

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0105

INTERPRETATION

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Interpretation Date:	April 20, 2021
Building Code Edition:	BC Building Code 2018
Subject:	Fire Separation of the Second Storey in a Building Constructed to Article 3.2.2.79
Keywords:	Exit, Fire Separation
Building Code Reference(s):	3.1.3.1, Table 3.1.8.4, 3.1.9.1.(1), 3.3.1.1., 3.2.2.79, 3.2.8.1.(1)(a)

Questions:

1. A two storey noncombustible sprinklered building will be constructed to comply with Article 3.2.2.79 (Group F, Division 2, up to 2 Storeys, Sprinklered). The first storey has a high ceiling with the area of the second storey being smaller than the first storey. Are the floor assembly of the second storey and the walls separating the second storey from the high ceiling space of the first storey required to have a fire-resistance rating?
2. What rating is required for the firestopping at penetrations through the fire separations referenced in question 1?

Interpretation:

1. No, if the same tenant occupies the first and second storeys.

Article 3.2.2.79 allows combustible or noncombustible construction, and requires sprinklering. Floor assemblies are required to be fire separations and they require a 45 min fire-resistance rating if they are of combustible construction. There is no requirement for a fire-resistance rating for floor assemblies that are of noncombustible construction. Therefore, the second storey floor assembly, and the walls that separate the second storey from the high ceiling area of the first storey, are permitted to be 0 h fire separations where they are of noncombustible construction. These storeys are not considered to be interconnected, because the interconnected floor space requirements referenced by Clause 3.2.8.1.(1)(a) are not applicable to a floor area that terminates at a continuous



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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vertical fire separation with the same fire-resistance rating as required for the floor fire separation (0 h, in this case).

However, if the first and second storeys are occupied by different tenants, such that they are different suites as defined in the BCBC, Article 3.3.1.1 requires a 45 min fire separation between suites with some exceptions as stated in that Article. This would apply to the second storey floor assembly and the walls separating the second storey from the high ceiling area of the first storey. In addition, if the first storey and second storey are different major occupancies, Article 3.1.3.1 and Table 3.1.3.1 of the BCBC may require greater fire-resistance ratings for the fire separations between storeys.

2. The F rating for the firestopping depends on the fire-resistance rating of the fire separation.

If the required fire-resistance rating of the separation between storeys is 0 h as stated in the response to question 1, penetrations through the separations are required to be sealed but do not require a firestopping system with an F rating. If the fire separations require a fire-resistance rating of 45 min or more as stated in the response to question 1, the F rating of the firestopping is required to comply with the rating for closures in Table 3.1.8.4, as stated in Sentence 3.1.9.1.(1). The firestopping in this location is unlikely to also require a T rating.



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