

# Snow and Wind Design

The structures are designed based on your local requirements; most Building Departments will require a given Live Load or Snow Load, Wind Rating and Exposure as detailed below.

## Design Loadings: Live Load and Snow Loads

**Design Load** is based on **PSF / Pounds per Square Foot**.

Design Load is also referred to as **Live Load** or Snow Load depending on the application.

**Design Load PSF Requirements available:**

- 10 Pounds PSF Live or Ground Snow Load – Generally refers to rain fall.
- 20 Pounds PSF Live or Ground Snow Load - Moderate Snow Fall or Minimum for Carports.
- 25 Pounds PSF Ground Snow Load - Moderate Snow Fall.
- 30 Pounds PSF Ground Snow Load - Moderate to Heavy Snow Fall.
- 40 Pounds PSF Ground Snow Load - Heavy Mountain Snow Fall.
- 50 Pounds PSF Ground Snow Load - High Mountain Snow Fall.
- 60 Pounds PSF Ground Snow Load - Extreme High Mountain Snow Fall.

Note: Rain and Snow amounts are general and approximate for Design Loads above. Consult your local building department for your areas requirements.

## Design Load/Ground Snow Load to Roof Design Load Conversion

Information pertains to Engineering IBC 2006 from General Note #3.

- 10 Pounds PSF Ground Snow Load / 10 Pounds PSF Roof Design Load (Live or Ground Snow Load)
- 20 Pounds PSF Ground Snow Load / 20 Pounds PSF Roof Design Load (Live or Ground Snow Load)
- 25 Pounds PSF Ground Snow Load / 21 Pounds PSF Roof Design Load
- 30 Pounds PSF Ground Snow Load / 25.2 Pounds PSF Roof Design Load
- 40 Pounds PSF Ground Snow Load / 33.6 Pounds PSF Roof Design Load
- 60 Pounds PSF Ground Snow Load / 50.4 Pounds PSF Roof Design Load

Ask your Building Department what Pounds PSF Load they are referring to: Ground Snow Load or Roof Design (live) Load.

## Wind Ratings

**Wind Rating** is based on the Miles Per Hour the cover can withstand. Wind Speeds in the 2006 IBC are "3 second gust wind speed."

**Wind Rating** Requirements available:

- **90mph** - Average Wind Requirement in U.S.  
Most structures are designed based on 90mph wind rating.
- **105mph or 110mph** - "[High Wind](#)" Areas  
High Wind Engineering is available through the IBC 2006 Engineering Report.
- **Exposure B:** Urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. Exposure B shall be assumed unless the site meet the definition of another type exposure.
- **Exposure C:** Open terrain with scattered obstructions, including surface undulations or other irregularities, having heights generally less than 30 feet (9144 mm) extending more than 1,500 feet (457.2 m) from the building site in any quadrant this exposure shall also apply to any building located within exposure b type terrain where the building is directly adjacent to open areas of Exposure C type terrain in any quadrant for a distance of more than 600 feet (182.9 m) this category includes flat open country, grasslands and shoreline in hurricane-prone regions.

**Permits:** Obtaining a permit is generally a simple process of taking the engineering we provide you to your local building department along with a Plot Map. A Plot Map is a basic overhead line sketch illustrating your property including the location of your house, garage, shed, pool, driveway, etc.. and your proposed enclosure. Also required on the Plot Map are details of your neighboring properties, streets, ally's and so forth; the Building Department typically uses this information to verify that you're not imposing on any property line set backs.