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Accessible Routes and Plumbing  
Guidelines for ADA Accessibility  
A01-302  
1 PDH

## TUTORIAL

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## **ACCESSIBLE ROUTES AND PLUMBING GUIDELINES FOR ADA ACCESSIBILITY**

Course No: A01-302 - Course Credit: 1 PDH

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*Hosted by:*

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## **LEARNING OBJECTIVES**

1. To learn the standards for accessible design of Titles II & III facilities.
2. To learn about the design and construction of accessible routes and their components.
3. To plan facilities with plumbing elements according to accessibility standards
4. To learn about exceptions in design in case of structural impracticability.

## INTRODUCTION

- The Department of Justice published revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 "ADA" in the Federal Register on September 15, 2010.
- These regulations adopted revised, enforceable accessibility standards called the 2010 ADA Standards for Accessible Design "2010 Standards" or "Standards".
- The 2010 Standards set minimum requirements – both scoping and technical – for newly designed and constructed or altered State and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities.

## INTRODUCTION (CONT'D)

- The Department is providing this document with the official 2010 Standards in one publication. The document includes:
  1. The 2010 Standards for State and local governments, which consist of the Title II regulations at 28 CFR 35.151 and the 2004 ADAAG at 36 CFR part 1191, appendices B and D.
  2. The 2010 Standards for public accommodations and commercial facilities, which consist of the Title III regulations at 28 CFR part 36, subpart D, and the 2004 ADAAG at 36 CFR part 1191, appendices B and D.
- The following section applies to both State and local government facilities (Title II) and public accommodations and commercial facilities (Title III).
- The section consists of (ADA) Chapters 4 and 6 of the 2004 ADAAG (36 CFR part 1191, appendices B and D, adopted as part of both the Title II and Title III 2010 Standards).

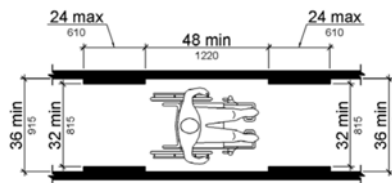
## ADA CHAPTER 4: ACCESSIBLE ROUTES

### 1. WALKING SURFACES

**SLOPE:** The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

**CLEARANCES:**

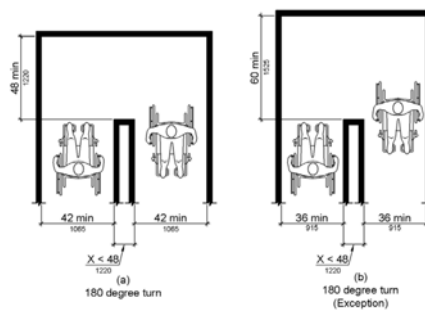
- 1) **Clear Width:** The clear width of walking surfaces shall be 36 inches (915 mm) minimum.



**Figure 1: Clear Width of an Accessible Route**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

## ADA CHAPTER 4: ACCESSIBLE ROUTES (CONT'D)

- 2) **Clear Width at Turn:** Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

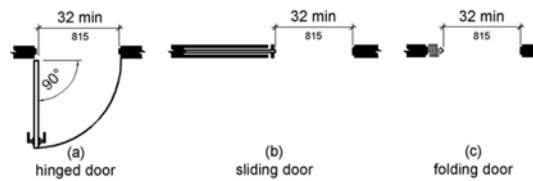


**Figure 2: Clear Width at Turn**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**2. DOORS, DOORWAYS, AND GATES**

**CLEAR WIDTH**

- Door openings shall provide a clear width of 32 inches (815 mm) minimum.
- Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees.
- Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum.



**Figure 3: Clear Width of Doorways**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

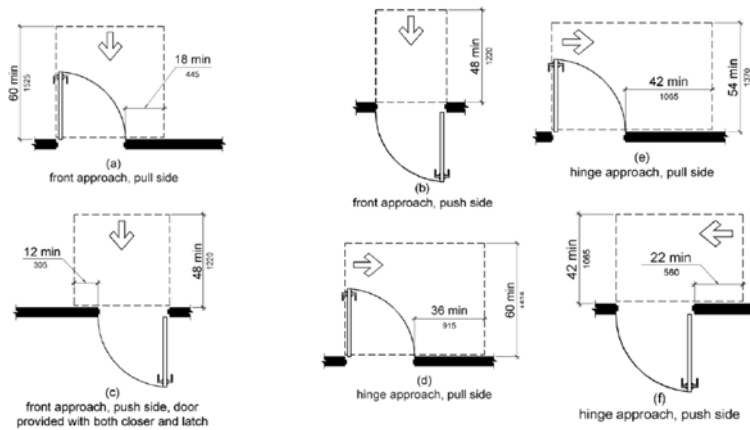
**MANEUVERING CLEARANCES**

**1) Swinging Doors and Gates**

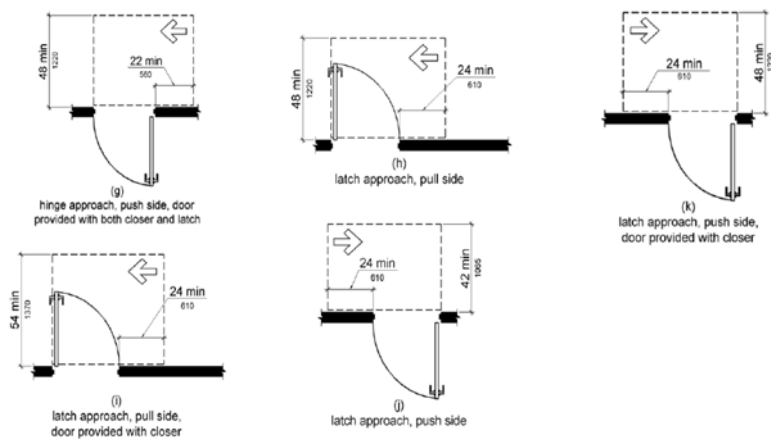
Type of Use		Minimum Maneuvering Clearance	
Approach Direction	Door or Gate Side	Perpendicular to Doorway	Parallel to Doorway (beyond latch side unless noted)
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	48 inches (1220 mm)	0 inches (0 mm) <sup>1</sup>
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Push	54 inches (1370 mm)	42 inches (1065 mm)
From latch side	Pull	42 inches (1065 mm) <sup>2</sup>	22 inches (560 mm) <sup>3</sup>
From latch side	Push	48 inches (1220 mm) <sup>4</sup>	24 inches (610 mm)

1. Add 12 inches (305 mm) if closer and latch are provided.  
2. Add 6 inches (150 mm) if closer and latch are provided.  
3. Beyond hinge side.  
4. Add 6 inches (150 mm) if closer is provided.

**Table 1: Maneuvering Clearances at Manual Swinging Doors and Gates**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")



**Figure 4: Maneuvering Clearances at Manual Swinging Doors and Gates**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")



**Figure 5: Maneuvering Clearances at Manual Swinging Doors and Gates**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

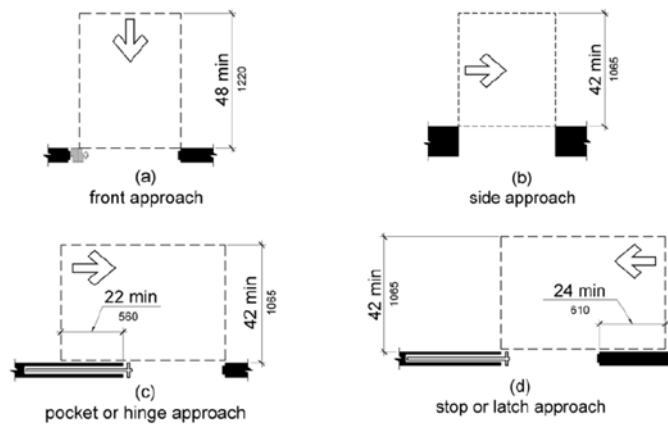
2) Doorways without Doors or Gates, Sliding Doors, and Folding Doors.

Approach Direction	Minimum Maneuvering Clearance	
	Perpendicular to Doorway	Parallel to Doorway (beyond stop/latch side unless noted)
From Front	48 inches (1220 mm)	0 inches (0 mm)
From side <sup>1</sup>	42 inches (1065 mm)	0 inches (0 mm)
From pocket/hinge side	42 inches (1065 mm)	22 inches (560 mm) <sup>2</sup>
From stop/latch side	42 inches (1065 mm)	24 inches (610 mm)

1. Doorway with no door only.
2. Beyond pocket/hinge side.

**Table 2: Maneuvering Clearances at Doorways without Doors or Gates, Manual Sliding Doors, and Manual Folding Doors**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")



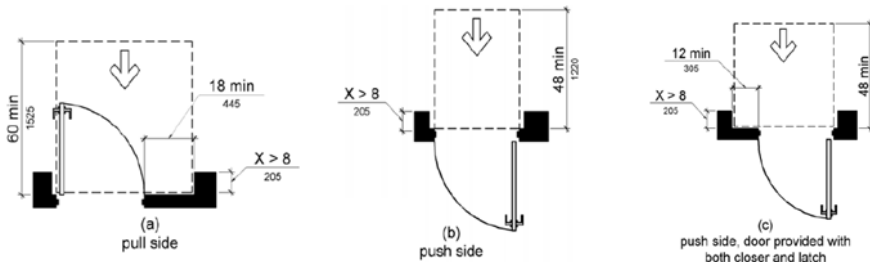
**Figure 6 Maneuvering Clearances at Doorways without Doors, Sliding Doors, Gates, and Folding Doors**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")



3) Recessed Doors and Gates.

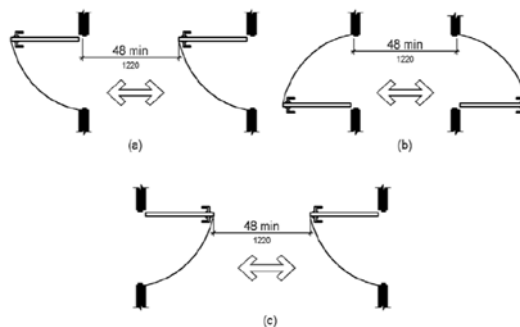
Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.



**Figure 7: Maneuvering Clearances at Recessed Doors and Gates**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Doors in Series and Gates in Series

The distance between two hinged or pivoted doors in series and gates in series shall be 48 inches (1220 mm) minimum plus the width of doors or gates swinging into the space.



**Figure 8: Doors in Series and Gates in Series**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")



Door and Gate Hardware:

- Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground.
- Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

**EXCEPTIONS:**

- Existing locks shall be permitted in any location at existing glazed doors without stiles, existing overhead rolling doors or grilles, and similar existing doors or grilles that are designed with locks that are activated only at the top or bottom rail.
- Access gates in barrier walls and fences protecting pools, spas, and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finish floor or ground.

Closing Speed:

- Door Closers and Gate Closers: Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.
- Spring Hinges: Door and gate spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

Door and Gate Opening Force:

Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:

- Interior hinged doors and gates: **5 pounds (22.2 N) maximum.**
- Sliding or folding doors: **5 pounds (22.2 N) maximum.**

Door and Gate Surfaces:

- Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate.

**EXCEPTIONS:**

- Sliding doors shall not be required to comply with the standard mentioned.
- Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at 60 degrees minimum from the horizontal shall not be required to meet the 10 inch (255 mm) bottom smooth surface height requirement.
- Doors and gates that do not extend to within 10 inches (255 mm) of the finish floor or ground shall not be required to comply with this standard.
- Existing doors and gates without smooth surfaces within 10 inches (255 mm) of the finish floor or ground shall not be required to provide smooth surfaces provided that if added kick plates are installed, cavities created by such kick plates are capped.

Vision Lights:

- Doors, gates, and side lights adjacent to doors or gates, containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

**EXCEPTION:**

- Vision lights with the lowest part more than 66 inches (1675 mm) from the finish floor or ground shall not be required to comply with the standard mentioned above.

**AUTOMATIC AND POWER-ASSISTED DOORS AND GATES**

**CLEAR WIDTH**

- Doorways shall provide a clear opening of 32 inches (815 mm) minimum in power-on and power-off mode.

**BREAK OUT OPENING**

- Where doors and gates without standby power are a part of a means of egress, the clear break out opening at swinging or sliding doors and gates shall be 32 inches (815 mm) minimum when operated in emergency mode.

**Revolving Doors, Revolving Gates, and Turnstiles**

- Revolving doors, revolving gates, and turnstiles **shall not** be part of an accessible route.

**3. RAMPS**

**SLOPE:** Ramp runs shall have a running slope not steeper than 1:12.

**CROSS SLOPE:** Cross slope of ramp runs shall not be steeper than 1:48.

**CLEAR WIDTH:** The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 36 inches (915 mm) minimum.

**RISE:** The rise for any ramp run shall be 30 inches (760 mm) maximum.

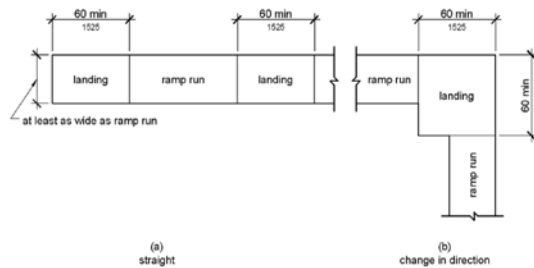
Slope <sup>1</sup>	Maximum Rise
Steeper than 1:10 but not steeper than 1:8	3 inches (75 mm)
Steeper than 1:12 but not steeper than 1:10	6 inches (150 mm)

1. A slope steeper than 1:8 is prohibited.

**Table 3: Maximum Ramp Slope and Rise for Existing Sites, Buildings, and Facilities**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**LANDINGS:**

- 1) **WIDTH:** The landing clear width shall be at least as wide as the widest ramp run leading to the landing.
- 2) **LENGTH:** The landing clear length shall be 60 inches (1525 mm) long minimum.
- 3) **CHANGE IN DIRECTION:** Ramps that change direction between runs at landings shall have a clear landing 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum.

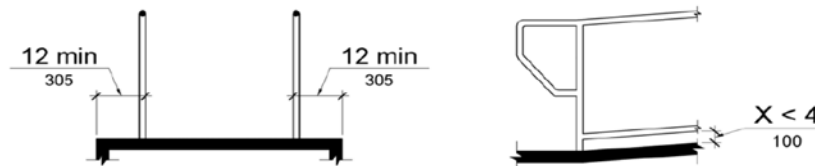


**Figure 9: Ramp Landings**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**HANDRAILS:** Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails.

**EDGE PROTECTION:**

- 1) **Extended Floor or Ground Surface.** The floor or ground surface of the ramp run or landing shall extend 12 inches (305 mm) minimum beyond the inside face of a handrail.
- 2) **Curb or Barrier.** A curb or barrier shall be provided that prevents the passage of a 4 inch (100 mm) diameter sphere, where any portion of the sphere is within 4 inches (100 mm) of the finish floor or ground surface.



**Figure 10 - Edge Protection (1) At Extended Floor or Ground Surface and (2) At Curb or Barrier**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**EDGE PROTECTION:**

**EXCEPTIONS:**

- Edge protection shall not be required on ramps that are not required to have handrails and have sides complying with the mentioned standard.
- Edge protection shall not be required on the sides of ramp landings serving an adjoining ramp run or stairway.
- Edge protection shall not be required on the sides of ramp landings having a vertical drop-off of ½ inch (13 mm) maximum within 10 inches (255 mm) horizontally of the minimum landing area specified.

**4. CURB RAMPS**

**Counter Slope:** Counter slopes of adjoining gutters and road surfaces immediately adjacent to the curb ramp shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.

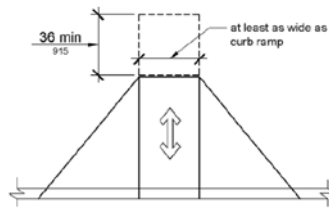
**Sides of Curb Ramps:** Where provided, curb ramp flares shall not be steeper than 1:10.



**Figure 11: (1) Counter Slope of Surfaces Adjacent to Curb Ramp (2) Sides of Curb Ramps**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**LANDINGS:** Landings shall be provided at the tops of curb ramps. The landing clear length shall be 36 inches (915 mm) minimum. The landing clear width shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.

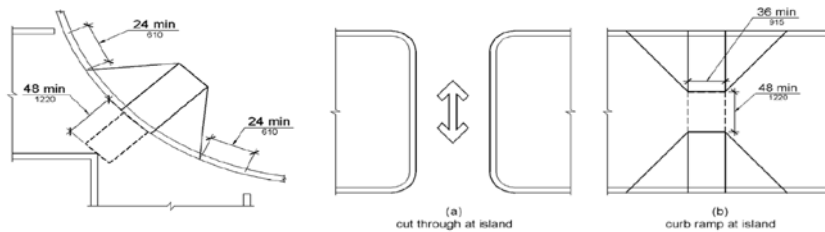
**LOCATION:** Curb ramps and the flared sides of curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.



**Figure 12: Landings at the Top of Curb Ramps**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**DIAGONAL CURB RAMPS:** Diagonal curb ramps with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have a clear space 48 inches (1220 mm) minimum.

**ISLANDS:** Raised islands in crossings shall be cut through level with the street or have curb ramps at both sides. Each curb ramp shall have a level area 48 inches (1220 mm) long minimum by 36 inches (915 mm) wide minimum.



**Figure 13: Curb Ramps (1) Diagonal or Corner Type (2) Islands in Crossings**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**5. ELEVATORS**

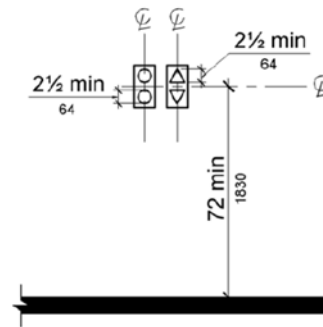
**ELEVATOR LANDING REQUIREMENTS**

**CALL CONTROLS:** Call buttons shall be raised or flush.

- 1) **Height:** Call buttons and keypads shall be located within one of the reach ranges, measured to the centerline of the highest operable part.
  - 2) **Size:** Call buttons shall be ¾ inch (19 mm) minimum in the smallest dimension.
  - 3) **Clear Floor or Ground Space:** The height of the clear floor or ground space is considered to be a volume from the floor to 80 inches (2030 mm) above the floor.
  - 4) **Location:** The call button that designates the up direction shall be located above the call button that designates the down direction.
- A ***destination-oriented elevator system*** provides lobby controls enabling passengers to select floor stops, lobby indicators designating which elevator to use, and a car indicator designating the floors at which the car will stop.

**HALL SIGNALS:**

- 1) **Visible and Audible Signals:** A visible and audible signal shall be provided at each hoistway entrance to indicate which car is answering a call and the car's direction of travel.
- 2) **Visible Signals:** Visible signal fixtures shall be centered at 72 inches (1830 mm) minimum above the finish floor or ground. The visible signal elements shall be 2-½ inches (64 mm) minimum measured along the vertical centerline of the element.
- 3) **Audible Signals:** Audible signals shall sound once for the up direction and twice for the down direction, or shall have verbal annunciators that indicate the direction of elevator car travel.

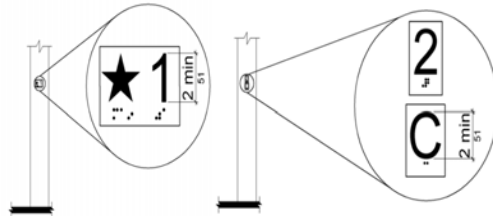


**Figure 14: Visible Hall Signals**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")



**HOISTWAY SIGNS:**

- 1) **Floor Designation:** Floor designations shall be provided on both jambs of elevator hoistway entrances. Floor designations shall be provided in both tactile characters and braille. A tactile star shall be provided on both jambs at the main entry level.
- 2) **Car Designations:** Destination-oriented elevators shall provide tactile car identification on both jambs of the hoistway immediately below the floor designation. Car designations shall be provided in both tactile characters and braille.



**Figure 15: Designations on Jambs of Elevator Hoistway Entrances (1) Floor Designations (2) Car Designations in Destination-Oriented Elevator**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**ELEVATOR DOOR REQUIREMENTS**

**Type:** Elevator doors shall be the horizontal sliding type. Car gates shall be prohibited.

**Operation:** Elevator hoistway and car doors shall open and close automatically.

**Reopening Device:** Elevator doors shall be provided with a reopening device that shall stop and reopen a car door and hoistway door automatically if the door becomes obstructed by an object or person.

- 1) **Height.** The device shall be activated by sensing an obstruction passing through the opening at 5 inches (125 mm) nominal and 29 inches (735 mm) nominal above the finish floor.
- 2) **Contact.** The device shall not require physical contact to be activated, although contact is permitted to occur before the door reverses.
- 3) **Duration.** Door reopening devices shall remain effective for 20 seconds minimum.

**DOOR AND SIGNAL TIMING:** The minimum acceptable time from notification that a car is answering a call or notification of the car assigned at the means for the entry of destination information until the doors of that car start to close shall be calculated from:

$$T = D/(1.5 \text{ ft/s}) \text{ or } T = D/(455 \text{ mm/s}) = 5 \text{ seconds minimum}$$

where

T equals the total time in seconds and D equals the distance (in feet or millimeters) from the point in the lobby or corridor 60 inches (1525 mm) directly in front of the farthest call button controlling that car to the centerline of its hoistway door.

**DOOR DELAY:** Elevator doors shall remain fully open in response to a car call for 3 seconds minimum.

**WIDTH:** The width of elevator doors shall comply with Table 4.

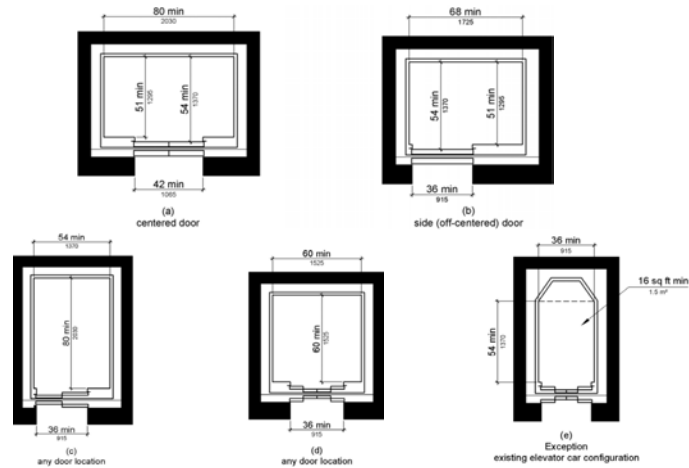
Door Location	Minimum Dimensions			
	Door Clear Width	Inside Car, Side to Side	Inside Car, Back Wall to Front Return	Inside Car, Back Wall to Inside Face of Door
Centered	42 inches (1065 mm)	80 inches (2030 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Side (off-centered)	36 inches (915 mm) <sup>1</sup>	68 inches (1725 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Any	36 inches (915 mm) <sup>1</sup>	54 inches (1370 mm)	80 inches (2030 mm)	80 inches (2030 mm)
Any	36 inches (915 mm) <sup>1</sup>	60 inches (1525 mm) <sup>2</sup>	60 inches (1525 mm) <sup>2</sup>	60 inches (1525 mm) <sup>2</sup>

1. A tolerance of minus 5/8 inch (16 mm) is permitted.

2. Other car configurations that provide a turning *space* complying with 304 with the door closed shall be permitted.

**Table 4: Elevator Car Dimensions**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")



**Figure 16: Elevator Car Dimensions**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Platform to Hoistway Clearance:

The clearance between the car platform sill and the edge of any hoistway landing shall be 1¼ inch (32 mm) maximum.

Leveling:

Each car shall be equipped with a self-leveling feature that will automatically bring and maintain the car at floor landings within a tolerance of ½ inch (13 mm) under rated loading to zero loading conditions.

Illumination:

The level of illumination at the car controls, platform, car threshold and car landing sill shall be 5 foot candles (54 lux) minimum.

ELEVATOR CAR CONTROLS

- 1) Location: Controls shall be located within one of the reach ranges.
- 2) Buttons: Car control buttons with floor designations and shall be raised or flush.
  - a. Size. Buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension.
  - b. Arrangement. Buttons shall be arranged with numbers in ascending order. When two or more columns of buttons are provided they shall read from left to right.
- 3) Keypads: Car control keypads shall be in a standard telephone keypad arrangement.
- 4) Emergency Controls:
  - a. Height: Emergency control buttons shall have their centerlines 35 inches (890 mm) minimum above the finish floor.
  - b. Location: Emergency controls, including the emergency alarm, shall be grouped at the bottom of the panel.

DESIGNATIONS AND INDICATORS OF CAR CONTROLS







Exception: In existing elevators, where a new car operating panel is provided, existing car operating panels shall not be required to comply with the standard mentioned here.

- 1) BUTTONS:
  - a. Type: Control buttons shall be identified by tactile characters
  - b. Location: Raised character and braille designations shall be placed immediately to the left of the control button to which the designations apply.

Exception: Where space on an existing car operating panel precludes tactile markings to the left of the controls, markings shall be placed as near to the control as possible.
  - c. Symbols: The control button for the emergency stop, alarm, door open, door close, main entry floor, and phone, shall be identified with tactile symbols

**2) KEYPADS:**

- Keypads shall be identified by characters and shall be centered on the corresponding keypad button.
- The number five key shall have a single raised dot.
- The dot shall be 0.118 inch (3 mm) to 0.120 inch (3.05 mm) base diameter.

Control Button	Tactile Symbol	Braille Message
Emergency Stop		 ⠠⠠⠠ "ST"OP Three cells
Alarm		 ⠠⠠⠠⠠ AL"AR" M Four cells
Door Open		 ⠠⠠⠠ OP"EN" Three cells
Door Close		 ⠠⠠⠠⠠⠠ CLOSE Five cells
Main Entry Floor		 ⠠⠠⠠ MA"IN" Three cells
Phone		 ⠠⠠⠠⠠ PH"ONE" Four cells

**Table 5: Elevator Control Button Identification**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

CAR POSITION INDICATORS

1) VISIBLE INDICATORS:

- a) Size. Characters shall be ½ inch (13 mm) high minimum.
- b) Location. Indicators shall be located above the car control panel or above the door.
- c) Floor Arrival. As the car passes a floor and when a car stops at a floor served by the elevator, the corresponding character shall illuminate.
- d) Destination Indicator. In destination-oriented elevators, a display shall be provided in the car with visible indicators to show car destinations.

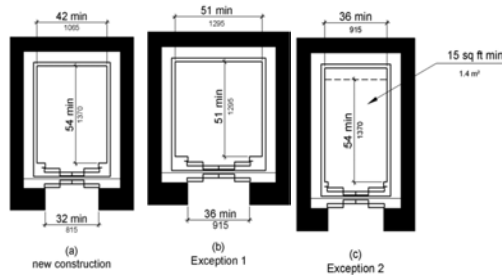
2) AUDIBLE INDICATORS:

- a) Signal Type: The signal shall be an automatic verbal annunciator which announces the floor at which the car is about to stop.
- b) Signal Level: The verbal annunciator shall be 10 dB minimum above ambient, but shall not exceed 80 dB, measured at the annunciator.
- c) Frequency: The verbal annunciator shall have a frequency of 300 Hz minimum to 3000 Hz maximum.

**6. LIMITED-USE/LIMITED-APPLICATION ELEVATORS**

**ELEVATOR CARS**

**CAR DIMENSIONS AND DOORS:** Elevator cars shall provide a clear width 42 inches (1065 mm) minimum and a clear depth 54 inches (1370 mm) minimum. Car doors shall be positioned at the narrow ends of cars and shall provide 32 inches (815 mm) minimum clear width.



**Figure 17: Limited-Use/Limited-Application (LULA) Elevator Car Dimensions**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**CAR DIMENSIONS AND DOORS**

**EXCEPTIONS:**

- Cars that provide a clear width 51 inches (1295 mm) minimum shall be permitted to provide a clear depth 51 inches (1295 mm) minimum provided that car doors provide a clear opening 36 inches (915 mm) wide minimum.
- Existing elevator cars shall be permitted to provide a clear width 36 inches (915 mm) minimum, clear depth 54 inches (1370 mm) minimum, and a net clear platform area 15 square feet (1.4 m<sup>2</sup>) minimum.



**7. PRIVATE RESIDENCE ELEVATORS**

Private residence elevators that are provided within a residential dwelling unit required to provide mobility features. Elevator operation shall be automatic.

**CALL BUTTONS:**

Call buttons shall be ¾ inch (19 mm) minimum in the smallest dimension.

**ELEVATOR DOORS:**

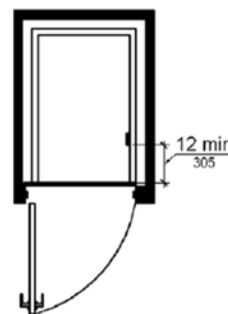
- 1) **Power Operation.** Elevator car and hoistway doors and gates shall be power operated. Power operated doors and gates shall remain open for 20 seconds minimum when activated.

Exception: In elevator cars with more than one opening, hoistway doors and gates shall be permitted to be of the manual-open, self-close type.

- 2) **Location.** Elevator car doors or gates shall be positioned at the narrow end of the clear floor spaces required.

**ELEVATOR CARS**

- 1) **Inside Dimensions of Elevator Cars.** Elevator cars shall provide a clear floor space of 36 inches (915 mm) minimum by 48 inches (1220 mm) minimum
- 2) **Platform to Hoistway Clearance.** The clearance between the car platform and the edge of any landing sill shall be 1½ inch (38 mm) maximum.
- 3) **Leveling.** Each car shall automatically stop at a floor landing within a tolerance of ½ inch (13 mm) under rated loading to zero loading conditions.
- 4) **Car Controls.** Elevator car control buttons shall be raised or flush.
  - a) **Size.** Control buttons shall be ¾ inch (19 mm) minimum in their smallest dimension.
  - b) **Location.** Control panels shall be on a side wall, **12 inches (305 mm)** minimum from any adjacent wall.



**Figure 18: Location of Private Residence Elevator Control Panel**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

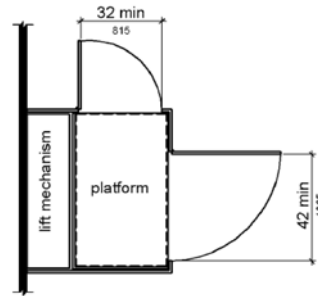
### **8. PLATFORM LIFTS**

**General:** Platform lifts shall not be attendant-operated and shall provide unassisted entry and exit from the lift.

**Platform to Runway Clearance:** The clearance between the platform sill and the edge of any runway landing shall be 1¼ inch (32 mm) maximum.

**Doors and Gates:**

- Platform lifts shall have low-energy power-operated doors or gates.
- Doors shall remain open for 20 seconds minimum.
- End doors and gates shall provide a clear width 32 inches (815 mm) minimum.
- Side doors and gates shall provide a clear width 42 inches (1065 mm) minimum.



**Figure 19: Platform Lift Doors and Gates**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

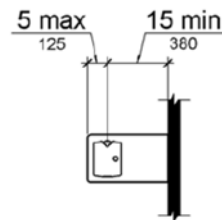
## **ADA CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES**

### **1. DRINKING FOUNTAINS**

**Clear Floor Space.** Units shall have a clear floor or ground space positioned for a forward approach and centered on the unit. Knee and toe clearance shall be provided.

**Spout Height.** Spout outlets shall be 36 inches (915 mm) maximum above the finish floor or ground.

**Spout Location.** The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) maximum from the front edge of the unit, including bumpers.



**Figure 20: Drinking Fountain Spout Location**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Water Flow:

- The spout shall provide a flow of water 4 inches (100 mm) high minimum and shall be located 5 inches (125 mm) maximum from the front of the unit.
- The angle of the water stream shall be measured horizontally relative to the front face of the unit.
- The purpose of requiring the drinking fountain spout to produce a flow of water **4 inches (100 mm) high minimum** is so that a cup can be inserted under the flow of water to provide a drink of water for an individual who, because of a disability, would otherwise be incapable of using the drinking fountain

Drinking Fountains for Standing Persons:

- Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.

**2. TOILET AND BATHING ROOMS**

Clearances:

- 1) Turning Space: Turning space shall be provided within the room
- 2) Overlap: Required clear floor spaces, clearance at fixtures, and turning space shall be permitted to overlap.
- 3) Door Swing: Doors shall not swing into the clear floor space or clearance required for any fixture.

Exceptions:

- Doors to a toilet room or bathing room for a single occupant accessed only through a private office and *not for common use or public use* shall be permitted to swing into the clear floor space or clearance.
- Where the toilet room or bathing room is *for individual use* and a clear floor space is provided within the room beyond the arc of the door swing, doors shall be permitted to swing into the clear floor space.

Mirrors:

- Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground.
- Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

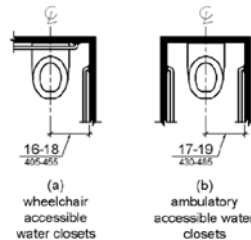
Coat Hooks and Shelves:

- Coat hooks shall be located within one of the reach ranges.
- Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

**3. WATER CLOSETS AND TOILET COMPARTMENTS**

Location:

- The water closet shall be positioned with a wall or partition to the rear and to one side.
- The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition.

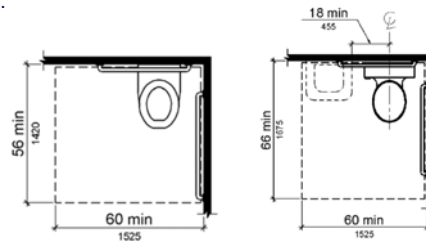


**Figure 21: Water Closet Location**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Clearance:

- 1) Size: Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.
- 2) Overlap: The water closet cannot overlap the required maneuvering clearance for the door inside the room.



**Figure 22: Size of Clearance at Water Closets and (Exception) Overlap of Water Closet Clearance in Residential Dwelling Units**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Seats:

- The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat.

Grab bars:

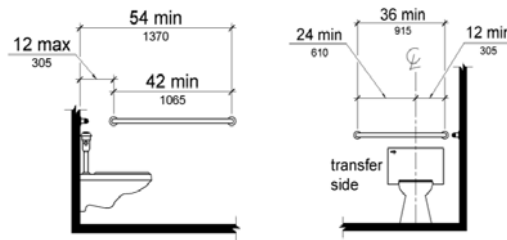
- Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

Exceptions:

- Grab bars shall not be required to be installed in a toilet room for a single occupant accessed only through a private office and *not for common use or public use*.
- In *residential dwelling units*, grab bars shall not be required to be installed.
- In *detention or correction facilities*, grab bars shall not be required to be installed in housing or holding cells that are specially designed without protrusions for purposes of suicide prevention.

Grab Bars.

- 1) Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum.
- 2) Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum.



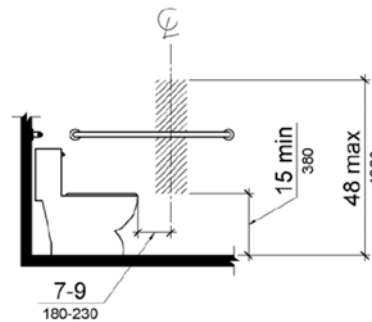
**Figure 23: Side Wall Grab Bar and Rear Wall Grab Bar at Water Closets**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Flush Controls:

- Flush controls shall be hand operated or automatic.
- Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments.

Dispensers:

- Toilet paper dispensers shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser.

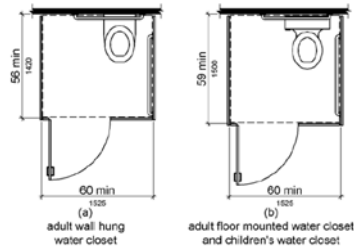


**Figure 24: Dispenser Outlet Location**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

TOILET COMPARTMENTS:

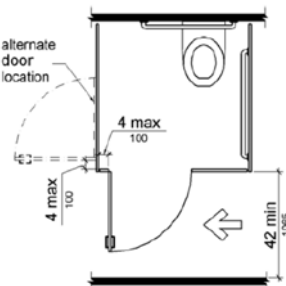
1) Wheelchair Accessible Compartments

- a) Size: Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall.



**Figure 25: Size of Wheelchair Accessible Toilet Compartment**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

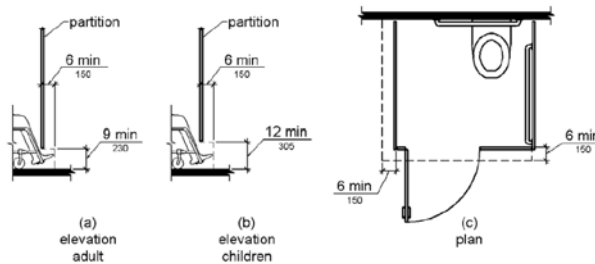
- b) Doors: Toilet compartment doors, shall comply with Chapter 4 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. The door shall be self-closing.



**Figure 26: Wheelchair Accessible Toilet Compartment Doors**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")



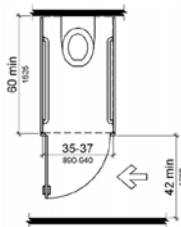
- c) Approach: Compartments shall be arranged for left-hand or right-hand approach.
- d) Toe Clearance: The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition.



**Figure 27: Wheelchair Accessible Toilet Compartment Toe Clearance**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**AMBULATORY ACCESSIBLE COMPARTMENTS**

- a) Size: Compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.
- b) Doors: Toilet compartment doors, shall comply with Chapter 4, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum.



**Figure 28: Ambulatory Accessible Toilet Compartment**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Advisory Specifications for Water Closets Serving Children Ages 3 through 12			
	Ages 3 and 4	Ages 5 through 8	Ages 9 through 12
Water Closet Centerline	12 inches (305 mm)	12 to 15 inches (305 to 380 mm)	15 to 18 inches (380 to 455 mm)
Toilet Seat Height	11 to 12 inches (280 to 305 mm)	12 to 15 inches (305 to 380 mm)	15 to 17 inches (380 to 430 mm)
Grab Bar Height	18 to 20 inches (455 to 510 mm)	20 to 25 inches (510 to 635 mm)	25 to 27 inches (635 to 685 mm)
Dispenser Height	14 inches (355 mm)	14 to 17 inches (355 to 430 mm)	17 to 19 inches (430 to 485 mm)

**Table 6: Advisory Specifications for Water Closets Serving Children Ages 3 through 12**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Water Closets and Toilet Compartments for Children's Use

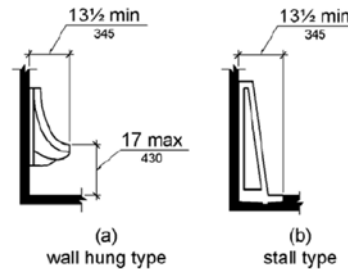
- 1) Location: The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition.
- 2) Height: The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat.
- 3) Flush Controls: Flush controls shall be hand operated or automatic. Hand operated flush controls shall be installed 36 inches (915 mm) maximum above the finish floor.
- 4) Dispensers:
  - Toilet paper dispensers shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser.
  - The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor.

#### **4. URINALS**

**Height and Depth:** Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13½ inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.

**Clear Floor Space:** A clear floor or ground space positioned for forward approach shall be provided.

**Flush Controls:** Flush controls shall be hand operated or automatic.



**Figure 29: Height and Depth of Urinals**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

#### **5. LAVATORIES AND SINKS**

**Clear Floor Space:** A clear floor space, positioned for a forward approach, and knee and toe clearance shall be provided.

**Exceptions:**

- 1) A parallel approach shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided and to wet bars.
- 2) A lavatory in a toilet room or bathing facility for a single occupant accessed only through a private office and *not for common use or public use* shall not be required to provide knee and toe clearance.
- 3) In *residential dwelling units*, cabinetry shall be permitted under lavatories and kitchen sinks provided that:
  - a) the cabinetry can be removed without removal or replacement of the fixture
  - b) the finish floor extends under the cabinetry; and
  - c) the walls behind and surrounding the cabinetry are finished.

Exceptions:

- 4) A knee clearance of 24 inches (610 mm) minimum above the finish floor or ground shall be permitted at lavatories and sinks used primarily by children 6 through 12 years where the rim or counter surface is 31 inches (785 mm) maximum above the finish floor or ground.
- 5) A parallel approach shall be permitted to lavatories and sinks used primarily by children 5 years and younger.
- 6) The dip of the overflow shall not be considered in determining knee and toe clearances.
- 7) No more than one bowl of a multi-bowl sink shall be required to provide knee and toe clearance.

Height: Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

Exceptions:

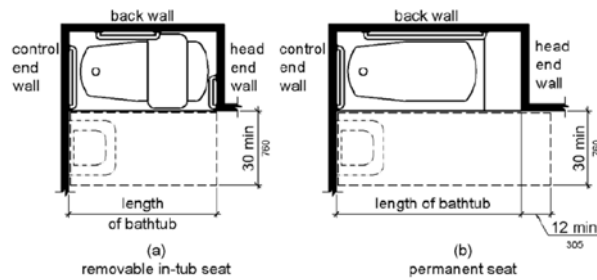
- 1) A lavatory in a toilet or bathing facility for a single occupant accessed only through a private office and *not for common use or public use* shall not be required to comply with the above.
- 2) In *residential dwelling unit kitchens*, sinks that are adjustable to variable heights, 29 inches (735 mm) minimum and 36 inches (915 mm) maximum, shall be permitted where rough-in plumbing permits connections of supply and drain pipes for sinks mounted at the height of 29 inches (735 mm).

Faucets: Hand-operated metering faucets shall remain open for 10 seconds minimum.

Exposed Pipes and Surfaces: Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

**6. BATHTUBS**

**Clearance:** Clearance in front of bathtubs shall extend the length of the bathtub and shall be 30 inches (760 mm) wide minimum. A lavatory shall be permitted at the control end of the clearance. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.



**Figure 30: Clearance for Bathtubs**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**Seat:** A permanent seat at the head end of the bathtub or a removable in-tub seat shall be provided.

**Grab Bars:**

**Exceptions:**

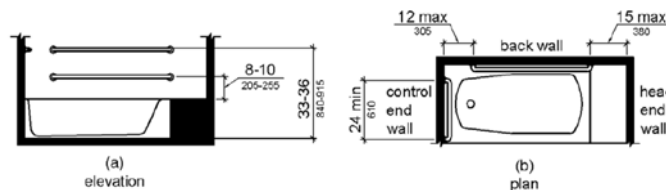
Provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars:

- Grab bars **shall not be** required to be installed in a bathtub located in a bathing facility for a single occupant accessed only through a private office and *not for common use or public use*
- grab bars **shall not be** required to be installed in bathtubs located in bathing facilities of *residential dwelling units*.

**GRAB BARS:**

1) **Bathtubs with Permanent Seats:**

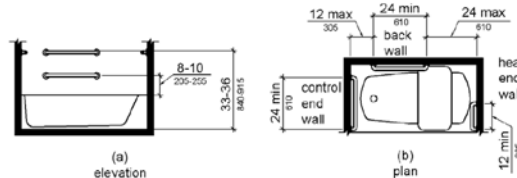
- a) **Back Wall:** Two grab bars shall be installed on the back wall, one located in accordance with Chapter 6 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub.
- b) **Control End Wall:** A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.



**Figure 31: Grab Bars for Bathtubs with Permanent Seats**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

2) **Bathtubs Without Permanent Seats**

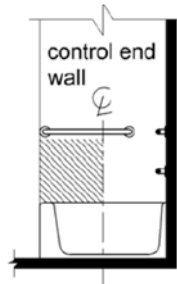
- a) **Back Wall:** Two grab bars shall be installed on the back wall, one located in accordance with Chapter 6 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub.
- b) **Control End Wall:** A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.
- c) **Head End Wall:** A grab bar 12 inches (305 mm) long minimum shall be installed.



**Figure 32: Grab Bars for Bathtubs with Removable In-Tub Seats**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Controls:

- Controls, other than drain stoppers, shall be located on an end wall. Controls shall be between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub.



**Figure 33: Bathtub Control Location**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Shower Spray Unit and Water:

- A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided.
- The shower spray unit shall have an on/off control with a non-positive shut-off.
- If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.

Bathtub Enclosures:

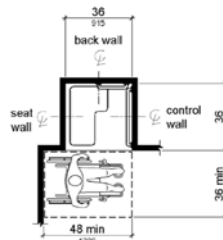
- Enclosures for bathtubs **shall not** obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs.
- Enclosures on bathtubs **shall not** have tracks installed on the rim of the open face of the bathtub.



**7. SHOWER COMPARTMENTS**

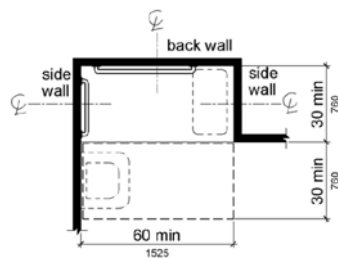
Size and Clearances for Shower Compartments:

- 1) Transfer Type Shower Compartments: Transfer type shower compartments shall be 36 inches (915 mm) by 36 inches (915 mm) clear inside dimensions measured at the center points of opposing sides and shall have a 36 inch (915 mm) wide minimum entry on the face of the shower compartment.



**Figure 34: Transfer Type Shower Compartment Size and Clearance**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

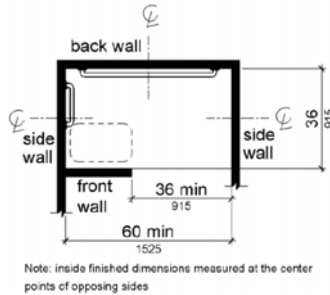
- 2) Standard Roll-In Type Shower Compartments. Standard roll-in type shower compartments shall be 30 inches (760 mm) wide minimum by 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides and shall have a 60 inches (1525 mm) wide minimum entry on the face of the shower compartment.



Note: inside finished dimensions measured at the center points of opposing sides

**Figure 35: Standard Roll-In Type Shower Compartment Size and Clearance**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

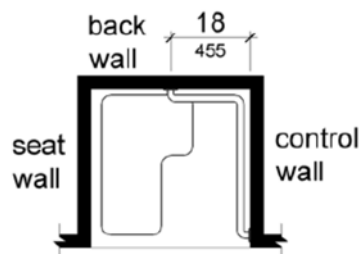
- 3) Alternate Roll-In Type Shower Compartments. Alternate roll-in type shower compartments shall be 36 inches (915 mm) wide and 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides. A 36 inch (915 mm) wide minimum entry shall be provided at one end of the long side of the compartment.



**Figure 36: Alternate Roll-In Type Shower Compartment Size and Clearance**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

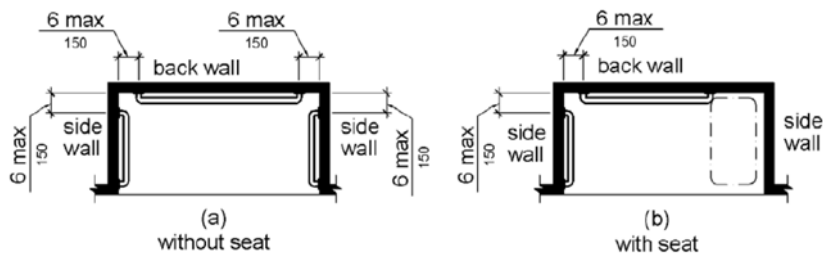
Grab Bars:

- 1) Transfer Type Shower Compartments. In transfer type compartments, grab bars shall be provided across the control wall and back wall to a point 18 inches (455 mm) from the control wall.



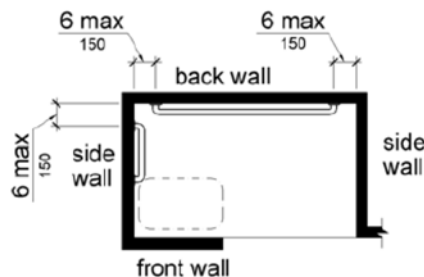
**Figure 37: Grab Bars for Transfer Type Showers**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

- 2) Standard Roll-In Type Shower Compartments. Where a seat is provided in standard roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall opposite the seat. Where a seat is not provided in standard roll-in type shower compartments, grab bars shall be provided on three walls. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.



**Figure 38: Grab Bars for Standard Roll-In Type Showers**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

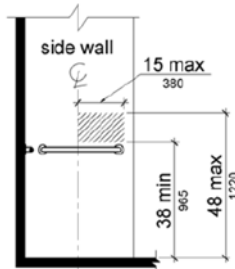
- 3) Alternate Roll-In Type Shower Compartments: In alternate roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall farthest from the compartment entry. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.



**Figure 39: Grab Bars for Alternate Roll-In Type Showers**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

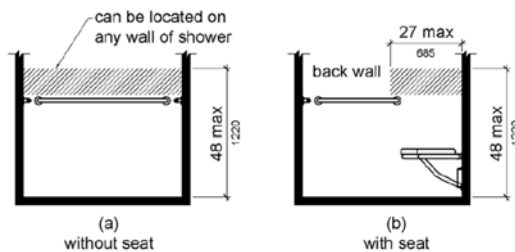
Controls:

- 1) Transfer Type Shower Compartments. In transfer type shower compartments, the controls, faucets, and shower spray unit shall be installed on the side wall opposite the seat 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor and shall be located on the control wall 15 inches (380 mm) maximum from the centerline of the seat toward the shower opening.



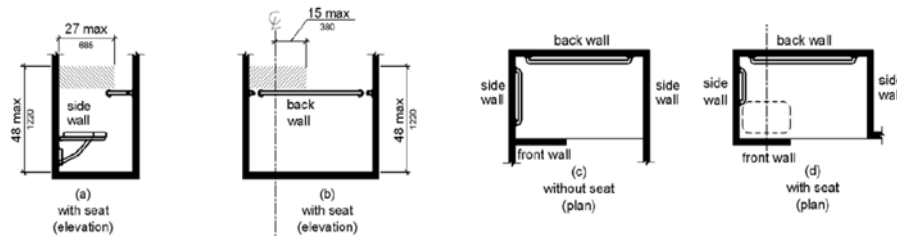
**Figure 40: Transfer Type Shower Compartment Control Location**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

- 2) Standard Roll-In Type Shower Compartments. In standard roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be installed on the back wall adjacent to the seat wall and shall be located 27 inches (685 mm) maximum from the seat wall.



**Figure 41: Standard Roll-In Type Shower Compartment Control Location**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

- 3) Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor.



**Figure 42: Alternate Roll-In Type Shower Compartment Control Location**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

SHOWER SPRAY UNIT AND WATER:

- A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided.
- The shower spray unit shall have an on/off control with a non-positive shut-off.
- If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars.
- Shower spray units shall deliver water that is 120°F (49°C) maximum.

Exception: A fixed shower head located at 48 inches (1220 mm) maximum above the shower finish floor shall be permitted instead of a hand-held spray unit in **facilities that are not medical care facilities, long-term care facilities, transient lodging guest rooms, or residential dwelling units.**

Thresholds:

- Thresholds in roll-in type shower compartments shall be ½ inch (13 mm) high maximum.
- In transfer type shower compartments, thresholds ½ inch (13 mm) high maximum shall be beveled, rounded, or vertical.

Exception: A threshold 2 inches (51 mm) high maximum shall be permitted in transfer type shower compartments *in existing facilities* where provision of a ½ inch (13 mm) high threshold would disturb the structural reinforcement of the floor slab.

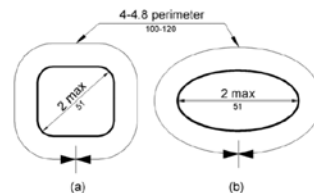
Shower Enclosures:

- Enclosures for shower compartments shall not obstruct controls, faucets, and shower spray units or obstruct transfer from wheelchairs onto shower seats.

**8. GRAB BARS**

Cross Section:

- 1) Circular Cross Section: Grab bars with circular cross sections shall have an outside diameter of 1¼ inches (32 mm) minimum and 2 inches (51 mm) maximum.
- 2) Non-Circular Cross Section: Grab bars with non-circular cross sections shall have a cross-section dimension of 2 inches (51 mm) maximum and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

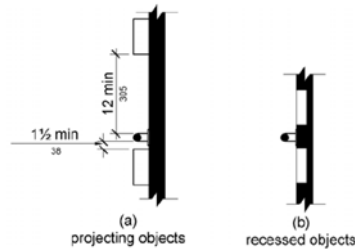


**Figure 43: Grab Bar Non-Circular Cross Section**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Spacing:

- The space between the wall and the grab bar shall be 1½ inches (38 mm). The space between the grab bar and projecting objects below and at the ends shall be 1½ inches (38 mm) minimum.
- The space between the grab bar and projecting objects above shall be 12 inches (305 mm) minimum.



**Figure 44: Spacing of Grab Bars**

(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

Position of Grab Bars:

- Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface.
- At water closets *for children's use*, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface.

Surface Hazards: grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges.

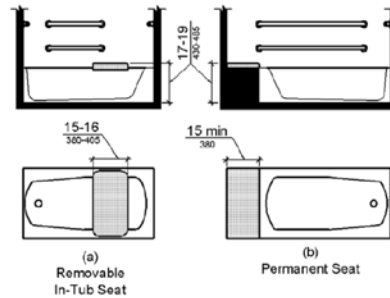
Fittings: Grab bars shall not rotate within their fittings.

Structural Strength: Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the grab bar, fastener, mounting device, or supporting structure.

**9. SEATS**

**BATHTUB SEATS:**

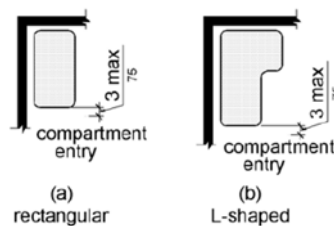
- The top of bathtub seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor.
- The depth of a removable in-tub seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum. The seat shall be capable of secure placement.
- Permanent seats at the head end of the bathtub shall be 15 inches (380 mm) deep minimum and shall extend from the back wall to or beyond the outer edge of the bathtub.



**Figure 45: Bathtub Seats**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**SHOWER COMPARTMENT SEATS:**

- In a *standard roll-in shower compartment*, the seat shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry.
- In an *alternate roll-in type shower compartment*, the seat shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches (75 mm) of the compartment entry.
- In *transfer-type showers*, the seat shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. The top of the seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor.

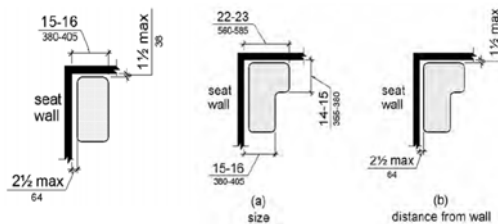


**Figure 46: Extent of Seat**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")



SHOWER COMPARTMENT SEATS:

- 1) Rectangular Seats. The rear edge of a rectangular seat shall be 2½ inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall.
- 2) L-Shaped Seats. The rear edge of an L-shaped seat shall be 2½ inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall.

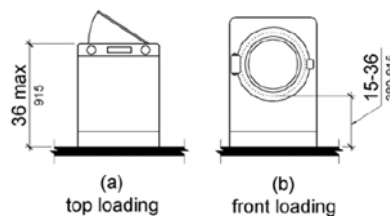


**Figure 47: Rectangular Shower Seat and L-Shaped Shower Seats**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

**10. WASHING MACHINES AND CLOTHES DRYERS**

Clear Floor Space: A clear floor or ground space positioned for parallel approach shall be provided. The clear floor or ground space shall be centered on the appliance.

Height: Top loading machines shall have the door to the laundry compartment located 36 inches (915 mm) maximum above the finish floor. Front loading machines shall have the bottom of the opening to the laundry compartment located 15 inches (380 mm) minimum and 36 inches (915 mm) maximum above the finish floor.



**Figure 48: Height of Laundry Compartment Opening**  
(Source: Department of Justice, "2010 ADA Standards for Accessible Design")

## THANK YOU FOR LISTENING!

*This concludes our presentation, and we hope that you enjoyed it.*

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## REFERENCES

This interactive presentation was adapted from Chapter 4 and Chapter 6 of the U.S. Department of Justice Publication, "2010 ADA Standards for Accessible Design".

## COURSE PROVIDER BIOGRAPHY

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