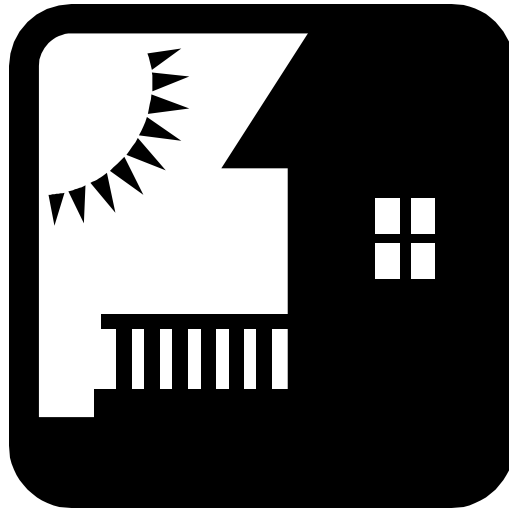




DEPARTMENT OF CODE ENFORCEMENT



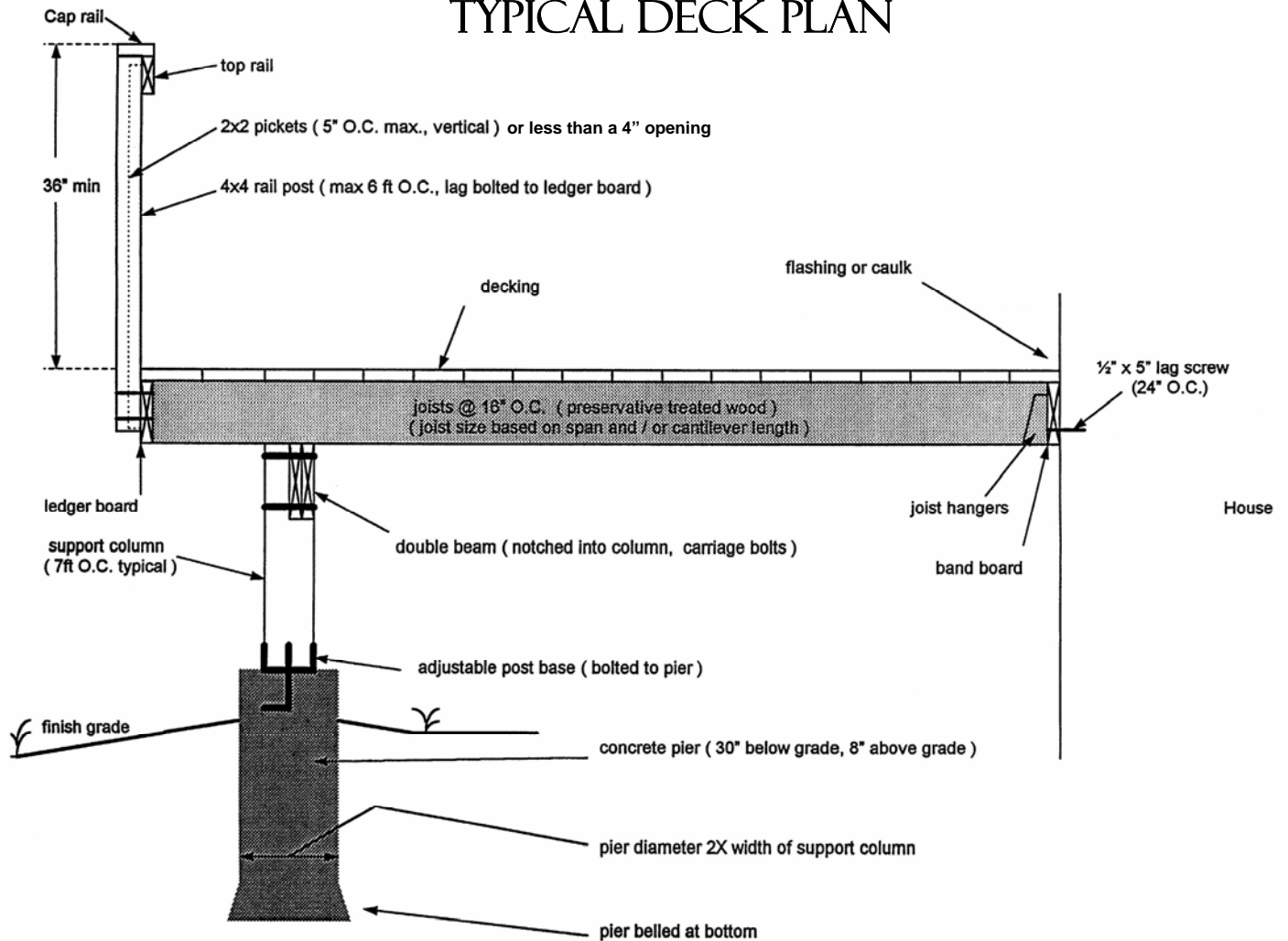
TYPICAL DECK PLAN AND DETAILS

Residential



2000 INTERNATIONAL RESIDENTIAL CODE

TYPICAL DECK PLAN



GUARDS REQUIRED (R316.1)

Decks, porches, balconies or raised floor surfaces located more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 36 inches (914 mm) in height.

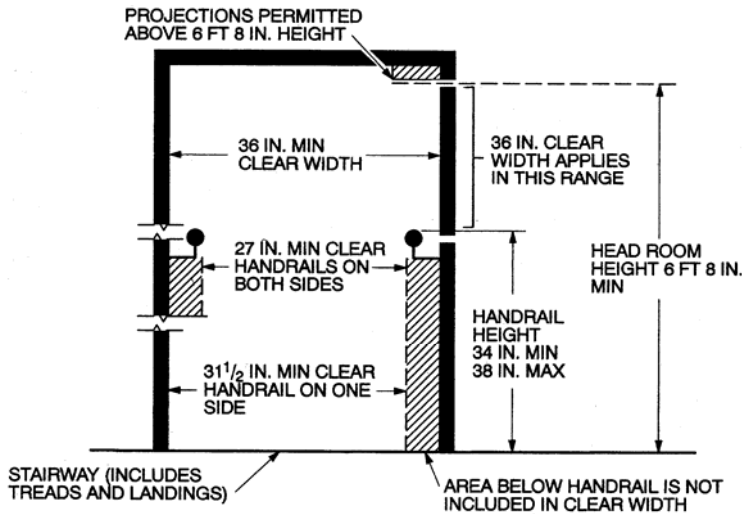
GUARD OPENING LIMITATIONS (R316.2)

Required guards on open sides of stairways, raised floor areas, balconies, porches and decks shall have intermediate rails or ornamental closures that do not allow passage of a sphere 4 inches (102 mm) in diameter. Required guards shall not be constructed with horizontal rails or other ornamental pattern that results in a ladder effect.



BE SURE TO USE
THE PROPER HARDWARE AND FASTENERS
FOR THE TYPE OF
TREATED LUMBER USED.

DETAILS



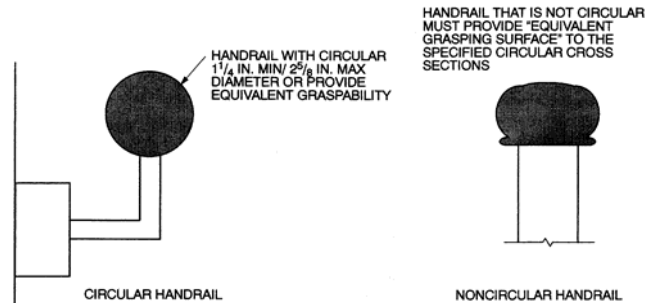
STAIRWAY CLEARANCES (R314.1)

Stairways shall not be less than 36 inches (914 mm) 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 inches (114 mm) 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 inches (787 mm) where a handrail is installed on one side and 27 inches (698 mm) where handrails are provided on both sides.

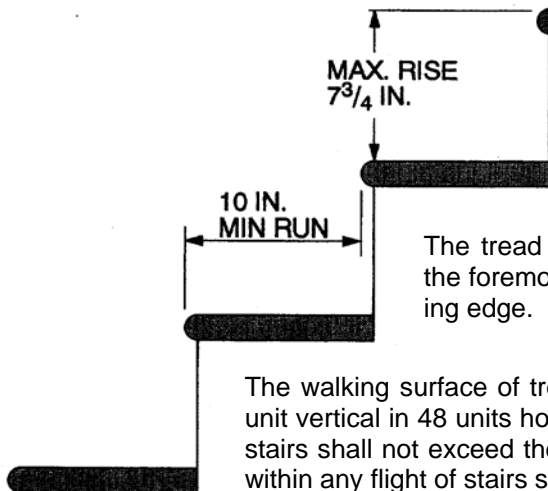
HANDRAIL GRIP SIZE (R315.2)

The handgrip portion of handrails shall have a circular cross section of 1 1/4 inches (32 mm) minimum to 2 5/8 inches (67 mm) maximum. Other handrail shapes that provide an equivalent grasping surface are permissible.

Edges shall have a minimum radius of 1/8 inch (3.2 mm).



TREADS & RISERS (R314.2)



The maximum riser height shall be 7 3/4 inches (196 mm) and the minimum tread depth shall be 10 inches (254 mm). The riser height shall be measured vertically between leading edges of the adjacent treads.

The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge.

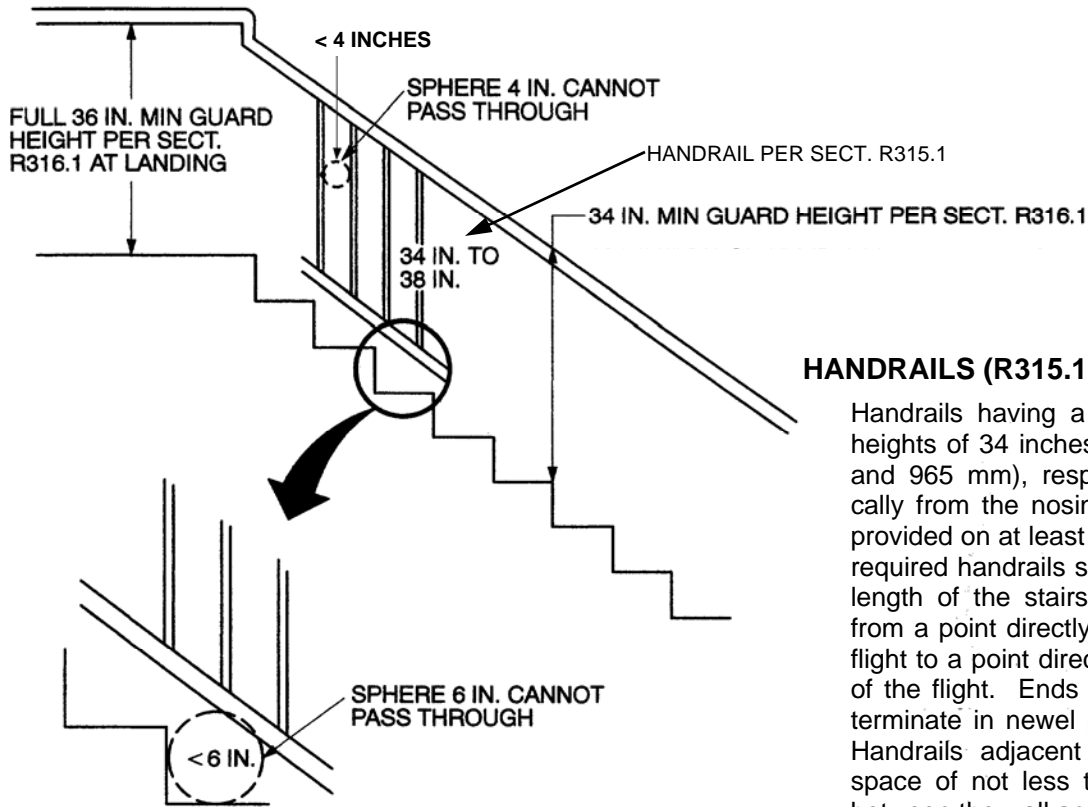
The walking surface of treads and landings of a stairway shall be sloped no steeper than one unit vertical in 48 units horizontal (2 percent slope). The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

PROFILE (R314.2.1)

The radius of curvature at the leading edge of the tread shall be no greater than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19.1 mm) but not more than 1-1/4 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm).

Open risers are permitted, provided that the opening between treads does not permit the passage of a 4-inch-diameter (102 mm) sphere (opening must be less than 4 inches).

DETAILS



HANDRAILS (R315.1)

Handrails having a minimum and maximum heights of 34 inches and 38 inches (864 mm and 965 mm), respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of stairways. All required handrails shall be continuous the full length of the stairs with two or more risers from a point directly above the top riser of a flight to a point directly above the lowest riser of the flight. Ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1.5 inches (38 mm) between the wall and the handrail.

GUARDS REQUIRED (R316.1)

Decks, porches, balconies or raised floor surfaces located more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 36 inches (914 mm) in height.

GUARD OPENING LIMITATIONS (R316.2)

Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental enclosures that do not allow passage of a sphere 4 inches (102 mm) in diameter (*openings must be less than 4 inches*). Required guards shall not be constructed with horizontal rails or other ornamental pattern that results in a ladder effect.

Exception: The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such a size that a sphere 6 inches (152 mm) cannot pass through (*opening must be less than 6 inches*).



CITY OF BALLWIN
▶ REVIEWED ◀
_____ BUILDING INSPECTOR
_____ DATE

IF STAIR IS MORE THAN 30 IN. ABOVE THE FLOOR BELOW AT ANY POINT OF THE STAIR'S FLIGHT, A GUARD IS REQUIRED ALONG THE OPEN SIDE.

