

Highlights of the 2010 ADA Standards for Accessible Design

Note: Numbers in brackets () refer to applicable sections of the publication.

Clear Opening Width (404.2.3)

- 32" (815mm) minimum clear opening width required for swinging doors
 - measured with door open 90°, face of door to stop on strike jamb
 - openings more than 24" (610 mm) deep - 36" (915 mm) clear opening required
 - at least one leaf of a pair must comply (the active leaf)
 - "There shall be no projections into the required clear opening width lower than 34"(865mm) above the floor or ground. Projections into the clear opening width between 34 inches (865mm) and 80 inches (2030mm) above the floor or ground shall not exceed 4" (100 mm).
Exception: 1. In alterations a projection of 5/8"(16 mm) maximum into the required clear opening width shall be permitted for the latch side stop. 2. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground."

Thresholds (404.2.5)

- 1/2" (13mm) high maximum
- change in level of 1/4" (6.4 mm) may be vertical; change in level of 1/4" (6.4 mm) to 1/2" (13 mm) must be beveled with a slope not steeper than 1:2; change in level over 1/2" (6.4 mm) must be a ramp sloped 1:12
- *Exception:* Existing or altered thresholds 3/4" (19 mm) high maximum that have a beveled edge on each side with a slope not steeper than 1:2 shall not be required to comply with 404.2.5

Door Hardware (404.2.7)

- controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, tight pinching, or twisting of the wrist
- force required to activate controls and operating mechanisms - 5 lb (22.2 N) max.
- mounted 34" (22.2 N) to 48" (1220 mm) above the floor or ground (except locks used for security purposes only)
- operating hardware for sliding doors must be exposed and usable from both sides when doors are fully open

Closing Speed (404.2.8)

- door closers - 5 seconds minimum from open position of 90° to 12° (delayed action is not a code requirement)
- spring hinges - 1.5 seconds minimum from open position of 70° to closed position, measured under ambient conditions

Opening Force (404.2.9)

- interior hinged doors: 5 lbf. (22.2N) maximum; sliding or folding doors: 5 lbf. (22.2N) maximum, exterior hinged doors: not mentioned
- fire doors: minimum allowed by the appropriate administrative authority (size 3 closer recommended for 3' wide interior fire doors per NFPA 80)
- Advisory 404.2.9 Door and Gate Opening Force. The maximum force pertains to the continuous application of force necessary to fully open a door, not the initial force required to overcome the inertia of the door. It does not apply to the force required to retract bolts or to disengage other devices used to keep the door in a closed position.

Door Surface (404.2.10)

- bottom 10" (255 mm) of swinging doors shall have a smooth surface on the push side extending full width of door
- parts creating horizontal or vertical joints shall be within 1/16" (1.6 mm) of the same plane as the other
- cavities created by added kick plates shall be capped
- *exceptions:* sliding doors, tempered glass doors without stiles with a tapered bottom rail, doors that do not extend to within 10" (255 mm) of the ground

Vision Lites (404.2.11)

- Vision lites in doors and sidelites adjacent to doors - bottom of at least one lite must be 43"(1090mm) maximum above the floor or ground

Automatic Doors (404.3)

- must comply with ANSI/BHMA A156.10 (high energy) or A156.19 (low energy)
- clear opening width - 32" (815 mm) minimum - based on clear opening provided by all leafs in the open position
- mount actuators between 36" (915 mm) and 48" (1219 mm) above the floor or ground

Highlights of ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities 2009

Note: Numbers in brackets () refer to applicable sections of the publication

Clear Opening Width (404.2.2)

- 32"(815 mm) minimum clear opening width required for swinging doors (see figure 1)
 - measured with door open 90°, face of door to stop on strike jamb
 - openings more than 24" (610 mm) deep - 36" (915 mm) clear opening required
 - at least one leaf of a pair must comply (the active leaf)

Thresholds (404.2.4 & 303)

- 1/2" (13 mm) high maximum
- changes in level: (see figure 2)
 - 1/4" (6.4 mm) high maximum vertical change
 - 1/4"(6.4 mm) to 1/2" (13 mm) high - beveled with a slope of 1:2 maximum
 - over 1/2" - ramp is required (maximum slope = 1:12)
- *Exception:* 404.2.4 shall not apply to existing or altered thresholds 3/4" (19mm) maximum in height that have a beveled edge on each side with a maximum slope of 1:2 for the height exceeding 1/4" (6.4 mm)

Door Hardware (404.2.6)

- shape of operating devices must be easy to grasp with one hand (see figure 3)
- no tight grasping, tight pinching, or twisting of the wrist to operate
- located 34" (865 mm) minimum to 48" (1220 mm) maximum above finished floor
- *Exception:* Locks used only for security purposes and not used for normal operation are permitted in any location.

Closing Speed (404.2.7)

- door closers - 5 seconds min. from open position of 90° to 12° (delayed action is not a code requirement)
- spring hinges - 1.5 seconds min. from open position of 70° to closed position, measured under ambient conditions

Opening Force (404.2.8)

- exterior hinged doors: not mentioned
- interior hinged doors: 5 (22.2 N) pounds maximum, except for fire doors
- sliding or folding doors: 5 (22.2 N) pounds maximum
- fire doors:
 - minimum allowed by the appropriate administrative authority
 - (size 3 closer recommended for 36" wide interior fire doors per NFPA 80)

Door Surface (404.2.9)

- bottom 10" (255 mm) of swinging doors shall have a smooth surface on push side extending full width of door
- parts creating horizontal or vertical joints shall be within 1/16" (1.6 mm) the same plane as the other
- cavities created by added kick plates shall be capped
- *Exception:* sliding doors, tempered glass doors without stiles with a tapered bottom rail, doors that do not extend to within 10" of the ground

Vision Lites (404.2.10)

- vision lites in doors and sidelites adjacent to doors - bottom of at least one lite must be 43 inches maximum above the floor or ground

Automatic Doors (404.3)

- comply with ANSI/BHMA A156.10 (high energy) or A156.19 (low energy)
- clear opening width - 32" (815 mm) inches minimum - based on clear opening provided by all leaves in the open position
- mount actuators between 36" (915 mm) and 48" (1220 mm) above the floor or ground

ICC/ANSI A117.1 reads:

"...There shall be no projections into the clear opening width lower than 34 inches (865 mm) above the floor or ground. Projections into the minimum clear opening width more than 34 inches (865 mm) and up to 80 inches (2020 mm) above the floor or ground are permitted but shall not exceed 4 inches (102 mm)."

