

REPLACING WINDOWS OR DOORS

City of Lawrence

Department of Public Works

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www.cityoflawrence.org

This handout is intended only as a guide to the subject matter covered herein and is based in part on the 2020 Indiana Residential Code. While every attempt has been made to insure the correctness of this handout, no guarantees are made to its accuracy or completeness. Responsibility for compliance with applicable codes and ordinances falls on the owner or contractor. For specific questions regarding code requirements, refer to the Indiana Building Code or contact your local Building Department.

PERMITS

A Structural Remodel Permit will be required when installing a window or door where there was not previously an opening. A Structural Remodel Permit is also required when increasing the size of the opening for an existing window or door. Windows or doors that are same for same replacement do not require a permit or inspection.

The code requires that windows and doors be installed in accordance with the manufacturer's installation instructions.

INSPECTIONS REQUIRED:

- If a new opening for a window or door or the size of the window or door is increasing, a framing and final inspection is required.
- The required smoke and carbon monoxide detectors must be installed and functioning at the final inspection. See smoke and CO detector handouts for more information.
- Access to the interior of the structure must be provided by someone 18 years of age or older.

SPECIAL REQUIREMENTS TO BE AWARE OF:

*Any door leading from the home directly into a garage must be a minimum 1-3/8 inch solid wood door, 1-3/8 inch solid or honeycomb steel door, or a 20-minute fire-rated door. Unless specialty fire glass, there should be no glass in the door.

*All windows and doors must have corrosion resistant flashing installed over the top of the unit unless otherwise specified by manufacturer's installation requirements.

ENERGY EFFICIENCY

New windows are required to meet the energy code. The following U-Values may not be exceeded for the various window types:

0.30 For windows and glass doors except foundation windows 5.6 sq. ft. and less.

0.55 For skylights.

* Clarification: A .37 U-Value would not comply. A .30 U -Value is better than a .32 U-Value.

Labels are required on windows to assist you in selecting windows that meet the energy code.

SAFETY GLASS

Some windows are required to have safety glass in them to reduce the potential for injury in the event of accidental contact with the window. Generally, windows adjoining doors, stairs, landings, and bathtubs or spas require safety glazing. Glass installed in storm, patio, or entry doors must be safety glazed. Also, windows that exceed certain sizes are required to be safety glazed. When windows are replaced, they must meet the safety glazing requirements of the current code.

*Any glass within 24 inches of either side of a door must be safety glazed.

*All glazing within doors must be safety glass.

*Per the 2020 Indiana Residential Code, safety glazing is required in fixed or operable windows when ALL of the following conditions are met:

Any glazing installed within bathing areas less than 5 feet high from the drain must be safety glazed.

Safety glazing is required adjacent to stairways, landings and ramps within 36 inches of the walking surface when the glass is less than 36 inches above the plane of the walking surface.

*Any glazing, within 5 feet of the bottom of a stairway and less than 36 inches above the landing must be safety glazed. Stairway may be interior or exterior.

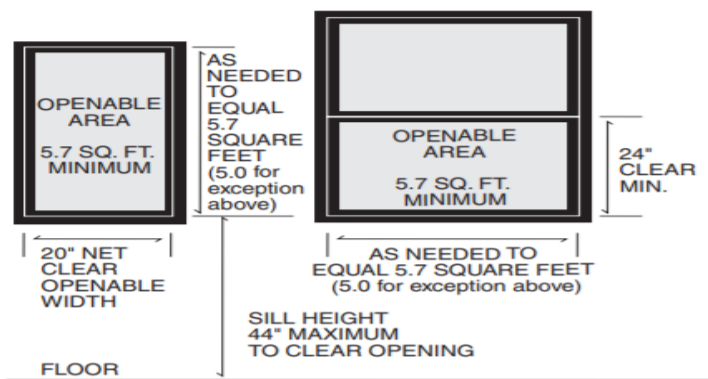
BASEMENT BEDROOM/SLEEPING ROOM REQUIREMENTS

All sleeping rooms shall have at least one egress window (see illustration) meeting all these requirements:

- Sill height not more than 44 inches above floor, measured from finish floor to clear opening.
- Openable area not less than 5.7 square feet* (820 square inches.)
- Opening height not less than 24 inches.
- Opening width not less than 20 inches.
- Emergency escape windows shall be operational from the inside of the room without the use of keys or tools.
- * Exception: Grade floor opening shall have a minimum net clear opening of 5.0 square feet.

GRADE FLOOR OPENING

A window or other opening located such that the sill height of the opening is not more than 44 inches (1118 mm) above or below the finished ground level adjacent the opening.

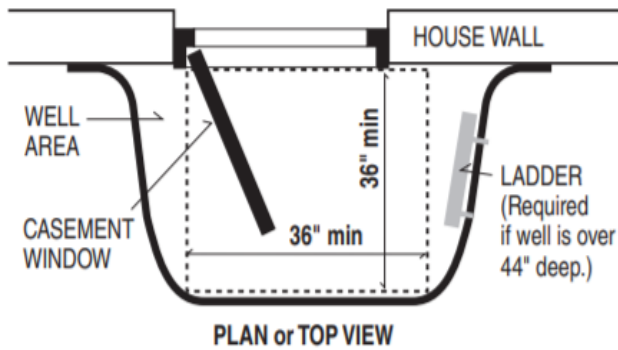


EMERGENCY ESCAPES-WINDOW WELLS BELOW GRADE

The clear horizontal dimensions shall allow the window to be fully opened and provide a minimum accessible net clear opening of 9 square feet with minimum dimensions of 36 inches.

Window wells with a vertical depth greater than 44 inches (1118mm) shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or steps required by this section shall not be required to comply with Section R311.7. Ladders or rungs shall have an inside width of not less than 12 inches (305mm), shall project not less than 3 inches (76mm) from the wall and shall be spaced not more than 18 inches (457mm) on center vertically for the full height of the window well.

* A minimum height clearance of 36 inches shall be maintained above the exterior grade. (Example: a deck above the escape window.)



*Window wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section R405.1 or by an approved alternative method.

*Exception: A drainage system for window wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group I Soils, as detailed in Table R405.1

Calculating open area for window in square feet

Height	Width																
	20"	21"	22"	23"	24"	25"	26"	27"	28"	29"	30"	31"	32"	33"	34"	35"	36"
24"	3.3	3.5	3.7	3.8	4.0	4.2	4.3	4.5	4.7	4.8	5.0	5.2	5.3	5.5	5.7	5.8	6.0
26"	3.6	3.8	4.0	4.2	4.3	4.5	4.7	4.9	5.1	5.2	5.4	5.6	5.8	6.0	6.1	6.3	6.5
28"	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0
30"	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.3	6.5	6.7	6.9	7.1	7.3	7.5
32"	4.4	4.7	4.9	5.1	5.3	5.6	5.8	6.0	6.2	6.4	6.7	6.9	7.1	7.3	7.6	7.8	8.0
34"	4.7	5.0	5.2	5.4	5.7	5.9	6.1	6.4	6.6	6.8	7.1	7.3	7.6	7.8	8.0	8.3	8.5
36"	5.0	5.3	5.5	5.8	6.0	6.3	6.5	6.8	7.0	7.3	7.5	7.8	8.0	8.3	8.5	8.8	9.0
38"	5.3	5.5	5.8	6.1	6.3	6.6	6.9	7.1	7.4	7.7	7.9	8.2	8.4	8.7	9.0	9.2	9.5
40"	5.6	5.8	6.1	6.4	6.7	6.9	7.2	7.5	7.8	8.1	8.3	8.6	8.9	9.2	9.4	9.7	10.0
42"	5.8	6.1	6.4	6.7	7.0	7.3	7.6	7.9	8.2	8.5	8.8	9.0	9.3	9.6	9.9	10.2	10.5
44"	6.1	6.4	6.7	7.0	7.3	7.6	7.9	8.3	8.6	8.9	9.2	9.5	9.8	10.1	10.4	10.7	11.0
46"	6.4	6.7	7.0	7.3	7.7	8.0	8.3	8.6	8.9	9.3	9.6	10.0	10.2	10.5	10.9	11.2	11.5
48"	6.7	7.0	7.3	7.7	8.0	8.3	8.7	9.0	9.3	9.7	10.0	10.3	10.7	11.0	11.3	11.7	12.0
50"	6.9	7.3	7.6	8.0	8.3	8.7	9.0	9.4	9.7	10.1	10.4	10.8	11.1	11.5	11.8	12.2	12.5
52"	7.2	7.6	7.9	8.3	8.7	9.0	9.4	9.8	10.1	10.5	10.8	11.2	11.6	11.9	12.3	12.6	13.0
54"	7.5	7.9	8.3	8.6	9.0	9.4	9.8	10.1	10.5	10.9	11.3	11.6	12.0	12.4	12.8	13.1	13.5
56"	7.8	8.2	8.6	8.9	9.3	9.7	10.1	10.5	10.9	11.3	11.7	12.1	12.4	12.8	13.2	13.6	14.0
58"	8.0	8.5	8.9	9.3	9.7	10.1	10.5	10.9	11.3	11.7	12.1	12.5	12.9	13.3	13.7	14.1	14.5
60"	8.3	8.8	9.2	9.6	10.0	10.4	10.8	11.3	11.7	12.1	12.5	12.9	13.3	13.8	14.2	14.6	15.0

Code history requirements for dwelling egress windows

The chart below indicates the minimum allowable size of egress windows when reducing the size of a window opening. The minimum allowable size is determined by the year the home was built.

U.B.C.	Section	Sill height	Net opening	Minimum height	Minimum width
1961	No requirement	No requirement	No requirement	No requirement	No requirement
1964	3320.0	48"	5.0 Square feet	24"	24"
1967	3320.0	48"	5.0 Square feet	22"	22"
1970 - 1973	1404.0	48"	5.0 Square feet	22"	22"
1976	1404.0	44"	5.7 Square feet	24"	20"
1979 - 1991	1204.0	44"	5.7 Square feet	24"	20"
1994	310.4	44"	5.7 Square feet	24"	20"