



Standard Practice for Safe Walking Surfaces¹

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1. Scope

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

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

1.4 *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 *ASTM Standards:*²

F 1646 Terminology Relating to Safety and Traction for Footwear

2.2 *ANSI Standard:*

ANSI-Z535.1 Safety Color Coding³

3. Terminology

3.1 See Terminology F 1646 for the following terms used in this practice:

- 3.1.1 Bollard,
- 3.1.2 Carpet,
- 3.1.3 Cross slope,
- 3.1.4 Element,
- 3.1.5 Fair,

- 3.1.6 Foreseeable pedestrian path,
- 3.1.7 Footwear,
- 3.1.8 Planar,
- 3.1.9 Ramp,
- 3.1.10 Sidewalk,
- 3.1.11 Slip resistance,
- 3.1.12 Slip resistant,
- 3.1.13 Walkway surface hardware, and
- 3.1.14 Walkway.

4. Significance and Use

4.1 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.

5. Walkway Surfaces

5.1 *General:*

5.1.1 Walkways shall be stable, planar, flush, and even to the extent possible. Where walkways cannot be made flush and even, they shall conform to the requirements of 5.2 and 5.3.

5.1.2 Walkway surfaces for pedestrians shall be capable of safely sustaining intended loads.

5.1.3 Walkway surfaces shall be slip resistant under expected environmental conditions and use. Painted walkways shall contain an abrasive additive, cross cut grooving, texturing or other appropriate means to render the surface slip resistant where wet conditions may be reasonably foreseeable.

5.1.4 Interior walkways that are not slip resistant when wet shall be maintained dry during periods of pedestrian use.

5.2 *Walkway Changes in Level:*

5.2.1 Adjoining walkway surfaces shall be made flush and fair, whenever possible and for new construction and existing facilities to the extent practicable.

5.2.2 Changes in levels of less than ¼ in. (6 mm) in height may be without edge treatment. (See Fig. 1.)

5.2.3 Changes in levels between ¼ and ½ in. (6 and 12 mm) shall be beveled with a slope no greater than 1:2 (rise:run).

5.2.4 Changes in levels greater than ½ in. (12 mm) shall be transitioned by means of a ramp or stairway that complies with applicable building codes, regulations, standards, or ordinances, or all of these.

¹ This practice is under the jurisdiction of ASTM Committee F13 on Pedestrian/Walkway Safety and Footwear and is the direct responsibility of Subcommittee F13.50 on Walkway Surfaces.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.