54.3	44.9	-52.2	-62.8	-62.8	51.3
8:12	-39.0	-47.0	-47.0	39.3	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
1:12	-47.3	-86.1	-134.6	29.7	-53.4	-97.1	-151.8	31.0	-60.5	-109.9	-171.6	32.6
2:12	-42.4	-81.3	-125.0	35.6	-47.9	-91.7	-140.9	37.9	-54.3	-103.7	-159.3	40.5
3:12	-42.4	-81.3	-125.0	34.1	-48.0	-91.7	-140.9	36.4	-54.3	-103.7	-159.3	39.0
4:12	-42.5	-81.3	-125.0	28.6	-48.0	-91.7	-140.9	31.0	-54.4	-103.7	-159.3	34.5
5:12	-42.5	-81.3	-125.0	27.8	-48.0	-91.8	-141.0	30.9	-54.4	-103.8	-159.3	34.4
6:12	-42.5	-81.4	-125.1	27.7	-48.1	-91.8	-141.0	30.8	-54.4	-103.8	-159.4	34.3
7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	4.5	4.5	4.5	4.5	4.5	4.5	4.9	5.1	5.4	5.9	6.5	7.1
5:12	5.1	5.1	5.1	5.1	5.1	5.1	5.4	5.6	5.8	6.4	6.9	7.6
6:12	5.5	5.5	5.5	5.5	5.5	5.5	5.7	5.9	6.2	6.7	7.2	7.9
7:12	5.7	5.7	5.7	5.7	5.7	5.7	5.9	6.1	6.3	6.9	7.4	8.0
8:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.5	8.1
9:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.2	6.4	6.9	7.4	8.0
10:12	5.7	5.7	5.7	5.7	5.7	5.7	6.0	6.1	6.4	6.9	7.4	8.0
11:12	5.5	5.5	5.5	5.5	5.5	5.5	5.9	6.0	6.3	6.8	7.3	7.8
12:12	5.4	5.4	5.4	5.4	5.4	5.4	5.8	5.9	6.2	6.6	7.1	7.7
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Side Load (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-31.7	-58.1	-91.1	26.2	-31.7	-58.1	-91.1	26.2	-38.8	-70.8	-110.9	27.7
2:12	-28.4	-54.8	-84.5	29.8	-28.4	-54.8	-84.5	29.8	-34.8	-66.8	-102.9	32.4
3:12	-28.4	-54.8	-84.5	28.3	-28.4	-54.8	-84.5	28.3	-34.8	-66.9	-102.9	30.9
4:12	-28.5	-54.9	-84.6	25.4	-28.5	-54.9	-84.6	25.4	-34.8	-66.9	-102.9	28.0
5:12	-28.5	-54.9	-84.6	24.1	-28.5	-54.9	-84.6	24.1	-34.9	-66.9	-103.0	26.7
6:12	-28.5	-54.9	-84.6	22.8	-28.5	-54.9	-84.6	22.8	-34.9	-67.0	-103.0	25.5
7:12	-31.9	-38.5	-38.5	33.0	-31.9	-38.5	-38.5	33.0	-39.0	-47.0	-47.0	39.4
8:12	-31.9	-38.5	-38.5	32.9	-31.9	-38.5	-38.5	32.9	-39.0	-47.0	-47.0	39.3
9:12	-32.0	-38.6	-38.6	32.8	-32.0	-38.6	-38.6	32.8	-39.0	-47.0	-47.0	39.1
10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
1:12	-38.8	-70.8	-110.9	27.7	-44.9	-81.9	-128.1	29.1	-52.0	-94.6	-147.8	30.7
2:12	-34.8	-66.8	-102.9	32.4	-40.3	-77.3	-118.8	34.7	-46.7	-89.3	-137.2	37.4
3:12	-34.8	-66.9	-102.9	30.9	-40.3	-77.3	-118.8	33.2	-46.7	-89.3	-137.2	35.9
4:12	-34.8	-66.9	-102.9	28.0	-40.4	-77.3	-118.9	30.3	-46.7	-89.3	-137.3	33.0
5:12	-34.9	-66.9	-103.0	26.7	-40.4	-77.3	-118.9	29.0	-46.7	-89.4	-137.3	31.7
6:12	-34.9	-67.0	-103.0	25.5	-40.4	-77.4	-118.9	27.8	-46.8	-89.4	-137.3	30.4
7:12	-39.0	-47.0	-47.0	39.4	-45.1	-54.3	-54.3	44.9	-52.2	-62.8	-62.8	51.3
8:12	-39.0	-47.0	-47.0	39.3	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
1:12	-47.3	-86.1	-134.6	29.7	-53.4	-97.1	-151.8	31.0	-60.5	-109.9	-171.6	32.6
2:12	-42.4	-81.3	-125.0	35.6	-47.9	-91.7	-140.9	37.9	-54.3	-103.7	-159.3	40.5
3:12	-42.4	-81.3	-125.0	34.1	-48.0	-91.7	-140.9	36.4	-54.3	-103.7	-159.3	39.0
4:12	-42.5	-81.3	-125.0	30.3	-48.0	-91.7	-140.9	32.6	-54.4	-103.7	-159.3	35.2
5:12	-42.5	-81.3	-125.0	29.1	-48.0	-91.8	-141.0	31.4	-54.4	-103.8	-159.3	34.4
6:12	-42.5	-81.4	-125.1	28.0	-48.1	-91.8	-141.0	30.8	-54.4	-103.8	-159.4	34.3
7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.0	2.0	2.0	2.1	2.2	2.3	2.8	2.9	3.2	3.8	4.3	5.0
2:12	3.7	3.7	3.7	3.7	3.7	3.7	4.1	4.3	4.6	5.1	5.7	6.3
3:12	5.0	5.0	5.0	5.0	5.0	5.0	5.2	5.4	5.6	6.2	6.7	7.4
4:12	5.4	5.4	5.4	5.4	5.4	5.4	5.6	5.7	6.0	6.6	7.1	7.8
5:12	6.0	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.5	7.1	7.6	8.3
6:12	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.9	7.4	7.9	8.6
7:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.0	7.6	8.1	8.7
8:12	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.8	7.1	7.6	8.1	8.8
9:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.8	7.1	7.6	8.1	8.7
10:12	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	7.0	7.5	8.0	8.6
11:12	6.3	6.3	6.3	6.3	6.3	6.3	6.4	6.6	6.8	7.3	7.8	8.4
12:12	6.1	6.1	6.1	6.1	6.1	6.1	6.3	6.4	6.7	7.1	7.6	8.2
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **190 mph**
Ground Snow Load **25 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-31.7	-58.1	-91.1	26.9	-31.7	-58.1	-91.1	26.9	-38.8	-70.8	-110.9	28.5
2:12	-28.4	-54.8	-84.5	30.4	-28.4	-54.8	-84.5	30.4	-34.8	-66.8	-102.9	33.1
3:12	-28.4	-54.8	-84.5	28.9	-28.4	-54.8	-84.5	28.9	-34.8	-66.9	-102.9	31.5
4:12	-28.5	-54.9	-84.6	27.3	-28.5	-54.9	-84.6	27.3	-34.8	-66.9	-102.9	29.9
5:12	-28.5	-54.9	-84.6	25.7	-28.5	-54.9	-84.6	25.7	-34.9	-66.9	-103.0	28.4
6:12	-28.5	-54.9	-84.6	24.2	-28.5	-54.9	-84.6	24.2	-34.9	-67.0	-103.0	26.9
7:12	-31.9	-38.5	-38.5	33.0	-31.9	-38.5	-38.5	33.0	-39.0	-47.0	-47.0	39.4
8:12	-31.9	-38.5	-38.5	32.9	-31.9	-38.5	-38.5	32.9	-39.0	-47.0	-47.0	39.3
9:12	-32.0	-38.6	-38.6	32.8	-32.0	-38.6	-38.6	32.8	-39.0	-47.0	-47.0	39.1
10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
1:12	-38.8	-70.8	-110.9	28.5	-44.9	-81.9	-128.1	29.9	-52.0	-94.6	-147.8	31.5
2:12	-34.8	-66.8	-102.9	33.1	-40.3	-77.3	-118.8	35.4	-46.7	-89.3	-137.2	38.0
3:12	-34.8	-66.9	-102.9	31.5	-40.3	-77.3	-118.8	33.8	-46.7	-89.3	-137.2	36.5
4:12	-34.8	-66.9	-102.9	29.9	-40.4	-77.3	-118.9	32.2	-46.7	-89.3	-137.3	34.9
5:12	-34.9	-66.9	-103.0	28.4	-40.4	-77.3	-118.9	30.7	-46.7	-89.4	-137.3	33.3
6:12	-34.9	-67.0	-103.0	26.9	-40.4	-77.4	-118.9	29.2	-46.8	-89.4	-137.3	31.8
7:12	-39.0	-47.0	-47.0	39.4	-45.1	-54.3	-54.3	44.9	-52.2	-62.8	-62.8	51.3
8:12	-39.0	-47.0	-47.0	39.3	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
1:12	-47.3	-86.1	-134.6	29.7	-53.4	-97.1	-151.8	31.0	-60.5	-109.9	-171.6	32.6
2:12	-42.4	-81.3	-125.0	35.6	-47.9	-91.7	-140.9	37.9	-54.3	-103.7	-159.3	40.5
3:12	-42.4	-81.3	-125.0	34.1	-48.0	-91.7	-140.9	36.4	-54.3	-103.7	-159.3	39.0
4:12	-42.5	-81.3	-125.0	32.0	-48.0	-91.7	-140.9	34.3	-54.4	-103.7	-159.3	36.9
5:12	-42.5	-81.3	-125.0	30.6	-48.0	-91.8	-141.0	32.9	-54.4	-103.8	-159.3	35.5
6:12	-42.5	-81.4	-125.1	29.2	-48.1	-91.8	-141.0	31.5	-54.4	-103.8	-159.4	34.3
7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3

Basic Wind Speed
190 mph

Ground Snow Load
30 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.1	2.1	2.1	2.1	2.3	2.4	2.8	3.0	3.3	3.8	4.4	5.0
2:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.7	5.2	5.8	6.4
3:12	5.2	5.2	5.2	5.2	5.2	5.2	5.3	5.5	5.8	6.3	6.9	7.6
4:12	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.3	6.6	7.2	7.7	8.4
5:12	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.2	7.8	8.3	9.0
6:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.3
7:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.7	8.3	8.8	9.4
8:12	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.8	8.3	8.8	9.4
9:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.7	9.3
10:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.6	8.1	8.6	9.2
11:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.1	7.4	7.9	8.4	8.9
12:12	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	7.2	7.7	8.1	8.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)	Exposure Category B	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
		Roof Pitch	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
			Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
		1:12	-31.7	-58.1	-91.1	29.5	-31.7	-58.1	-91.1	29.5	-38.8	-70.8	-110.9	31.1
		2:12	-28.4	-54.8	-84.5	32.8	-28.4	-54.8	-84.5	32.8	-34.8	-66.8	-102.9	35.5
		3:12	-28.4	-54.8	-84.5	31.0	-28.4	-54.8	-84.5	31.0	-34.8	-66.9	-102.9	33.6
		4:12	-28.5	-54.9	-84.6	29.1	-28.5	-54.9	-84.6	29.1	-34.8	-66.9	-102.9	31.8
		5:12	-28.5	-54.9	-84.6	27.3	-28.5	-54.9	-84.6	27.3	-34.9	-66.9	-103.0	30.0
		6:12	-28.5	-54.9	-84.6	25.6	-28.5	-54.9	-84.6	25.6	-34.9	-67.0	-103.0	28.3
		7:12	-31.9	-38.5	-38.5	34.0	-31.9	-38.5	-38.5	34.0	-39.0	-47.0	-47.0	39.4
		8:12	-31.9	-38.5	-38.5	32.9	-31.9	-38.5	-38.5	32.9	-39.0	-47.0	-47.0	39.3
		9:12	-32.0	-38.6	-38.6	32.8	-32.0	-38.6	-38.6	32.8	-39.0	-47.0	-47.0	39.1
		10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9		
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8		
Up and Down (psf)	Exposure Category C	1:12	-38.8	-70.8	-110.9	31.1	-44.9	-81.9	-128.1	32.5	-52.0	-94.6	-147.8	34.1
		2:12	-34.8	-66.8	-102.9	35.5	-40.3	-77.3	-118.8	37.8	-46.7	-89.3	-137.2	40.4
		3:12	-34.8	-66.9	-102.9	33.6	-40.3	-77.3	-118.8	35.9	-46.7	-89.3	-137.2	38.6
		4:12	-34.8	-66.9	-102.9	31.8	-40.4	-77.3	-118.9	34.1	-46.7	-89.3	-137.3	36.7
		5:12	-34.9	-66.9	-103.0	30.0	-40.4	-77.3	-118.9	32.3	-46.7	-89.4	-137.3	34.9
		6:12	-34.9	-67.0	-103.0	28.3	-40.4	-77.4	-118.9	30.6	-46.8	-89.4	-137.3	33.2
		7:12	-39.0	-47.0	-47.0	39.4	-45.1	-54.3	-54.3	44.9	-52.2	-62.8	-62.8	51.3
		8:12	-39.0	-47.0	-47.0	39.3	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
		9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
		10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
		11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
		12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
		Up and Down (psf)	Exposure Category D	1:12	-47.3	-86.1	-134.6	31.2	-53.4	-97.1	-151.8	32.6	-60.5	-109.9
2:12	-42.4			-81.3	-125.0	37.0	-47.9	-91.7	-140.9	39.3	-54.3	-103.7	-159.3	41.9
3:12	-42.4			-81.3	-125.0	35.3	-48.0	-91.7	-140.9	37.6	-54.3	-103.7	-159.3	40.3
4:12	-42.5			-81.3	-125.0	33.7	-48.0	-91.7	-140.9	36.0	-54.4	-103.7	-159.3	38.6
5:12	-42.5			-81.3	-125.0	32.0	-48.0	-91.8	-141.0	34.3	-54.4	-103.8	-159.3	37.0
6:12	-42.5			-81.4	-125.1	30.5	-48.1	-91.8	-141.0	32.8	-54.4	-103.8	-159.4	35.4
7:12	-47.4			-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5			-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5			-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6			-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6			-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6			-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Side Load (psf)	Down Slope			Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0
		1:12	2.3	2.3	2.3	2.4	2.5	2.6	3.0	3.2	3.5	4.0	4.6	5.2
		2:12	4.3	4.3	4.3	4.3	4.3	4.3	4.6	4.8	5.1	5.6	6.2	6.8
		3:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	6.3	6.9	7.4	8.1
		4:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.3	7.8	8.4	9.0
		5:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	9.0	9.6
		6:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	9.3	10.0
		7:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
		8:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.1
		9:12	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.9	9.4	10.0
		10:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.2	9.8
		11:12	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9	8.4	8.9	9.5
		12:12	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.7	8.2	8.6	9.2
Lateral			Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
			0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed **190 mph**

Ground Snow Load **35 psf**

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-31.7	-58.1	-91.1	32.1	-31.7	-58.1	-91.1	32.1	-38.8	-70.8	-110.9	33.7
2:12	-28.4	-54.8	-84.5	35.2	-28.4	-54.8	-84.5	35.2	-34.8	-66.8	-102.9	37.8
3:12	-28.4	-54.8	-84.5	33.1	-28.4	-54.8	-84.5	33.1	-34.8	-66.9	-102.9	35.8
4:12	-28.5	-54.9	-84.6	31.0	-28.5	-54.9	-84.6	31.0	-34.8	-66.9	-102.9	33.7
5:12	-28.5	-54.9	-84.6	29.0	-28.5	-54.9	-84.6	29.0	-34.9	-66.9	-103.0	31.6
6:12	-28.5	-54.9	-84.6	27.0	-28.5	-54.9	-84.6	27.0	-34.9	-67.0	-103.0	29.7
7:12	-31.9	-38.5	-38.5	35.2	-31.9	-38.5	-38.5	35.2	-39.0	-47.0	-47.0	39.9
8:12	-31.9	-38.5	-38.5	33.6	-31.9	-38.5	-38.5	33.6	-39.0	-47.0	-47.0	39.3
9:12	-32.0	-38.6	-38.6	32.8	-32.0	-38.6	-38.6	32.8	-39.0	-47.0	-47.0	39.1
10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
Exposure Category C												
1:12	-38.8	-70.8	-110.9	33.7	-44.9	-81.9	-128.1	35.1	-52.0	-94.6	-147.8	36.7
2:12	-34.8	-66.8	-102.9	37.8	-40.3	-77.3	-118.8	40.1	-46.7	-89.3	-137.2	42.8
3:12	-34.8	-66.9	-102.9	35.8	-40.3	-77.3	-118.8	38.1	-46.7	-89.3	-137.2	40.7
4:12	-34.8	-66.9	-102.9	33.7	-40.4	-77.3	-118.9	36.0	-46.7	-89.3	-137.3	38.6
5:12	-34.9	-66.9	-103.0	31.6	-40.4	-77.3	-118.9	33.9	-46.7	-89.4	-137.3	36.6
6:12	-34.9	-67.0	-103.0	29.7	-40.4	-77.4	-118.9	32.0	-46.8	-89.4	-137.3	34.6
7:12	-39.0	-47.0	-47.0	39.9	-45.1	-54.3	-54.3	44.9	-52.2	-62.8	-62.8	51.3
8:12	-39.0	-47.0	-47.0	39.3	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
Exposure Category D												
1:12	-47.3	-86.1	-134.6	33.5	-53.4	-97.1	-151.8	34.9	-60.5	-109.9	-171.6	36.5
2:12	-42.4	-81.3	-125.0	39.1	-47.9	-91.7	-140.9	41.4	-54.3	-103.7	-159.3	44.1
3:12	-42.4	-81.3	-125.0	37.3	-48.0	-91.7	-140.9	39.6	-54.3	-103.7	-159.3	42.2
4:12	-42.5	-81.3	-125.0	35.3	-48.0	-91.7	-140.9	37.6	-54.4	-103.7	-159.3	40.3
5:12	-42.5	-81.3	-125.0	33.5	-48.0	-91.8	-141.0	35.8	-54.4	-103.8	-159.3	38.4
6:12	-42.5	-81.4	-125.1	31.7	-48.1	-91.8	-141.0	34.0	-54.4	-103.8	-159.4	36.7
7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3

Basic Wind Speed
190 mph

Ground Snow Load
40 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	2.6	2.6	2.6	2.6	2.7	2.8	3.3	3.4	3.7	4.2	4.8
2:12	4.9	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.5	6.0	6.6	7.2
3:12	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.9	7.4	8.0	8.6
4:12	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.4	9.0	9.6
5:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.1	9.7	10.3
6:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.7
7:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.7	10.2	10.8
8:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.6	10.2	10.8
9:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.5	10.0	10.6
10:12	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	9.3	9.8	10.4
11:12	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	9.0	9.5	10.0
12:12	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.7	9.1	9.7

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed
190 mph

Ground Snow Load
45 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-31.7	-58.1	-91.1	35.1	-31.7	-58.1	-91.1	35.1	-38.8	-70.8	-110.9	36.3
2:12	-28.4	-54.8	-84.5	37.6	-28.4	-54.8	-84.5	37.6	-34.8	-66.8	-102.9	40.2
3:12	-28.4	-54.8	-84.5	35.2	-28.4	-54.8	-84.5	35.2	-34.8	-66.9	-102.9	37.9
4:12	-28.5	-54.9	-84.6	32.9	-28.5	-54.9	-84.6	32.9	-34.8	-66.9	-102.9	35.5
5:12	-28.5	-54.9	-84.6	30.6	-28.5	-54.9	-84.6	30.6	-34.9	-66.9	-103.0	33.2
6:12	-28.5	-54.9	-84.6	28.4	-28.5	-54.9	-84.6	28.4	-34.9	-67.0	-103.0	31.1
7:12	-31.9	-38.5	-38.5	36.4	-31.9	-38.5	-38.5	36.4	-39.0	-47.0	-47.0	41.1
8:12	-31.9	-38.5	-38.5	34.6	-31.9	-38.5	-38.5	34.6	-39.0	-47.0	-47.0	39.4
9:12	-32.0	-38.6	-38.6	33.1	-32.0	-38.6	-38.6	33.1	-39.0	-47.0	-47.0	39.1
10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
1:12	-38.8	-70.8	-110.9	36.3	-44.9	-81.9	-128.1	37.7	-52.0	-94.6	-147.8	39.3
2:12	-34.8	-66.8	-102.9	40.2	-40.3	-77.3	-118.8	42.5	-46.7	-89.3	-137.2	45.2
3:12	-34.8	-66.9	-102.9	37.9	-40.3	-77.3	-118.8	40.2	-46.7	-89.3	-137.2	42.8
4:12	-34.8	-66.9	-102.9	35.5	-40.4	-77.3	-118.9	37.8	-46.7	-89.3	-137.3	40.5
5:12	-34.9	-66.9	-103.0	33.2	-40.4	-77.3	-118.9	35.5	-46.7	-89.4	-137.3	38.2
6:12	-34.9	-67.0	-103.0	31.1	-40.4	-77.4	-118.9	33.4	-46.8	-89.4	-137.3	36.0
7:12	-39.0	-47.0	-47.0	41.1	-45.1	-54.3	-54.3	45.3	-52.2	-62.8	-62.8	51.3
8:12	-39.0	-47.0	-47.0	39.4	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
1:12	-47.3	-86.1	-134.6	35.9	-53.4	-97.1	-151.8	37.3	-60.5	-109.9	-171.6	38.8
2:12	-42.4	-81.3	-125.0	41.3	-47.9	-91.7	-140.9	43.6	-54.3	-103.7	-159.3	46.2
3:12	-42.4	-81.3	-125.0	39.2	-48.0	-91.7	-140.9	41.5	-54.3	-103.7	-159.3	44.1
4:12	-42.5	-81.3	-125.0	37.0	-48.0	-91.7	-140.9	39.3	-54.4	-103.7	-159.3	42.0
5:12	-42.5	-81.3	-125.0	35.0	-48.0	-91.8	-141.0	37.3	-54.4	-103.8	-159.3	39.9
6:12	-42.5	-81.4	-125.1	33.0	-48.1	-91.8	-141.0	35.3	-54.4	-103.8	-159.4	38.0
7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	2.9	2.9	2.9	2.9	2.9	3.1	3.5	3.7	4.0	4.5	5.1	5.8
2:12	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7	6.0	6.5	7.1	7.8
3:12	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	8.1	8.7	9.4
4:12	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	9.3	9.9	10.6
5:12	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.0	10.6	11.4
6:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.5	11.1	11.8
7:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	12.0
8:12	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.6	11.2	11.9
9:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	11.0	11.7
10:12	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.1	10.7	11.4
11:12	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.8	10.3	11.0
12:12	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	9.4	9.9	10.6
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-31.7	-58.1	-91.1	38.6	-31.7	-58.1	-91.1	38.6	-38.8	-70.8	-110.9	38.9
2:12	-28.4	-54.8	-84.5	40.0	-28.4	-54.8	-84.5	40.0	-34.8	-66.8	-102.9	42.6
3:12	-28.4	-54.8	-84.5	37.4	-28.4	-54.8	-84.5	37.4	-34.8	-66.9	-102.9	40.0
4:12	-28.5	-54.9	-84.6	34.8	-28.5	-54.9	-84.6	34.8	-34.8	-66.9	-102.9	37.4
5:12	-28.5	-54.9	-84.6	32.2	-28.5	-54.9	-84.6	32.2	-34.9	-66.9	-103.0	34.9
6:12	-28.5	-54.9	-84.6	29.8	-28.5	-54.9	-84.6	29.8	-34.9	-67.0	-103.0	32.5
7:12	-31.9	-38.5	-38.5	37.6	-31.9	-38.5	-38.5	37.6	-39.0	-47.0	-47.0	42.3
8:12	-31.9	-38.5	-38.5	35.6	-31.9	-38.5	-38.5	35.6	-39.0	-47.0	-47.0	40.4
9:12	-32.0	-38.6	-38.6	33.9	-32.0	-38.6	-38.6	33.9	-39.0	-47.0	-47.0	39.1
10:12	-32.0	-38.6	-38.6	32.6	-32.0	-38.6	-38.6	32.6	-39.1	-47.1	-47.1	39.0
11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
Exposure Category C												
1:12	-38.8	-70.8	-110.9	38.9	-44.9	-81.9	-128.1	40.3	-52.0	-94.6	-147.8	41.9
2:12	-34.8	-66.8	-102.9	42.6	-40.3	-77.3	-118.8	44.9	-46.7	-89.3	-137.2	47.6
3:12	-34.8	-66.9	-102.9	40.0	-40.3	-77.3	-118.8	42.3	-46.7	-89.3	-137.2	45.0
4:12	-34.8	-66.9	-102.9	37.4	-40.4	-77.3	-118.9	39.7	-46.7	-89.3	-137.3	42.4
5:12	-34.9	-66.9	-103.0	34.9	-40.4	-77.3	-118.9	37.2	-46.7	-89.4	-137.3	39.8
6:12	-34.9	-67.0	-103.0	32.5	-40.4	-77.4	-118.9	34.8	-46.8	-89.4	-137.3	37.4
7:12	-39.0	-47.0	-47.0	42.3	-45.1	-54.3	-54.3	46.5	-52.2	-62.8	-62.8	51.3
8:12	-39.0	-47.0	-47.0	40.4	-45.1	-54.4	-54.4	44.8	-52.2	-62.8	-62.8	51.1
9:12	-39.0	-47.0	-47.0	39.1	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
Exposure Category D												
1:12	-47.3	-86.1	-134.6	38.2	-53.4	-97.1	-151.8	39.6	-60.5	-109.9	-171.6	41.2
2:12	-42.4	-81.3	-125.0	43.4	-47.9	-91.7	-140.9	45.7	-54.3	-103.7	-159.3	48.4
3:12	-42.4	-81.3	-125.0	41.1	-48.0	-91.7	-140.9	43.4	-54.3	-103.7	-159.3	46.0
4:12	-42.5	-81.3	-125.0	38.7	-48.0	-91.7	-140.9	41.0	-54.4	-103.7	-159.3	43.7
5:12	-42.5	-81.3	-125.0	36.4	-48.0	-91.8	-141.0	38.7	-54.4	-103.8	-159.3	41.4
6:12	-42.5	-81.4	-125.1	34.3	-48.1	-91.8	-141.0	36.6	-54.4	-103.8	-159.4	39.2
7:12	-47.4	-57.1	-57.1	47.0	-53.6	-64.5	-64.5	52.5	-60.6	-73.0	-73.0	58.9
8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3

Basic Wind Speed
190 mph

Ground Snow Load
50 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	3.2	3.2	3.2	3.2	3.2	3.3	3.7	3.9	4.2	4.8	5.3	6.0
2:12	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.1	6.4	7.0	7.6	8.3
3:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.7	9.3	10.0
4:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.3
5:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.7	11.4	12.1
6:12	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.2	11.8	12.6
7:12	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	12.0	12.7
8:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.3	11.9	12.6
9:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.1	11.7	12.4
10:12	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.8	11.3	12.0
11:12	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.4	10.9	11.6
12:12	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.9	10.5	11.1

Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Up and Down (psf)

Basic Wind Speed **190 mph**
Ground Snow Load **60 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-31.7	-58.1	-91.1	45.5	-31.7	-58.1	-91.1	45.5	-38.8	-70.8	-110.9	45.5
	2:12	-28.4	-54.8	-84.5	44.7	-28.4	-54.8	-84.5	44.7	-34.8	-66.8	-102.9	47.4
	3:12	-28.4	-54.8	-84.5	41.6	-28.4	-54.8	-84.5	41.6	-34.8	-66.9	-102.9	44.3
	4:12	-28.5	-54.9	-84.6	38.5	-28.5	-54.9	-84.6	38.5	-34.8	-66.9	-102.9	41.2
	5:12	-28.5	-54.9	-84.6	35.5	-28.5	-54.9	-84.6	35.5	-34.9	-66.9	-103.0	38.1
	6:12	-28.5	-54.9	-84.6	32.7	-28.5	-54.9	-84.6	32.7	-34.9	-67.0	-103.0	35.3
	7:12	-31.9	-38.5	-38.5	40.0	-31.9	-38.5	-38.5	40.0	-39.0	-47.0	-47.0	44.7
	8:12	-31.9	-38.5	-38.5	37.7	-31.9	-38.5	-38.5	37.7	-39.0	-47.0	-47.0	42.4
	9:12	-32.0	-38.6	-38.6	35.6	-32.0	-38.6	-38.6	35.6	-39.0	-47.0	-47.0	40.4
	10:12	-32.0	-38.6	-38.6	33.9	-32.0	-38.6	-38.6	33.9	-39.1	-47.1	-47.1	39.0
	11:12	-32.0	-38.6	-38.6	32.5	-32.0	-38.6	-38.6	32.5	-39.1	-47.1	-47.1	38.9
	12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
Exposure Category C	1:12	-38.8	-70.8	-110.9	45.5	-44.9	-81.9	-128.1	45.5	-52.0	-94.6	-147.8	47.1
	2:12	-34.8	-66.8	-102.9	47.4	-40.3	-77.3	-118.8	49.7	-46.7	-89.3	-137.2	52.3
	3:12	-34.8	-66.9	-102.9	44.3	-40.3	-77.3	-118.8	46.6	-46.7	-89.3	-137.2	49.2
	4:12	-34.8	-66.9	-102.9	41.2	-40.4	-77.3	-118.9	43.5	-46.7	-89.3	-137.3	46.1
	5:12	-34.9	-66.9	-103.0	38.1	-40.4	-77.3	-118.9	40.4	-46.7	-89.4	-137.3	43.1
	6:12	-34.9	-67.0	-103.0	35.3	-40.4	-77.4	-118.9	37.6	-46.8	-89.4	-137.3	40.3
	7:12	-39.0	-47.0	-47.0	44.7	-45.1	-54.3	-54.3	48.9	-52.2	-62.8	-62.8	53.6
	8:12	-39.0	-47.0	-47.0	42.4	-45.1	-54.4	-54.4	46.6	-52.2	-62.8	-62.8	51.3
	9:12	-39.0	-47.0	-47.0	40.4	-45.2	-54.4	-54.4	44.6	-52.2	-62.9	-62.9	51.0
	10:12	-39.1	-47.1	-47.1	39.0	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
	11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
	12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
Exposure Category D	1:12	-47.3	-86.1	-134.6	42.9	-53.4	-97.1	-151.8	44.3	-60.5	-109.9	-171.6	45.9
	2:12	-42.4	-81.3	-125.0	47.7	-47.9	-91.7	-140.9	50.0	-54.3	-103.7	-159.3	52.6
	3:12	-42.4	-81.3	-125.0	44.9	-48.0	-91.7	-140.9	47.2	-54.3	-103.7	-159.3	49.9
	4:12	-42.5	-81.3	-125.0	42.1	-48.0	-91.7	-140.9	44.4	-54.4	-103.7	-159.3	47.0
	5:12	-42.5	-81.3	-125.0	39.4	-48.0	-91.8	-141.0	41.7	-54.4	-103.8	-159.3	44.3
	6:12	-42.5	-81.4	-125.1	36.8	-48.1	-91.8	-141.0	39.1	-54.4	-103.8	-159.4	41.8
	7:12	-47.4	-57.1	-57.1	49.0	-53.6	-64.5	-64.5	53.2	-60.6	-73.0	-73.0	58.9
	8:12	-47.5	-57.2	-57.2	46.9	-53.6	-64.5	-64.5	52.4	-60.7	-73.0	-73.0	58.8
	9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
	10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
	11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
	12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	3.8	3.8	3.8	3.8	3.8	3.8	4.2	4.4	4.6	5.2	5.8	6.5
	2:12	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.8	8.4	9.1
	3:12	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.8	10.4	11.1
	4:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.9	12.6
	5:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.8	13.5
	6:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
	7:12	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.4	14.2
	8:12	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.3	14.1
	9:12	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.7
	10:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3
	11:12	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.5	12.1	12.8
12:12	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11.0	11.6	12.2	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Up and Down (psf)

Basic Wind Speed **190 mph**
Ground Snow Load **70 psf**

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.				
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		
Exposure Category B	1:12	-31.7	-58.1	-91.1	52.5	-31.7	-58.1	-91.1	52.5	-38.8	-70.8	-110.9	52.5
	2:12	-28.4	-54.8	-84.5	49.5	-28.4	-54.8	-84.5	49.5	-34.8	-66.8	-102.9	52.1
	3:12	-28.4	-54.8	-84.5	45.9	-28.4	-54.8	-84.5	45.9	-34.8	-66.9	-102.9	48.5
	4:12	-28.5	-54.9	-84.6	42.3	-28.5	-54.9	-84.6	42.3	-34.8	-66.9	-102.9	44.9
	5:12	-28.5	-54.9	-84.6	38.7	-28.5	-54.9	-84.6	38.7	-34.9	-66.9	-103.0	41.4
	6:12	-28.5	-54.9	-84.6	35.5	-28.5	-54.9	-84.6	35.5	-34.9	-67.0	-103.0	38.1
	7:12	-31.9	-38.5	-38.5	42.4	-31.9	-38.5	-38.5	42.4	-39.0	-47.0	-47.0	47.1
	8:12	-31.9	-38.5	-38.5	39.7	-31.9	-38.5	-38.5	39.7	-39.0	-47.0	-47.0	44.5
	9:12	-32.0	-38.6	-38.6	37.3	-32.0	-38.6	-38.6	37.3	-39.0	-47.0	-47.0	42.1
	10:12	-32.0	-38.6	-38.6	35.3	-32.0	-38.6	-38.6	35.3	-39.1	-47.1	-47.1	40.1
	11:12	-32.0	-38.6	-38.6	33.6	-32.0	-38.6	-38.6	33.6	-39.1	-47.1	-47.1	38.9
	12:12	-32.1	-38.7	-38.7	32.4	-32.1	-38.7	-38.7	32.4	-39.2	-47.2	-47.2	38.8
Exposure Category C	1:12	-38.8	-70.8	-110.9	52.5	-44.9	-81.9	-128.1	52.5	-52.0	-94.6	-147.8	52.5
	2:12	-34.8	-66.8	-102.9	52.1	-40.3	-77.3	-118.8	54.4	-46.7	-89.3	-137.2	57.1
	3:12	-34.8	-66.9	-102.9	48.5	-40.3	-77.3	-118.8	50.8	-46.7	-89.3	-137.2	53.5
	4:12	-34.8	-66.9	-102.9	44.9	-40.4	-77.3	-118.9	47.2	-46.7	-89.3	-137.3	49.9
	5:12	-34.9	-66.9	-103.0	41.4	-40.4	-77.3	-118.9	43.7	-46.7	-89.4	-137.3	46.3
	6:12	-34.9	-67.0	-103.0	38.1	-40.4	-77.4	-118.9	40.4	-46.8	-89.4	-137.3	43.1
	7:12	-39.0	-47.0	-47.0	47.1	-45.1	-54.3	-54.3	51.3	-52.2	-62.8	-62.8	56.0
	8:12	-39.0	-47.0	-47.0	44.5	-45.1	-54.4	-54.4	48.6	-52.2	-62.8	-62.8	53.4
	9:12	-39.0	-47.0	-47.0	42.1	-45.2	-54.4	-54.4	46.2	-52.2	-62.9	-62.9	51.0
	10:12	-39.1	-47.1	-47.1	40.1	-45.2	-54.4	-54.4	44.5	-52.3	-62.9	-62.9	50.9
	11:12	-39.1	-47.1	-47.1	38.9	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
	12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
Exposure Category D	1:12	-47.3	-86.1	-134.6	47.6	-53.4	-97.1	-151.8	49.0	-60.5	-109.9	-171.6	50.6
	2:12	-42.4	-81.3	-125.0	52.0	-47.9	-91.7	-140.9	54.3	-54.3	-103.7	-159.3	56.9
	3:12	-42.4	-81.3	-125.0	48.7	-48.0	-91.7	-140.9	51.0	-54.3	-103.7	-159.3	53.7
	4:12	-42.5	-81.3	-125.0	45.5	-48.0	-91.7	-140.9	47.8	-54.4	-103.7	-159.3	50.4
	5:12	-42.5	-81.3	-125.0	42.3	-48.0	-91.8	-141.0	44.6	-54.4	-103.8	-159.3	47.2
	6:12	-42.5	-81.4	-125.1	39.3	-48.1	-91.8	-141.0	41.6	-54.4	-103.8	-159.4	44.3
	7:12	-47.4	-57.1	-57.1	51.2	-53.6	-64.5	-64.5	55.3	-60.6	-73.0	-73.0	60.1
	8:12	-47.5	-57.2	-57.2	48.8	-53.6	-64.5	-64.5	52.9	-60.7	-73.0	-73.0	58.8
	9:12	-47.5	-57.2	-57.2	46.8	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
	10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
	11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
	12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.8	5.1	5.7	6.2	6.9
	2:12	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.6	9.2	9.9
	3:12	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.5	12.3
	4:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.2	13.9
	5:12	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	15.0
	6:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	7:12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.7
	8:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5
	9:12	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.4	15.1
	10:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.9	14.6
	11:12	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.3	14.0
12:12	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.6	13.3	
Lateral	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1	
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5	

Side Load (psf)

Lateral

Up and Down (psf)

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
1:12	-31.7	-58.1	-91.1	59.4	-31.7	-58.1	-91.1	59.4	-38.8	-70.8	-110.9	59.4
2:12	-28.4	-54.8	-84.5	54.5	-28.4	-54.8	-84.5	54.5	-34.8	-66.8	-102.9	56.9
3:12	-28.4	-54.8	-84.5	50.1	-28.4	-54.8	-84.5	50.1	-34.8	-66.9	-102.9	52.8
4:12	-28.5	-54.9	-84.6	46.0	-28.5	-54.9	-84.6	46.0	-34.8	-66.9	-102.9	48.7
5:12	-28.5	-54.9	-84.6	42.0	-28.5	-54.9	-84.6	42.0	-34.9	-66.9	-103.0	44.7
6:12	-28.5	-54.9	-84.6	38.3	-28.5	-54.9	-84.6	38.3	-34.9	-67.0	-103.0	40.9
7:12	-31.9	-38.5	-38.5	44.8	-31.9	-38.5	-38.5	44.8	-39.0	-47.0	-47.0	49.5
8:12	-31.9	-38.5	-38.5	41.7	-31.9	-38.5	-38.5	41.7	-39.0	-47.0	-47.0	46.5
9:12	-32.0	-38.6	-38.6	39.0	-32.0	-38.6	-38.6	39.0	-39.0	-47.0	-47.0	43.8
10:12	-32.0	-38.6	-38.6	36.7	-32.0	-38.6	-38.6	36.7	-39.1	-47.1	-47.1	41.5
11:12	-32.0	-38.6	-38.6	34.8	-32.0	-38.6	-38.6	34.8	-39.1	-47.1	-47.1	39.5
12:12	-32.1	-38.7	-38.7	33.1	-32.1	-38.7	-38.7	33.1	-39.2	-47.2	-47.2	38.8
1:12	-38.8	-70.8	-110.9	59.4	-44.9	-81.9	-128.1	59.4	-52.0	-94.6	-147.8	59.4
2:12	-34.8	-66.8	-102.9	56.9	-40.3	-77.3	-118.8	59.2	-46.7	-89.3	-137.2	61.8
3:12	-34.8	-66.9	-102.9	52.8	-40.3	-77.3	-118.8	55.1	-46.7	-89.3	-137.2	57.7
4:12	-34.8	-66.9	-102.9	48.7	-40.4	-77.3	-118.9	51.0	-46.7	-89.3	-137.3	53.6
5:12	-34.9	-66.9	-103.0	44.7	-40.4	-77.3	-118.9	47.0	-46.7	-89.4	-137.3	49.6
6:12	-34.9	-67.0	-103.0	40.9	-40.4	-77.4	-118.9	43.2	-46.8	-89.4	-137.3	45.9
7:12	-39.0	-47.0	-47.0	49.5	-45.1	-54.3	-54.3	53.7	-52.2	-62.8	-62.8	58.4
8:12	-39.0	-47.0	-47.0	46.5	-45.1	-54.4	-54.4	50.6	-52.2	-62.8	-62.8	55.4
9:12	-39.0	-47.0	-47.0	43.8	-45.2	-54.4	-54.4	48.0	-52.2	-62.9	-62.9	52.7
10:12	-39.1	-47.1	-47.1	41.5	-45.2	-54.4	-54.4	45.6	-52.3	-62.9	-62.9	50.9
11:12	-39.1	-47.1	-47.1	39.5	-45.2	-54.5	-54.5	44.4	-52.3	-63.0	-63.0	50.8
12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
1:12	-47.3	-86.1	-134.6	53.9	-53.4	-97.1	-151.8	53.9	-60.5	-109.9	-171.6	55.3
2:12	-42.4	-81.3	-125.0	56.3	-47.9	-91.7	-140.9	58.6	-54.3	-103.7	-159.3	61.2
3:12	-42.4	-81.3	-125.0	52.6	-48.0	-91.7	-140.9	54.9	-54.3	-103.7	-159.3	57.5
4:12	-42.5	-81.3	-125.0	48.8	-48.0	-91.7	-140.9	51.1	-54.4	-103.7	-159.3	53.8
5:12	-42.5	-81.3	-125.0	45.2	-48.0	-91.8	-141.0	47.5	-54.4	-103.8	-159.3	50.2
6:12	-42.5	-81.4	-125.1	41.9	-48.1	-91.8	-141.0	44.2	-54.4	-103.8	-159.4	46.8
7:12	-47.4	-57.1	-57.1	53.3	-53.6	-64.5	-64.5	57.5	-60.6	-73.0	-73.0	62.2
8:12	-47.5	-57.2	-57.2	50.6	-53.6	-64.5	-64.5	54.7	-60.7	-73.0	-73.0	59.5
9:12	-47.5	-57.2	-57.2	48.2	-53.6	-64.6	-64.6	52.3	-60.7	-73.1	-73.1	58.6
10:12	-47.6	-57.3	-57.3	46.6	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3

Basic Wind Speed

190 mph

Ground Snow Load

80 psf

Side Load (psf)

Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2	5.5	6.1	6.7	7.4
2:12	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.4	10.0	10.8
3:12	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.6	13.4
4:12	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	15.3
5:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.4
6:12	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	17.0
7:12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17.2
8:12	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	17.0
9:12	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.5
10:12	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.9
11:12	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	15.2
12:12	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.7	14.4
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Lateral

	Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
		Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B	1:12	-31.7	-58.1	-91.1	66.4	-31.7	-58.1	-91.1	66.4	-38.8	-70.8	-110.9	66.4
	2:12	-28.4	-54.8	-84.5	60.9	-28.4	-54.8	-84.5	60.9	-34.8	-66.8	-102.9	61.6
	3:12	-28.4	-54.8	-84.5	54.8	-28.4	-54.8	-84.5	54.8	-34.8	-66.9	-102.9	57.0
	4:12	-28.5	-54.9	-84.6	49.8	-28.5	-54.9	-84.6	49.8	-34.8	-66.9	-102.9	52.4
	5:12	-28.5	-54.9	-84.6	45.3	-28.5	-54.9	-84.6	45.3	-34.9	-66.9	-103.0	47.9
	6:12	-28.5	-54.9	-84.6	41.1	-28.5	-54.9	-84.6	41.1	-34.9	-67.0	-103.0	43.7
	7:12	-31.9	-38.5	-38.5	47.1	-31.9	-38.5	-38.5	47.1	-39.0	-47.0	-47.0	51.9
	8:12	-31.9	-38.5	-38.5	43.7	-31.9	-38.5	-38.5	43.7	-39.0	-47.0	-47.0	48.5
	9:12	-32.0	-38.6	-38.6	40.8	-32.0	-38.6	-38.6	40.8	-39.0	-47.0	-47.0	45.5
	10:12	-32.0	-38.6	-38.6	38.2	-32.0	-38.6	-38.6	38.2	-39.1	-47.1	-47.1	43.0
	11:12	-32.0	-38.6	-38.6	36.0	-32.0	-38.6	-38.6	36.0	-39.1	-47.1	-47.1	40.7
	12:12	-32.1	-38.7	-38.7	34.1	-32.1	-38.7	-38.7	34.1	-39.2	-47.2	-47.2	38.8
Exposure Category C	1:12	-38.8	-70.8	-110.9	66.4	-44.9	-81.9	-128.1	66.4	-52.0	-94.6	-147.8	66.4
	2:12	-34.8	-66.8	-102.9	61.6	-40.3	-77.3	-118.8	63.9	-46.7	-89.3	-137.2	66.6
	3:12	-34.8	-66.9	-102.9	57.0	-40.3	-77.3	-118.8	59.3	-46.7	-89.3	-137.2	62.0
	4:12	-34.8	-66.9	-102.9	52.4	-40.4	-77.3	-118.9	54.7	-46.7	-89.3	-137.3	57.4
	5:12	-34.9	-66.9	-103.0	47.9	-40.4	-77.3	-118.9	50.2	-46.7	-89.4	-137.3	52.9
	6:12	-34.9	-67.0	-103.0	43.7	-40.4	-77.4	-118.9	46.0	-46.8	-89.4	-137.3	48.7
	7:12	-39.0	-47.0	-47.0	51.9	-45.1	-54.3	-54.3	56.1	-52.2	-62.8	-62.8	60.8
	8:12	-39.0	-47.0	-47.0	48.5	-45.1	-54.4	-54.4	52.7	-52.2	-62.8	-62.8	57.4
	9:12	-39.0	-47.0	-47.0	45.5	-45.2	-54.4	-54.4	49.7	-52.2	-62.9	-62.9	54.4
	10:12	-39.1	-47.1	-47.1	43.0	-45.2	-54.4	-54.4	47.1	-52.3	-62.9	-62.9	51.9
	11:12	-39.1	-47.1	-47.1	40.7	-45.2	-54.5	-54.5	44.9	-52.3	-63.0	-63.0	50.8
	12:12	-39.2	-47.2	-47.2	38.8	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
Exposure Category D	1:12	-47.3	-86.1	-134.6	60.1	-53.4	-97.1	-151.8	60.1	-60.5	-109.9	-171.6	60.1
	2:12	-42.4	-81.3	-125.0	60.5	-47.9	-91.7	-140.9	62.8	-54.3	-103.7	-159.3	65.5
	3:12	-42.4	-81.3	-125.0	56.4	-48.0	-91.7	-140.9	58.7	-54.3	-103.7	-159.3	61.3
	4:12	-42.5	-81.3	-125.0	52.2	-48.0	-91.7	-140.9	54.5	-54.4	-103.7	-159.3	57.2
	5:12	-42.5	-81.3	-125.0	48.2	-48.0	-91.8	-141.0	50.5	-54.4	-103.8	-159.3	53.1
	6:12	-42.5	-81.4	-125.1	44.4	-48.1	-91.8	-141.0	46.7	-54.4	-103.8	-159.4	49.3
	7:12	-47.4	-57.1	-57.1	55.5	-53.6	-64.5	-64.5	59.6	-60.6	-73.0	-73.0	64.4
	8:12	-47.5	-57.2	-57.2	52.4	-53.6	-64.5	-64.5	56.6	-60.7	-73.0	-73.0	61.3
	9:12	-47.5	-57.2	-57.2	49.7	-53.6	-64.6	-64.6	53.9	-60.7	-73.1	-73.1	58.6
	10:12	-47.6	-57.3	-57.3	47.4	-53.7	-64.6	-64.6	52.2	-60.8	-73.1	-73.1	58.5
	11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
	12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Down Slope	Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	1:12	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.7	6.0	6.6	7.2	7.9
	2:12	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.3	10.9	11.6
	3:12	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.5
	4:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
	5:12	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9
	6:12	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
	7:12	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
	8:12	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
	9:12	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.9
	10:12	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.2
	11:12	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.4
12:12	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	15.5	
Lateral		Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
		0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5

Basic Wind Speed
190 mph

Ground Snow Load
90 psf

Up and Down (psf)

Side Load (psf)

Lateral

Up and Down (psf)

Basic Wind Speed
190 mph
Ground Snow Load
100 psf

Roof Pitch	Bldg. Height = 15 ft.				Bldg. Height = 30 ft.				Bldg. Height = 60 ft.			
	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)	Up Pressures (psf)			Down (psf)
	Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3		Zone 1	Zone 2	Zone 3	
Exposure Category B												
1:12	-31.7	-58.1	-91.1	73.4	-31.7	-58.1	-91.1	73.4	-38.8	-70.8	-110.9	73.4
2:12	-28.4	-54.8	-84.5	67.2	-28.4	-54.8	-84.5	67.2	-34.8	-66.8	-102.9	67.2
3:12	-28.4	-54.8	-84.5	60.5	-28.4	-54.8	-84.5	60.5	-34.8	-66.9	-102.9	61.3
4:12	-28.5	-54.9	-84.6	53.6	-28.5	-54.9	-84.6	53.6	-34.8	-66.9	-102.9	56.2
5:12	-28.5	-54.9	-84.6	48.5	-28.5	-54.9	-84.6	48.5	-34.9	-66.9	-103.0	51.2
6:12	-28.5	-54.9	-84.6	43.9	-28.5	-54.9	-84.6	43.9	-34.9	-67.0	-103.0	46.5
7:12	-31.9	-38.5	-38.5	49.5	-31.9	-38.5	-38.5	49.5	-39.0	-47.0	-47.0	54.3
8:12	-31.9	-38.5	-38.5	45.8	-31.9	-38.5	-38.5	45.8	-39.0	-47.0	-47.0	50.5
9:12	-32.0	-38.6	-38.6	42.5	-32.0	-38.6	-38.6	42.5	-39.0	-47.0	-47.0	47.2
10:12	-32.0	-38.6	-38.6	39.6	-32.0	-38.6	-38.6	39.6	-39.1	-47.1	-47.1	44.4
11:12	-32.0	-38.6	-38.6	37.2	-32.0	-38.6	-38.6	37.2	-39.1	-47.1	-47.1	41.9
12:12	-32.1	-38.7	-38.7	35.1	-32.1	-38.7	-38.7	35.1	-39.2	-47.2	-47.2	39.9
Exposure Category C												
1:12	-38.8	-70.8	-110.9	73.4	-44.9	-81.9	-128.1	73.4	-52.0	-94.6	-147.8	73.4
2:12	-34.8	-66.8	-102.9	67.2	-40.3	-77.3	-118.8	68.7	-46.7	-89.3	-137.2	71.3
3:12	-34.8	-66.9	-102.9	61.3	-40.3	-77.3	-118.8	63.6	-46.7	-89.3	-137.2	66.2
4:12	-34.8	-66.9	-102.9	56.2	-40.4	-77.3	-118.9	58.5	-46.7	-89.3	-137.3	61.1
5:12	-34.9	-66.9	-103.0	51.2	-40.4	-77.3	-118.9	53.5	-46.7	-89.4	-137.3	56.1
6:12	-34.9	-67.0	-103.0	46.5	-40.4	-77.4	-118.9	48.8	-46.8	-89.4	-137.3	51.5
7:12	-39.0	-47.0	-47.0	54.3	-45.1	-54.3	-54.3	58.5	-52.2	-62.8	-62.8	63.2
8:12	-39.0	-47.0	-47.0	50.5	-45.1	-54.4	-54.4	54.7	-52.2	-62.8	-62.8	59.5
9:12	-39.0	-47.0	-47.0	47.2	-45.2	-54.4	-54.4	51.4	-52.2	-62.9	-62.9	56.2
10:12	-39.1	-47.1	-47.1	44.4	-45.2	-54.4	-54.4	48.5	-52.3	-62.9	-62.9	53.3
11:12	-39.1	-47.1	-47.1	41.9	-45.2	-54.5	-54.5	46.1	-52.3	-63.0	-63.0	50.9
12:12	-39.2	-47.2	-47.2	39.9	-45.3	-54.5	-54.5	44.3	-52.4	-63.0	-63.0	50.7
Exposure Category D												
1:12	-47.3	-86.1	-134.6	66.4	-53.4	-97.1	-151.8	66.4	-60.5	-109.9	-171.6	66.4
2:12	-42.4	-81.3	-125.0	64.8	-47.9	-91.7	-140.9	67.1	-54.3	-103.7	-159.3	69.8
3:12	-42.4	-81.3	-125.0	60.2	-48.0	-91.7	-140.9	62.5	-54.3	-103.7	-159.3	65.2
4:12	-42.5	-81.3	-125.0	55.6	-48.0	-91.7	-140.9	57.9	-54.4	-103.7	-159.3	60.5
5:12	-42.5	-81.3	-125.0	51.1	-48.0	-91.8	-141.0	53.4	-54.4	-103.8	-159.3	56.1
6:12	-42.5	-81.4	-125.1	46.9	-48.1	-91.8	-141.0	49.2	-54.4	-103.8	-159.4	51.9
7:12	-47.4	-57.1	-57.1	57.6	-53.6	-64.5	-64.5	61.8	-60.6	-73.0	-73.0	66.6
8:12	-47.5	-57.2	-57.2	54.2	-53.6	-64.5	-64.5	58.4	-60.7	-73.0	-73.0	63.2
9:12	-47.5	-57.2	-57.2	51.3	-53.6	-64.6	-64.6	55.4	-60.7	-73.1	-73.1	60.2
10:12	-47.6	-57.3	-57.3	48.7	-53.7	-64.6	-64.6	52.8	-60.8	-73.1	-73.1	58.5
11:12	-47.6	-57.3	-57.3	46.5	-53.7	-64.7	-64.7	52.0	-60.8	-73.1	-73.1	58.4
12:12	-47.6	-57.3	-57.3	46.4	-53.8	-64.7	-64.7	51.9	-60.8	-73.2	-73.2	58.3
Down Slope												
Roof Pitch	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
1:12	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.4	7.0	7.6	8.3
2:12	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.7	12.5
3:12	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.6
4:12	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
5:12	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
6:12	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
7:12	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
8:12	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
9:12	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10:12	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11:12	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.6
12:12	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.6
Lateral												
	Ss = 0.0	Ss = 0.1	Ss = 0.2	Ss = 0.3	Ss = 0.4	Ss = 0.5	Ss = 1.0	Ss = 1.25	Ss = 1.5	Ss = 2.0	Ss = 2.5	Ss = 3.1
	0.0	0.2	0.5	0.7	0.9	1.0	1.6	1.8	2.2	2.9	3.6	4.5