

# BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing  
**AIBC, EGBC, BOABC**

**File No: 12-0110**

**INTERPRETATION**

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<b>Interpretation Date:</b>	January 16, 2018
<b>Building Code Edition:</b>	BC Building Code 2012
<b>Subject:</b>	Maximum ground snow loads for design to Part 9
<b>Keywords:</b>	ground snow load, Part 9, maximum
<b>Building Code Reference(s):</b>	1.1.3.1.(1), A-3.1.1.3.(1), 9.4.1.1.(3), 9.4.2.1., 9.4.2.2., 9.23.4.2.(1)

## Question:

Sub-clause 2.2.7.1.(1)(c)(i) of Division C requires that a registered professional is required for the design and field review of structural components that are not within the scope of Part 9 of Division B.

Does Part 9 provide a maximum ground snow load that can be used for Part 9 buildings?

## Interpretation:

### Yes (for some structural members)

Sentences 9.4.1.1.(3) and 9.4.2.2.(1) require that location-specific snow loads be based on Subsection 1.1.3. of Division B.

Sentence 1.1.3.1.(1) requires that climatic data (including snow loads) be determined in accordance with Table C-2 in Appendix C of Division B.

Appendix A-3.1.1.3.(1) of Division B refers designers to Meteorological Service of Canada for snow loads in municipalities that are not included in Table C-2 in Appendix C of Division B.

Article 9.4.2.1. describes the limitations for light frame construction when designing to the prescriptive requirements of Part 9. These limitations include a maximum 2.4 kPa live load floor framing, and a maximum span of 12.2m for all structural members. This Article does not limit the ground snow loads for Part 9 buildings.

Article 9.4.2.2. describes the "specified snow loads (S)" (i.e. roof snow load) as

$S = C_b S_s + S_r$ , where  $S_s$  is the ground snow load.



Patrick Shek, P.Eng., CP, FEC, Committee Chair

The views expressed are the consensus of the joint committee with members representing AIBC, EGBC and BOABC, which form the BC Building Code Interpretation Committee. The Building and Safety Standards Branch, Province of BC and the City of Vancouver participate in the committee's proceedings with respect to interpretations of the BC Building Code. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

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Sentence 9.23.4.2.(1) permits the use of Tables A-1 to A-7 for maximum spans for wood frame construction for joists, rafters and beams, when the live loads do not exceed that values listed in the Tables.

Tables A-5 and A-7 limit the maximum "Specified roof snow load" to be 3.0 kPa for wood roof joists and wood roof rafters.

Table A-12 limits the maximum "Specified roof snow load" to be 3.0 kPa for wood ridge beams and lintels.

Tables A-13 and A-14 limit the maximum "Specified roof snow load (S)" to be 3.0 kPa for wood lintels.

The corresponding maximum Part 9 "ground snow load (Ss)", would vary from municipality to municipality depending upon the location specific rain load (Sr) using the formula in Article 9.4.2.2.

For example, if the rain load were 0.4 kPa, and the width of the roof does not exceed 4.3 meters, then the maximum ground snow load (Ss) would be calculated as follows:

$$S = C_b S_s + S_r$$

$$3.0 \text{ kPa} = 0.45 (S_s) + 0.4 \text{ kPa}$$

$$S_s = (3.0 - 0.4) / 0.45 = 5.78 \text{ kPa}$$

So the maximum ground snow load would vary from municipality to municipality, but the specified roof snow load would remain constant at 3.0 kPa.

Note that this limitation only applies to the structural members noted above in Tables A-5, A-7, A-12 to A-14.



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