

# Universal Design Guide

## Washrooms & Showers



Accessories

Faucets

Showers

Toilets

Lavatories

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# Accessible Stall Design

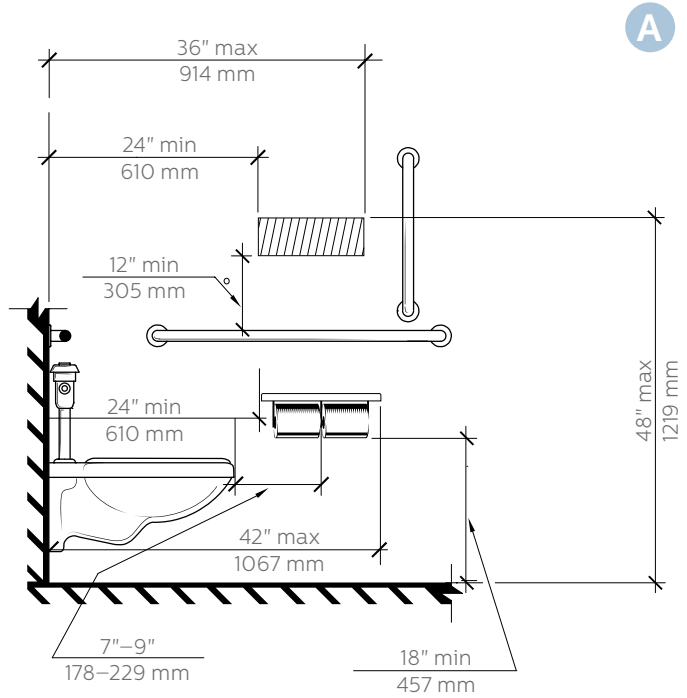
There are many dimensions to consider when designing an accessible bathroom stall. Distances should allow for common usage by people with a limited range of motion.

**A** Dimension guidelines when dispensers protrude from the wall in toilet rooms and toilet compartments.

Anything that a person might need to reach should be a maximum of 48" (1219mm) off of the finished floor.

Toilet tissue needs to be easily within arm's reach. The outlet of a tissue dispenser must be between 24" (610mm) minimum and 42" (1067mm) maximum from the back wall, and per the ANSI standard, at least 18" above the finished floor. The ADA guide defines "easily with arm's reach" as being within 7-9" (178-229 mm) from the front of the bowl and at least 15" (381mm) above the finished floor (48" (1219mm) maximum).

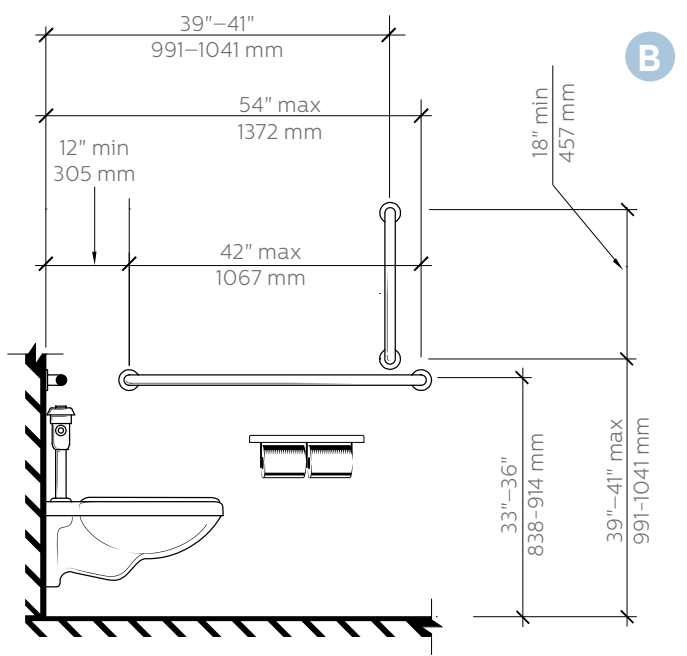
Door latches or other operable parts cannot require tight grasping, pinching, or twisting of the wrist. They must be operable with one hand, using less than five pounds of pressure.



**B** Dimensions for grab bars.

Grab Bars need to be mounted lower for better leverage (33-36" (838-914 mm) high). Horizontal side wall grab bars need to be 42" (1067mm) minimum length.

Vertical grab bars are not yet covered in the ADA guidelines, however, ANSI specifies the dimensions shown in the diagram.



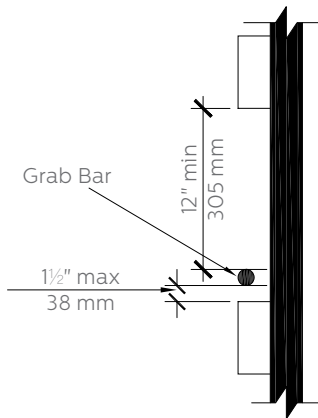
**C**

Dimensions are shown for grab bars installed with protruding or recessed dispensers.

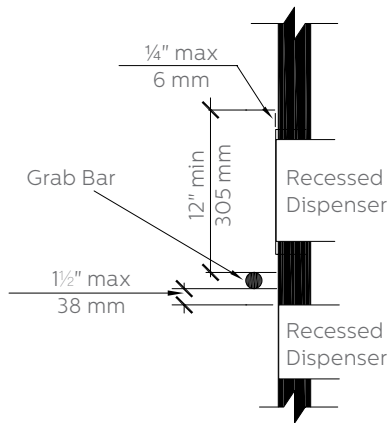
Protruding (non-recessed) dispensers must be more than 12" (305mm) above or 1/2" (38mm) below or at the end of grab bars. ANSI allows recessed dispensers at the ends of the grab bar. Recessed dispensers are allowed within the 12" (305mm) space above and 1/2" (38mm) space below and at the end of a grab bar, for ADA the recessed dispenser must be flush. However, ANSI allows for 1/4" (6mm) projection in the allowed area. For ADA and ANSI, nothing can be installed directly behind the grab bar.

**C**

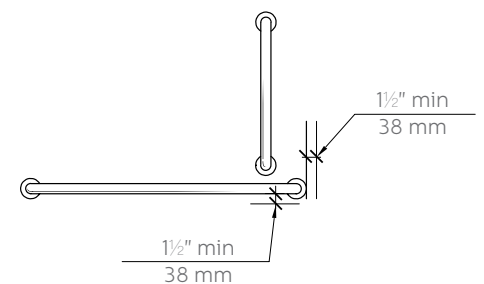
Protruding dispensers (Side View)



Recessed dispensers (Side View)



Front View

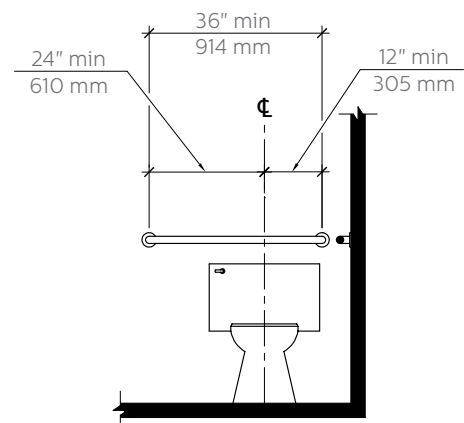


**D**

Dimensions for rear grab bar installation.

Rear wall grab bars must be 36" (914mm) long, and mounted so 24" (610mm) are to the transfer side of the toilet and the other 12" (305mm) to the wall side. The rear grab bar can be split or shifted to the open side to accommodate the required location of the flush control valves.

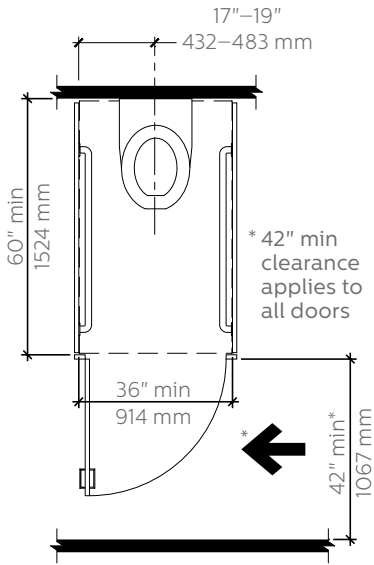
**D**



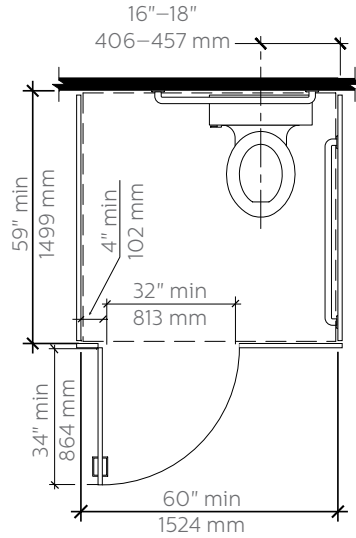
Be sure to verify all accessibility guidelines with your local codes, as they are often more strict than national codes.

## Stall Dimensions

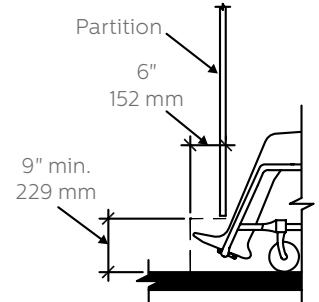
Ambulatory  
 Compartment



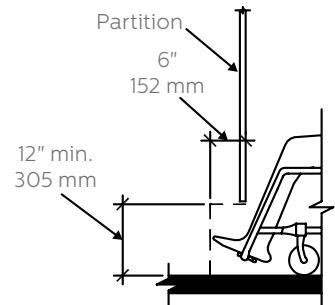
Wheelchair Accessible  
 Compartment Floor Mounted  
 Water Closet (Adult/Child)



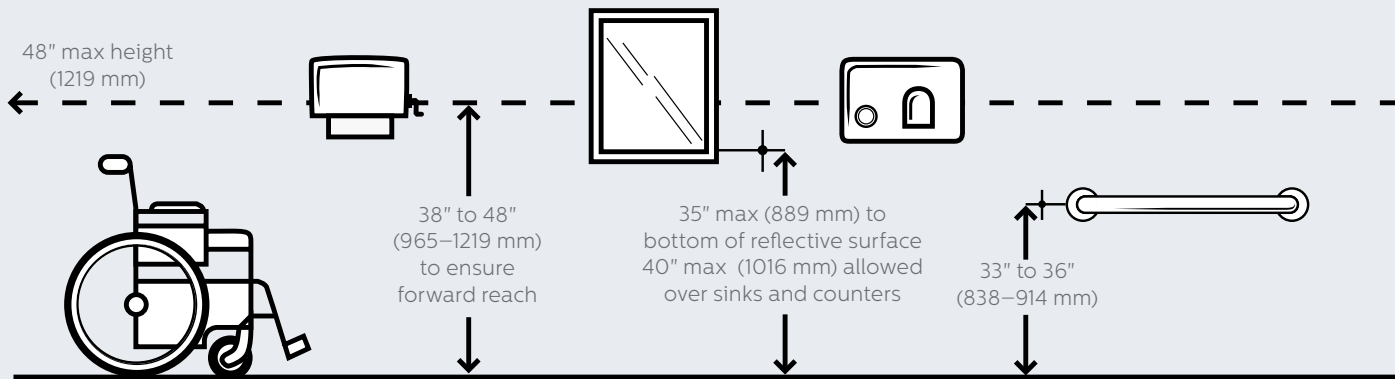
Toe Clearance  
 (Adult)



Toe Clearance  
 (Children)

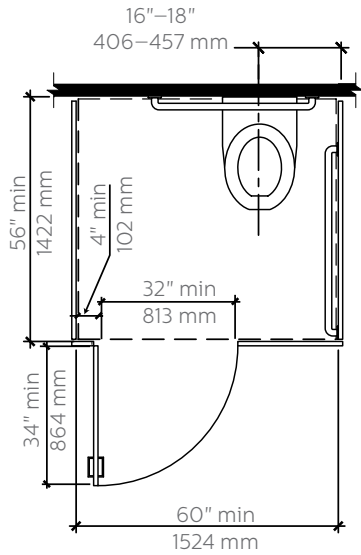


## Forward & Side Approaches for Unobstructed Reach

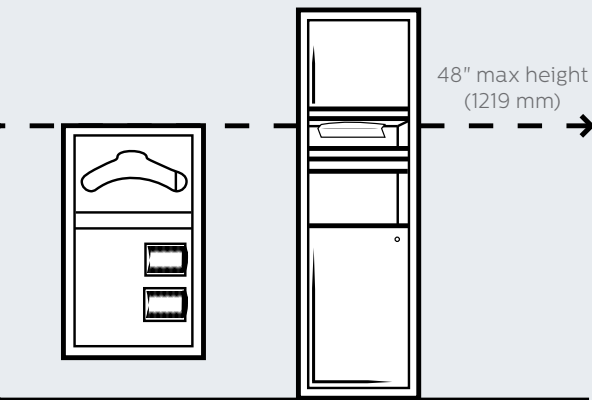
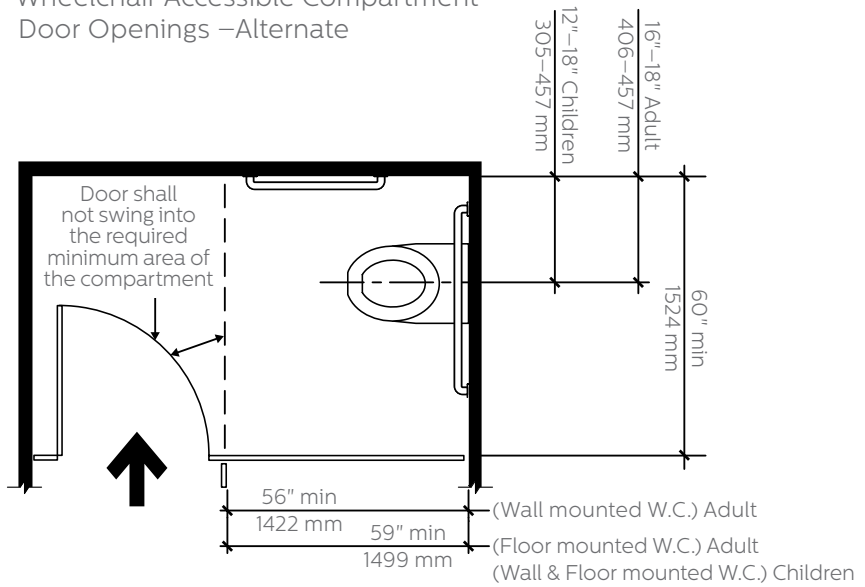


Dimensions change if mounted over counter or lavatory.  
 Operable parts must be beneath maximum height.

Wheelchair Accessible  
 Compartment Wall Mounted  
 Water Closet (Adult)



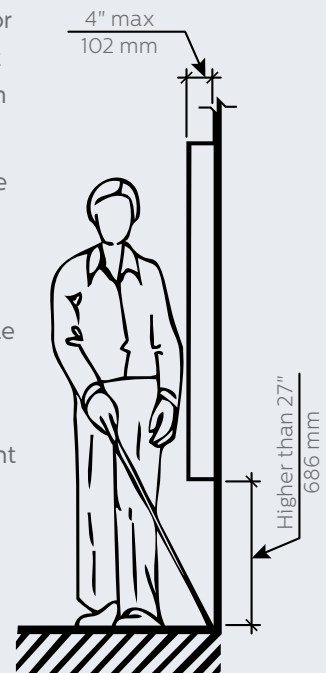
Wheelchair Accessible Compartment  
 Door Openings –Alternate



In order to create a safe environment for visually impaired patrons, fixtures must be detectable with a cane. The diagram above highlights this requirement.

ADA guidelines state that fixtures above 27" (686 mm) must not protrude from the wall more than 4" (102 mm). A low fixture such as a waste receptacle can satisfy this requirement if it is detectable below the protruding fixture (usually hand dryers or towel dispensers).

Keep in mind that it's always important to double check requirements with local codes, as these supersede Federal requirements.



## Single Occupant Room

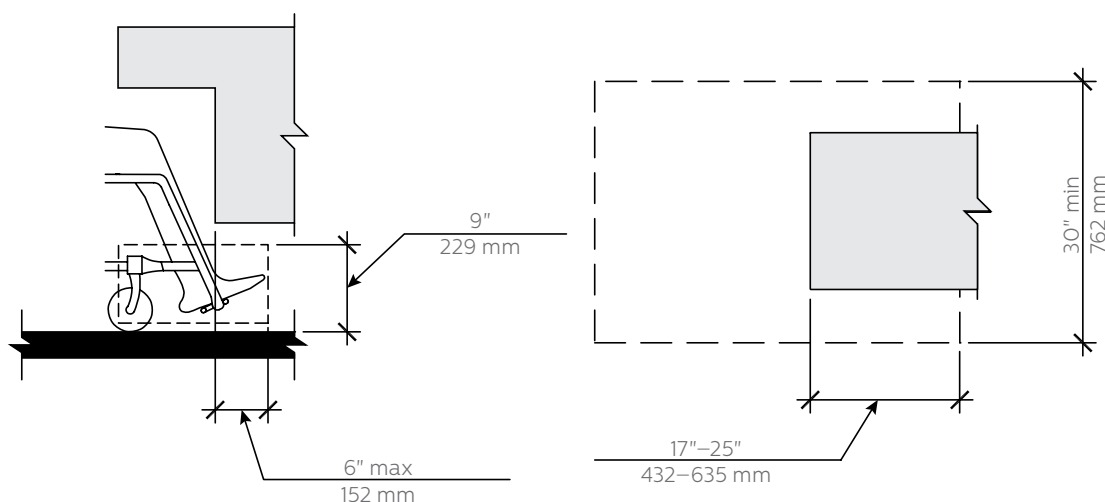
**A** Single occupant restroom design should allow for a patron to enter the room and maneuver to all fixtures from a wheelchair. The diagram at left shows how the ADA required dimensions create an environment that is accessible to anyone. These requirements may be change depending on the specific application.

Check your local codes to be sure.

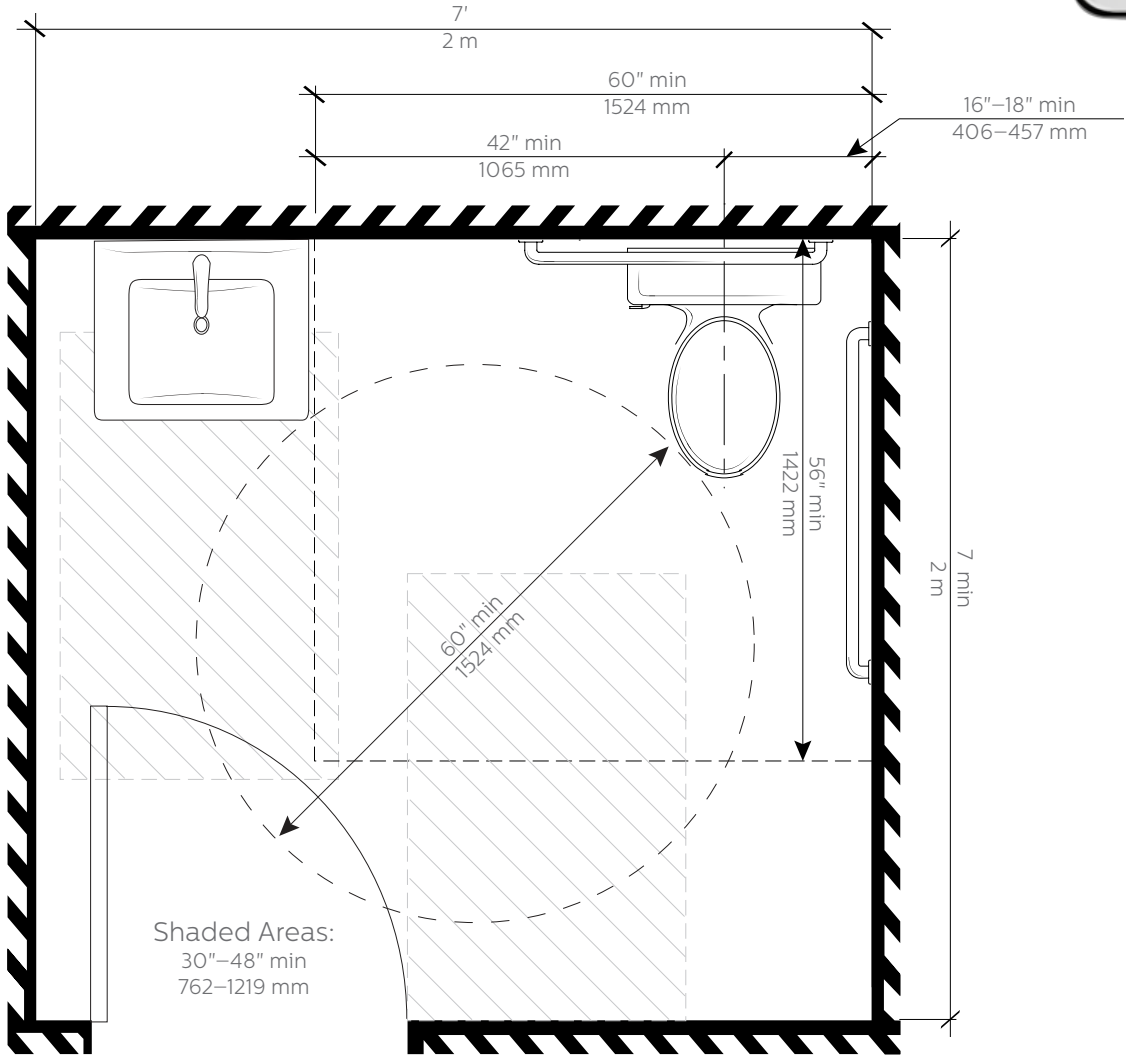
- Sinks must have 30" x 48" (762 x 1219 mm) of access. Measurement starts from the point where a person has 9" vertical clearance for their feet and 27" vertical clearance for their knees. ①
- The center line of the toilet must be between 16"–18" (406–457 mm) from the wall. This distance ensures that grab bars can be effectively used to maneuver one's self as needed.
- 30" x 48" (762 x 1219 mm) of clear floor space is required in every restroom. When 30" x 48" (762 x 1219 mm) clear floor space is provided beyond the arc of the door swing (shaded area to right of door opening), the door is permitted to swing into the clear floor space or clearance required for any fixture.
- A door may swing into a required wheelchair turning space. A door may not swing into a required clear floor or ground space at a fixture. However, an exception is made in single occupancy toilet rooms if another required clear floor or ground space is available that is outside of the radius of the door swing (section 603.2.3). This allows the wheelchair user adequate room to maneuver out of the path of the door.

Be sure to verify all distances and heights with your local codes to ensure compliance.

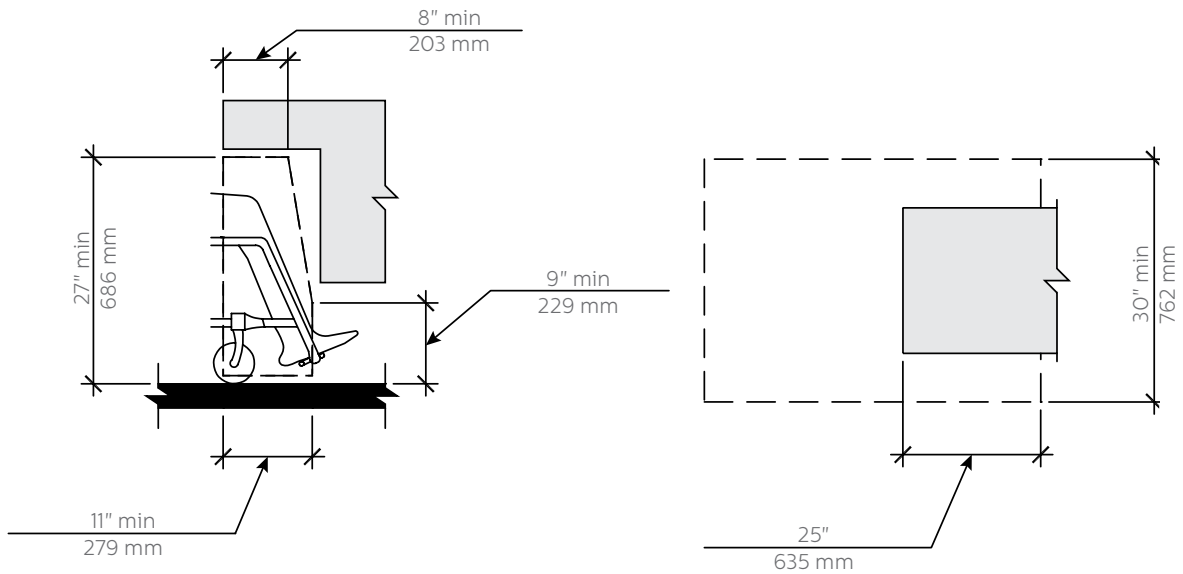
### ① Toe Clearance



A



1 Knee Clearance



# Bradley Accessibility Solutions

## A Frequency® Lavatory Systems    B Towel Dispenser/Waste Receptacles

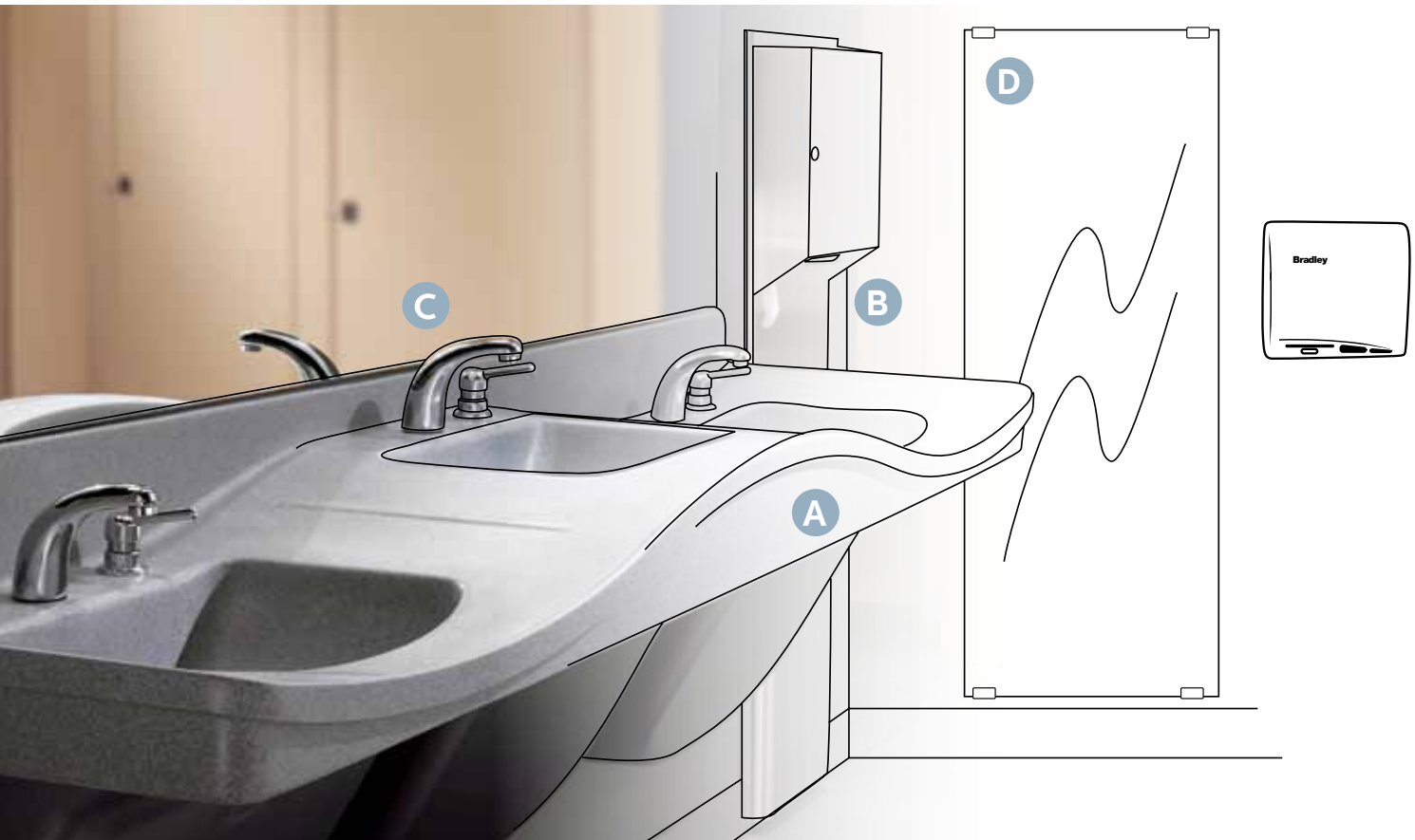
Frequency® lavatory systems feature a wave design that offers a unique solution for meeting ADA needs and standard height washing comfort. All Bradley Lavatory fixtures are designed so that ADA toe and knee clearance starts at the wall.

Combination towel dispenser / waste receptacles provide practical use of space. To avoid a hazardous restroom, install towel dispensers next to the sink. This is more convenient for people with disabilities as well. In order to meet the 4" (102mm) maximum limit for objects that protrude into the circulation path, consider recessed accessories.

## C Capacitive Sensing faucets    D Mirrors

Bradley's Capacitive Sensing Faucets automatically activate water flow through proximity sensing. Activation without grasping, pinching, or applying more than 5 lb pressure is required by ADA Guidelines.

ADA compliance requires at least one mirror with the reflective surface beginning no higher than 40" (1016 mm) off the ground. Bradley recommends installing a full length mirror next to the sink to satisfy this requirement. This is a more convenient solution for people who use a wheelchair, and ensures compliance with any state or local code.





## E Grab Bars

The ADA emphasizes grab bar installation because they help the individual maintain balance, transfer, and prevent falls. Bradley offers grab bars in various lengths, styles and finishes to fit any application.

## F Toilet Tissue Dispensers

To comply with ADA, toilet tissue dispensers cannot control delivery or limit paper flow.



## G Showers

ADA Compliance for showers requires a hand-held shower head with 59" hose that can be used both as a fixed-position shower head and as a hand-held shower. Shower controls must require less than 5 lb of pressure with no grasping. Bradley offers several options for accessible showers.

## H Shower seats

Bradley offers a variety of shower seats for ADA compliance, including bariatric models. Select anti-microbial models available.

ANSI requires 18" (457mm) minimum vertical grab bars in addition to the horizontal bars required in accessible toilet or shower stalls.

# Accessibility Standards & Guides

The two primary sources for accessibility information are:

- The Americans with Disabilities Act (ADA) – Architectural Barriers Act (ABA) Accessibility Guidelines (ADAAG)
- The American National Standards Institute (ICC/ANSI A117.1)

Many people use the term "ADA compliant" generically even if they mean compliant to a different accessibility guide or code that applies to their specific building. ADA is a federal civil rights statute, not a building code. Though not enforced by building code officials, failure to comply is enforced through legal action from the Department of Justice.

## Accessibility Guidelines

	Organization	Applicable to
<b>UFAS</b>	Uniform Federal Accessibility Standards <a href="http://www.access-board.gov/ufas/ufas-html/ufas.htm">http://www.access-board.gov/ufas/ufas-html/ufas.htm</a>	Certain governmental organizations
<b>ADAAG</b>	Americans with Disabilities Act Accessibility Guide <a href="http://www.access-board.gov/ada-aba/final.cfm">http://www.access-board.gov/ada-aba/final.cfm</a>	Private sector facilities and state and local government facilities
<b>ANSI*</b>	American National Standards Institute A117.1 <a href="http://www.access-board.gov/links/statecodes.htm">http://www.access-board.gov/links/statecodes.htm</a>	Most state building codes

\* The American National Standards Institute is a commercial standards setting organization.

A copy of the guides can be purchased at the ICC website:

<http://www.iccsafe.org/Store/Pages/Category.aspx?cat=ICCSafe&category=100&parentcategory=Store Products>

## State Codes

Accessibility codes may be part of a state's building codes or may be stand-alone codes developed by a separate state agency or department. Most state building codes have adopted ANSI A117.1, ADAAG, or a modification of the Standard, as the State Accessibility Code, thus making it enforceable. Always refer to your state's building codes to ensure compliance:

<http://www.access-board.gov/links/statecodes.htm>



## Federal Organizations & Accessibility

	Organization	Applicable to	Applicable Guidelines
<b>DOD</b>	Department of Defense	Department of Defense installations	UFAS
	<a href="http://www.access-board.gov/ada-aba/aba-standards-dod.cfm">http://www.access-board.gov/ada-aba/aba-standards-dod.cfm</a>		
<b>DOJ</b>	Department of Justice	Public accommodation, Commercial or State and Local Government facility installations except for Transportation facilities	DOJ or UFAS
	<a href="http://www.ada.gov/2010ADASTandards_index.htm">http://www.ada.gov/2010ADASTandards_index.htm</a>		
<b>DOT</b>	Department of Transportation	Department of Transportation installations	UFAS
	<a href="http://www.dot.gov/citizen_services/disability/disability.html">http://www.dot.gov/citizen_services/disability/disability.html</a>		
<b>USPS</b>	United States Postal Service	Postal Facilities	UFAS
	<a href="http://www.access-board.gov/ada-aba/aba-standards-usps.cfm">http://www.access-board.gov/ada-aba/aba-standards-usps.cfm</a>		
<b>HUD*</b>	Department of Housing and Urban Development	Residential Structures covered by the ABA, except those funded by the DOD	ABA
	<a href="http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/disabilities/accessibilityR">http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/disabilities/accessibilityR</a>		
<b>GSA</b>	General Service Administration	Buildings subject to accessibility standards but not other standard-setting organizations	UFAS & ADA/ABA
	<a href="http://www.gsa.gov/portal/content/100850">http://www.gsa.gov/portal/content/100850</a>		

\* Fair Housing Act Design Standard



# Advocate Lavatory System

## All-in-One Touchless Handwashing Convenience

While restrooms with separate areas for handwashing and drying certainly meet ADA, maintaining the whole experience at one fixture is easier for anyone with impaired mobility. Imagine someone washing their hands then wheeling over to the dryer or towel dispenser. Their hands will be dirty by the time they reach the dryer and quite possibly have dripped all over their clothes, the chair or the floor before reaching the drying area. A wet floor is a potential slip hazard. The Advocate Lavatory System is a unique all-in-one handwashing and hand drying fixture with touchless activation of soap, water and dryer. The Advocate provides all users with the convenience and safety of having all necessary components within easy reach.



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