

Proposed Change 2268

Code Reference(s):	NECB25 Div.A 1.4.1.2. (first printing) NECB25 Div.B 3.1.1.4. (first printing)
Subject:	Defined Terms
Title:	"Thermal Bridge" as a Defined Term
Description:	This proposed change adds a defined term by moving the definition for the term "thermal bridge" from Div. B to Div. A of the NECB.

This change could potentially affect the following topic areas:

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| ☒ Division A | ☒ Division B |
| ☐ Division C | ☒ Design and Construction |
| ☐ Building operations | ☐ Housing |
| ☐ Small Buildings | ☒ Large Buildings |
| ☐ Fire Protection | ☐ Occupant safety in use |
| ☐ Accessibility | ☐ Structural Requirements |
| ☒ Building Envelope | ☒ Energy Efficiency |
| ☐ Heating, Ventilating and Air Conditioning | ☐ Plumbing |
| | ☐ Construction and Demolition Sites |

Problem

The 2025 edition of the National Energy Code of Canada for Buildings (NECB) introduced the new term "thermal bridge" as part of the Division B requirements. This term was not included in Division A of the NECB within the list of defined terms, but is proposed to be added to this list to avoid inconsistencies in the NECB.

Justification

Including the term "thermal bridge" in the list of defined terms in Division A would

- standardize terminology,
- reduce confusion,
- enhance clarity,
- ensure consistency,
- facilitate interpretation, and
- facilitate Code compliance.

PROPOSED CHANGE

NECB25 Div.A 1.4.1.2. (first printing)

[1.4.1.2.] 1.4.1.2. Defined Terms

- [1] 1) The words and terms in italics in this Code shall have the following meanings:

Thermal bridge means a point, linear area or surface area of a *building envelope* that has a thermal transmittance higher than the nominal thermal transmittance of an adjacent *building envelope* assembly, which results in a higher energy flow through the point, linear area or surface area. (See Note A-1.4.1.2.)

Note A-1.4.1.2.(1) Defined Terms.

Thermal Bridge

There is a risk of condensation associated with thermal bridges. The inner surface temperature of the point, linear area or surface area that acts as a thermal bridge in an assembly can be significantly colder than the surrounding area. This difference in temperature can lead to condensation on the thermal bridge if its surface temperature is colder than the dew point of the surrounding air. Such condensation can, in turn, lead to the degradation of materials, components and assemblies, and to the growth of mould.

NECB25 Div.B 3.1.1.4. (first printing)

[3.1.1.4.] 3.1.1.4. Definitions

- [1] 1) Words that appear in italics are defined in Article 1.4.1.2. of Division A.
- ~~[2] 2) For the purposes of this Part, the term "thermal bridge" shall mean a point, linear area or surface area of a *building envelope* that has a thermal transmittance higher than the nominal thermal transmittance of an adjacent *building envelope* assembly, which results in a higher energy flow through the point, linear area or surface area. (See Note A-3.1.1.4.(2).)~~

~~Note A-3.1.1.4.(2) Condensation Risk for Thermal Bridges.~~

~~The inner surface temperature of the point, linear area or surface area that acts as a thermal bridge in an assembly can be significantly colder than the surrounding area. This difference in temperature can lead to condensation on the thermal bridge if its surface temperature is colder than the dew point of the surrounding air. Such condensation can, in turn, lead to the degradation of materials, components and assemblies, and to the growth of mould.~~

Impact analysis

This proposed change is not expected to result in additional costs for Code users as a defined term would clarify the intended meaning of this term without impacting other terms.

Enforcement implications

This proposed change could be enforced by the infrastructure currently available to enforce the Code.

Who is affected

Designers, engineers, architects, builders, building officials, and consultants

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISIONS

NECB25 Div.A 1.4.1.2. (first printing)

N/A

NECB25 Div.B 3.1.1.4. (first printing)

[3.1.1.4.] 3.1.1.4. ([1] 1) no attributions

[3.1.1.4.] ~~3.1.1.4. ([2] 2) no attributions~~