

# **Fremont Building Official Code Enforcement**

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## Stairways - Handrails

***Consult the building code before proceeding on stairway projects. The majority of the information below applies to one-two family residential dwelling units. Commercial, Townhouses, and Apartments may be different; consult with the Building Official.***

New Residential – Class A – required for all new residential construction.

Maximum Riser = 7  $\frac{3}{4}$  inches and Minimum Tread Width = 10 inches – (as measured from leading edge to leading edge). Riser height and Tread width variability is required to within  $\frac{3}{8}$  of an inch.

All others: - i.e. commercial. Maximum Riser = 7 inches and Minimum Tread Width = 11 inches.

A nosing of not less than  $\frac{3}{4}$ " and not more than 1  $\frac{1}{4}$ " is required on solid treads – not required when over 11 inches.

Stairway handrails must be positioned not less than 34" and not more than 38" above the surface of tread as measured vertically from the top of the rail to the leading edge of the tread. Handrails must be provided on all treads or flights with four or more risers. Ends of handrails are to be returned to the wall or terminated in newel posts. Handrails must be continuous from top to bottom and must provide for 1  $\frac{1}{2}$ " clearance between the handrail and the wall.

Residential stairs and ramps are required to have handrails on only one side in new construction when the stair width is 38 inches or less. When stair widths are greater than 38 inches a handrail should be on each side

Hand rails – restricted sizing/shapes – shape and grip size are defined within Type I and Type II handrails. Type I handrails with circular crosssection shall have a outside diameter of 1  $\frac{1}{4}$  inches minimum to 2 inches maximum. When the handrail is not circular a perimeter dimension between 4 to 6  $\frac{1}{4}$  inches is allowed with a cross section maximum of 2  $\frac{1}{4}$  inches. *Standard 2 x 4 lumber does not qualify as handrails.* Type II handrails have specific dimensions providing for graspable finger recess areas on both side of the rail profile – see code references.

Guard heights are to be not less than 36 inches for all areas located over 30 inches above floor/grade below except on the open sides of stairs where guards may be not less than 34 inches in height. While the minimum is 36" the general practice is between 38" to 42" inches for most guards.

Balusters spacing isto be 4 inch maximum spacing; however guard spacing on stairs are allowed to be a maximum of 4  $\frac{3}{8}$  inch – measuring the openings up to 34 inches above the tread.

Stairways are to be not less than 36 inches in width.(and not less than 44 inches width if >50 capacity)

Stairs shall have landings – exception in one-and two-family, a door at the top of an interior flight of stairs is permitted provided it does not open over the stair (i.e. opens in). This exception is not provided for the bottom of stairways and all stairways must have a continuous floor or landing a minimum of 36" without wall or door interruptions.

Usable areas under stairways require that all undersurfaces, walls, & soffits be enclosed with gypsum board.

There shall be a floor or landing on each side of all exterior doors. The floor or landing may not be greater than 1  $\frac{1}{2}$  inches below the threshold except that a floor or landing may be not greater than a 7  $\frac{3}{4}$  inch drop if the door or storm door does not swing over the landing). For other than the main exit door, a landing is not required where a stairway of two or fewer risers and the door or storm door does not swing over the stairway.

Required minimum size of the required exit door is 36" in width by 6' 8" in height. No exceptions are provided.

Minimum headroom for all parts of the stairway is 6 feet 8 inches as measured vertically from the plane of the nose of the tread or floor surface of the landing.

Maximum single stairway access without a second landings is 12 feet vertical.

All interior and exterior stairways need to be provided with a means of lighting, including the landings and treads.

The control for activation of interior stairway lighting shall be accessible at the top and bottom of each stairway without traversing any step. The illumination of exterior stairs shall be controlled from inside the dwelling unit.  
Exception - Lights that are continuously illuminated or automatically activated.

Additional provisions may be found in detail within:

- Chapter Three of the International Residential Code (IRC)
- Chapter 7 and Chapter 24 of NFPA 101, Life Safety Code
- NH Building Code within State Fire Code Saf-c 6000