

# CITY OF CONCORD

#### NEW HAMPSHIRE

# Community Development Department

Code Administration Division

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Michael Santa, CBO Code Administrator

# STRUCTURAL LOADS FOR CONCORD NH

#### **Snow Load**

For Concord New Hampshire at an elevation of 600 feet the ground snow load is 70 pounds per square foot or psf.

At lower elevations in Concord, this value may be reduced by 2.1 lbs. per square foot for every 100 foot elevation difference. And for every 100 feet above 600 foot elevation, 2.1 lbs. per square feet should be added. The lowest elevation in Concord is 200 feet and the highest is 875 feet, therefore, the ground snow load range would fall between 61.6 lbs. per square foot and 75.8 lbs. per square foot.

The above examples were done at the lowest and highest land elevations in Concord to illustrate the range in ground snow loads possible.

Design snow loads on roofs are determined by multiplying the ground snow load by a series of modification factors specified in ASCE7 and the building code.

(Source: SENH-CRREL)

# **Wind Load**

Basic Wind Speed = 90 mph for a 3-second gust.

(Source: Figure 1609, IBC 2006)

#### Seismic Load

Maximum Considered Earthquake Ground Motion – Site Class B:

0.2 Second Spectral Response Acceleration = 40% g

1.0 Second Spectral Response Acceleration = 10%g

(Source: Figure 1613.5(1) & 1613.5(2), IBC 2006)

#### **Frost Line**

Frost penetration shall be considered to extend to a minimum of 48" below grade.

### **Rainfall Intensity**

100 Year, 1-Hour Rainfall (Inches) = 2.5

(Source: Figure 1106.1 IPC2006)

# **Adopted Codes**

International Building Code 2006 International Residential Code 2006 International Mechanical Code 2006 International Fuel Gas Code 2006 International Plumbing Code 2006 The National Electrical Code 2005 Life Safety Code 2000

(The above represents our best understanding. It shall be incumbent upon the Architect or Engineer to consult the sources and local conditions and apply professional judgment.)

Respectfully submitted,

Michael Santa, CBO Code Administrator Community Development Department

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