

(A) Design Requirements for use in International Residential Code

CLIMATIC & GEOGRAPHIC DESIGN CRITERIA											
GROUND SNOW LOAD footnote (a)	WIND SPEED	SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM				WINTER DESIGN TEMP	ICE SHIELD UNDERLAYMENT REQUIRED	FLOOD HAZARD	AIR FREEZING INDEX	MEAN ANNUAL TEMP
			WEATHERING	FROST DEPT LINE	TERMITE	DECAY					
57 PSF MINIMUM	110 ULTIMATE	C & D°	SEVERE	24"	MODERATE	SLIGHT	5°	YES	YES	1060	51.5°

(B) Design Requirements for use in International Commercial Code

CLIMATIC & GEOGRAPHIC DESIGN CRITERIA											
GROUND SNOW LOAD footnote (a)	WIND SPEED	SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM				WINTER DESIGN TEMP	ICE SHIELD UNDERLAYMENT REQUIRED	FLOOD HAZARD	AIR FREEZING INDEX	MEAN ANNUAL TEMP
			WEATHERING	FROST DEPT LINE	TERMITE	DECAY					
57 PSF MINIMUM	110 ULTIMATE	D°	SEVERE	24"	MODERATE	SLIGHT	5°	YES	YES	1060	51.5°

Note: All design criteria is site specific

footnote (a): See snow load case study for local area minimums and site specific requirements (next page)

Ground Snow Loads for Chelan County Based on Case Study

The default Ground Snow Load (GSL) for all areas of the county with an elevation of 950 feet or less shall be 57 PSF GSL.

- The established ground snow load can be converted to the appropriate roof snow load using the formula in ASCE/SEI-7 2016

All areas within the county that exceed 950 feet in elevation shall use the Chelan County GIS Map to establish appropriate ground snow loads.

- Link: <https://maps.co.chelan.wa.us/GIS/>
- Find Parcel
- Click “Contours” tab to display elevation (may have to zoom in or out to view)
- Click “Snow Load Criteria” tab to display isolines
- Multiply the elevation of the parcel by the conversion found on the nearest isoline (use the highest if multiple isolines are displayed)

Example: Parcel elevation is 1200 feet and the nearest isoline is 0.0525 (1200 X 0.0525 = 63 PSF Ground Snow Load)

- The established ground snow load can be converted to the appropriate roof snow load using the formula is ASCE/SEI-7 2016