

# Public Review



## Vancouver Building By-law (VBBL)

### Proposed change to add a new Sentence Div. B, 3.3.1.13.(11)

**Topic:** After-hours Elevator Lobby Egress

**Code change number:** 24-0025

**Code reference:** Div. B, 3.3.1.13.(11)

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## Description of the proposed change

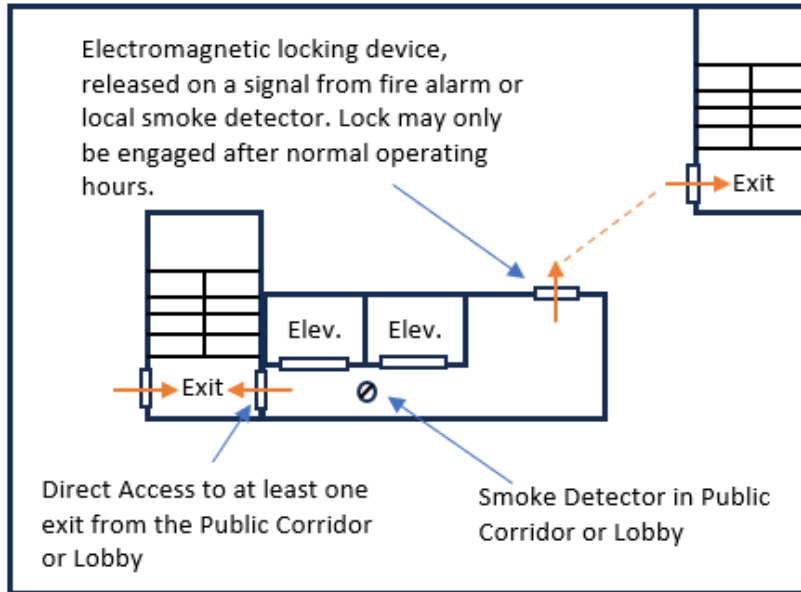
It is a common alternative solution request to provide electromagnetic locking in public corridors and lobbies to secure the main entry of larger suites during hours where occupants are not expected (not just after business hours as staff may still be present), where the suite entry door provide a means of egress to reach an exit located within the suite. This would reduce access to a single exit from the public corridor or lobby. Alternative solution to address this condition are usually varied, add complexity or delay to otherwise simple building permits.

## Justification

This proposal is a variation of the permission in Sentence 3.3.1.13.(7) which was recently revised in the NBCC 2020 to make clear than an electromagnetic locking device may be incorporate into any door in a means of egress.

As electromagenetic locking device are required to comply with Sentence 3.4.6.16.(5), which require release of the door after 15 seconds the owner's security objective cannot be fulfilled.

This proposal is intended to permit an electromagnetic lock device on a public corridor or lobby, provided that direct access is provided to at least one stair, and that automatic release of the electromagnetic locking devices at the suite entry and all other locking devices leading to the exit.



These provisions are generally consistent with the existing provisions for electromagnetic locking devices, except that a reliance is placed on automatic device to release the locks. To reduce the risk of unacceptable delay, locking devices are only to be engaged once occupants have left the storey

The fundamental objective that egress is not unacceptably delayed remains, and must be reviewed by the responsible registered professional for compatibility with the building egress systems.

## Proposed VBBL content

### Legend

Black Text – 2019 Vancouver Building By-law content

Red Text – Proposed modification to Vancouver Building By-law content

### **3.3.1.13. Doors and Door Hardware**

[...]

**7)** Except as permitted by Sentence (11), a A door in an *access to exit* is permitted to be equipped with an electromagnetic lock conforming Sentences 3.4.6.16.(5) or (6). (See Note A-3.3.1.13.(7).)

[...]

**11)** An egress door from a public corridor or lobby that provides a means of egress through a suite of Group D occupancy to an exit may, where acceptable to the Chief Building Official, be provided with an electromagnetic locking device where

a) the egress door is designed to prevent locking during normal working hours and is provided with signage stating "This door shall not be locked during the normal hours of business operation.",

b) the public corridor or lobby, does not contain an occupancy and serves only suites of Group D occupancy,

c) the public corridor or lobby is provided with direct access to at least one exit,

- d) the building is sprinklered and provided with a fire alarm system, and
  - e) all electromagnetic locking devices along the path to the exit are designed to
    - i) release immediately on an alarm signal or from a smoke detector in the public corridor or lobby, or upon loss of power controlling the electromagnetic locking mechanism and its associated auxiliary control,
    - ii) release immediately upon actuation of a manually operated switch accessible only to authorized personnel, and
    - iii) be reset manually by actuation of the switch referred to in Subclause (ii) upon its release.
- (See Note A-3.3.1.13.(11).)

**A-3.3.1.13.(11) Access to Exit from Elevator Lobbies.** The intent of Sentence 3.3.1.13.(11) is to address frequent requests by building owners and tenants to secure the suite entry doors on a floor of office occupancy, which contains at least one exit which is not directly accessible from the common corridor system outside of the regular hours of business operations.

Conceptually, the public corridor and lobby are floor areas containing only a transitory occupancy, and not otherwise occupied after hours. However, because operating hours for a given business may vary or change over time, signage and other measures to limit the probability of the doors in the means of egress leading to an exit must be provided by the owner/operator. Significant discretion may be required on the part of the Chief Building Official to assess the reliability of such measures.

Owner/operators should expect to demonstrate how the locking system occupancy will be controlled during and after hours of operation so that unimpeded egress to two exit is provided when occupant are expected to be present on the storey. This may be difficult to achieve in a practical manner where a storey includes more than one suite.