

**Florida Fire Prevention Code 7<sup>th</sup> Edition  
NFPA 101**

**The following are amendments to the 2018 edition of the Fire Code© (NFPA101):**

~~24.2.8 \* Grab Bars for Bathtubs, Bathtub-Shower Combinations, and Showers.~~

~~24.2.8.1 General.~~

~~24.2.8.1.1~~

~~New bathtubs, bathtub-shower combinations, and showers shall be provided with grab bars unless otherwise permitted by 24.2.8.1.2.~~

~~24.2.8.1.2 \*~~

~~Grab bars shall not be required in showers where the transition from the room floor to the shower floor does not exceed 0.5 in. (13 mm) in height and all shower surfaces are slip resistant when wet.~~

~~24.2.8.1.3~~

~~Where provided, grab bars shall comply with 24.2.8.2 through 24.2.8.4.~~

~~24.2.8.1.4~~

~~All dimensions shall be measured to the centerline of the grab bar unless otherwise stated.~~

~~24.2.8.2 \* Vertical Grab Bar or Pole.~~

~~A vertical grab bar shall be provided on the control end wall or the end wall opposite the control end wall of the bathtub or bathtub-shower combination in accordance with 24.2.8.2.1, or shall be provided as a vertical pole in accordance with 24.2.8.2.3. For showers, either a vertical grab bar that is usable by a person stepping into and out of the shower enclosure in accordance with 24.2.8.2.2, or a vertical pole in accordance with 24.2.8.2.3, shall be provided.~~

~~24.2.8.2.1 \* Bathtub End Wall Vertical Grab Bars.~~

~~End wall vertical grab bars for bathtubs shall comply with all of the following:~~

~~(1) —~~

~~Vertical grab bars shall have a length of not less than 36 in. (914 mm).~~

~~(2) —~~

~~Vertical grab bars shall be located between 24 in. (610 mm) and 27 in. (686 mm) above the finished floor, measured to the lower end.~~

~~(3) —~~

~~Vertical grab bars shall be installed at the end that is least obstructed for entry and egress.~~

~~(4) —~~

~~Vertical grab bars shall be located between 9 in. (228 mm) and 12 in. (305 mm) from the open entry and egress side of the bathtub or bathtub-shower combination, measured horizontally from the exterior plane of the bathtub or bathtub-shower combination.~~

~~24.2.8.2.2 Shower Grab Bars.~~

~~Vertical grab bars for showers shall comply with all of the following:~~

(1) —

Vertical grab bars shall have a length of not less than 24 in. (610 mm).

(2) —

Vertical grab bars shall be located between 36 in. (914 mm) and 39 in. (991 mm) above the finished floor, measured to the lower end.

#### 24.2.8.2.3 \* Vertical Poles.

Vertical, pole-type grab bars shall be fixed to the floor or to the bathtub and either the room ceiling or an adjacent wall and shall comply with all of the following:

(1) —

Poles shall be located within 6 in. (150 mm), measured horizontally, of the outside or outer edge of the bathtub, bathtub-shower combination, or shower.

(2) —

Poles shall be located within 30 in. (760 mm), measured horizontally, of the vertical plane of the control end wall of a bathtub or bathtub-shower combination.

#### 24.2.8.3 Back Wall Grab Bar.

For bathtubs and bathtub-shower combinations bounded on two or three sides by walls, a diagonal grab bar in accordance with 24.2.8.3.1 or horizontal grab bar in accordance with 24.2.8.3.2 shall be provided on the back wall.

#### 24.2.8.3.1 \* Back Wall Diagonal Grab Bars.

Diagonal grab bars shall comply with all of the following:

(1) —

Diagonal grab bars shall have a length of not less than 24 in. (600 mm).

(2) —

Diagonal grab bars shall be located so the higher end is closest to the control end wall.

(3) —

Higher ends of diagonal grab bars shall be located a maximum of 12 in. (305 mm) from the control end wall.

(4) —

Higher ends of diagonal grab bars shall be located 25 in. (635 mm) minimum and 27 in. (685 mm) maximum above the rim of the bathtub.

(5) —

Lower ends of diagonal grab bars shall be located 8 in. (203 mm) minimum and 10 in. (254 mm) maximum above the rim of the bathtub.

#### 24.2.8.3.2 Back Wall Horizontal Grab Bars.

Horizontal grab bars shall comply with all of the following:

(1) —

Horizontal grab bars shall be located 8 in. (205 mm) minimum and 10 in. (255 mm) maximum above the bathtub rim.

(2) —

Horizontal grab bars shall be located so one end is 12 in. (305 mm) maximum from the control end wall and the other end is located 24 in. (610 mm) maximum from the opposite, or head, end of the bathtub.

#### 24.2.8.4 \* Grab Bar Details.

##### 24.2.8.4.1

Grab bars shall be circular in cross section with a minimum diameter of 1 1/4 in. (32 mm) and a maximum diameter of 2 in. (51 mm).

##### 24.2.8.4.2

Where attached to a wall, grab bars shall provide a clearance for hand grasp of 1 1/2 in. (38 mm) minimum.

##### 24.2.8.4.3

Grab bars shall be designed and constructed to the structural loading conditions in accordance with the building code.

#### A.24.2.8

The grab bars required by 24.2.8 are designed to improve safety of showering and bathing by ambulatory users, typically entering and exiting a bath, bathtub-shower combination, or shower facility for showering while standing, or for other forms of bathing that can entail transition to/from a crouching or sitting position.

For grab bar requirements appropriate for other uses and users, especially users with disabilities, refer to the requirements in ICC/ANSI A117.1, Accessible and Usable Buildings and Facilities. Generally, the grab bars specified for this Code will not interfere with other grab bars installed in accordance with the requirements of ICC/ANSI A117.1, and they can contribute to meeting the requirements of ICC/ANSI A117.1 and vice versa. For example, combination vertical and horizontal grab bars (e.g., in an L configuration), as addressed by ICC/ANSI A117.1, can meet the requirements of this Code for a vertical grab bar. Similarly, requirements for a horizontal grab bar on the back wall are compatible.

Dimensions for the height of grab bars are based on typical, mass-produced bathtubs with a wall height above the finished floor of about 15 in. (380 mm) and the bottom of the bathtub within 1 in. to 2 in. (25 mm to 51 mm) of the finished floor elevation. Adjustments to stipulated grab bar height limits and ranges, referenced to the bath tub rim, should be considered for bathtubs having higher walls and, thus, rim heights, above the bottom of the tub and, possibly, also the wall height above the finished floor. ICC/ANSI A117.1 references grab bar height dimensions to the bathtub rim and, for consistency with this widely used ANSI standard, that convention is maintained in this Code.

##### A.24.2.8.1.2

The provision of 24.2.8.1.2 is intended to ensure that grab bars, if provided voluntarily (i.e., as nonrequired) for dedicated showers, meet the requirements of 24.2.8, so that something appearing to be a grab bar can effectively perform as one. However, such grab bars would only be considered nonrequired in the case of dedicated showers not involving misstep and fall dangers addressed by 7.1.6.2 and 7.1.6.4. This means that walking surfaces must be at least as safe, in terms of underfoot conditions, as any other portion of the means of egress (where, for example, handrails are not required) for users not having mobility disabilities. This would require

exceptionally careful choice and maintenance of underfoot materials as well as very effective control of water within and adjacent to the dedicated shower facility.

#### A.24.2.8.2

The requirements within this section provide design options for points of control when entering and/or exiting a bathtub or shower. Points of control are critical to providing guidance and stability to an occupant much the same as a handrail provides on stairs. The different points of control specified by this section, wall-mounted grabs or vertical poles, provide options for compliance in a wide range of conditions. It is important to note that only one point of control is required for entry and egress transfers. The use of a vertical pole is not required and is offered as an option to wall-mounted grab bars.

#### A.24.2.8.2.1

Grab bars located where they interfere with sealing or with a shower curtain against escape of water—especially to the floor surface outside the shower facility—might introduce safety problems in the form of greatly reduced slip resistance of the walking surface, which could violate this Code. This can be avoided with a 6 in. (150 mm) horizontal separation between the shower curtain rod and the grab bar. It is assumed that other forms of water control, such as an installed enclosure, will not interfere with the use of grab bars.

#### A.24.2.8.2.3

A freestanding pole satisfying requirements for a grab bar can offer flexibility in placement, for example, within the close quarters of a small bathroom where there is a water closet adjacent to the bathing facility and a single grab bar can serve both facilities. Where the bathing facility is freestanding, without walls, especially with large soaking tubs, including those on pedestals, the vertical pole-type grab bar is especially useful. The pole also can solve attachment problems where walls are nonexistent or difficult to use for installing conventional, wall-mounted grab bars.

#### A.24.2.8.3.1

Using the midpoints of the distance ranges and the minimum distance from the control end wall results in a 45-degree angle for the diagonal grab bar. Such a diagonal grab bar (or alternatively, a horizontal grab bar fairly similar to the option provided by 24.2.8.3.1, which meets requirements of ICC/ANSI A117.1, Standard for Accessible and Usable Buildings and Facilities) was found suitable in tests performed of several grab bar options with 103 independent-living seniors with an average age of 70 [Sveistrup et al., 2003].

#### A.24.2.8.4

The best-performing grab bars are in the middle third of the permitted range for circular diameter. For some grab bar designs, with undulations and other surface geometry features to improve slip resistance for users' hands, these dimensions will be nominal with small variations depending on where measurements are taken. Children and others with smaller hands will be able to use the diameters within the lower part of the permitted range. When using a freestanding pole for a grab bar, structural considerations, especially for stiffness, might dictate using diameters in the upper part of the permitted range.

Note that a minimum clearance between the grab bar and an adjacent surface is specified. With grab bars, especially horizontal ones, on which large, downward loads are imposed by the arms of users, there is some concern about people's hands slipping into the clear space; however, this can occur even with an absolute 1.5 in. (38 mm) clearance, as some standards specify and most grab bar designs provide. Thus the main difference in the end result is where, along its

~~length, the arm gets wedged behind the grab bar, not the complete prevention of this happening at all.~~

~~12.2.1.2~~

~~Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~14.2.1.5~~

~~Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~16.2.1.1~~

~~Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~26.2.4 \* Grab Bars for Bathtubs, Bathtub-Shower Combinations, and Showers.~~

~~Where new bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~28.2.1.4~~

~~Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~30.2.1.3~~

~~Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~32.2.2.7~~

~~Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~32.3.2.1.3~~

~~Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~36.2.1.6.1~~

~~Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~36.2.1.6.2~~

~~The provisions of 36.2.1.6.1 shall not apply to display bathtubs, bathtub-shower combinations, or showers.~~

~~38.2.1.5.1~~

~~Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.~~

~~38.2.1.5.2~~

The provisions of ~~38.2.1.5.1~~ shall not apply to ~~display bathtubs, bathtub-shower combinations, or showers.~~

~~40.2.1.3~~

~~Newly installed bathtubs, bathtub-shower combinations, and nonemergency showers shall be provided with grab bars in accordance with the provisions of 24.2.8.~~

~~42.2.1.3~~

~~Newly installed bathtubs, bathtub-shower combinations, and nonemergency showers shall be provided with grab bars in accordance with the provisions of 24.2.8.~~