

If window is less than 5' from a landing and less than 5' above the walking surface it must be tempered.

**STAIR NOTES**

1. Exterior stairs will not project into yards where openings are not permitted or where protection of openings is required.
2. Walls and soffits of enclosed spaces under stairs will be protected on the enclosed side as required for one hour fire resistive construction.
3. Exterior stair landing at least 36" deep will be provided at the top of stairs tolerances. Exterior landing may be sloped 1/4" per foot.
4. Glazing in walls enclosing stairway landings or within 5 feet of the bottom and top of stairways where the bottom edge of the glass is less than 60" above a walking surface.



**RESIDENTIAL STAIR**

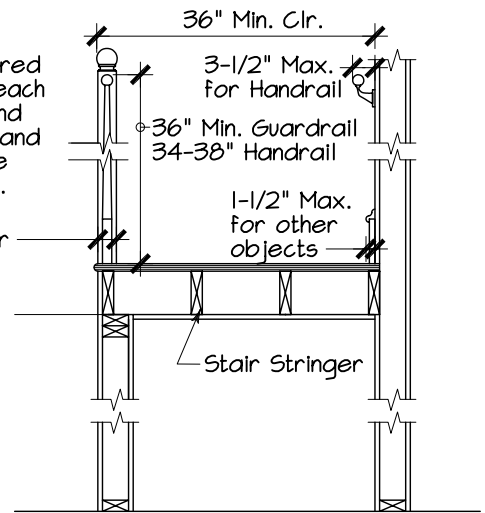
**HELP FOR THE HOMEOWNER  
DEVELOPMENT SERVICES**

<i>Rob Roshanian</i>	<i>1/6/06</i>
Building Official:	Date
Date: 11/18/05	Sheet 1 of 4 B302

**PRIVATE STAIRWAY SECTIONS:**

Handrail may project into required width not more than 3-1/2" from each side of a stairway. Stringers and other projections such as trim and similar decorative features are limited to 1-1/2" from each side.

1-1/2" Max. or widen stair



**TYPICAL STAIR SECTION**

Guardrails are required where a walking surface is more than 30" above the adjoining grade or floor below and shall have pickets or intermediate rails spaced so that a 4" diameter sphere cannot pass through.

The triangular openings formed by the riser, tread and bottom element of a guardrail shall be sized such that a 6" diameter sphere cannot pass through.

Finished Ceiling or Lowest Projection

Every stairway shall have a headroom clearance of not less than 6'-8" measured from a plane parallel to the stairway tread nosings to the ceiling above at all points.

Handrail See Detail  
Top of Handrail must be 34 to 38 inches Above Nosing

Landings shall not be less than 36" or width of stairway.

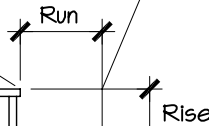
2X Pressure Treated Block Fastened to Floor with Framing Clip to Stair Stringer

Landings must be level, durable surface (eg: concrete, stone, pavers, etc.)

Also see the City's guardrail handout.

Complete handrail/guardrail is not shown for clarity.

34" to 38" Min.



Wall Beyond

Complete handrail/guardrail is not shown for clarity.

Nosing of Stair Treads

Stair Stringer

Effective stringer depth. Provided stringer not over notched

Finished Grade or Floor

**Tread Notes**

1. Stairway risers shall not be less than 4 inches nor greater than 7 inches (\*).
  2. Stairway treads shall have a minimum run of 11 inches (\*).
  3. The greatest riser height and the longest tread run shall not exceed the smallest by more than 3/8 inch.
- (\* Private steps and stairways serving an occupant load of less than 10 may reduce tread width to 9" and increase rise to 8".

Landing Dimension shall be equal to the width of the stairway. Such dimension need not exceed 44". (36" Min.)

5/8 Type "X" Gypsum Board at usable under stair space. Provide 2 Layers at ceiling where stringer or joist are more than 16" o.c.

Wall and soffits of enclosed usable space under stairs shall be protected on the enclosed side as required for one-hour fire-resistive construction (5/8" Type "X".)

NOTE: Stair runs may not be more than 12 feet vertically between landings or floors. (If the total distance between levels is more than 12 feet vertically intermediate landing must be provided.)



**RESIDENTIAL STAIR**

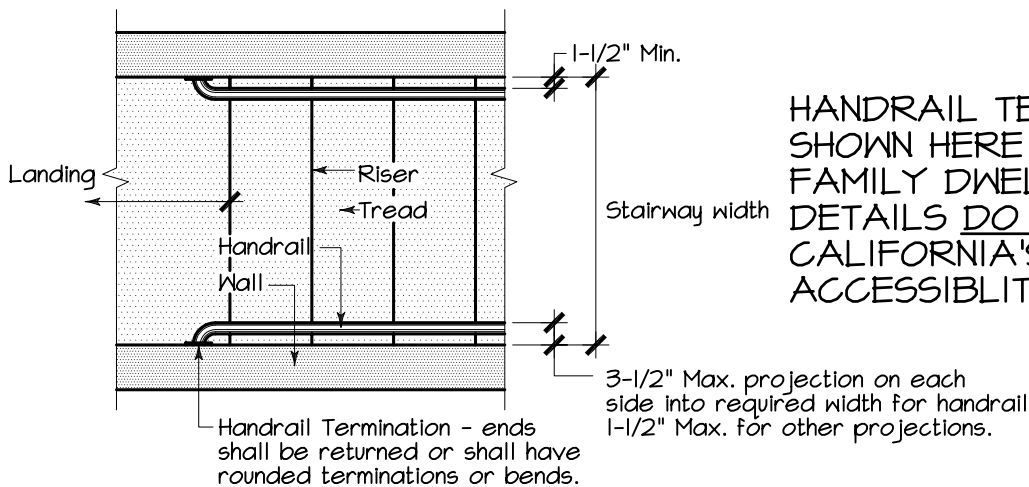
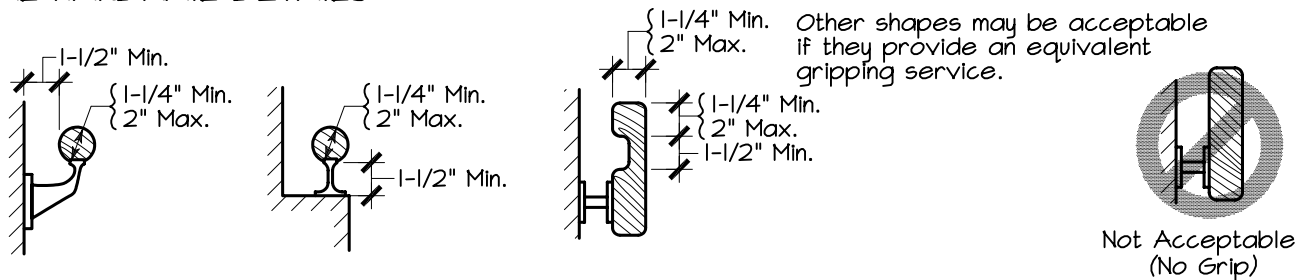
**HELP FOR THE HOMEOWNER  
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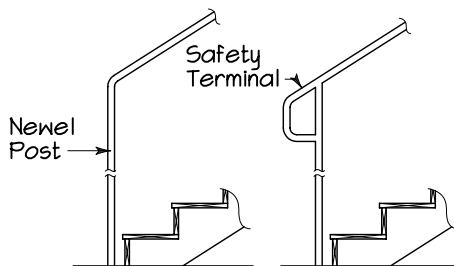
## HANDRAIL NOTES:

1. Stairways having less than three risers serving dwellings need not have handrails.
2. The top of handrails and hand extensions shall be placed not less than 34 inches or more than 38 inches above the nosing of treads and landings.
3. Stairways less than 44" in width or stairways serving individual dwelling units may have a handrail on one side of the of a stairway.
4. Handrails shall be continuous the full length of the stairs. Ends shall be returned or shall terminate in newel posts or safety terminals.
5. NOTE: Other shapes of handrails may be acceptable if they provide an equivalent gripping surface as illustrated in the Typical Handrail Detail.
6. The handgrip portion of handrails shall not be less than 1-1/4 inches nor more than 2 inches in cross sectional dimension or the shape shall provide an equivalent gripping surface.
7. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Handrails projecting from a wall shall have a space of not less than 1-1/2 inches (38 mm) between the wall and the handrail.
8. Handrails and guardrails shall be capable of supporting a load of 20 pounds per lineal foot (for one and two family dwellings and for other occupancies 50 pounds per lineal foot) per lineal foot of length in any direction, the handrail shall also be capable of supporting a 200 pounds concentrated load at any point in any direction. Intermediate rails, panel fillers and their connections shall be capable of withstanding a load of 25 pounds per square foot over the entire tributary area, including openings and spaces between rails.

## TYPICAL HANDRAIL DETAILS:



Other Examples of Acceptable Handrail Termination Methods



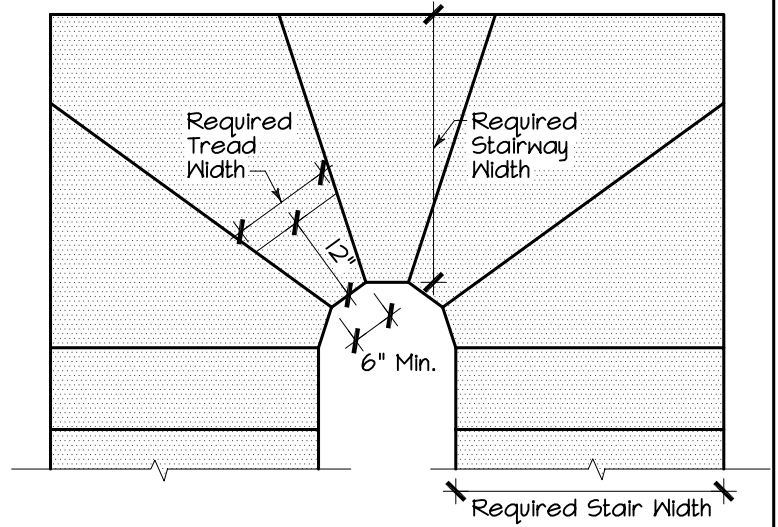
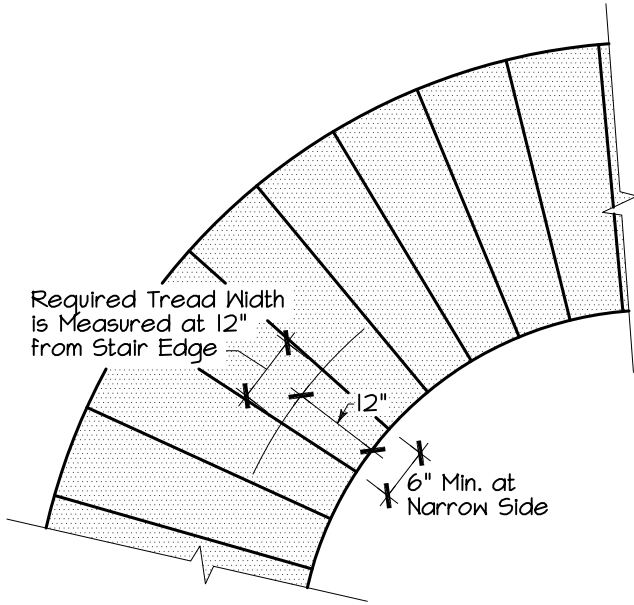
## RESIDENTIAL STAIR

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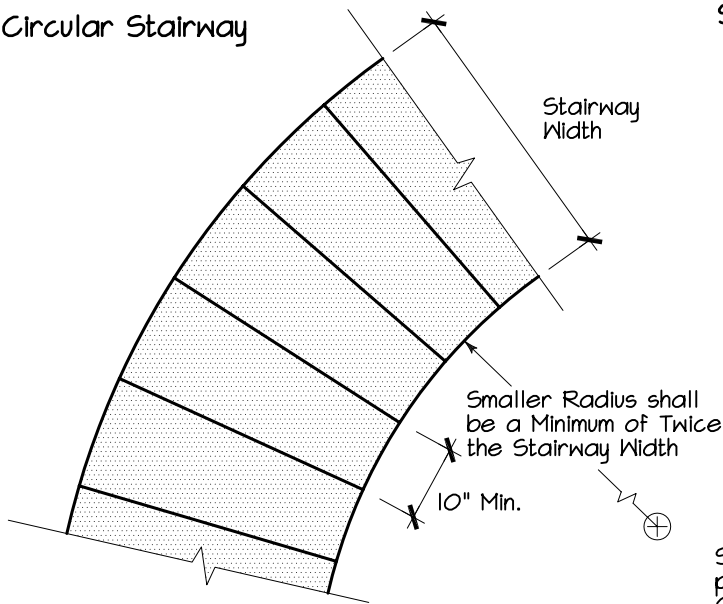
PRIVATE STAIRWAY TYPES:

Winding Stairway



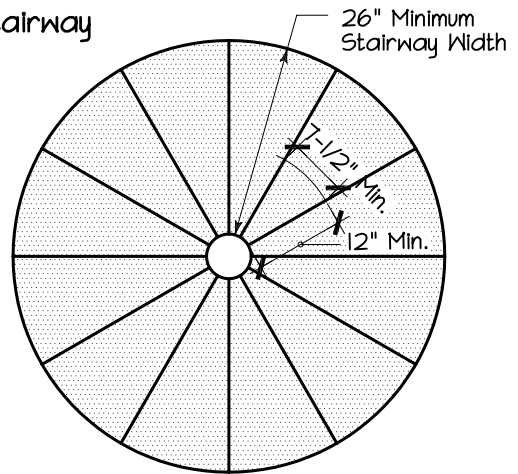
Winding Stairway. Winders may be used if the required width of the run is provided at a point not more than 12 inches from the side of the stairway where the treads are narrower, but in no case shall any width of run be less than 6 inches at any point. (see illustrations)

Circular Stairway



Circular Stairways. Circular stairways may be used as an exit, provided the minimum width of run is not less than 10 inches and the smaller radius is not less than twice the width of the stairway.

Spiral Stairway



Spiral Stairway. In Group R, Division 3 Occupancies and in private stairways within individual units of Group R, Division 1 Occupancies, spiral stairways may be installed. Such walkways may be used for required exits when the area served is limited to 400 square feet. The tread must provide a clear walking area measuring at least 26 inches from the outer edge of the supporting column to the inner edge of the handrail. A run of at least 7-1/2 inches is to be provided at a point 12 inches from where the tread is the narrowest. The rise must be sufficient to provide 6'-8" headroom. The rise shall not exceed 9-1/2 inches.



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