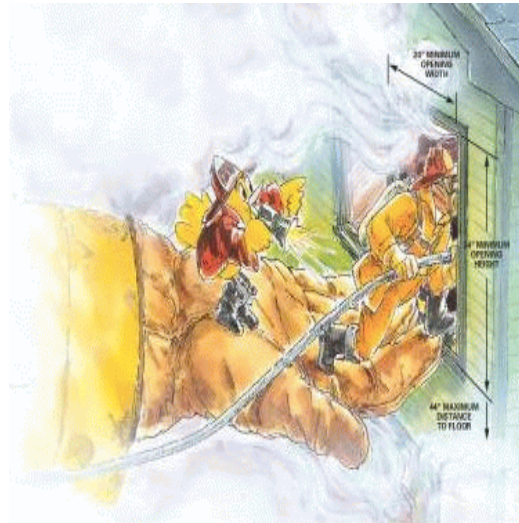


# Egress Windows

Height x Width  
of unobstructed  
opening must equal at  
least  
542 Square Inches  
(0.35m<sup>2</sup>)



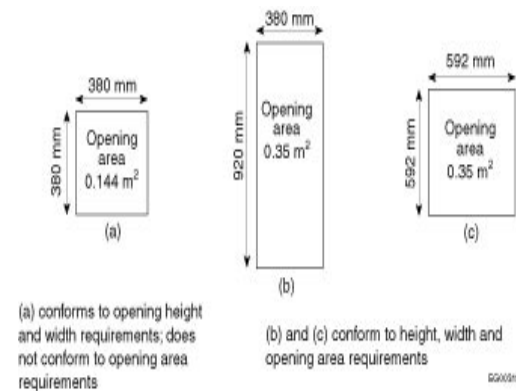
Few of us think of windows as lifesaving equipment - but they are! When you need to escape a house fire or other disaster the right-sized egress window can make the difference between life and death.

This is especially true for upstairs bedrooms and basements, where the stairway is often the sole escape route. If that stairway is blocked, you can be trapped.

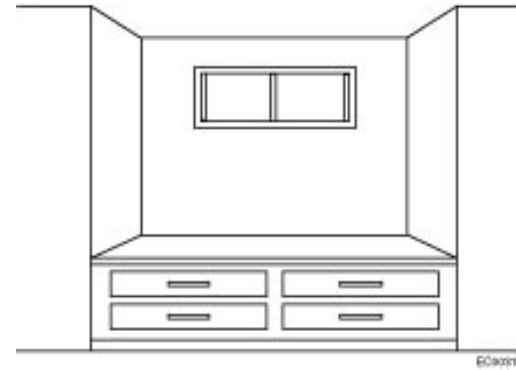
According to the National Building Code (NBC), “Except where the suite is sprinklered, each bedroom or combination bedroom shall have at least one outside window or exterior door openable from the inside without the use of keys, tools or special knowledge and without the removal of sashes or hardware. The window shall provide an **unobstructed opening** of not less than **0.35m<sup>2</sup> (542 sq. inches)** in area with no dimension less than 380 mm (15 inches) and maintain the required opening during an emergency without the need for additional support.”

### The unobstructed opening must:

- be 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.
- be achievable using only the normal window operating procedure.
- be such that the escape path must not go through nor open onto another room or space.



Further, it is recommended that the sills of windows intended for use as emergency exits be not higher than 1.5 m (5 ft.) above the floor. When it is difficult to avoid having a higher sill, on skylights and windows in basement bedrooms for example, access to the window should be improved by some means such as built-in-furniture installed below the window.



### Do I Have to Have 'Em?

As per “Glass Areas” in section 9.7.1.2. of the NRC-CNRC - User’s Guide - NBC 1995 Housing and Small Buildings (Part 9), “Requirements for minimum glass areas in residential buildings predate the NBC. Before the use of electricity, lighting for interiors depended on windows during the daylight hours. Such natural lighting was considered essential for the daytime use of interior building space. The traditional requirement for window areas to be at least 10% of the floor area still applies to living and dining areas, regardless of whether or not electricity is provided. Until the late 1970s, the 10% limit applied to bedrooms as well.

With increased awareness of energy conservation, the minimum area required for bedroom windows was reduced by half, since the rooms often serve only a night time function. Although bedroom windows are not considered to be ordinary escape routes, many occupants have been saved by using them in an emergency.”

The 1980 NBC required that the unobstructed glass area of a bedroom window be “5 per cent of area served with at least 1 window having a minimum area of 0.55m<sup>2</sup> and a minimum dimension of 600mm.” (852.5” with a minimum dimension of 23.6”). The 1985 NBC through to the current NBC required that the minimum unobstructed glass area of a bedroom window be “5 per cent of the area served and, except where a bedroom door provides access directly to the exterior, each bedroom shall have at least 1 outside window openable from the inside without the use of tools or special knowledge. Such windows shall provide an unobstructed opening of not less than 380 mm in height and width and 0.35m<sup>2</sup> in area.” (15” in height and width and 542”) Note that the 1995 NBC also provides an exception if “the suite is sprinklered”.

Bedroom sizes, (prior to the requirement in the 1985 NBC for openable windows) were required to be a minimum of 75<sup>2</sup> or larger, and, as such, the minimum glass required would have been 852.5<sup>2</sup>”.

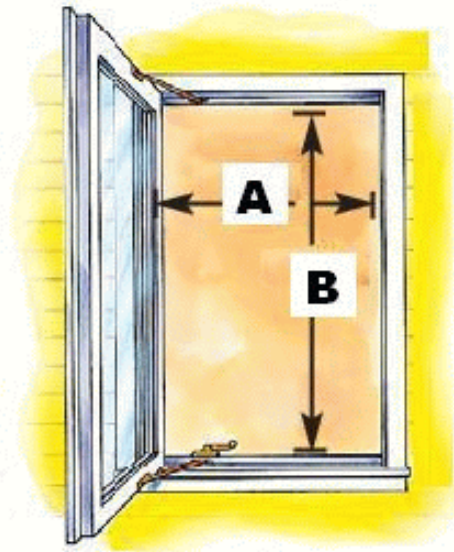
## Choosing an Egress Window

When it comes to egress, not all windows are created equal. There are many window styles that can meet egress requirements. If you remodel, you may want new egress windows that match the style of your existing windows. This can be a challenge. If you're replacing a smaller window with a larger one bear in mind that enlarging the height of the opening takes less structural work than enlarging the width. Increasing width means installing a larger, beefier horizontal structural header over the window opening - a major project. Increasing height is often only a matter of lowering the height of the sill below the window.

A	B
15" (380 mm)	36" (914 mm)
16" (406mm)	34" (863 mm)
17" (432 mm)	32" (812 mm)
18" (457 mm)	30" (762mm)
19" (483 mm)	29" (736 mm)
20" (508 mm)	27" (686 mm)
21" (533 mm)	26" (660 mm)
22" (584 mm)	25" (635 mm)
23" (584 mm)	24" (610 mm)
24" (610 mm)	... reverse direction

## Casement Windows

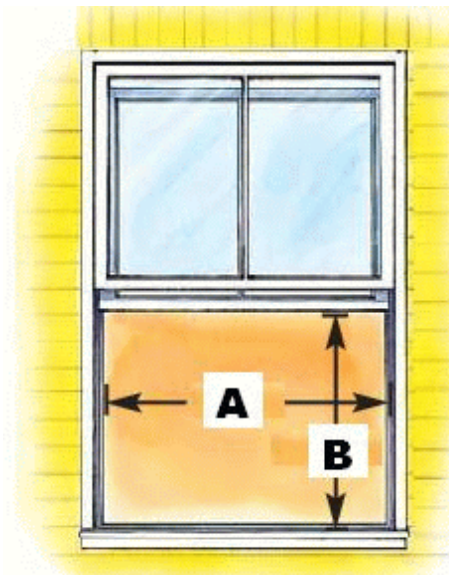
With hinged sashes that swing free and clear of the opening can be relatively small and still meet egress requirements. This makes them ideal for basement egress and for other areas where space is limited. Some manufacturers can install a special operator arm that allows the window to open wider than the standard operating arm to meet egress requirements. Others have an operator arm that can be pushed to open the window wider in an emergency. These meet egress requirements as long as you leave the "PUSH HERE" label in place.



## Double-Hung Windows

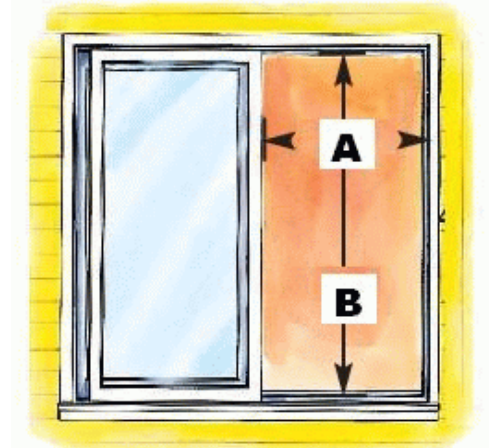
Even when fully open, more than half of a double-hung window's overall area is blocked by glass. This means that to meet egress window height requirements, a window must be much larger. This height requirement takes it out of the running for a lot of basement egress situations.

Double-hung windows with vertically sliding sashes that always fill more than one-half the opening area have to be pretty big to meet egress requirements.



## Gliding Windows

Gliding windows with horizontally sliding sashes that always fill half the possible window opening area also have to be big to meet egress requirements.



## Awning Windows

Make poor egress windows because the opened sash impedes entrance and exit and center opening mechanisms get in the way. Only those with special hardware (detachable operators) meet egress requirements.

