

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0232

INTERPRETATION

Page 1 of 2

Interpretation Date:	January 17, 2023
Building Code Edition:	BC Building Code 2018
Subject:	Fire Separation Between a Horizontal Service Space and the Floor Area Below
Keywords:	Fire Separation, Membrane, Service Space
Building Code Reference(s):	3.1.7.1.(4), 3.1.8.3.(1), 3.6.4.2.(2), 9.10.9.10.

Question:

Where a vertical fire separation does not extend through a horizontal service space because a fire separation is provided between the horizontal space and the floor area below, is the fire separation required to be provided by only the ceiling assembly and not the entire floor/ceiling assembly in:

1. A building regulated by Division B Part 3?
2. A building regulated by Division B Part 9?

1. Yes.

Sentence 3.1.8.3.(1) requires that, where a horizontal service space or other concealed space is located above a required vertical fire separation, the horizontal space shall be divided at the fire separation by an equivalent vertical fire separation, except as permitted by Sentence 3.6.4.2.(2).

Sentence 3.6.4.2.(2) permits the horizontal space to be constructed without the vertical fire separation, provided there is a fire separation between the horizontal space and the floor area below, which has a fire-resistance rating equivalent to that required for the vertical fire separation except that a 30 min. fire-resistance rating is permitted if the required fire-resistance rating of the vertical fire separation is not more than 45 min.

The vertical fire separation would be intended to maintain the required separation between fire compartments below the horizontal space. Where an equivalent vertical fire separation is not extended through the horizontal space, the required separation between compartments needs to be maintained at the interface between the horizontal space and the floor area. This fire separation must be based on only the ceiling assembly. If it was based on the entire



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.

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0232

INTERPRETATION

Page 2 of 2

floor/ceiling assembly, the fire-resistance rating of the portion of the overall separation between the horizontal space and the floor area below (i.e. the ceiling) could be less than required.

Sentence 3.1.7.1.(4) permits ceiling membranes to be used as a fire separation with a fire resistance rating on the basis of assemblies M1 and M2 in Table 9.10.3.1.B.

2. Yes.

Sentence 9.10.9.10.(1) requires that, where a horizontal service space or other concealed space is located above a required vertical fire separation, the horizontal space shall be divided at the fire separation by an equivalent vertical fire separation, except as permitted by Sentence (2).

Sentence 9.10.9.10.(2) permits the horizontal space to be constructed without the vertical fire separation, provided there is a fire separation between the horizontal space and the floor area below, which has a fire-resistance rating equivalent to that required for the vertical fire separation except that a 30 min. fire-resistance rating is permitted if the required fire-resistance rating of the vertical fire separation is not more than 45 min.

These are essentially the same requirements as described in question 1 for Part 3 buildings. The same rationale is applicable to a Part 9 building.



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.