



# STAIRS, LANDINGS AND GUARDRAILS

## City of Lawrence

Department of Public Works

317-545-8787

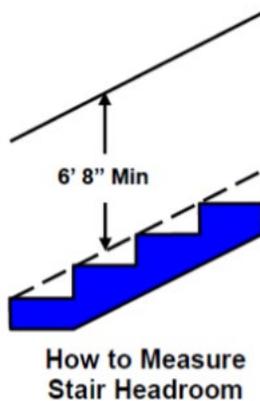
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This handout is intended only as a guide to the subject matter covered herein and is based in part on the 2020 Indiana Residential Code. While every attempt has been made to ensure the correctness of this handout, no guarantees are made to its accuracy 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.

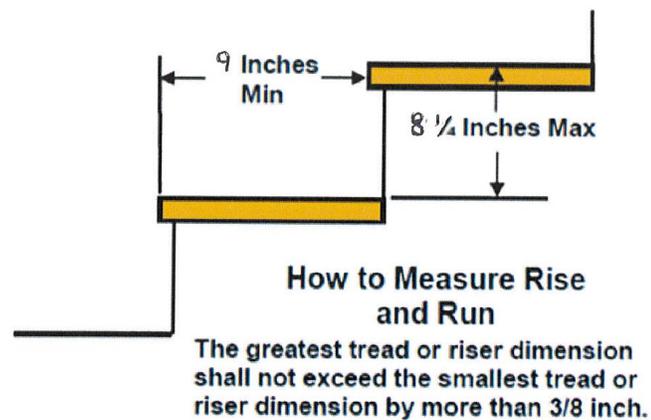
### STAIRS

The following spatial requirements apply to stairs:

- Minimum width above the handrail = 36 inches.
- The minimum clear width from the handrail height to the treads is 31 ½ inches for stairs with rails on one side and 27 inches for stairs with rails on both sides.
- Open risers are not permitted when the total rise of the stair exceeds 30 inches unless the open space is such that a 4-inch diameter sphere will not pass through.
- For winder stairs, the width of the tread must be at least 10 inches at a point 12 inches from the side where the treads are narrowest. The minimum width of any tread may not be less than 6 inches.
- When the underside of stairs is enclosed with walls and a door, the walls, ceilings, and under side of the stair must be covered with ½ inch gypsum board.
- Stairs must be designed for a 40 pound per square foot uniformly distributed live load.
- Treads must be designed for the uniformly distributed live load or a 300-pound concentrated load acting over an area of 4 square inches, whichever produces the greatest stresses.
- The riser height shall not be more than 8 ¼ inches (210 mm).



How to Measure  
Stair Headroom

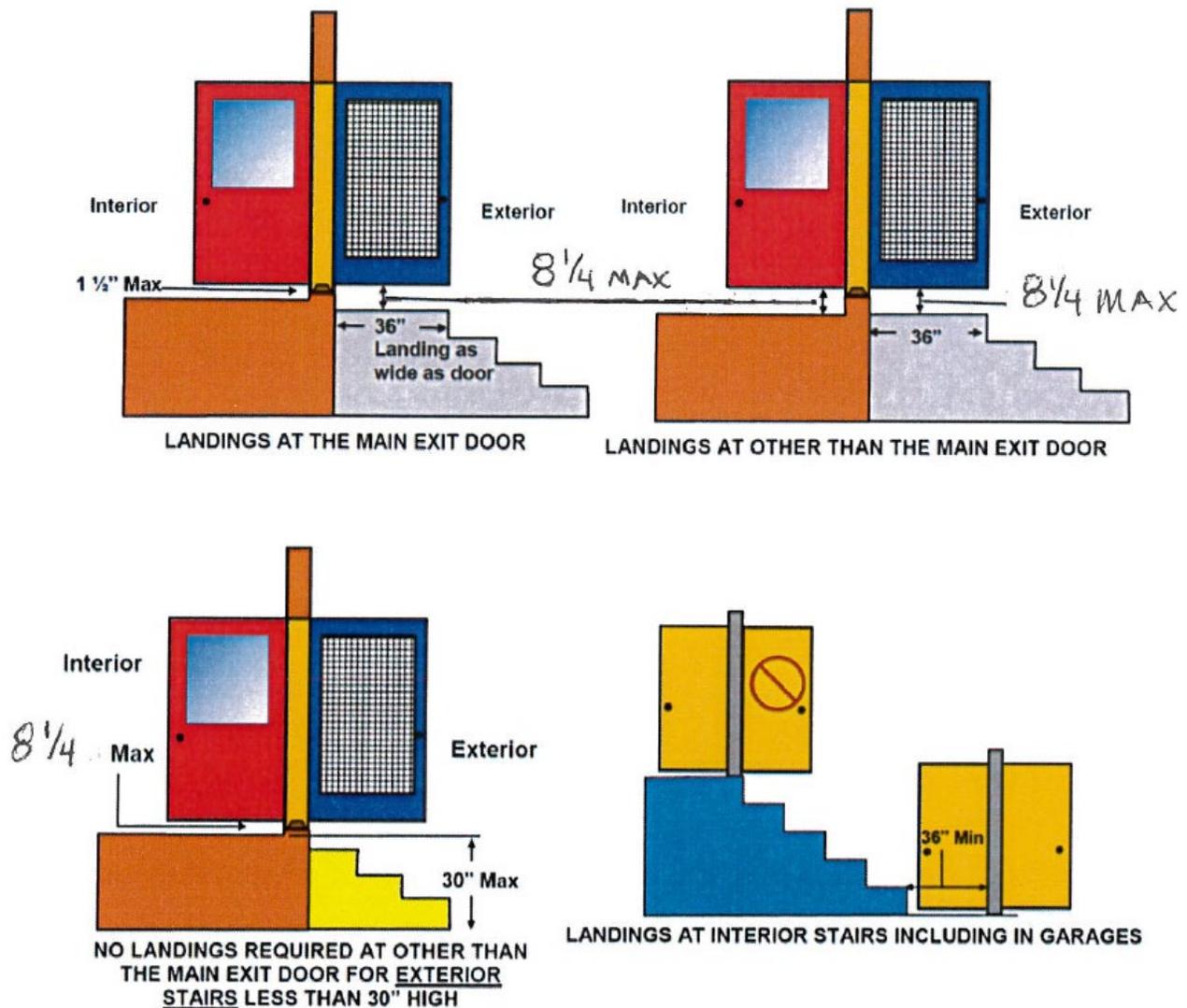


How to Measure Rise  
and Run

The greatest tread or riser dimension shall not exceed the smallest tread or riser dimension by more than 3/8 inch.

## LANDINGS

There are no requirements for landings at any interior door except adjoining stairs. Stair landings must be as wide as the stair served and 36 inches measured in the direction of travel. A landing is not required at the top of an interior stair provided no door swings over the stairs.



## HANDRAILS AND GUARDS

- Handrails are required on at least one side of all stairs with four (4) or more risers.
- Handrails must be mounted 34 - 38" above the nosing of the stair treads.
- Handrails must extend from a point directly above the bottom riser to a point directly above the top riser.
- Handrails must be continuous for the entire length of a flight of stairs.
  - Handrails within a dwelling unit shall be permitted to be discontinuous between the top and bottom of a flight of stairs where the ends of the discontinued rail are terminated into or returned to a wall or post and the maximum distance between ends of discontinued rails is not greater than 4 inches (102 mm).

- The ends of handrails must be returned to the wall or terminate in a newel post.
- Guards are required on the open side(s) of stairs with a total rise of 30 inches or more above the floor or grade below. Guards on stairs must be not less than 36 inches high measured from the nosing of the treads.
- All required guards must not permit passage of a 4-inch diameter sphere. Guards on stairs must not permit passage of a 4 3/8-inch sphere. The triangular space formed by the bottom of a guard, a stair riser and stair tread may be such that a 6-inch diameter sphere will not pass through.
- Handrails and guards must be designed to support a 200 lb load applied in any direction at any point along the top of the guard or rail.

