BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing AIBC, EGBC, BOABC

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Interpretation Date:	July 19, 2023
Building Code Edition:	BC Building Code 2018
Subject:	Duct Openings in Ceilings of Secondary Suites
Keywords:	Duct Openings, Secondary Suites
Building Code Reference(s):	9.10.3.1, 9.10.5.1, 9.10.9.6, 9.10.13.13.,

Questions:

- 1. Are duct openings permitted in the ceiling of a secondary suite, where the fireresistance rating of the ceiling is based on Sentence 9.10.3.1.(2) or (3) and the duct serves only one fire compartment?
- 2. If the answer to Question 1 is Yes, are fire dampers required at duct openings in ceilings of secondary suites when the duct serves only one fire compartment?

Interpretation:

1. Yes.

Sentences 9.10.3.1.(2) and (3) provide descriptions of acceptable assemblies in a house where a secondary suite requires construction with a 15 min or 30 min fire-resistance rating. These assembly descriptions do not refer to tested assemblies, or to calculations of fire-resistance ratings as presented in Appendix D, or to assemblies described in Tables 9.10.3.1.-A or -B.

Sentence 9.10.5.1.(4) states:

"A membrane ceiling forming part of an assembly assigned a fire-resistance rating on the basis of Table 9.10.3.1.-B or Appendix D is permitted to be pierced by openings leading to ducts within the ceiling space provided the ducts, the amount of openings and their protection conform to the requirements of Appendix D."

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

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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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Since the fire-resistance rating of the secondary suite ceiling assembly in this case is based on Sentences 9.10.3.1.(2) or (3), and not Table 9.10.3.1.- B or Appendix D, Sentence 9.10.5.1.(4) is not applicable. However, the referenced requirements of Appendix D are only one method of protecting duct openings, and the BCBC has additional requirements relating to fire dampers. Sentences 9.10.9.6.(13) and (14) include requirements for fire dampers that penetrate a fire separation or a membrane forming part of an assembly required to have a fire-resistance rating.

No, if the duct is noncombustible. 2.

For a house with a secondary suite, Sentence 9.10.9.6.(14) waives the requirement for fire dampers at ducts penetrating fire separations, provided the ducts are noncombustible with all openings in the duct system serving only one fire compartment.

If the duct serves two fire compartments, then a fire damper may be required.

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

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