

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0055

INTERPRETATION

Page 1 of 3

Interpretation Date:	November 17, 2020
Building Code Edition:	BC Building Code 2018
Subject:	Firestopping vs blocking in floor/wall intersections in conventional wood framing
Keywords:	Continuity of fire separations with fire resistance rating up to 1h, fire blocking, fire stopping, service penetration through the fire separations
Building Code Reference(s):	3.1.8.3(1); 3.1.11.2.; 3.1.11.7.

Question:

1. Fire rated fire separation cavity wall intersecting with fire rated fire separation floor assembly.
 - a. What material should be used to install fire blocking?
 - b. What material should be used to seal openings through the fire blocking by building service penetrations?
2. Fire rated fire separation wall intersecting with unrated floor assembly.
 - a. What material should be used to install fire blocking and what material should be used to provide continuity of fire separation?
 - b. What material should be used to seal openings through the fire blocking by building service penetrations?
3. Unrated wall intersecting with fire rated fire separation floor assembly.
 - a. What material should be used to install fire blocking and what material should be used to provide continuity of fire separation?
 - b. What material should be used to seal openings through the fire blocking by building service penetrations?
4. Fire rated fire separation cavity wall intersecting with fire rated fire separation wall.
 - a. What material should be used to install fire blocking?
 - b. What material should be used to seal openings through the fire blocking by building service penetrations?
5. Fire rated fire separation cavity wall intersecting with unrated wall.
 - a. What material should be used to install fire blocking and what material should be used to provide continuity of fire separation?
 - b. What material should be used to seal openings through the fire blocking by building service penetrations?



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: 18-0055

INTERPRETATION

Page 2 of 3

Interpretation:

- 1.a. Fire blocks as listed in Sentences 3.1.11.7.(1) to (3) and (5) Fire Block Materials. Rim joist provides this function.
- 1.b. Fire stop as per Sentence 3.1.11.7.(7) and Note A-3.1.11.7.(7).

- 2.a. Doubled fire blocking 2x lumber as listed in Sentences 3.1.11.7.(1) to (3) and (5) Fire Block Materials. Second piece of lumber provides the char protection to complete fire rated fire separation.
- 2.b. Fire stop system listed for the rating of the fire rated fire separation wall assembly installed in the annual space of the penetrating services.

- 3.a. Top double plate provides adequate char protection and fire rating for the rated fire separation floor assembly above unrated wall. Bottom plate is less exposed to the heat in fire compartment and single plate will suffice.
- 3.b. Services installed in rated floor assembly do not need fire stopping when traveling above or below nonrated walls. Services that cross from the cavity of non-rated wall through rated floor assembly need to receive fire stop system listed for the rating of the fire rated floor assembly.

- 4.a. 2x lumber studs installed at the junction in passing wall and 2x end stud in abutting wall divide cavities within fire rated fire separation wall assemblies. Fire caulking is required if the annular space of penetrating service is larger than 3mm.
- 4.b. Fire stop as per Sentence 3.1.11.7.(7) and Note A-3.1.11.7.(7) is required for penetration of services crossing the studs blocking the cavity wall.

- 5.1.a. Continuous GWB at the junction of fire rated, fire separation wall with non-rated wall provides required continuity of fire separation. (For ease of installation the stud of the non-rated wall is not nailed until rated GWB is in place).
- 5.1.b. Services that penetrate only fire blocking within rated wall do not need fire stop. The services travelling within the non-rated wall and cross a fire rated fire separation wall need to receive fire stop system listed for the rating of the fire rated wall.



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

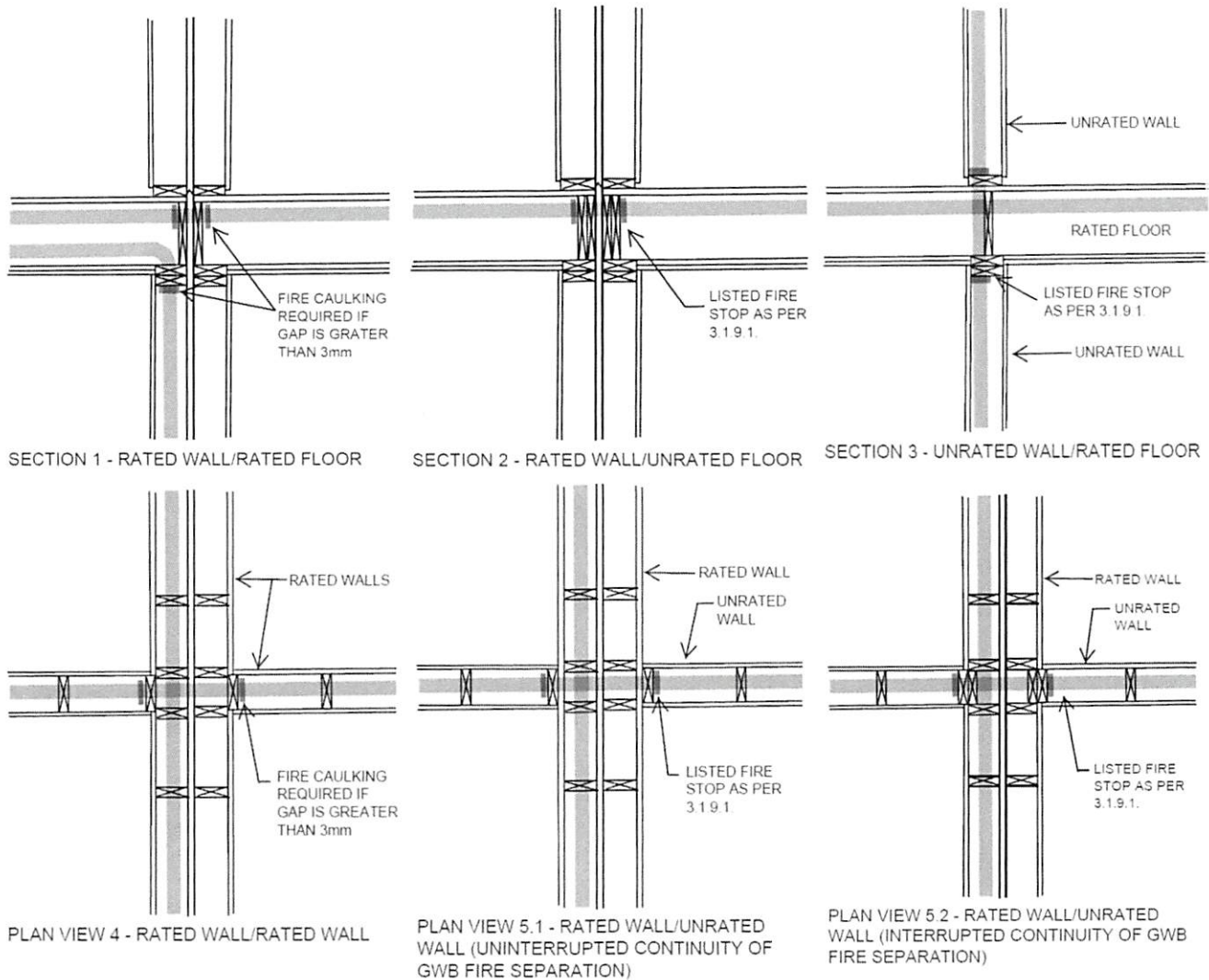
File No: 18-0055

INTERPRETATION

Page 3 of 3

5.2.a. Doubled fire blocking 2x lumber in non-rated wall and multilayer stud pack in fire rated fire separation wall provide adequate char protection and fire blocking for this junction.

5.2.b. Services that penetrate only fire blocking within rated wall do not need fire stop. The services that travel along the non-rated wall and cross a fire rated fire separation wall need to receive fire stop system listed for the rating of the fire rated wall.



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.