

ADA *2010*



Pocket Guide

Plumbing Edition

Compiled and Illustrated by Jim Wonder

The following material illustrates common points of interest encountered in plumbing accessibility according to uniform standard practices. However, it is not designed to address every possible scenario. Furthermore, it is not meant to supersede local jurisdiction codes or U.S. Department of Justice administrative rulings on the Americans with Disabilities Act provisions regarding structural accessibilities. These sources should always be consulted as the definitive authorities. The author holds no liability.

Americans with Disabilities Act 2010 section numbers are included.

This document does not include technical requirements for children's dimensions and anthropometrics.

Table of Contents

Drinking Fountains	4	Lavatories	26
Spout Height	5	Heights/Clearances	26
Clearance	7	Exposed Pipes/Surfaces	29
Spout Location	9	Faucets	30
Urinals	10	Bathtubs	31
Flush Controls	11		
Clear Floor Space	12	Shower Stalls	34
Water Closet	13	Sinks (Non-Lavatory)	44
Flush Controls and Grab Bars	14		
Toilet Stalls	20	Restroom Layouts	47

Drinking Fountains

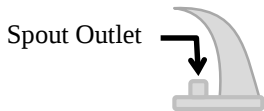
No fewer than *two* drinking fountains shall be provided per floor: one that is accessible to individuals who use wheelchairs and one accessible to those who have difficulty bending or stooping. Where the local plumbing code requires only one drinking fountain per floor, the requirement can be accommodated by the use of a "hi-low" fountain. (See Page 6). If you have questions, please check with the authority having jurisdiction.

When 50 percent of the drinking fountains yield a fraction, 50 percent shall be permitted to be rounded up or down provided that the total number of complying drinking fountains equals 100 percent of the required drinking fountains.

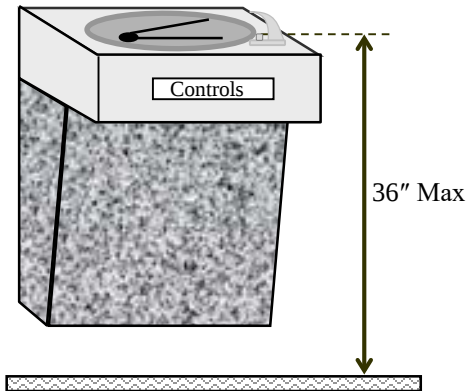
(See sections 211.2 and 211.3)

Spout Height

The spout cannot be more than 36 inches from the floor or ground to the spout outlet.

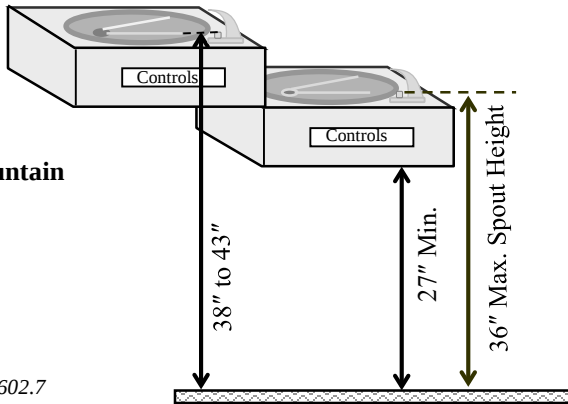


Section 602.4



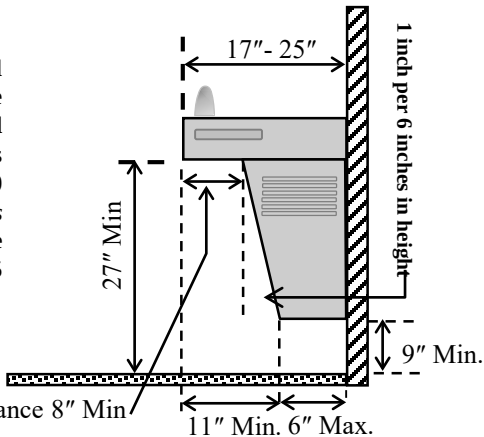
“Hi-Low” Fountain

Sections 211.2 and 602.7



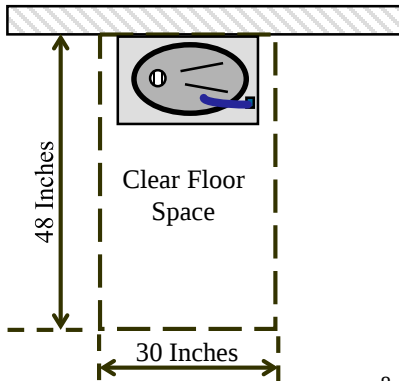
Clearances

Wall and post-mounted cantilevered units shall have a clear knee space between the bottom of the apron and the floor or ground at least 27 inches high, 8 inches minimum depth and 30 inches wide (*the fountain width does not have to be 30 inches*) and the fountain depth from 17 inches to 25 inches.



Sections 305 and 306

A clear floor space of 30 inches by 48 inches is required for the drinking fountains.

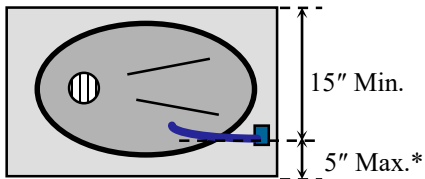


Section 305.5

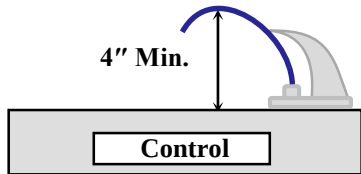
Spout Location

The spout shall provide a flow of water 4 inches high minimum and shall be located 5 inches 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. Where spouts are located less than 3 inches of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches and 5 inches maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

Sections 602.5 and 602.6

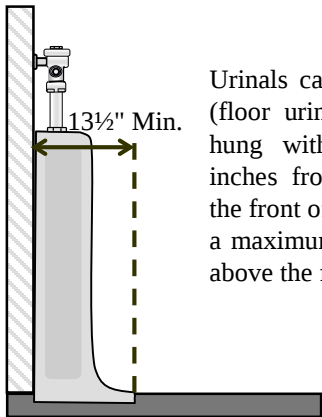


**For Parallel Approach 3½\" Max.*

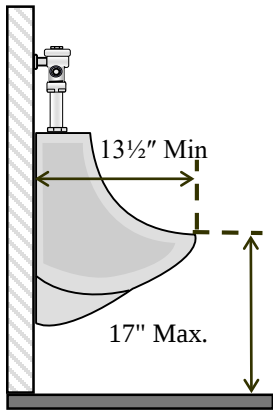


Urinals

Urinals can be stall-type (floor urinals) or wall-hung with a rim $13\frac{1}{2}$ inches from the wall to the front of the rim and at a maximum of 17 inches above the finish floor.

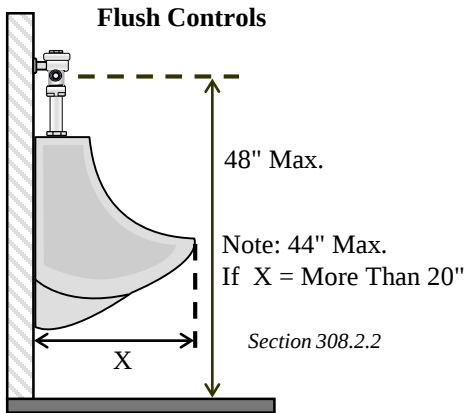


Section 605.2



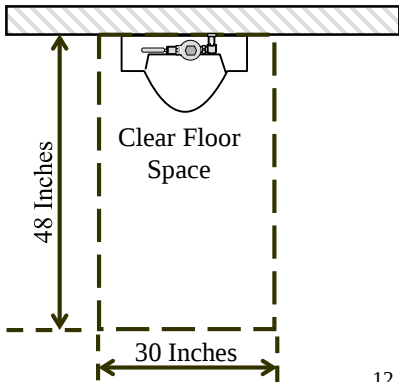
Flush controls can be *either* a hand-operated control mounted a maximum of 48 inches above the floor (*Exception: If the front of the urinal is more than 20 inches from the wall then the maximum height is 44 inches*) or an automatic device.

Note: Height requirements are NOT applicable to automatic controls. The sensor must be properly placed to activate the valve.

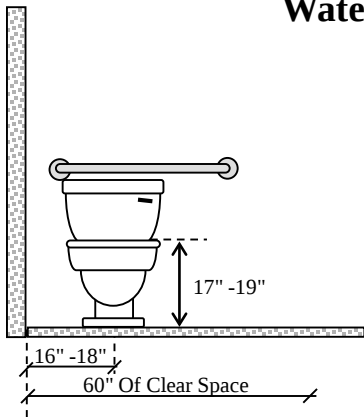


Clear Floor Space

A clear floor space of 30 inches by 48 inches is required in front of the urinal.



Water Closet



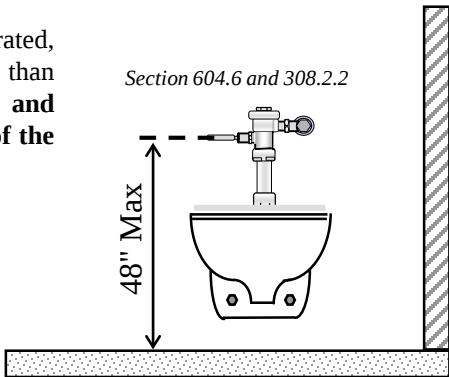
Note: Some authorities require the full 18 inches from the center of the rough-in to the wall.

Section 604.2 and 604.4

Flush Controls

Flush controls, if hand operated, are required to be no more than 48 inches above the floor **and mounted on the wide side of the toilet.**

Note: Height requirements are NOT applicable to automatic controls. The sensor must be properly placed to activate the valve.

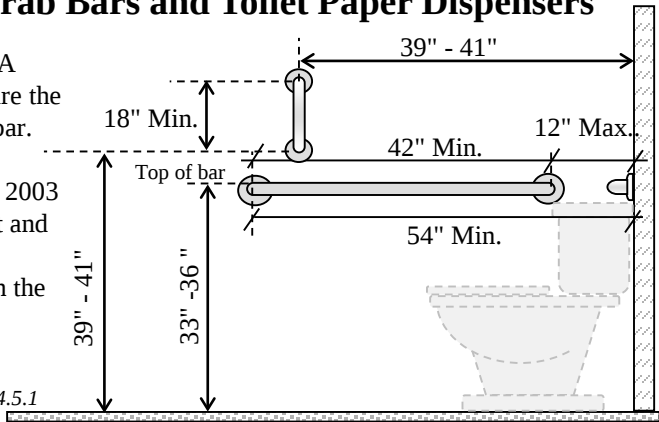


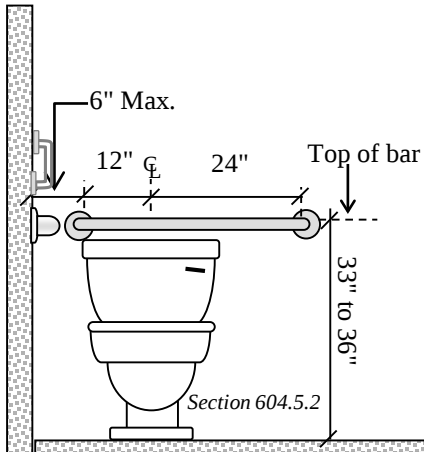
Grab Bars and Toilet Paper Dispensers

The 2010 ADA does not require the vertical grab bar.

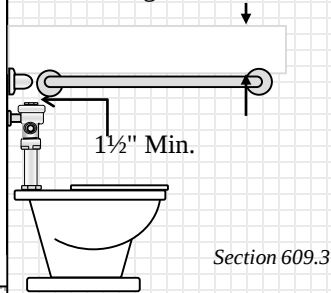
ANSI A117.1 2003 does require it and this is also a requirement in the alternate stall.

Section 604.5.1



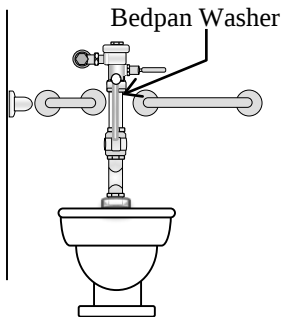


It is required to have a clear space above the grab bar of 12 inches and minimum clear space of 1½ inches below the grab bar.

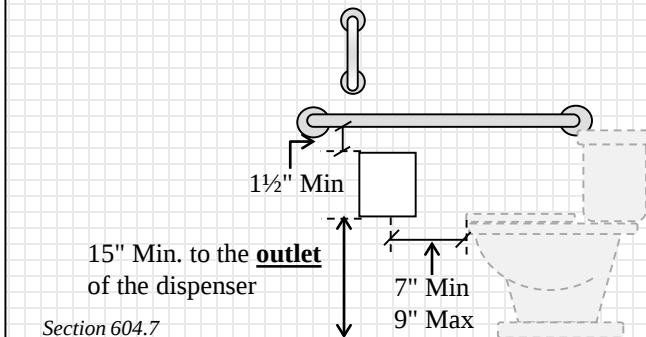


Where an *administrative authority* requires flush controls for flush valves such as for a bedpan washer to be located in a position that conflicts with the location of the rear grab bar, then the rear grab bar shall be permitted to be split or shifted to the open side of the toilet area.

Section 604.5.2



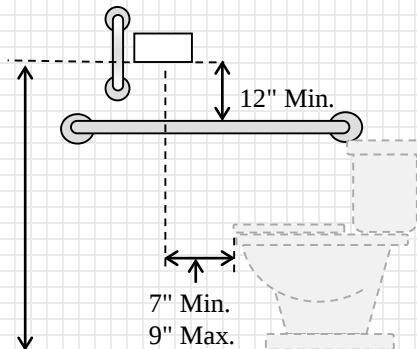
Toilet paper dispensers below the grab bar



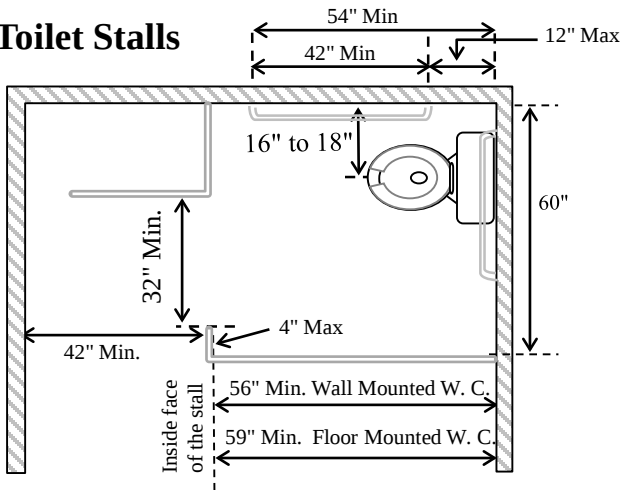
Toilet paper dispensers above the grab bar

48" Max. to the **outlet** of the dispenser

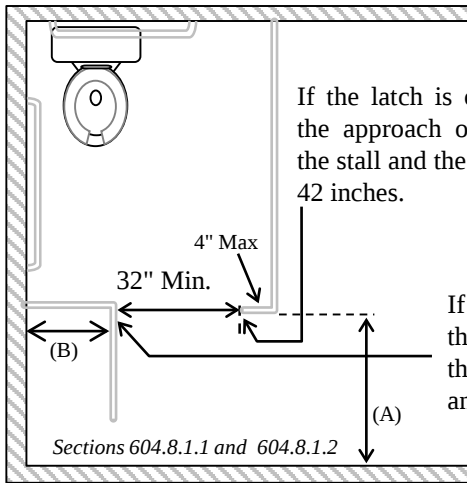
Section 604.7



Toilet Stalls

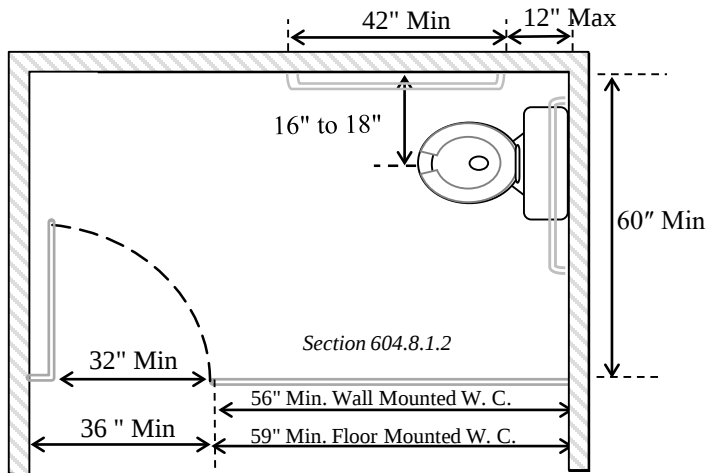


Sections 604.8.1.1
and 604.8.1.2



If the latch is on this side then the approach or space between the stall and the wall (A) shall be 42 inches.

If the latch is on the other side, the space between the stall and the wall (A) shall be 54 inches and (B) shall be 42 inches.

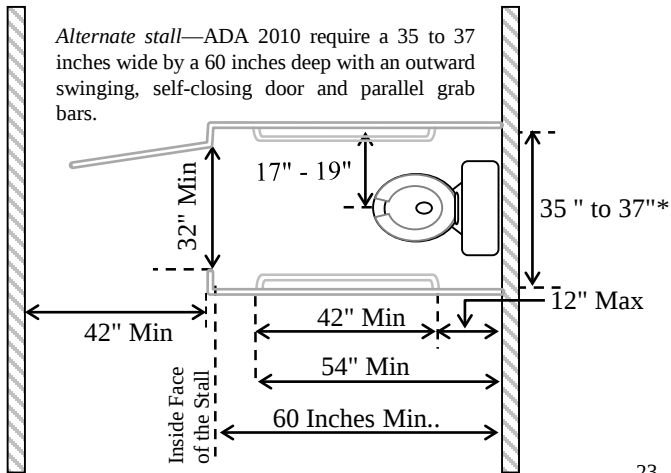


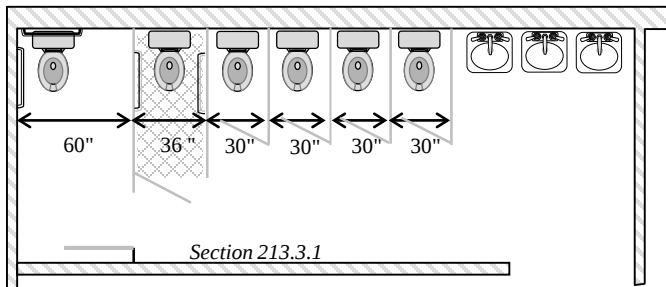
**Note:*

ANSI A117.1

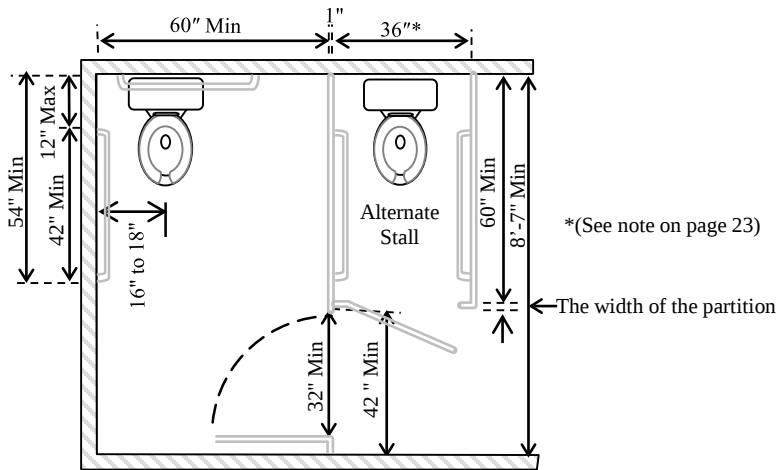
2003 requires the alternate stall to be 36" wide and vertical bars.

Section 604.8.2.1





In addition to the 60 inch wide stall an ambulatory stall shall be provided where a combination of 6 or more water closets and/or urinals are provided, (See note on page 23)

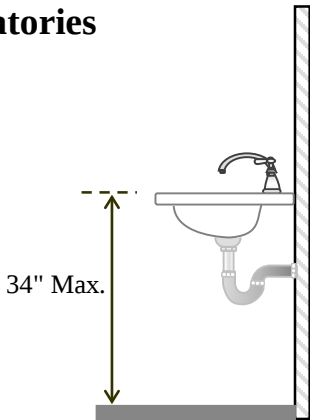


Lavatories

Heights and Clearances

Lavatories shall be mounted with the rim of the *lavatory* no higher than 34 inches above the floor.

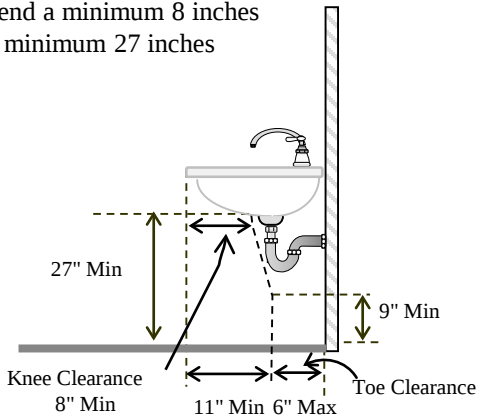
Section 606.3

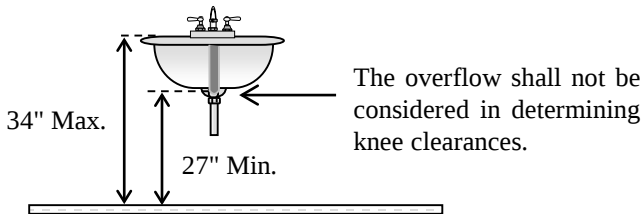


Clearance for the knees shall extend a minimum 8 inches under the lavatory at a point of a minimum 27 inches above the finish floor.

Toe clearance shall extend a minimum of 6 inches from the available knee clearance at 9 inches above the finish floor. Any space extending greater than 6 inches shall not be considered toe clearance.

Sections 306.2 (a)





Section 606.2 Exception 6

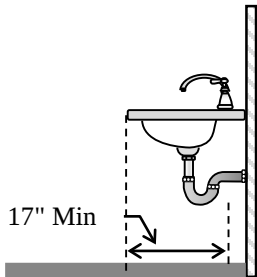
Exposed Pipes and Surfaces

Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories.

Section 606.5

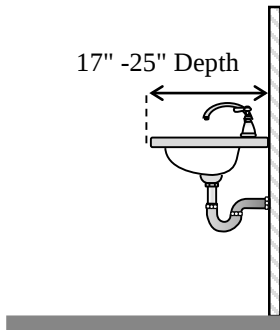
Faucets

Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs. If self-closing valves are used, the faucet shall remain open for at least 10 seconds. *Section 606.4*



The clear floor space shall extend a minimum of 17 inches underneath the lavatory.

Section 306.2.3



Section 306.3.2

Shower-Tub

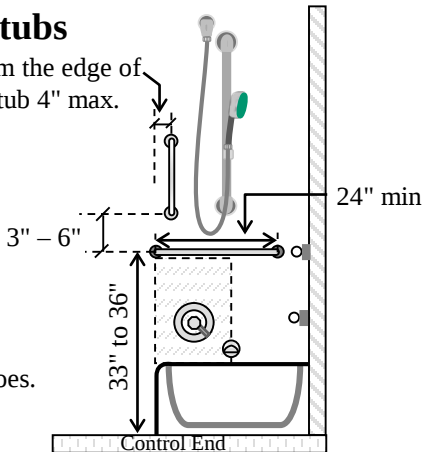
The shower shall be of a type that can be used as both a fixed shower and as a handheld shower. *Note: The head of the tub is opposite the controls. The foot of the tub is on the end shared with the controls.*

*The 2010 ADA does not require the vertical grab bar ANSI A117.1 2003 does.

Sections 607.6 and 607.7

Bathtubs

*From the edge of the tub 4" max.

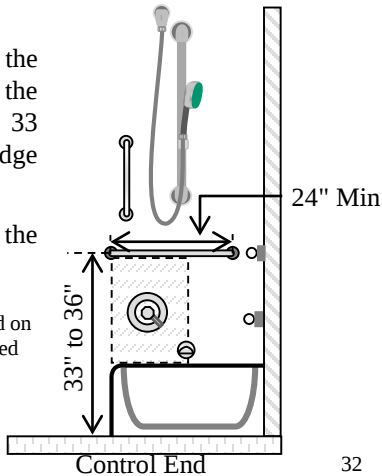


The tub valve is located from the top of the tub rim to 1½ inches of the bottom of the grab bar (the grab bar can be as low as 33 inches to the top) *and* from the outside edge of the tub to the center of the tub.

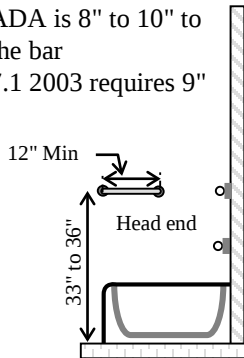
There must be 1½ inch clearance below the grab bar.

The shower spray unit (shower head) shall be mounted on a bar with a hose at least 59 inches long that can be used both as a fixed shower head and a hand-held shower.

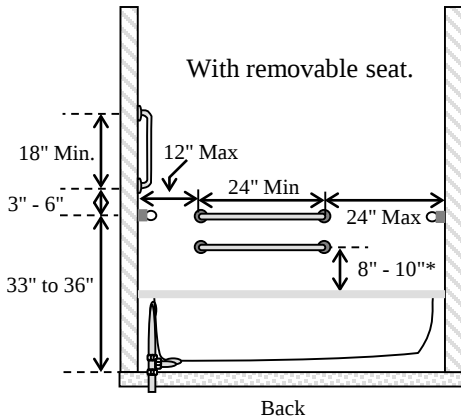
Section 607.5



*The 2010 ADA is 8" to 10" to the top of the bar
ANSI A117.1 2003 requires 9"



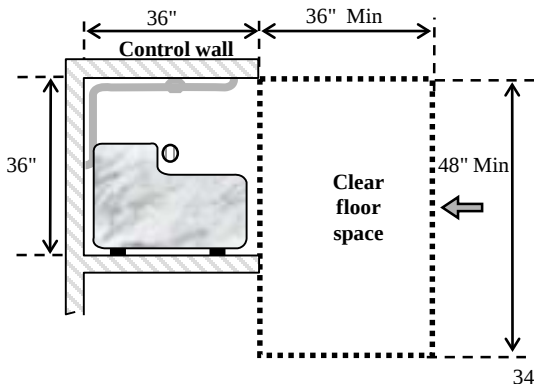
Sections 607.4.2.3 and 607.4.1.1

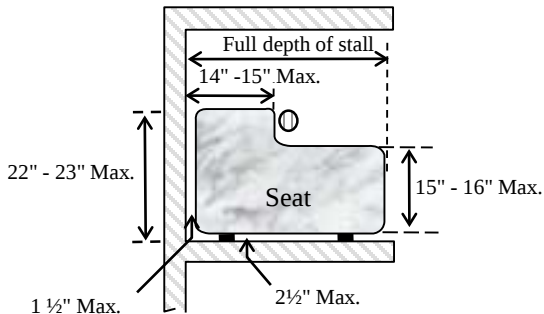
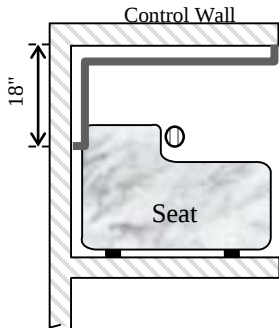


Shower stall size and clear floor space shall comply with one of the following options:
1). 36 inches by 36 inches and have a clear floor space of 36 inches by 48 inches minimum.

Section 608.2.1

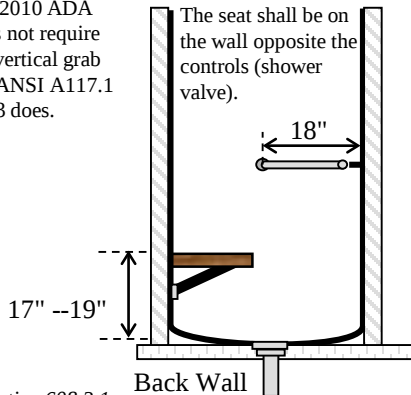
Shower Stalls



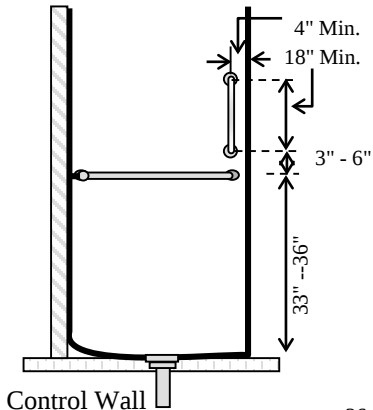


A seat shall be provided in shower stalls 36 inches by 36 inches. The seat shall be mounted 17 inches to 19 inches from the bathroom floor and shall extend the full depth of the stall with the maximum space between the wall and the seat 1½ inches.

*The 2010 ADA does not require the vertical grab bar ANSI A117.1 2003 does.



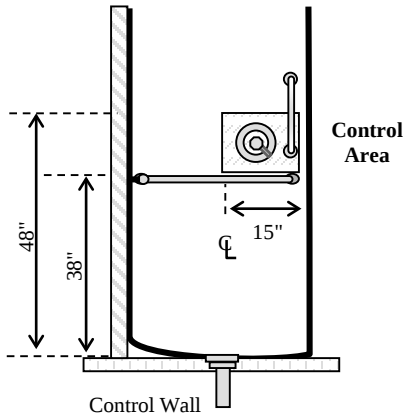
Section 608.3.1



Controls for a 36-inch by 36-inch shower stall shall be mounted on the sidewall opposite the seat. It shall have a maximum height of 48 inches and shall be no lower than 38 inches.

The shower spray unit (shower head) shall be mounted on a bar with a hose at least 59 inches long that can be used both as a fixed shower head and a hand-held shower. The lowest point of the bar for the hose should be a minimum of 1½ inches above the grab bar.

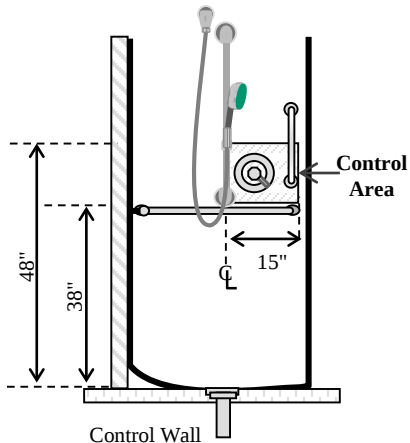
Section 608.6



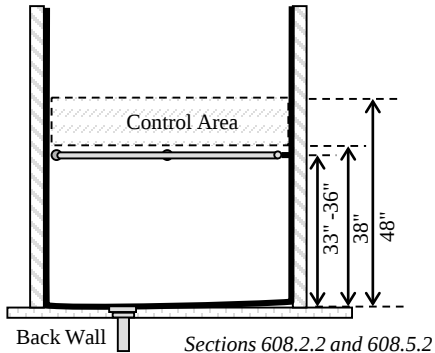
Controls for 36-inches by 36-inch shower stall shall be mounted on the sidewall opposite the seat. The controls (shower valve) shall be mounted within the space 15 inches of the center of the shower stall. It shall have a maximum height of 48 inches and shall be no lower than 38 inches.

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.

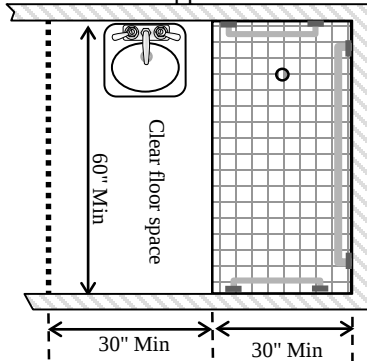
Section 608.5.1



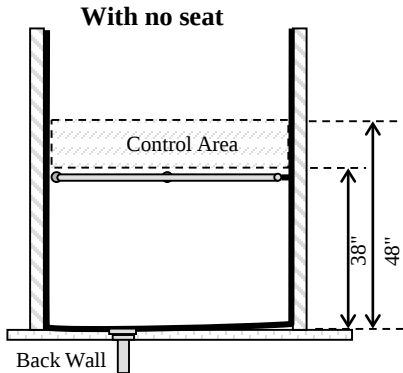
Option #2:



The lav must be opposite the controls.



The second acceptable stall is designed to fit into a space required for a standard bathtub: 30 inches wide by 60 inches long.



In the roll-in type shower the controls/faucets and shower spray shall be located above the grab bar, but no higher than 48 inches above the shower floor, and may be located on any wall of the shower.

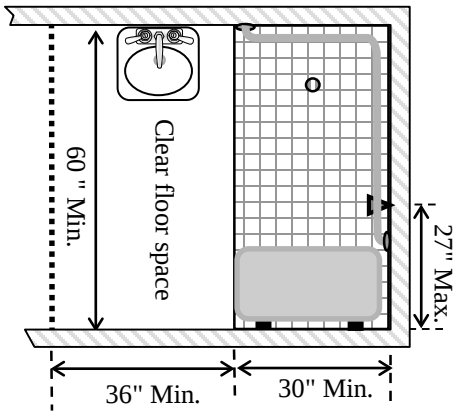
Sections 608.3.2 and 608.5.2

With a seat

If a fixed seat is provided in a 30 inches by 60 inches unit, it shall be a folding type and shall be mounted on the wall adjacent to the controls.

There are no grab bars required on the sidewall with the seat.

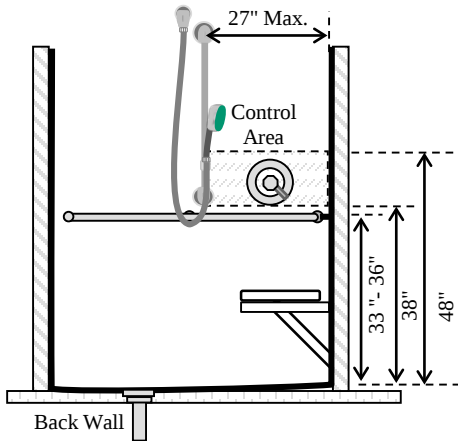
Sections 608.3.2 and 608.5.2



Where a seat is provided, the controls/faucets and shower spray unit shall be located on the back wall adjacent to the seat wall and shall be located 27 inches maximum from the seat wall.

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.

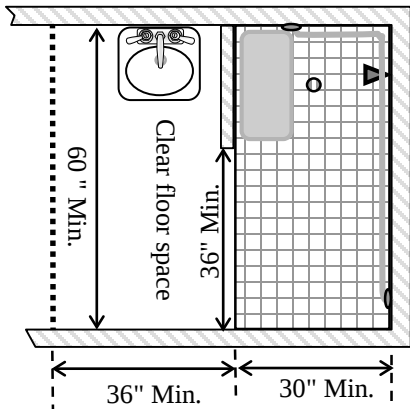
Sections 608.3.2 and 608.5.2



Alternate Roll In Shower

Where a seat is provided, the controls/faucets and shower spray unit shall be located on the side wall adjacent to the seat 27 inches maximum from the side wall behind the seat or shall be located on the back wall opposite the seat 15 inches maximum, left or right, of the centerline of the seat

Sections 608.3.3 and 608.5.3

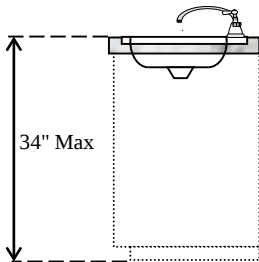


Sinks

(Non-Lavatories)

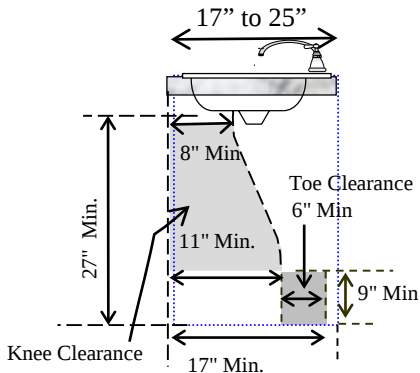
Sinks shall be mounted with the counter or rim no higher than 34 inches above the finish floor.

A clear floor space of 30 inches by 48 inches is required in front of the sink.



Clearance for the knees shall extend a minimum 8 inches under the lavatory at a point of a minimum 27 inches above the finish floor.

Toe clearance shall extend a minimum of 6 inches from the available knee clearance at 9 inches above the finish floor. Any space extending greater than 6 inches shall not be considered toe clearance.



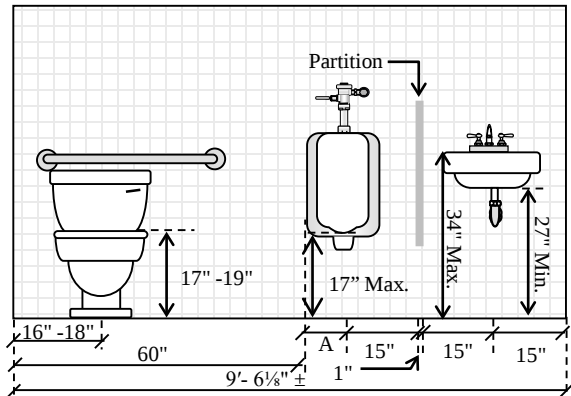
Sections 306.2 and 306.3

Sections 306.2 and 306.3



Restroom Layouts

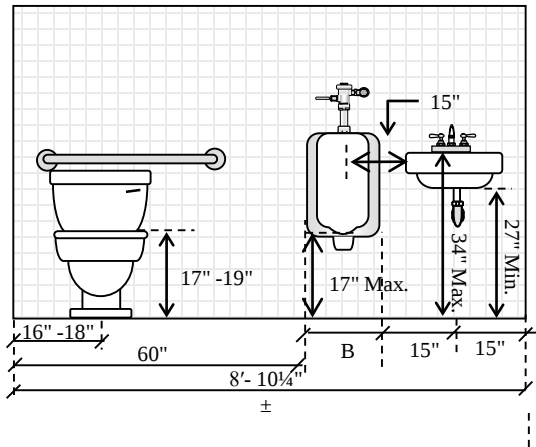
The 2010 ADA Standards for Accessible Design are used here. In all of the following drawings a 19 inches wide by 17 inches deep lavatory and a 16¼ inches wide urinal is shown. The use of a smaller or larger lavatory or urinal could change the dimensions.



Restrooms for single use with a urinal.

The follow layout applies if the plumbing code or other codes require a partition between the urinal and the lavatory.

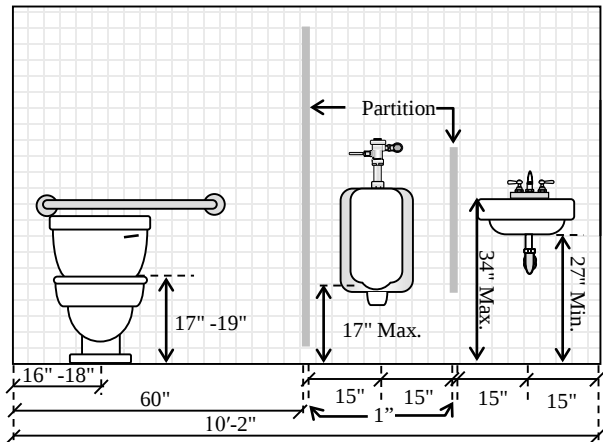
The urinal used was 16 1/4 inches wide so A = 1/2 the width of the urinal or 8 1/8 inches



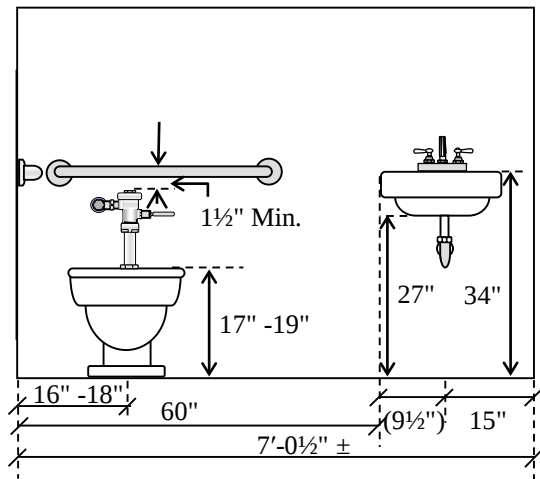
Restrooms for single use with a urinal.

The follow layout applies if the plumbing code or other codes **do not** require a partition between the urinal and the lavatory.

The urinal used was 16 1/4 inches wide so B = the width of the urinal.



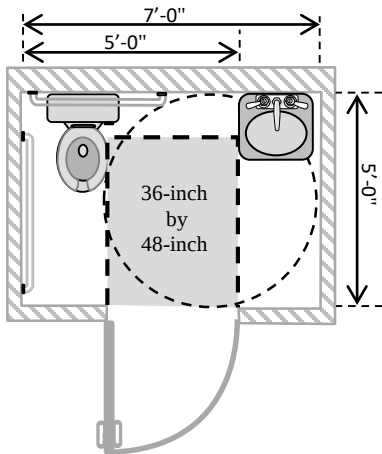
The following layout applies for restrooms requiring partitions on both sides of the urinal or restrooms for use by more than one person.



Restrooms for single use

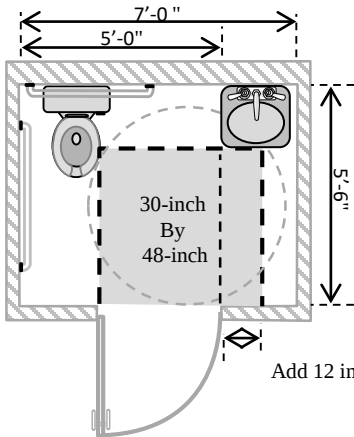
A clear space above the grab bar of 12 inches is required.

Note: $9\frac{1}{2}' = 1/2$ the width of the 19 x 17 lavatory



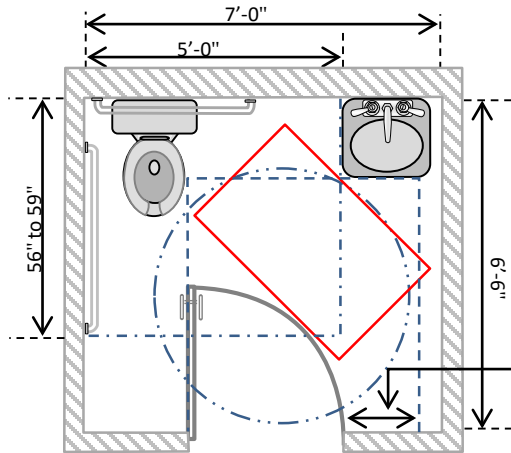
**Plan-1B: 2010 Standards Minimum
With Out-Swinging Door**
7'-0" x 5'-0" • 35.00 Square Feet

Section 304.3, allows the turning space to extend into toe and knee space provided beneath fixtures.



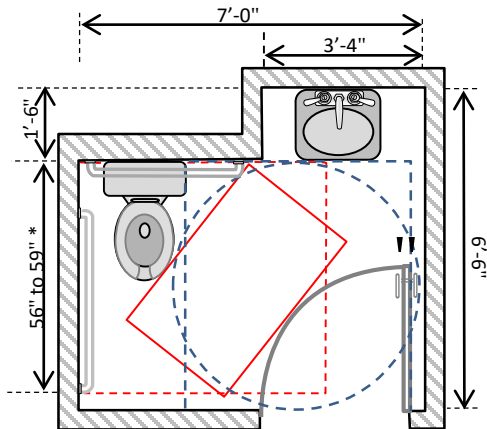
**Plan-1B: 2010 Standards Minimum
With Out-Swinging Door**
7'-0" x 5'-0" • 35.00 Square Feet

Add 12 inches if closer and latch are provided.



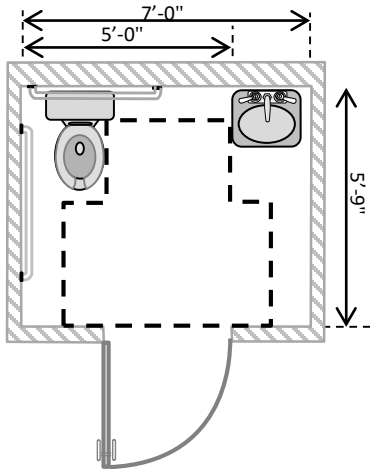
**Plan-2B: 2010 Standards Minimum
With In-Swinging Door
7'-0" x 6'-6" • 45.50 Square Feet**

18 inches is required.

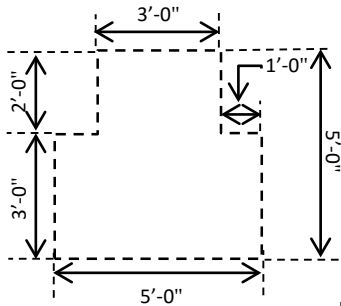


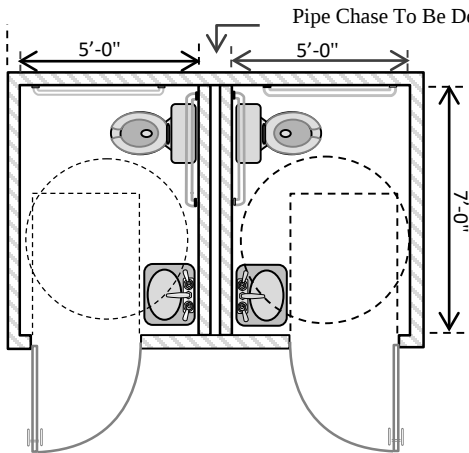
**Plan-2C: 2010 Standards Minimum
With In-Swinging Door
7'-0" x 6'-6" • 40.00 Square Feet
(plumbing chase not included)**

*56 inches for wall hung water closet
*59 inches for floor set water closet.



Plan-3: 2010 Standards
7'-0" x 5'-9" 40.25 Square Feet

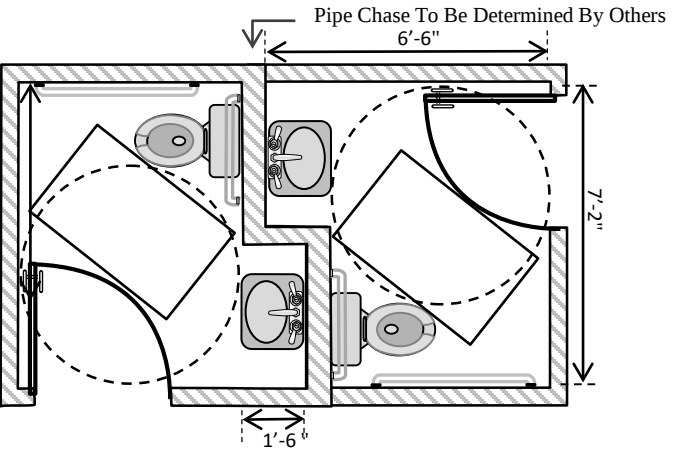


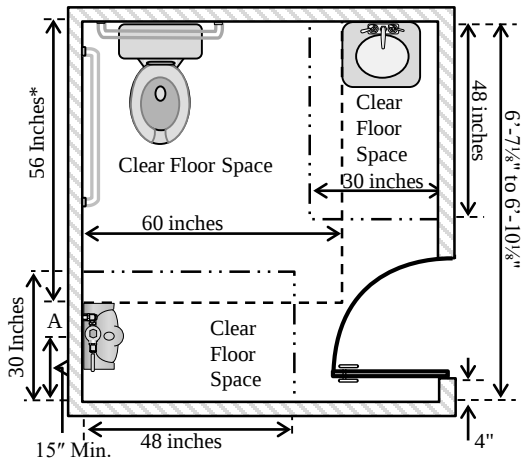


**Plan-1B Pair: 2010 Standards
With Out-Swinging Doors**

**Two 7'-0" by 5'-0" Rooms
70.0 Square Feet Total**

Plan-2C: Pair: 2010
Standards Minimum With In-Swinging Door
7'-2" x 6'-6"
82.00 Square Feet
(plumbing chase not included)





This drawing illustrate a unisex restroom with a urinal. The urinal used was 16 $\frac{1}{4}$ inches wide.

A = $\frac{1}{2}$ the width of the urinal or 8 $\frac{1}{8}$ inches.

With a wall hung WC 6'-7 $\frac{1}{8}$ "
With a floor set WC 6'-10 $\frac{1}{8}$ "

*56 inches for " wall hung water closet

*59 inches for floor set water closet.