

## 9.9.10. Egress from Bedrooms

### 9.9.10.1. Egress Windows or Doors for Bedrooms

#### From National Building Code-2019 Alberta Edition Division B

- 1) Except where the suite is sprinklered, each bedroom or combination bedroom shall have at least one outside window or exterior door openable from the inside without the use of keys, tools or special knowledge and without the removal of sashes or hardware. (See Article 9.5.1.2. and Note A-9.9.10.1.(1).)
- 2) The window referred to in Sentence (1) shall
  - a) provide an unobstructed opening of not less than  $0.35 \text{ m}^2$  in area with no dimension less than 380 mm, and
  - b) maintain the required opening during an emergency without the need for additional support.(See Note A-9.9.10.1.(2).)
- 3) Where a window required in Sentence (1) opens into a window well, a clearance of not less than 760 mm shall be provided in front of the window. (See Note A-9.9.10.1.(3).)
- 4) Where the sash of a window referred to in Sentence (3) swings towards the window well, the operation of the sash shall not reduce the clearance in a manner that would restrict escape in an emergency.
- 5) Where a protective enclosure is installed over the window well referred to in Sentence (3), the enclosure shall be openable from the inside without the use of keys, tools or special knowledge of the opening mechanism.
- 6) If the window referred to in Sentence (1) is provided with security bars, the security bars shall be openable from the inside without the use of keys, tools or special knowledge.

**A-9.9.10.1.(1) Escape Windows from Bedrooms.** Sentence 9.9.10.1.(1) generally requires every bedroom in an unsprinklered suite to have at least one window or door opening to the outside that is large enough and easy enough to open so that it can be used as an exit in the event that a fire prevents use of the building's normal exits. The minimum unobstructed opening specified for escape windows must be achievable using only the normal window operating procedure. The escape path must not go through nor open onto another room, floor or space.

Where a bedroom is located in an unsprinklered suite in a basement, an escape window or door must be located in the bedroom. It is not sufficient to rely on egress through other basement space to another escape window or door.

#### Window Height

The Article does not set a maximum sill height for escape windows; it is therefore possible to install a window or skylight that satisfies the requirements of the Article but defeats the Article's intent by virtue of being so high that it cannot be reached for exit purposes. It is recommended that the sills of windows intended for use as emergency exits be not higher than 1.5 m above the floor. However, it is sometimes difficult to avoid having a higher sill: on skylights and windows in basement bedrooms for example. In these cases, it is recommended that access to the window be improved by some means such as built-in furniture installed below the window.

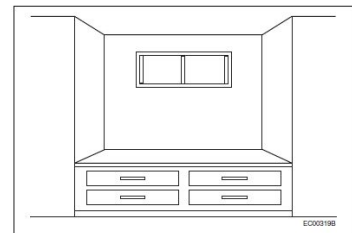


Figure A-9.9.10.1.(1) Built-in furniture to improve access to a window

#### A-9.9.10.1.(2) Bedroom Window Opening Areas and Dimensions.

Although the minimum opening dimensions required for height and width are 380 mm, a window opening that is 380 mm by 380 mm would not comply with the minimum area requirements.

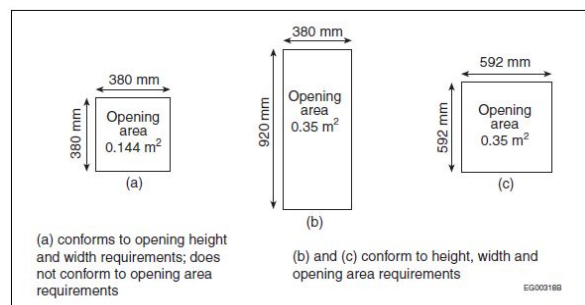


Figure A-9.9.10.1.(2) Window opening areas and dimensions

**A-9.9.10.1.(3) Window Opening into a Window Well.** Sentence 9.9.10.1.(3) specifies that there must be a minimum clearance of 760 mm in front of designated escape windows to allow persons to escape a basement bedroom in an emergency. This specified minimum clearance is consistent with the minimum required width for means of egress from a floor area (see Article 9.9.5.5.) and the minimum required width for path of travel on exit stairs (see Article 9.9.6.1.). It is considered the smallest acceptable clearance between the escape window and the facing wall of the window well that can accommodate persons trying to escape a bedroom in an emergency given that they are not

moving straight through the window but must move outward and up, and must have sufficient space to change body orientation.

Once this clearance is provided, no additional clearance is needed for windows with sliders, casements, or inward-opening awnings.

However, for windows with outward-opening awnings, additional clearance is needed to provide the required 760 mm beyond the outer edge of the sash. (See Figure.)

Depending on the likelihood of snow accumulation in the window well, it could be difficult—if not impossible—to escape in an

emergency. The window well should be designed to provide sufficient clear space for a person to get out the window and then out the well, taking into account potential snow accumulation. Hopper windows (bottom-hinged operators) should not be used as escape windows in cases where the occupants would be required to climb over the glass.

