

Railing IBC Code Cheat Sheet

Guardrail

1. **IBC 1015.2:** Guards shall be located along open sided walking surfaces that are located more than 30" measured vertically to the floor or grade below at any point.
2. **IBC 1015.3:** Required Guards shall be not less than 42" high with the exception of occupancies not more than three stories above grade within individual dwelling / single family units which require guards be not less than 36" high.
 - a. **How does Superior comply?** All railings built for non-individual residential dwellings are built to an installed height of at least 42". Systems built for individual residential / single family dwellings are built to an installed height of at least 36"
3. **IBC 1015.4:** Required guards shall not have openings that allow passage of a sphere 4" in diameter.
 - a. **How does Superior comply?** All picketed railing systems are built with pickets spaced at 4" on center. This allows the railing to pass the 4" sphere test. Cables in cable railing systems are tensioned to the point where they can actively resist a 4" sphere
4. **IBC 1015.5 Key Exception 1:** 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" in diameter
 - a. **How does Superior comply?** Superior will work with the contractor to ensure a tight fit to work towards compliance
5. **IBC 1015.5 Key Exception 2:** Elevated walking surfaces for access to and use of electrical, mechanical, or plumbing systems or equipment only require that a 21" sphere not fit through the opening
 - a. **How does Superior comply?** Railings for this type of system, namely Series 500 Pipe Railing, are built with the proper number of horizontal lines to meet the requirements outlined
6. **IBC 1607.8.1:** Guards shall be designed to resist a linear load of 50 pounds per linear foot
 - a. **IBC 1607.8.1.1:** Guards shall resist a concentrated load of 200 pounds
 - b. **IBC 1607.8.1.2:** Intermediate rails, pickets, and posts shall be designed to resist a concentrated load of 50 pounds
 - c. **How does Superior comply?** All railings are built with high quality, durable aluminum to offer sufficient resistance. All Superior products have been tested to ensure compliance and load data is available upon request.

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Handrail

1. **IBC 1011.11:** Stairways shall have handrails on each side which comply with section 1014.
2. **IBC 1011.11 Key Exception:** Stairways within dwelling units are permitted to have handrail on one side only
3. **IBC 1012.8:** Ramps with a rise greater than 6" shall have handrails on both sides. Handrails shall comply with section 1014.
4. **IBC 1014.2:** Handrail height, measured above stair tread nosing's, or finish surface of ramp slope, shall be uniform, not less than 34" and not more than 38".
 - a. **How does Superior comply?** With commercial guard railing height requiring a 42" high system, Superior can provide handrail in conjunction with guard railing that is manufactured to fit at the proper height.
5. **IBC 1014.3.1 Part 1:** Circular handrails shall have an outside diameter of not less than 1.25" and not greater than 2".
 - a. **How does Superior comply?** All pipe handrail is assembled with 1.5" schedule 40 pipe which features an outside diameter of 1.9", thus fitting within the designated range.
6. **IBC 1014.3.1 Part 2:** Where the handrail is not circular, it shall have a perimeter dimension of not less than 4" and not greater than 6.25" inches with a maximum cross-sectional dimension of 2.25" and minimum cross-sectional dimension of 1".
 - a. **How does Superior comply?** Superior offers a variety of top rail options, including a 2" wide top rail for Series 9000/2000 that meets all of the above and can be used as the top of a guardrail and a handrail simultaneously for non-commercial applications.
7. **IBC 1014.4:** Handrail gripping surfaces shall be continuous, without interruptions by newel posts or other obstructions (Handrails within dwelling units are permitted to be interrupted by a newel post on turns and landings)
8. **IBC 1014.4 Key Exception:** Handrail brackets or pickets attached to the bottom of the handrail that do not project horizontally beyond the sides of the handrail within 1.5" of the bottom of the handrail shall not be considered obstructions
9. **IBC 1014.7:** Clear space between a handrail and a wall or other surface shall be not less than 1.5".
 - a. **How does Superior comply?** In regards to sections 1014.4 and 1014.7, Superior utilizes specially made brackets that ensure the handrail is continuous while at the same time keeping the required distance from the wall/guardrail the system is attached to.
10. **IBC 1607.8.1:** Handrail shall be designed to resist a linear load of 50 pounds per linear foot
 - a. **IBC 1607.8.1.1:** Handrail shall resist a concentrated load of 200 pounds
 - b. **How does Superior comply?** All railings are built with high quality, durable aluminum to offer sufficient resistance. All Superior products have been tested to ensure compliance and load data is available upon request.

