



## **VARIANCE**

August 1, 2018 (Revised January 9<sup>th</sup>, 2019)

### **Subject:**

### **CONSTRUCTION OF EXPOSING BUILDNG FACE (SPV-003)**

### **Background:**

A variance is written permission to build, install, process or otherwise act in a manner not consistent with the provisions of an applicable code but which provides, in the opinion of the Authority Having Jurisdiction (AHJ) or safety codes officer, an equivalent or greater level of safety to persons or property.

As stated in Sentence 1.2.1.1.(1). of Division A of the Alberta Building code 2014, compliance with this Code may be achieved by either of the following methods:

- a) Complying with the applicable acceptable solutions in Division B of the Code or
- b) Using alternative solutions that will achieve at least the minimum level of performance required by Division B in areas defined by the objectives and functional statements attributed to the applicable acceptable solutions.

### **Applicable regulatory requirements:**

Alberta Building Code 2014, Division B, Article 9.10.14.2.

Alberta Building Code 2014, Division B, Article 9.10.14.5. Sentences (1) & (3).

### **Reason for the Variance:**

This variance addresses the area and location of the exposing building face of a detached garage serving a multi-dwellings building in relation to Article 9.10.14.2. construction of exterior walls of a detached garage, where the garage units do not directly serve the dwelling units which they face. The intent of this variance is to facilitate the construction of these garages without the need for non-combustible construction methods as prescribed in Table 9.10.14.5.A - forming part of Sentence 9.10.14.5.(1). and to clarify -the limiting distance used to calculate the allowable area of unprotected openings on the wall of the dwelling units which face the garage.

The area of an exposing building face shall be:

- a) Taken as the exterior wall area facing in one direction on any side of a building, and
- b) Calculated as

- i) the total area measured from the finished ground level to the uppermost ceiling, or
- ii) the area for each fire compartment, where a building is divided into fire compartments by fire separations with fire resistance ratings not less than 45 minutes.

Pursuant to Table 9.10.14.5.A, forming part of Sentence 9.10.14.5.(1) the minimum construction requirements for exposing building faces is to be non-combustible with non-combustible cladding.

In accordance with 9.10.14.5.(3). where the limiting distance from the garage to the face of the house is not greater than 5.0 m, and the aforesaid requirements will not be met, the following additional measures will be required as the accepted method of variance.

### **Accepted method of Variance**

All four (4) exterior walls of the detached garage facing multiple dwelling units which they do not serve shall be constructed as follows:

- A code complying non-combustible cladding or vinyl siding installed as per manufactures specifications over a code complying single ply air barrier and 1 layer 5/8" (15.9mm) Type X FRR exterior gypsum board or equivalent.
- Minimal 2 x 4 wood studs at a maximum spacing of 400mm (16") on centre.
- Exterior wall stud cavities to be filled with mineral fiber insulation conforming to CAN/ULC-S702, having a mass not less than 1.22 kg/m<sup>2</sup> of wall surface.
- A single ply 6mil (0.15mm) polyethylene vapour barrier conforming to CAN/CGSB-51.34M installed in accordance with Article 9.25.4.3 of Division B of the Alberta Building Code.
- Interior sheathing to consist of 1 layer 5/8" (15.9mm) Type X gypsum board or equivalent.
- A one-hour fire separations shall subdivide the storage garage into smaller fire compartments.

No individual fire compartment within the storage garage shall exceed a maximum of two parking stalls. One-hour fire separations are used to subdivide the garage into smaller fire compartments so that each 2 car parking space is equivalent to a typical garage serving a single family dwelling unit. If additional partition walls are constructed between single parking stalls they shall also have a fire resistance rating of one-hour.

The ceiling of each fire compartment in the detached garage shall be sheathed in 1 layer 5/8" (15.9mm) Type X gypsum board or equivalent.

The exposing building face of a detached garage facing multiple dwelling units which they do not directly serve shall have no unprotected openings. The swing door facing the dwelling unit shall have a fire protection rating of not less than 45 minutes and be equipped with a self closing device.

The limiting distance requirements between the garage and the residential building is assumed to be resolved when the garage is constructed as per the requirements above. The windows of the dwelling units facing the garage need not to be reduced in size for this reason, in the same way that a single family dwelling is exempt from the garage that serves it.

### **Attributing Objective and Functional Statements:**

- F02 – to limit the severity and effects of fire or explosions.
- F03 – to retard the effects of fire beyond its point of origin
- OP3.1. – fire or explosion impacting areas beyond the building or facility of origin.

### **This Variance is based on the following:**

- Table 9.10.14.5.A forming part of Sentence 9.10.14.5.(1)
- Reference to Variance SPV-003 in the permit documents submitted by the applicant to obtain a building permit.
- Reference to Variance SPV-003 within the permit conditions of the building permit.
- All code complying non-combustible components stated in this variance for the construction of the exposing building face shall comply with:

Alberta Building Code 2014. Division B, D-4.1.1. Determination of Non-combustibility.

- 1) Non-combustibility is required of certain components of buildings by the provisions of this Code, which specifies non-combustibility by reference to CAN/ULC-S114” Test for Determination of Non-Combustibility in Building Materials”.

### **Address:**

Where referenced as (SPV-003) within the building permit conditions, this variance shall be applicable to the address of the Building Permit.

### **Authority and conditions:**

Under the authority of Section 38 of the Safety Codes Act, Chapter S-1 of the Statues of Alberta 2000, this Variance is granted based on:

- The owner/contractor acknowledging the authority under which the variance is issued by referencing the Variance in the Building Permit documentation.
- The owner/contractor ensuring that the project is carried out as outlined in this Variance.

**Non- compliance with the requirements of this Variance is an offence under the Safety Codes Act.**

Chief Building Official  
Calgary Building Services  
Planning & Development





