**BC BUILDING CODE INTERPRETATION COMMITTEE** 

A joint committee with members representing AIBC, EGBC, BOABC

File No: 18-0225	INTERPRETATION	Page 1 of 2
Interpretation Date:	February 21, 2023	
Building Code Edition:	BC Building Code 2018	
Subject:	Thermal insulation at the edge of slab	
Keywords:	Thermal break, thermal bridging, insultation, slab edge, energy, effective R value.	
Building Code Reference(s):	9.36.2.8.(4)(b)(i)	

#### **Question:**

When using insulation on the interior of the foundation wall or underside of a floor slab, the code allows a reduction of 50% of the required thermal resistance for the space between the slab edge and the foundation wall.

In this case, can the rigid insulation at the slab edge be beveled so that the bottom of the slab has the full thickness of insulation and the top of the slab can be reached the foundation wall? This method will use the effective R-value to calculate the thermal resistance of the foundation wall as a whole.

#### Interpretation:

No.

Beveling the rigid insulation will create a thermal bridge at the top of the slab. This will negate any thermal benefit of providing the full thickness of insulation at the bottom of the slab.

Whilst using the effective thermal resistance can be useful for determining the performance of an assembly with respect to thermal transmittance, efforts must still be taken to thermally break conditioned space from non-conditioned space. For example doors and windows are considered a bridge, but these are necessary for the proper functioning of a building and the construction of these aspects must be carefully detailed to minimize the transfer of heat energy.

Beveling the insulation at the slab edge will connect the top of slab to the foundation wall which will allow the free passage of heat and essentially bring the effective R value of the assembly to 0 (zero).

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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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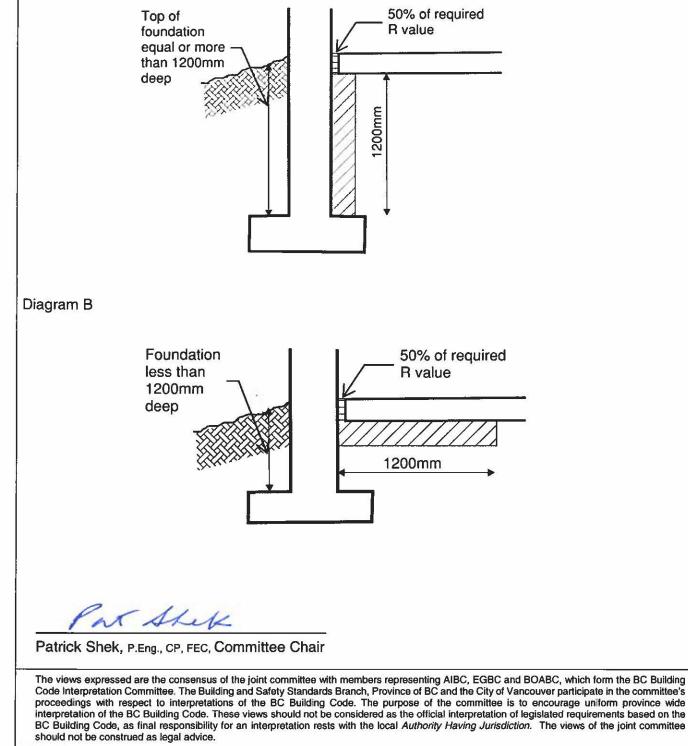
# File No: 18-0225

## INTERPRETATION

Page 2 of 2

Diagrams A and B below show the appropriate insulation between the edge of slab and the foundation wall.

**Diagram** A



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