

## Technical Bulletin

### Balconies and Handrails

Falls from stairways, ramps and balconies can easily be prevented by installing handrails and guardrails. In most cases, stairs and ramps are part of the means of egress from a building or structure. In normal usage or times of emergency, requirements exist to assure the safe passage of occupants. All means of egress more than 30" above the floor or grade below shall be provided with guardrails to prevent falls over the open side. These would include stairs, ramps and balconies.

Often used interchangeably, handrails and guardrails are not the same. Handrails are used to provide stability and guardrails are used to provide protection.

Some simple requirements to remember for handrails for stairs or ramps include:

- Handrails for stairs and ramps shall be provided on both sides. Stairways less than 44" in width serving apartments and condominiums may have one handrail.
- For existing stairs and ramps, the handrail must be within 44" of the centerline.
- Handrails must be no less than 34" nor more than 38" above the surface of the tread.
- Clearance between the handrail and wall must be at least 1 ½".
- The handgrip portion of the handrails shall not be less than 1 ¼" nor larger than 2" in diameter.

To prevent falls from elevated walkways, balconies and stairs with open sides, apply these guardrail requirements:

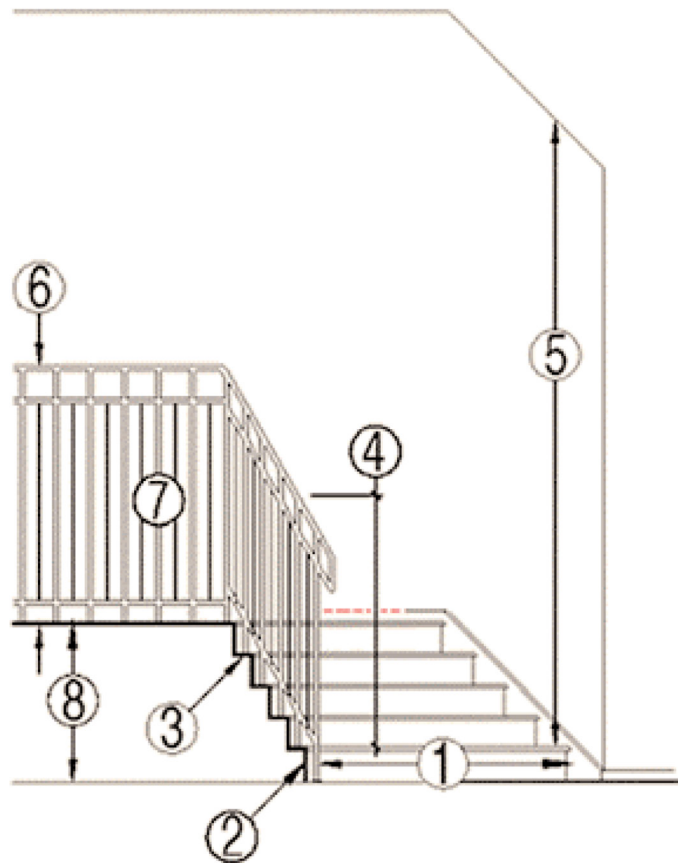
- The top of the guardrail for walkways and balconies shall not be less than 42 inches in height.
- The top of the guardrail for stairs shall not be less than 42" high with handrails placed not less than 34" nor more than 38" above landings and the nosing of treads.
- Guardrails shall have vertical rails or balusters spaced so that no opening is greater than 4" wide.

Keep in mind that these are minimum requirements and maintenance is required to keep these handrails and guardrails in good condition. Regularly check to see if the rails are securely anchored and maintain their structural integrity. Also check the spacing of the baluster and vertical guards. If needed, make repairs immediately.

Following these simple requirements will minimize exposure to falls.

An illustrated guide is located on the backside of this bulletin.

*This bulletin is intended only as a reminder and is offered solely as a guide to assist management in its responsibility of providing a safer working environment. This bulletin is not intended to cover all possible hazardous conditions or unsafe acts that may exist. Other unsafe acts or hazardous conditions should also be noted and corrective action taken.*



1. Minimum width - 44"
2. Maximum rise - 7". Minimum rise - 4".
3. Minimum run - 11".
4. Handrail must be between 34" and 38" above nosing of treads.
5. Minimum headroom clearance - 6' 8", measured vertically from the plane of tread nosings to soffit above.
6. Guardrail height - 42".
7. Intermediate rails placed so that a sphere 4" in diameter cannot pass through.
8. Guardrail required if deck, porch, balcony, landing, etc. more than 30" above grade.

**Source: 1997 Uniform Building Code**