



Designation: F 1637 – 95

## Standard Practice for Safe Walking Surfaces<sup>1</sup>

This standard is issued under the fixed designation F 1637; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 *Scope*—This practice covers design and construction guidelines and minimum maintenance criteria for new and existing buildings and structures. This practice is intended to provide reasonably safe walking surfaces for pedestrians wearing ordinary footwear. These guidelines may not be adequate for those with certain mobility impairments.

1.2 *Application*—This practice addresses elements along and in walkways including floors and walkway surfaces, sidewalks, short flight stairs, gratings, wheel stops, and speed bumps. Swimming pools, bath tubs, showers, natural walks, and unimproved paths are beyond the scope of this practice.

1.3 Conformance with this practice will not alleviate all hazards; however, conformance will reduce certain pedestrian risks.

1.4 The values stated in inch-pound units are to be regarded as the standard. The SI units given in parentheses are for information only.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

### 2. Referenced Documents

2.1 *ANSI Standard:*

ANSI-Z535.1 Safety Color Coding<sup>2</sup>

### 3. Terminology

3.1 *Definitions:*

3.1.1 *bollard*—a thick, low, short, post, often of iron or steel and usually used in series, provided for the purpose of excluding or diverting motor vehicles from a road, lawn, or path.

3.1.2 *carpet*—permanently secured fibrous floor covering.

3.1.2.1 *Discussion*—Area rugs, mats, and runners are not considered to be carpet for the purpose of this practice.

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee F13 on Safety and Traction for Footwear and is the direct responsibility of Subcommittee F13.50 on Traction.

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<sup>2</sup> Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

3.1.3 *cross slope*—the slope of a pedestrian walkway that is perpendicular to the direction of travel.

3.1.4 *element*—an identifiable part of an architectural component, for example, a stair handrail, tread, riser, or landing.

3.1.5 *fair*—a smooth transition between adjacent surfaces.

3.1.6 *foreseeable pedestrian path*—any place where a pedestrian could reasonably be expected to walk.

3.1.7 *footwear*—shoes, including boots, sandals, slippers, or foul weather gear such as overshoes and rubbers, or a combination thereof.

3.1.8 *planar*—flat.

3.1.9 *ramp*—a walkway surface that has a slope steeper than 1:20 (5 %).

3.1.10 *sidewalk*—a paved surface, such as concrete or asphalt, usually parallel and adjacent to streets.

3.1.11 *slip resistance*—the relative force that resists the tendency of the shoe or foot to slide along the walkway surface. Slip resistance is related to a combination of factors including the walkway surface, the footwear bottom, and the presence of foreign materials between them.

3.1.11.1 *Discussion*—Slip resistance is dependent upon many factors such as: material and condition of the walkway surface; material and condition of the shoe sole or heel material; the physical abilities of the user; the attempted or proposed activities of the user, and; the presence of any contaminants on any or both of the surfaces, and other factors.

3.1.12 *slip resistant*—the provision of adequate slip resistance to reduce the likelihood of slip for pedestrians using reasonable care on the walking surface under expected use conditions.

3.1.13 *walkway surface hardware*—includes manhole covers, cellar doors used as walking surfaces, junction box covers, cleanout covers, hatches, sidewalk elevator covers, sewer grates, utility covers, and similar elements that pedestrians can reasonably be expected to walk on.

3.1.14 *walkway*—walking surfaces constructed for pedestrian usage including floors, ramps, walks, sidewalks, stair treads, parking lots and similar paved areas which may be reasonably foreseeable as pedestrian paths. Natural surfaces such as fields, playing fields, paths, walks, or footpaths, or a combination thereof, are not included.