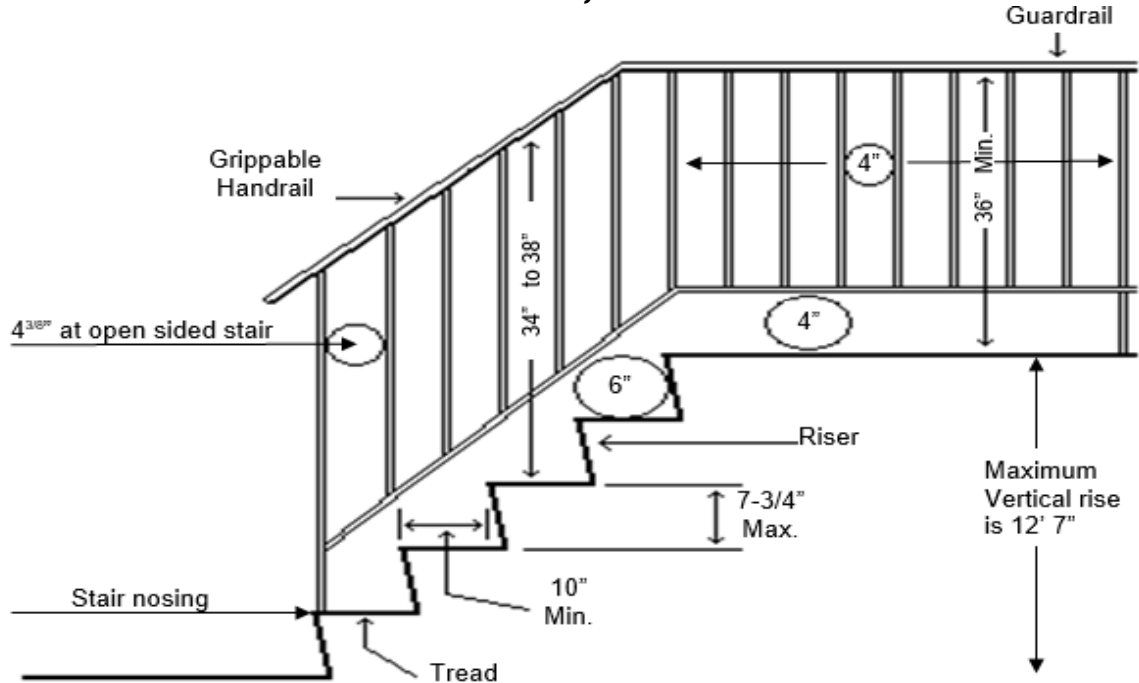




#12 & #13 – RESIDENTIAL STAIRWAYS, HANDRAILS & GUARDRAILS



Graspable handrail at **34" to 38"** above the stair nosing shall be provided on at least one side (graspable details on reverse). Handrails shall be provided on at least one side of each continuous run of treads or flight with **four or more risers**. Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals.

Headroom clearance of **6'-8"** must be maintained, measured vertically from the stair nosing.

Riser = **7-3/4" Max.** Tread = **10" Min.** The greatest tread or riser within any flight of stairs shall not exceed the smallest by more than 3/8 inch.

Nosings at treads, landings and floors of stairways shall have a radius of curvature at the nosing not greater than 9/16 inch or a bevel not greater than 1/2 inch. A nosing projection not less than 3/4 inch and not more than 11/4 inches shall be provided on stairways. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch within a stairway. **Exception:** A nosing projection is not required where the tread depth is not less than 11 inches.

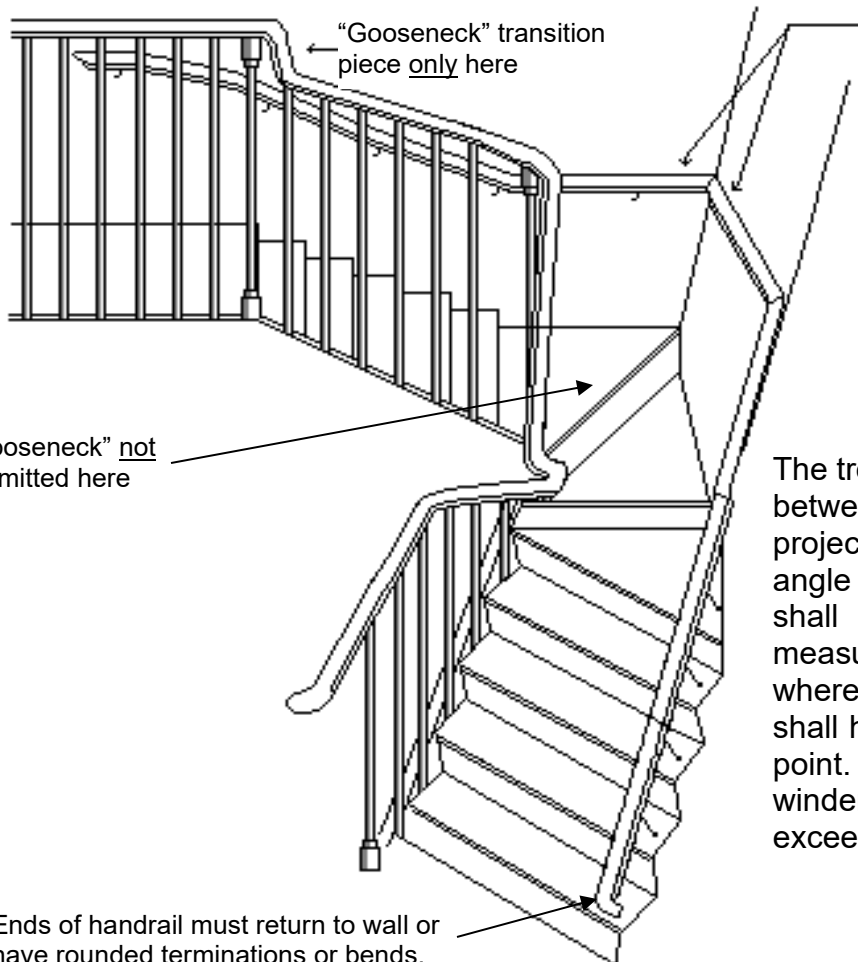
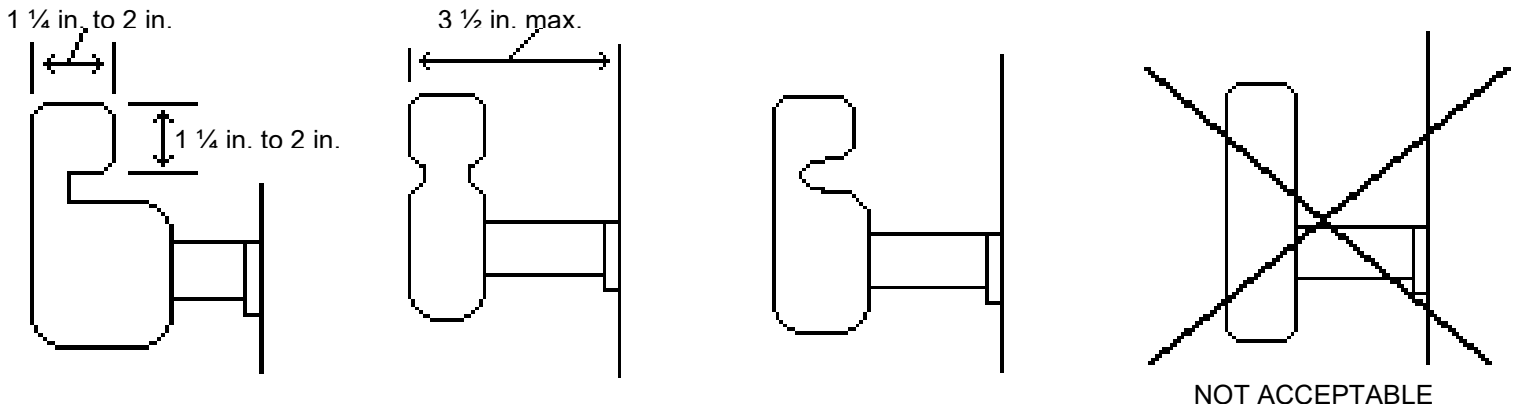
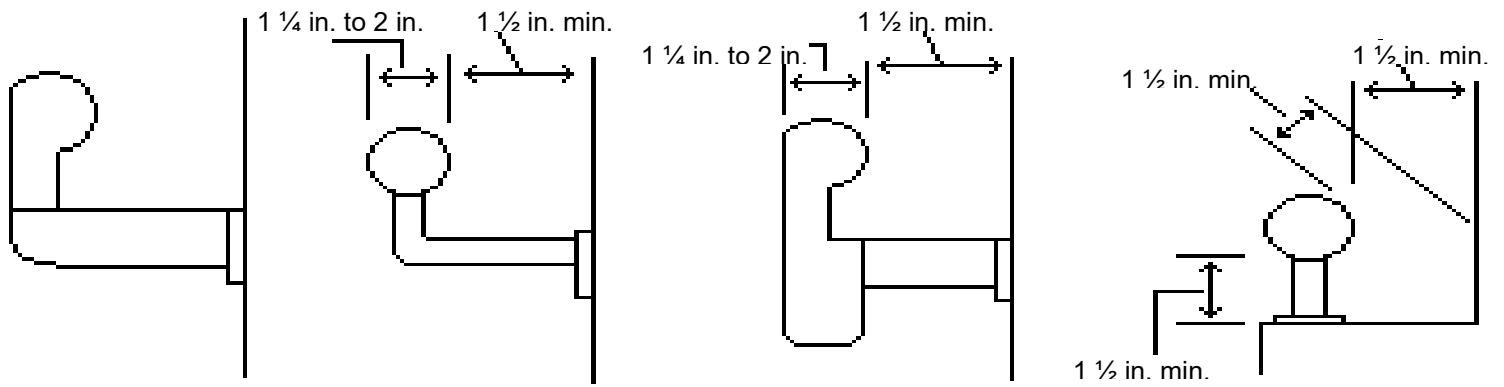
Open risers are permitted, provided that the opening between treads 30" above the floor or ground surface does not permit the passage of a 4-inch diameter sphere.

Required guards shall not have openings from the walking surface to the required guard height that allow passage of a **sphere 4 inches in diameter**.

Guards on the open side of stairs shall not have openings that allow passage of a **sphere 4 3/8 inches in diameter**.

Space between stair and bottom rail (if any) such that a **6" sphere** cannot pass through.

Stairways shall not be less than 36" in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4.5" on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31.5" where a handrail is installed on one side and 27" where handrails are provided on both sides.



Handrail along wall is often the only way to get the required continuous handrail at 34" to 38" above stair nosing.

WINDING STAIRS

The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to tread's leading edge. Winder treads shall have a minimum tread depth of 10" measured as above at a point 12" from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 6" at any point. Within any flight of stairs, the greatest winder tread depth at the 12" walk line shall not exceed the smallest by more than 3/8".

Ends of handrail must return to wall or have rounded terminations or bends.