



PLUMAS COUNTY BUILDING DEPARTMENT

555 Main Street
 Quincy, CA 95971
www.plumascounty.us

voice (530) 283-7011
 24/7 inspection request (530) 283-6001
 fax (530) 283-6134

STRUCTURAL DESIGN CRITERIA SUMMARY

Before proceeding with a structural design, we suggest you contact us to verify design criteria for the site of your specific project. Please provide the assessor parcel number (APN) and physical address. For areas not specifically listed, snow loads are determined from the Snow Load Map posted in the Building Department.

Snow Load Table

Area	Snow Load lbs./sq.ft.		Area	Snow Load lbs./sq.ft.	
	Ground	Roof*		Ground	Roof*
Beckwourth	87	60	Lake Almanor	144	100
Belden	58	40	Lake Davis	144	100
Blairsdan	115	80	La Porte	289	200
Bucks Lake	289	200	Little Grass Valley	289	200
Canyon Dam	144	100	Meadow Valley	115	80
Chester	144	100	Portola	87	60
Chilcoot	87	60	Quincy	87	60
Clio	115	80	River Valley Estates	87	60
Crocker Mountain Estates	144	100	Sierra Valley	87	60
Dixie Valley	144	100	Tobin	58	40
Frenchman Lake	144	100	Twain	58	40
Genesee	115	80	Valley Ranch Estates	115	80
Graeagle	115	80	Warner Valley	180-216	125-150
Greenville	87	60	Whitehawk Ranch	115	80
Indian Valley	87	60	Thompson Valley	87-115	60-80
Johnsville	216	150	Taylorville	87	60

* This is the minimum flat roof snow load to be used regardless of the C_e , C_t , or I factors used when converting the ground snow load to flat roof snow load.

1. For elevations above 7,000 feet, the snow load is 50 psf greater than that indicated for the adjacent highest snow load.
2. Areas within one mile of a snow load division zone shall utilize a snow load equal to the average of the two loads.
3. Snow loads may be reduced for sloped roofs in accordance with ASCE Standard 7-10 Section 7.4 if a minimum of 8-feet of vertical eave height is provided for each 100 pounds of snow load. This minimum eave height is measured from the eave down to either grade or the first obstruction, such as a deck, etc., and must be maintained for a minimum distance of 10-feet

- out from the eave. In areas with snow loads in excess of 100-lbs., which do not have a 16-foot or greater eave height, the allowable slope reduction can be pro-rated (i.e., snow load greater than 100 lbs. eave height of 9-feet, 9/16 of the allowable reduction can be taken).
4. Snow reduction for sloped roofs shall not be used for structural members affected by valleys, dormers, slope changes, chimney chases or other areas where the snow may be restricted from sliding.
 5. Metal roofing with exposed fasteners, asphalt shingles, wood shingles and shakes shall not be considered “slippery” for the purposes of snow reduction for sloped roofs per ASCE Standard 7-10 section 7.4.
 6. Uncovered decks, and all similar structures, may be designed for the flat roof snow load listed above. Covered, but not fully enclosed decks and all similar structures, shall be designed for floor loads from CBC Table 1607.1 or 50% of the flat roof snow load, whichever is greater.
 7. "The nominal 3-second gust basic design wind speed (when using allowable stress design) in Plumas County is $V_{ASD} = 85\text{mph}$. Per the 2013 CBC, Table 1609.3.1, the ultimate 3-second gust basic design wind speed is $V_{ULT} = 110\text{mph}$ ".
 8. Seismic design data may be obtained from the United States Geological Survey (USGS) website: <http://earthquake.usgs.gov/designmaps/us/application.php>. It is acceptable to use a soil site classification of “site class D – stiff soil” without a soils report. The site latitude/longitude data may be obtained from: <https://www.google.com/earth/> , or any other acceptable source.
 9. Designer may reduce roof design snow load up to 80% for use in seismic calculations when using allowable stress design (ASD) per CBC Section 1605.3.1.
 10. Allowable soil bearing without special soils report is 2000 psf.
 11. Frost depth is 18” below finished grade. Footings shall extend a minimum of 12” into undisturbed native soil. Exterior finished grade shall provide a minimum footing coverage of 18”.
 12. Conventional Light-Frame Construction is not permitted in Plumas County per CBC section 2308.2.3.3. – (which states that ground snow loads shall not exceed 50 psf).
 13. This document may be revised/updated periodically. Please check the Building Department website, <https://www.plumascounty.us/DocumentCenter/View/13675/Structural-Design-Criteria-Summary---Jan-2016> to obtain the latest version¹.
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Footnote:

1. Effective 1-2-2008: Revised 2/5/2008: Revised 11-12-09: Revised 2-26-10 rmh / jmc: Rev: 10-07-10
Revised 12-30-13 rmh / jmc: Revised 01-30-14 rmh / jmc: Revised Jan 2016 jc