RESIDENTIAL STAIRWAYS & HANDRAILS
BASED ON THE 2010 CALIFORNIA RESIDENTIAL CODE, R311.7. FOR NON-RESIDENTIAL OCCUPANCIES SEE CALIFORNIA BUILDING CODE, CHAPTER 10

Note: Handrails not shown for clarity

1. Headroom of not less than 6’-6” shall be provided.

2. The rise of every step in a stairway shall be 7.75” maximum. The run of every step in a stairway shall be 10” minimum. See sketches above for winding and spiral stairways. Section R311.7.4.1, R311.7.4.2

3. Stairways shall have handrails on at least one side. Stairways open on one or both sides shall have handrails on the open side or sides. Section R312.1

4. At the turn of a stair, handrails are permitted to be interrupted by a newel post. Ends shall be returned to the wall or shall terminate in the newel posts or safety terminals. Section R311.7.7.2

5. Open stair railings shall have intermediate rails or an ornamental pattern such that the sphere 4-3/8” in diameter cannot pass through. Section R312.3

6. The top of the handrails shall be placed not less than 34” nor more than 38” above the nosing of treads.

7. All stairs shall be provided with illumination. The light source shall provide 1 foot candles (11 LUX) measured at the center of the tread and landings. Section R303.6

8. The nosing of a stair tread shall have a radius of curvature no greater than 9/16”. A nosing not less than 3/4” but not more than 1-1/4” shall be provided at solid risers. A nosing is not required where the tread depth is a minimum of 11 inches. Section R311.7.4.3

ACCEPTABLE HANDRAIL SHAPES (R311.7.7.3)*

Notes:
1. Every stairway shall have headroom of not less than 6’-8” unless specified above. Section R311.7.2

2. The rise of every step in a stairway shall be 7.75” maximum. The run of every step in a stairway shall be 10” minimum. See sketches above for winding and spiral stairways. Section R311.7.4.1, R311.7.4.2

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ACCEPTABLE HANDRAIL SHAPES (R311.7.7.3)*

Type I

Type II

NON-CIRCULAR SHAPE: Perimeter of at least 4” but not greater than 6-1/4”

PERIMETER GREATER THAN 6 1/4 IN