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Proposed Change 2051

Code Reference(s):	NBC20 Div.B 10.9. (first printing)
Subject:	Alteration of Existing Buildings — Housing and Small Buildings
Title:	Explanatory Note 10.9.1.1. for Continuity of the Air Barrier System
Description:	This proposed change introduces explanatory Note 10.9.1.1. to clarify requirements for the continuity of air barrier systems that apply to the alteration of existing buildings.
Related Proposed Change(s):	PCF 1825, PCF 1827, PCF 1828, PCF 2032, PCF 2033

This change could potentially affect the following topic areas:

- | | |
|---|---|
| <input type="checkbox"/> Division A | <input checked="" type="checkbox"/> Division B |
| <input type="checkbox"/> Division C | <input checked="" type="checkbox"/> Design and Construction |
| <input type="checkbox"/> Building operations | <input checked="" type="checkbox"/> Housing |
| <input checked="" type="checkbox"/> Small Buildings | <input type="checkbox"/> Large Buildings |
| <input type="checkbox"/> Fire Protection | <input type="checkbox"/> Occupant safety in use |
| <input type="checkbox"/> Accessibility | <input type="checkbox"/> Structural Requirements |
| <input checked="" type="checkbox"/> Building Envelope | <input checked="" type="checkbox"/> Energy Efficiency |
| <input checked="" type="checkbox"/> Heating, Ventilating and Air Conditioning | <input checked="" type="checkbox"/> Plumbing |
| | <input type="checkbox"/> Construction and Demolition Sites |

General information

See the summary for subject Alteration of Existing Buildings.

Problem

There is confusion among Code users about the extent of the work necessary to comply with the provisions related to maintaining the continuity of air barrier systems during the alteration of existing buildings. This confusion can result in increased administrative and enforcement efforts when assessing the degree to which any particular requirement could be relaxed without affecting the level of performance of the building with respect to the Code objectives. This confusion could lead to the unnecessary enforcement of

certain provisions and add unnecessary costs to the alteration. Although PCF 2032 addresses this problem, further explanation of the intended meaning of the provision may be required.

Justification

The addition of an explanatory Note provides further clarification that the proposed change in PCF 2032 applies only to the area exposed by, made accessible by or within the extent of the alteration. This proposed change is intended to limit the probability of unnecessary work being performed, which will limit unnecessary additional costs.

PROPOSED CHANGE

NBC20 Div.B 10.9. (first printing)

[10.9.] -- Housing and Small Buildings (PCF 2032)

[10.9.1.] -- Heat Transfer, Air Leakage and Condensation Control (PCF 2032)

[10.9.1.1.] --- Continuity of the Air Barrier System (PCF 2032)
(See Note A-10.9.1.1.)

Note A-10.9.1.1. Application of Article 10.9.1.1.

Article 10.9.1.1. applies only to the area that is exposed or made accessible by the alteration or is within the extent of the alteration. For example, where a bathroom is added to an existing basement, Article 10.9.1.1. applies to the area of the floor slab and walls that is opened for the installation of plumbing fixtures for the new bathroom and not to other areas of the below-grade air barrier system.

Impact analysis

There is no additional cost related to this proposed change. There is a potential reduction in cost by preventing confusion about the extent of the work required to comply with the provisions related to maintaining the continuity of air barrier systems during alterations to existing buildings (PCF 2032). For example, during an alteration, a crack in a foundation wall that is exposed by, made accessible by or within the extent of the alteration would need to be sealed. However, Article 10.9.1.1. (PCF 2032) does not apply to foundation walls that are not within the extent of the alteration.

Enforcement implications

It is expected that having a consistent set of provisions that apply to the alteration of existing buildings would help reduce the administrative and enforcement work of assessing the degree to which any particular requirement could be relaxed without affecting the level of performance of the building with respect to the Code objectives.

This proposed change would aid enforcement by identifying the work necessary to maintain the integrity of the air barrier system.

Who is affected

Designers, engineers and architects: This proposed change clarifies the requirements for the continuity of air barrier systems in existing buildings subjected to alteration. This explanatory Note is expected to eliminate potential confusion about the requirements related to an alteration, thus easing the design process.

Builders and renovators: This proposed change is expected to reduce unnecessary work when compared to previous alterations on other projects where a more conservative approach may have been taken when interpreting the air leakage provisions for existing buildings.

Building officials: This proposed change is expected to reduce confusion about how to regulate air barrier systems related to the alteration of existing buildings.

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISIONS

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N/A