

Safe Stairs ● ● ● Width of Stairs & Lighting

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Width of Stairs

The safe, comfortable passage of two adults, and the free, easy movement of furniture and equipment are prime considerations in planning and designing the width of residential stairs. This width should be measured as the clear dimension between the handrails or newels and the finished wall surface or wall handrail, as the case may be. Adequate stair width can reduce the probability of tripping as two people attempt to pass each other. Adequate stair width will reduce the ever-present safety hazard associated with moving heavy, bulky objects up and down stairs, thereby reducing the number of sprains, bruises, and injurious falls related to stair accidents. Adequate stair width will also reduce the material damage to furniture, handrails, railings, and wall surfaces which frequently occur

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in the movement of furnishings along stairs.

RECOMMENDATION:

To reduce the safety hazards associated with narrow residential stairs in the normal movement of personnel, furniture, and equipment, the following dimensional recommendation is made:

- The minimum width of residential stairs shall be measured as the clear dimension between the handrails or newels and the finished wall surface or wall handrail, and shall be at least 3 feet, 4 inches.

Lighting

Adequate lighting for residential stairs will contribute to their increased safety in use. The improper illumination of stairs, however safe they may be in other respects, is the basic cause of many residential stair accidents. In many circumstances, no permanent light fixture is installed specifically to illuminate the stairs. Even when a fixture is present, it may be placed so that it does not afford complete lighting of the stairs and, therefore, casts shadows which can create a hazardous situation. The light source also may be placed so that at some point, the stairway user may be blinded by its glare. Too often, light intensity is inadequate, whether the source is natural or artificial. This situation can present additional hazards to the person with normal vision and can be particularly hazardous to the elderly who generally require more light for proper vision.

stair passage from either direction to locate and activate the artificial light source.

Properly illuminated residential stairs are equipped with light sources which develop a sufficiently intense nonglare light, evenly distributed, so as to allow safe, comfortable use at all times. An adequate number of switches that control the stair lighting are conveniently located to provide the maximum safe condition.

RECOMMENDATIONS:

To provide for adequate illumination of residential stairs and to provide a minimum number of conveniently located light control switches, the following safety measures are recommended.

- Permanent lighting fixtures shall be installed to illuminate all residential stairs that connect any two habitable floor levels without producing hazardous glare and/or shadows.
- Residential stair lighting shall be controlled from each elevation served by the stairs by means of the three-way switches conveniently located so that the user may activate the lights prior to ascent or descent.

The location of switches which control lighting for residential stairs may create a safety hazard. Assuming that the only switch for a given flight of stairs is located at the bottom, requiring the last nighttime user to ascend the stairs in semi-darkness or to face a light source from the upper level, the safety hazard is vividly apparent. Descending these darkened stairs presents an even more hazardous condition which is caused by the increasing degree of darkness as the user descends. Locating the stair light switch at a midpoint along the stairs invites potential trouble for the user, since he must negotiate part of the

Before building, consult the BOCA code.

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