HANDRAILS

Where required
Handrails shall be provided on each side of stairways and on ramps with a rise greater than 6 inches. They shall be adequate in strength and attachment according to IBC Section 1607.8.

Handrail height
Handrails heights are to be between 34 inches and 38 inches, measured above stair tread nosing or finish surface of ramp slope.

Clearance
Clear space between a handrail and a wall or other surface shall be at least 1-1/2 inches.

Handrail extensions
Handrails shall return to a wall, guard, or walking surface. Where handrails are not continuous between flights of stairs, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser. At ramps the handrails shall extend horizontally 12 inches minimum beyond the top and bottom of the ramp runs.

GUARDS

Where required
Guards shall be located along open-sided walking surfaces, including mezzanines, equipment platforms, stairs, ramps and landings that are located more than 30 inches above the floor or grade below.

Guard height
Required guards shall be not less than 42 inches high above the adjacent walking surfaces, adjacent fixed seating or the line connecting the leading edges of the treads.

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

Exceptions:
1. From a height of 36 inches to 42 inches, guards shall not have openings which allow passage of a sphere 4-3/8 inches in diameter.
2. The triangular openings at the open sides of a stair, formed by the riser, tread and bottom rail shall not allow passage of a sphere 6 inches in diameter.
3. At elevated walking surfaces for access to electrical, mechanical or plumbing systems or equipment, guards shall not have openings which allow passage of a sphere 21 inches in diameter.