



CONSTRUCTION TIP SHEET 23
Window & Glass Door Guards

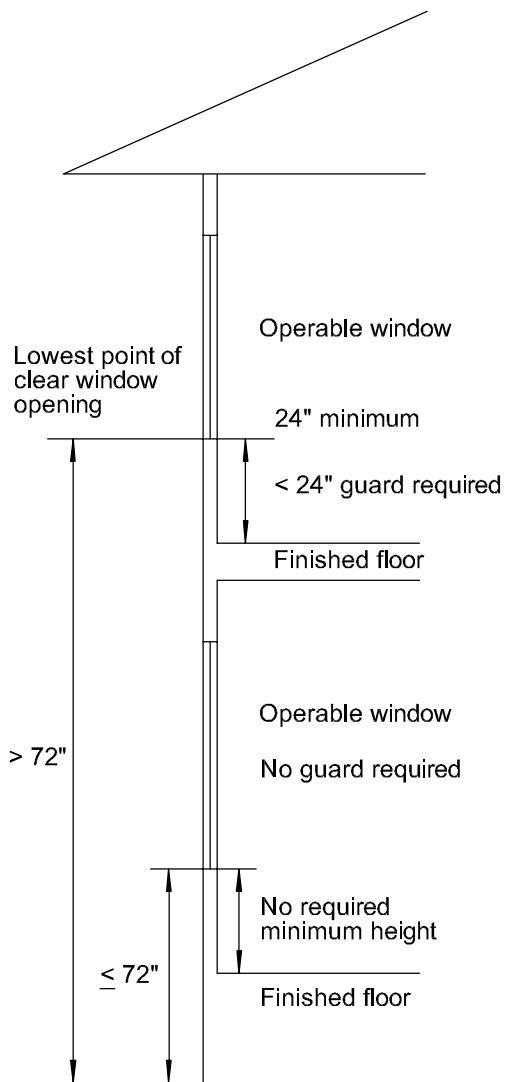
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2006 IRC & IBC

IRC R613.2 Window Sills: This requirement is intended to provide a level of protection to children to help keep them from falling from windows when the window sill is too close to the finished floor level. By raising the lowest operable portion of a window to 24 inches or more, the sill height is above the center of gravity of smaller children. By restricting the sill position of the rough opening of the window any replacement windows that could be placed into the opening should also meet this code requirement.

Use of Chart: Select exterior sill height above grade (column 1); then select interior sill height (column 2); follow the line across to determine additional code requirements.

Exterior sill height above grade	Interior sill height above floor (X)	May use as egress (Yes/No) ^{1,2}	Safety glass req'd R308.4	Hardware or restraint R613.2 ³
≤72"	X > 44"	No	No	No
	18" ≤ X ≤ 44"	Yes	No	No
	X < 18", and top edge of window >36" above floor and individual pane >9 sf			
>72"	X > 44"	No	No	No
	24" ≤ X ≤ 44"	Yes	No	No
	X < 24"	Yes	No	Yes
	X < 18", and top edge of window >36" above floor, and individual pane >9 sf	Yes	Yes	Yes



¹ **Sec. R310.1.1 Minimum opening area:** All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.530 m²). **Exception:** Grade floor openings shall have a minimum net clear opening of 5 square feet (0.465 m²) **R310.1.2 Minimum opening height.** The minimum net clear opening height shall be 24 inches (610 mm). **R310.1.3 Minimum opening width.** The minimum net clear opening width shall be 20 inches (508 mm). **R310.1.4 Operational constraints.** Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys, tools or special knowledge.

² **Sec. R310.4 Bars, grilles, covers and screens.** Bars, grilles, covers, screens or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures, or window wells that serve such openings, provided the minimum net clear opening size complies with Sections R310.1.1 to R310.1.3, and such devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge or force greater than that which is required for normal operation of the escape and rescue opening.

³ **Sec. R613.2, Exceptions:** 1. Windows whose openings will not allow a 4-inch-diameter (102mm) sphere to pass through the opening when the opening is in its largest opened position. 2. Openings that are provided with window guards that comply with ASTM F 2006 or F 2090.

⁴ See IRC613.2 and IBC Sec 1405.12.2.

ASTM F 2006: Standard Safety Specification for Window Fall Prevention Devices for Non-Emergency Escape (Egress) and Rescue (Ingress) Windows.

ASTM F 2090: Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms.

Grade

NOT TO SCALE

GENERAL INFORMATION:

- This tip sheet reflects code requirements per the 2006 International Building Code, (IBC) and International Residential Code(IRC)
- The intent of this sheet is to provide a general understanding of the requirements and does not address the subject in great detail.
- Additional information can be found at your local building department.