

6-1 – 12

602.1, 602.2 (New), 602.2.1, 602.2.2, 602.2.2.3, 602.3, 602.3.1 (New), 602.3.2 (New), 602.3.3 (New), 602.3.4 (New), 602.4, 602.5, 602.6,

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

602.1 General. Wheelchair accessible drinking fountains shall comply with Sections 602.2 and 307. Drinking fountains for standing persons shall comply with Section 602.3 and 307.

602.2 Wheelchair accessible drinking fountains. Wheelchair accessible drinking fountains shall comply with Section 602.2.1 through 602.2.5.

~~602.2~~ **602.2.1 Clear Floor Space.** A clear floor space complying with Section 305, positioned for a forward approach to the drinking fountain, shall be provided. Knee and toe space complying with Section 306 shall be provided. The clear floor space shall be centered on the drinking fountain.

EXCEPTIONS:

1. ~~Drinking fountains for standing persons.~~
2. Drinking fountains primarily for children's use shall be permitted where ~~the spout outlet is 30 inches (760 mm) maximum above the floor,~~ a parallel approach complying with Section 305 is provided and the clear floor space is centered on the drinking fountain.

~~602.2.2~~ ~~602.3~~ **Operable Parts.** Operable parts shall comply with Section 309.

~~602.2.3~~ ~~602.4~~ **Spout Outlet Height.** Spout outlets of wheelchair accessible drinking fountains shall be 36 inches (915 mm) maximum above the floor. ~~Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the floor.~~

EXCEPTION: At drinking fountains primarily for children's use, the spout outlet shall be 30 inches (760 mm) maximum above the floor.

~~606.2.4~~ ~~602.5~~ **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 drinking fountain, including bumpers.

EXCEPTION: ~~Where only a parallel approach is provided~~ At drinking fountains primarily for children's use, the spout shall be located 3¹/₂ inches (89 mm) maximum from the front edge of the drinking fountain, including bumpers.

~~606.2.5~~ ~~602.6~~ **Water Flow.** The spout shall provide a flow of water 4 inches (102 mm) minimum in height. The angle of the water stream from spouts within 3 inches (76 mm) of the front of the drinking fountain shall be 30 degrees maximum, and from spouts between 3 inches (76 mm) and 5 inches (125 mm) from the front of the drinking fountain shall be 15 degrees maximum, measured horizontally relative to the front face of the drinking fountain.

602.3 Drinking fountains for standing persons. Drinking fountains for standing persons shall comply with Section 602.3.1 through 602.3.4.

~~602.3.1~~ **Operable Parts.** Operable parts shall comply with Section 309.3 and 309.4.

~~602.3.2~~ **Spout Outlet Height.** Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the floor.

EXCEPTION: Drinking fountains for standing persons and primarily for children's use shall be permitted where the spout outlet is 30 inches (760 mm) minimum and 43 inches (1090 mm) maximum above the floor.

602.3.3 Spout location. The spout shall be located 5 inches (125 mm) maximum from the front edge of the drinking fountain, including bumpers.

602.3.4 Water Flow. The spout shall provide a flow of water 4 inches (102 mm) minimum in height. The angle of the water stream from spouts within 3 inches (76 mm) of the front of the drinking fountain shall be 30 degrees maximum, and from spouts between 3 inches (76 mm) and 5 inches (125 mm) from the front of the drinking fountain shall be 15 degrees maximum, measured horizontally relative to the front face of the drinking fountain.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

The purpose of this proposal for drinking fountains is two-fold. 1) put criteria for children's drinking fountains under the specific requirements. 2) separate criteria for drinking fountains serving wheelchair users from those serving standing persons.

With the exception for children only being for wheelchair drinking fountains, literally standing drinking fountains in a preschool would have to be at an adult height, making them too high for the children they are intended to serve. Also, there are no technical criteria for standing drinking fountains for children. The adult standing requirements are too high for toddlers and pre-schoolers.

This separation of the criteria for wheelchair and standing fountains helps identify which pieces of the criteria are appropriate for each type. Ex: New Section 602.3.1 - Since a wheelchair clear floor space is not needed for access to the drinking fountain for standing persons, a wheelchair clear floor space should not be required for access to the controls through the reference to 309, which picks up a clear floor space under 309.2. (If a clear floor space is desired, it should be similar to that required for tactile signage.)

Are the spout location and water flow necessary for standing drinking fountains? For example, the location of the spout in relation to the back wall is only needed for knee clearance, not standing. Need input from the plumbing industry.

Committee Action: AS AM D

602.1-PAARLBERG.doc

6-2 – 12

602.3

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

602.3 Operable Parts. Operable parts shall comply with Section 309.

EXCEPTION: Where bottled water fillers are provided as part of drinking fountains serving wheelchair and standing person, the bottled water filler in the drinking fountain for standing persons is not required to comply with Section 309.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

Bottled water fillers are being provided in many university and park settings. Not using disposable bottled water is an important part of recycling efforts. However, if the bottled water filler is behind the standing drinking fountain, it cannot be located in reach ranges. The intent of the exception is to allow for this option only if there is a bottled water filler over the accessible drinking fountain.



Committee Action: AS AM D

602.3 (NEW)-PAARLBERG.doc

6-3 – 12

603.2.3

Proponent: Keith Wen, R.A., New York City, Department of Buildings, representing self

Revise as follows:

603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance for any fixture.

EXCEPTIONS:

1. Doors to a toilet and 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, provided the swing of the door can be reversed in the future to meet Section 603.2.3, and that such future door swing does not obstruct the maneuvering clearances required at the door.
2. Where the room is for individual use and a clear floor space complying with Section 305.3 is provided within the room beyond the arc of the door swing.

Reason: 1. It is unclear whether the door should be reversible from day 1 or only in the future.

2. The future door swing must clear the maneuvering clearances required at the door, from both the entry side and the exit side. If the designer does not take into account of the required maneuvering clearance of the future door swing, the door may not be reversible in the future.

Committee Action: AS AM D

603.2.3-WEN.doc

6-4 – 12

604.1

Proponent: Terri Stewart, The American Institute of Architects, representing The Task Force on Aging

Revise as follows:

604.1 General. Accessible water closets and toilet compartments shall comply with Section 604. Compartments containing more than one plumbing fixture shall comply with Section 603. Wheelchair accessible compartments shall comply with Section 604.9. Ambulatory accessible compartments shall comply with Section 604.10.

EXCEPTIONS:

1. Water closets and toilet compartment primarily for children's use shall be permitted to comply with Section 604.10 as applicable.
2. Water closets and toilet compartments for elder use in nursing home or assisted living facilities where fixtures are located in toilet or bath rooms directly accessible from a private or semiprivate bedroom, shall be permitted to comply with Section 604.12

Reason: Sufficient space is not provided for the space needed on both sides of the toilet for independent front approach transfers and assisted transfers.

Committee Action: AS AM D

604.1-STEWART.doc

6-5 – 12

604.4, Figure 604.4

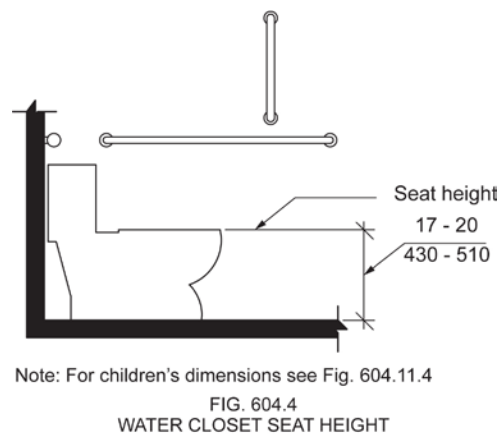
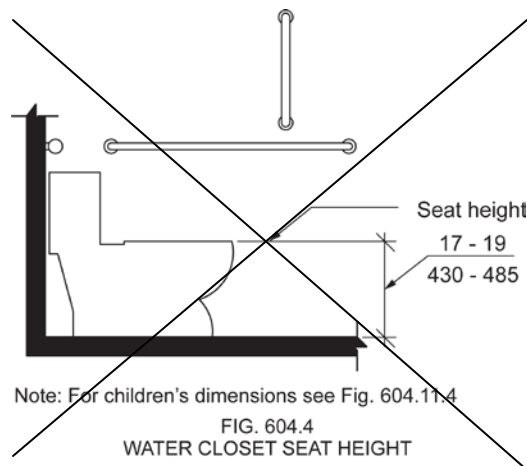
Proponent: Edward Steinfeld, IDEA Center, School of Architecture and Planning, University at Buffalo, State University of New York

Revise as follows:

604.4 Height. The height of water closet seats shall be 17 inches (430 mm) minimum ~~and to 19~~ to 20 inches (485 ~~510~~ mm) maximum above the floor, measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

EXCEPTIONS:

1. An accessible water closet which is adjustable in height or which provides multiple hinged seats is permitted to provide adjustability within a range of 11 inches (280 mm) minimum to 25 inches (635 mm) maximum, provided that at least one adjustment setting provides a seat within the range specified in Section 604.4.
2. A water closet in a toilet room 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 Section 604.4.



Reason: Many of the technical requirements of the ICC/ANSI A117.1 (2009) Accessible and Usable Buildings and Facilities (ICC/ANSI) designed to accommodate wheeled mobility users are based on research completed from 1974 to 1978 using a research sample that included about 60 individuals who used manual wheelchairs (Steinfeld et al., 1979).

The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users (Steinfeld, et al., 2010). Measurements of body and device size were captured in three dimensions. The functional anthropometric measurements required measuring reaching ability, grip strength and the minimum space needed for turning. It is the most extensive anthropometric study of wheeled mobility device users in the United States. Additional information about the study can be found at <http://www.udeworld.com/ansi-standards-review>. The proposed revisions are based on new anthropometric information that was generated from the database of anthropometric measurements developed as part of the study.

Analysis

In addition to the findings reported in Steinfeld, et al., 2010, the IDeA Center developed a Design Resource entitled, *Analysis of Seat Height for Wheeled Mobility Devices* that provides more detailed information about the study reported in Steinfeld, et al., 2010. *Analysis of Seat Height for Wheeled Mobility Devices* indicates that the current maximum height of 19 inches (485 mm) accommodates 51% of female manual wheelchair users, 30% of manual wheelchair users, and fewer than 20% of power and scooter users. The report indicates a seat height of 25 inches (635 mm) would accommodate over 95% of all wheeled mobility device users (D'Souza and Steinfeld, 2011, pg. 5).

Increasing the maximum seat height to 20 inches (510 mm) would allow 75% of female manual wheelchair and 53% of male manual wheelchair users (D'Souza and Steinfeld, 2011, pg. 5) to transfer comfortably. Comfort in this case is determined by how closely the height of the transfer surface matches the height of a wheelchair seat. Steinfeld, et. Al., 2010 (pg. 85) report that

"keeping the height of a transfer surface close to the height of a wheelchair seat reduces the effort necessary to transfer and provides a safer environment, especially in bathing and toilet rooms."

However, a fixed seat any higher than 20 inches (510 mm) would likely disadvantage people of short stature, particularly if it was the *only* water closet. Encouraging innovation would help to accommodate a greater number of wheeled mobility users without disadvantaging people of short stature. Adjustability is the best option to accommodate the widest population but in the meantime, the upper limit should be raised to 20 inches (Steinfeld, et al., 2010, pgs. 85-86).

Since the current standard indicates a seat height of 11 inches (280 mm) is acceptable for children's use (604.11.4), any product which is adjustable could reasonably lower to such a level at a minimum.

NOTE: This change necessitates a change to Fig. 604.4 to ensure consistency. Thus, the proposed revised figure has been attached, along with the existing figure for comparison purposes.

References (See <http://www.udeworld.com/ansi-standards-review> for full text)

D'Souza, C. and Steinfeld, E. (2011). *Analysis of Seat Height for Wheeled Mobility Devices*. Buffalo, NY: University at Buffalo Center for Inclusive Design and Environmental Access.

Steinfeld, E., Paquet, V., D'Souza, C., Joseph, C., and Maisel, J. (2010). *Final Report: Anthropometry of Wheeled Mobility Project*. Washington, DC: U.S. Access Board.

Steinfeld, E. Schroeder, S. and Bishop, M. (1979). *Accessible buildings for people with walking and reaching limitations*. Washington, DC: U.S. Department of Housing and Urban Development.

Committee Action: AS AM D

604.4-STEINFELD.doc

6-6 – 12

604.5

Proponent: Terri Stewart, The American Institute of Architects, representing The Task Force on Aging

Revise as follows:

604.5 Grab Bars. Grab bars for water closets shall comply with Section 609 and shall be provided in accordance with Sections 604.5.1 and 604.5.2. Grab bars shall be provided on the rear wall and on the side wall closest to the water closet.

EXCEPTIONS:

1. Grab bars are not 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, provided reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with Section 604.5.
2. In detention or correction facilities, grab bars are not required to be in housing or holding cells or rooms that are specially designed without protrusions for purposes of suicide prevention.
3. In nursing home and assisted living facilities where fixtures are located in toilet or bath rooms directly accessible from a private or semiprivate bedroom, two swing up grab bars complying with Sections 604.5.3 and 609 shall be permitted

Reason: Grab Bar Type. Grab bars on both sides of the toilet permit individuals with limited lower body strength who require assistance to maintain balance while clothing is removed or replaced. For individuals with limited upper body strength who are capable of independent, standing transfer, grab bars on both sides enable them to pull up to a standing position and lower down to a sitting position.

Committee Action: AS AM D

604.5-STEWART.doc

6-7

604.5.1, 604.5.1.1(NEW), 604.5.1.2(NEW)

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

604.5.1 Fixed Side Wall Grab Bars. Fixed side wall grab bars shall include a horizontal bar complying with Section 605.4.1.1 and a vertical grab bar complying with Section 604.5.1.2. The vertical grab bar at water closets primarily for children's use shall comply with Section 609.4.2

604.5.1.1 Horizontal Grab Bar. ~~A fixed horizontal side wall grab bars shall be~~ 42 inches (1065 mm) minimum in length, ~~shall be~~ located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.

604.5.1.2 Vertical Grab Bar. ~~In addition,~~ A vertical grab bar 18 inches (455 mm) minimum in length shall be mounted with the bottom of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum above the floor, and with the center line of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum from the rear wall.

EXCEPTION: ~~The vertical grab bar at water closets primarily for children's use shall comply with Section 609.4.2.~~

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

This proposal does several things including breaking the one long section into a format with single topic sections and moves the exception up to the charging paragraph where it becomes a requirement instead of an exception which would be optional to the user.

This proposal was originally developed by the editorial task group during the last standard development cycle. However, since the limited proposal that was printed in the editorial draft simply showed the words "exception" being deleted and replaced with a section number it did create a substantive change which was not appropriate to make as a part of the editorial process.

While the children's requirements are always an option, because it was an exception the user would never have been required to follow that exception unless they wished to. This revised proposal provides a cross reference that is necessary to avoid a technical conflict in the grab bar requirements for children's facilities.

Committee Action: AS AM D

604.5.1-paarlberg.doc

6-8 – 12

604.5.1, Figure 604.5.1

Proponent: Alan Gettelman, Bobrick Washroom Equipment, Inc

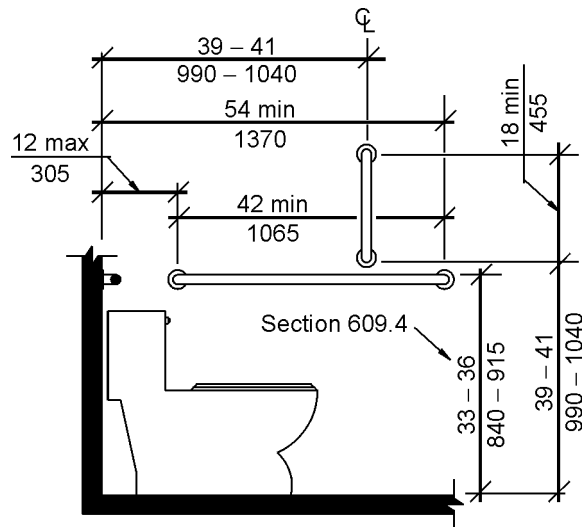
Revise as follows:

604.5.1 Fixed Side Wall Grab Bars. Fixed side-wall grab bars shall be 42 inches (1065 mm) minimum in length, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall. In addition, a vertical grab bar 18 inches (455 mm) minimum in length shall be mounted with the bottom of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum above the floor, and with the center line of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum from the rear wall.

EXCEPTION: The vertical grab bar at water closets primarily for children's use shall comply with Section 609.4.2

Revise Figure as follows:

Change dimension call out dimension showing the location of the vertical grab bar in relationship to the rear wall as follows: ~~39 – 41 (990 – 1040)~~ to 39-46 (990 1170)



Note: For children's dimensions see Fig. 609.4.2

Fig. 604.5.1
Side Wall Grab Bar for Water Closet

Reason: Increasing mounting range of Fixed Side wall 18" Vertical Grab Bar to 39 inches to 46 inches from rear wall to accommodate washroom accessory industry standard recessed and partition-mounted combination toilet seat cover, sanitary napkin disposal and toilet tissue dispenser with ADA-compliant toilets that extend 30 inches plus from the rear wall.

It isn't clear that anthropometric or ergonomic data support a more restrictive dimension in this location.

Committee Action: AS AM D

604.5.1-GETTELMAN.doc

6-9 – 12

604.5.1

Proponent: Hank Falstad, Access Technologies services, Inc., representing self

Revise as follows:

604.5.1 Fixed Side Wall Grab Bars. Fixed side-wall grab bars shall be ~~42~~ 48 inches (~~1065~~ 1220 mm) minimum in length, located 12 inches (305 mm) maximum from the rear wall and extending ~~54~~ 39 inches (~~1370~~ 990 mm) minimum ~~from the rear wall.~~ In addition, a vertical grab bar 18 inches (455 mm) minimum in length shall be mounted with the bottom of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum above the floor, and with the center line of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum from the rear wall and 41 inches (1040 mm) maximum at which point the grab bar turns up 90 degrees.

EXCEPTION: ~~The vertical grab bar at water closets primarily for children's use shall comply with Section 609.4.2.~~

Reason: This combines the parallel grab bar and the vertical grab bar giving the user a continuous grab bar with greater leveraging using both the forearm and the hand.

Committee Action: AS AM D

604.5.1-FALSTAD.doc

6-10 – 12

604.5.2, Figure 604.5.2

Proponent: Terry G. Wendt Jr, AIA, Wisconsin Department of Transportation

Revise as follows:

604.5.2 Rear Wall Grab Bars. The rear wall grab bar shall be 36 inches (915 mm) minimum in length and extend from the centerline of the water closet between 12 inches (305) minimum on the side closest to the wall, and 24 inches (610 mm) minimum on the transfer side, and located 5 inches (125 mm) from the side wall.

EXCEPTIONS:

1. The rear grab bar shall be permitted to be 24 inches (610 mm) minimum in length, centered on the water closet, where wall space does not permit a grab bar 36 inches (915 mm) minimum in length due to the location of a recessed fixture adjacent to the water closet.
2. Where an administrative authority requires flush controls for flush valves to be located in a position that conflicts with the location of the rear grab bar, that grab bar shall be permitted to be split or shifted to the open side of the toilet area.

Revise Figure 604.5.2 to reflect changes of text to Section 604.5.2

Reason: Suggested change will make compliance much easier to accomplish by enabling craftspeople to position the grab bar from a known point (the side wall). Having the grab bar position dependent on the location of the water closet often results in non-compliant installations because the exact position of the water closet fluctuates. The requirement of 5 inches from the side wall was calculated based on the water closet centerline being between 16 and 18 inches from the side wall as required by Section 604.2 – if the end of a 36 inch grab bar is positioned 5 inches from the side wall, the ends will be within 1 inch of the 12 inch / 24 inch relative position currently described in Section 604.5.2 (assuming the water closet is positioned in a compliant manner). This would streamline inspections by only requiring two measurements – distance from the side wall and length. It would also make the rear grab bar requirement similarly described as for the other grab bars (based on distance from walls, not fixtures).

Committee Action: AS AM D

604.5.2-WENDT.docE

6-11 – 12

Figure 604.5.3 (New)

Proponent: Terri Stewart, The American Institute of Architects, representing The Task Force on Aging

Add new Figure as follows:

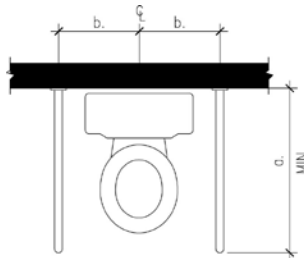


Figure 604.5.3
Swing-up Grab Bars for Water Closet *

* Dimension a. and b will be determined upon research results currently being conducted. (See Chapter 5 of White Paper, April 22, 2012.)

Reason: Rationale: Grab Bar Type. Grab bars on both sides of the toilet permit individuals with limited lower body strength who require assistance to maintain balance while clothing is removed or replaced. For individuals with limited upper body strength who are capable of independent, standing transfer, grab bars on both sides enable them to pull up to a standing position and lower down to a sitting position.

Committee Action: AS AM D

604.5.3(NEW)(FIGURE)-STEWART.doc

6-12 – 12

604.6, 604.11.6, 1003.11.2.4.6

Proponent: Len Swatkowski, Plumbing Manufacturers International

Revise as follows:

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with Section 309. Hand operated flush controls shall be located on the open side of the water closet or center mounted on the water closet or wall behind it as long as its location complies with one or more of the reach ranges specified in Section 308.

EXCEPTION: In ambulatory accessible compartments complying with Section 604.10, flush controls shall be permitted to be located on either side of the water closet.

604.11.6 Flush Controls. Flush controls primarily for children's use shall be hand operated or automatic. Hand operated flush controls shall comply with Sections 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the floor. Hand operated flush controls shall be located on the open side of the water closet or center mounted on the water closet or wall behind it as long as its location complies with one or more of the reach ranges specified in Section 308.

EXCEPTION: In ambulatory accessible compartments complying with Section 604.10, flush controls shall be permitted to be located on either side of the water closet.

1003.11.2.4.6 Flush Controls. Flush controls shall be hand-operated or automatic. Hand operated flush controls shall comply with Section 309. Hand-operated flush controls shall be located on the open side of the water closet or center mounted on the water closet or wall behind it as long as its location complies with one or more of the reach ranges specified in Section 308.

Reason: Provide reach ranges for flushing controls – acceptability of flush controls mounted on the center of toilet tanks
Provide reach-range requirements for flush controls, especially those located in the center of the tank. 604.6, 604.11.6, 1003.11.2.4.6

Committee Action: AS AM D

604.6-SWATKOWSKI.doc

6-13 – 12

604.6

Proponent: Peter A. Stratton, Steven Winter Associates, Inc.

Revise as follows:

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with Section 309. Flush controls shall be located on the open side of the water closet.

EXCEPTIONS:

1. In ambulatory accessible compartments complying with Section 604.10, flush controls shall be permitted to be located on either side of the water closet.
2. Dual flush controls are permitted to be centered on the top of the water closet tank and shall comply with Section 309.4.

Reason: Water saving requirements of the US Green Building Council's LEED® rating system, among other energy saving programs, including Enterprise Green Communities are addressed at toilet fixtures through the use of dual flush toilets which provide two (dual) push-button-controlled options for flushing; one of which dispenses more water during flushing. Dual flush toilets, especially residential models, include push button controls centered on the top of the toilet tank which are technically non-compliant with ANSI A117.1 604.6 and 1003.11.2.4.6, i.e., they are not located on the "wide side" of toilets. However, technically, ½ of the push button control when mounted on the top of the tank are located between the centerline of the toilet (center of the tank top) and the wide side, but they are not located fully between the centerline and the wide side of the toilet. The only readily available models have top centered controls. ANSI must recognize water savings offered by dual flush toilets while at the same time ensuring that they are accessible. To that end, the proposal suggested here is to allow controls mounted on the top of toilet tanks as long as the push button controls comply with 309.4, operation. When a clear floor space is positioned adjacent to toilets, controls mounted on the top of the tank are within reach from a side approach despite the fact that they are not located technical on the "wide side." See attached pdf standard dual flush control and its location.

Committee Action: AS AM D

604.6-STRATTON.doc

6-14 – 12

604.7, 604.11.7

Proponent: Ed Roether, ADA/A117.1 Harmonization Task Group

Revise as follows:

604.7 Dispensers. Toilet paper dispensers shall comply with Section 309.4. Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 36 inches (915 mm) maximum from the rear wall. Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be located 18 inches (455 mm) minimum and 48 inches (1220 mm) maximum above the floor. Dispensers shall comply with Section 609.3. Dispensers shall not be of a type that control delivery, or do not allow continuous paper flow.

EXCEPTION: Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5 inch diameter each shall be permitted to be located 7 inches minimum and 9 inches maximum in from the of the water closet measured to the centerline of the dispenser.

604.11.7 Dispensers. Toilet paper dispensers primarily for children's use shall comply with Section 309.4. The outlet of dispensers shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor. There shall be a clearance of 1^{1/2} inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.

EXCEPTION: Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5 inch diameter each shall be permitted to be located 7 inches minimum and 9 inches maximum in from the of the water closet measured to the centerline of the dispenser

Reason: The ADA/A117 Harmonization Task Group (HTG) was created as a task group of the A117.1 Committee to compare the 2010 ADA with the 2009 A117.1 Standard. The HTG has recommend a series of changes through a set of change proposals. The HTG is recommending changes, for the most part, address where the ADA was viewed as more stringent than the A117. Where the A117 contained provisions not addressed in the ADA, these were not considered a conflict needing action to amend the A117. In addition there are a number of places where the ADA and A117.1 are different as a result of specific actions, by the A117.1 Committee during the development of the 2009 edition, to remain or create a difference where, in the judgment of the committee the ADA was deficient.

Reason for dispensers. While the intent of the provisions in the 2009 ICC A117.1 was intended to allow for a larger toilet paper rolls and recessed dispensers within reach of a person using the water closet (and be considered equivalent to the intent of the 2010 ADA standard), there have been concerns that there may be some reviewers that would not consider the option equivalent to what is required by the 2010 ADA Standard. The committee has already identified that the 2010 ADA standard does not work with the mega roll design. Therefore the intent of the exception is to allow for someone using the standard toilet paper roll at the location addressed in the 2010 ADA standard.

Committee Action: AS AM D

802.10.1-Roether.doc

6-15 – 12

604.7, Figure 604.7

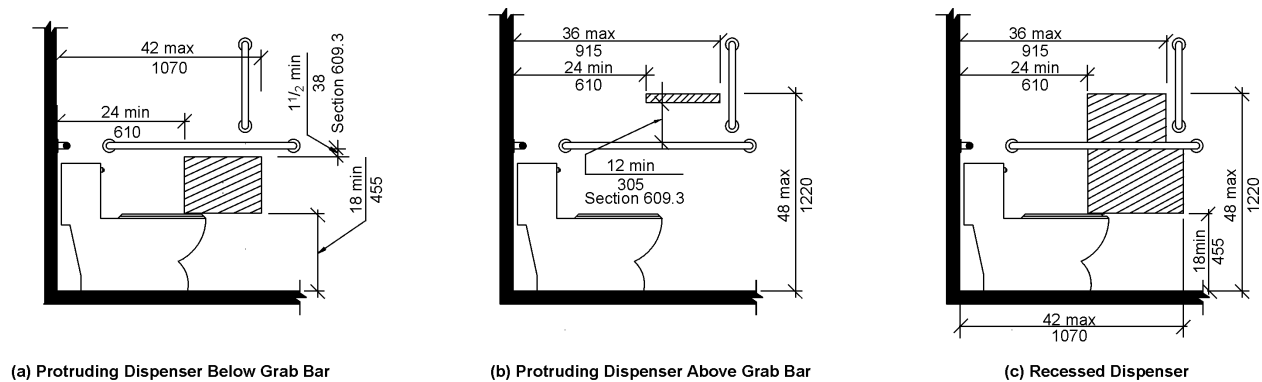
Proponent: Alan Gettelman, Bobrick Washroom Equipment, Inc.

Revise as follows:

604.7 Dispensers. Toilet paper dispensers shall comply with Section 309.4. Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 36 inches (915 mm) maximum from the rear wall, Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 42 inches (1070 mm) maximum from the rear wall. The outlet of the dispenser shall be located ~~48 inches (1220 mm)~~ 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the floor. Dispensers shall comply with Section 609.3. Dispensers shall not be of a type that control delivery, or do not allow continuous paper flow.

Revise Figure as follows:

Change the vertical dimension on figures (a) and (c) indicating the vertical placement of dispensers above the floor from : ~~48 min (1220)~~ to 15 min (380).



Note: For children's dimensions see Fig. 604.11.7 dispenser outlet location

Fig. 604.7
DISPENSER OUTLET LOCATION

Reason:

- Inconsistent with ICC A117.1- 2009 Section 3098.2 Forward Reach, 308.2.1 Unobstructed (Page 11), " low forward reach shall be 15 inches (380 mm) minimum"
Figure 308.2.1 Unobstructed Forward Reach (Page 11), dimension call out "15 min (380 mm)"
Section 308.3 Side Reach, 308.3.1 Unobstructed (Page 13, " low side reach shall be 15 min (380 mm)"
- Inconsistent with 2010 ADA Standards Section 604.7 Dispensers (page 201), "the outlet of the dispenser shall be 15 inches (380 mm) minimum"
Figure 604.7 Dispenser Outlet Location (page 202), dimension call out "15 min (380 mm)"
- Having a common dimension of 15 inches minimum would be more efficient eliminating the current inconsistency which impacts installers and inspectors.
- The change to a common dimension of 15 inches, in effect, may increase accessibility and encourage greater compliance.
- It isn't clear that anthropometric or ergonomic data support an 18" dimension in this location.

Committee Action: AS AM D

604.7-GETTELMAN.doc

6-16 – 12

604.7

Proponent: Francine Wai, Executive Director, Disability & Communication Access Board

Revise as follows:

604.7 Dispensers. Toilet paper dispensers shall comply with Section 309.4. ~~Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 36 inches (915 mm) maximum from the rear wall. Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall.~~ and 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 located 18 inches (455 mm) minimum and 48 inches (1220 mm) maximum above the floor. Dispensers shall comply with Section 609.3. Dispensers shall not be of a type that control delivery, or do not allow continuous paper flow.

Reason: The 2010 Standards has changed the guidelines to specify the location of dispensers relative to the water closet it is serving. As currently written, dispensers can be located to be in compliance with the A117.1 but not in compliance with the Department of Justice's 2010 ADA Standards. The 2010 ADA Standards state:

604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and 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 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

Committee Action: AS AM D

604.7-WAI.doc

6-17 – 12

604.7.1 (New)

Proponent: Gail Himes, City of Tacoma, Washington

Add new text as follows:

604.7 Dispensers.

604.7.1 Toilet Paper Dispensers. Toilet paper dispensers shall comply with Section 309.4. Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 36 inches (915 mm) maximum from the rear wall. Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 42 inches (1070 mm) maximum from the rear wall. The outlet of the dispenser shall be located 18 inches (455 mm) minimum and 48 inches (1220 mm) maximum above the floor. Dispensers shall comply with Section 609.3. Dispensers shall not be of a type that control delivery, or do not allow continuous paper flow.

604.7.2 Other Dispensers. Seat covers and other dispensers not referenced elsewhere in this standard shall comply with at least one of the reach ranges specified in Section 308.

Reason: This section needs to be expanded to address other types of dispensers. Seat covers and other types of dispensers are often located in inaccessible locations due to the lack of clarity in the code.

Committee Action: AS AM D

604.7.1(NEW)-HIMES.doc

6-18 – 12

604.9.2.3 (New)

Proponent: Gina Hilberry, United Cerebral Palsy Association

Add new text as follows:

604.9.2.3 Compartments with Enhanced Approach Area: Where enhanced approach area is required at toilet compartments, the minimum area of an enhanced wheelchair accessible compartment shall be 60 inches (1525 mm) minimum width measured perpendicular to the side wall, and 82 inches (2083 mm) minimum in depth for both wall hung and floor mounted water closets measured perpendicular to the rear wall.

Reason: 604.9.2.3 Standard 56" and 59" deep toilet compartments do not have enough space for people using a front transfer approach to the fixture. By definition the area occupied by the full size chair and person exceeds the space in between the front of the fixture and the partition. Because of this, users are forced to solve the problem by leaving the door open. It should be noted that this is not a scoping suggestion. This is much like the enhanced lavatories or the Type C Units, adding the clause will allow for future editions of the IBC or local jurisdictions to include this requirement in specific circumstances.

Committee Action: AS AM D

604.9.2.3 (New)-HILBERRY.doc

6-19 – 12

604.9.3, 604.10.3

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

604.9.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404, ~~except if the approach is to the latch side of the compartment door clearance between the door side of the stall and any obstruction shall be 42 inches (1065 mm) minimum.~~ The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the required minimum area of the compartment.

EXCEPTIONS:

1. Outside of the compartment, where the approach is to the latch side of the compartment door clearance between the door side of the stall and any obstruction shall be 42 inches (1065 mm) minimum.
2. Within the compartment, maneuvering clearances at the door are not required to comply with Section 404.

604.10.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404, ~~except if the approach is to the latch side of the compartment door the clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum.~~ The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Compartment doors shall not swing into the required minimum area of the compartment.

EXCEPTIONS:

1. Outside of the compartment, where the approach is to the latch side of the compartment door, clearance between the door side of the stall and any obstruction shall be 42 inches (1065 mm) minimum.
2. Within the compartment, maneuvering clearances at the door are not required to comply with Section 404.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

This proposal will do two things:

1. Relocating the existing text “except if the approach.....42 inches minimum” from the base paragraph into Exception 1 will match the normal format for exceptions and will clearly show that it is an exception which alters the base requirement to comply with Section 404.
2. It will clarify that the 42 inch requirement is intended for the exterior of the compartment and that the interior of the compartment does not need the door to comply with the maneuvering clearances of Section 404. This clarification does require exception 2 be added but it is consistent with the way the requirement has previously been applied.

In essence the only new text within the proposal is the wording “Outside of the compartment” at the beginning of Exception 1 and then all of the text within Exception 2.

Committee Action: AS AM D

604.9.3-PAARLBERG.doc

6-20 – 12

Table 604.9.3.1, Figure 604.9.3.1

Proponent: Alan Gettelman, Bobrick Washroom Equipment, Inc.

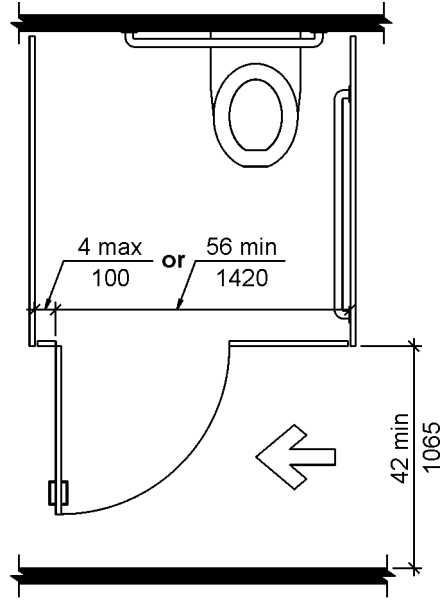
Revise as follows:

Table 604.9.3.1 – Door Opening Location

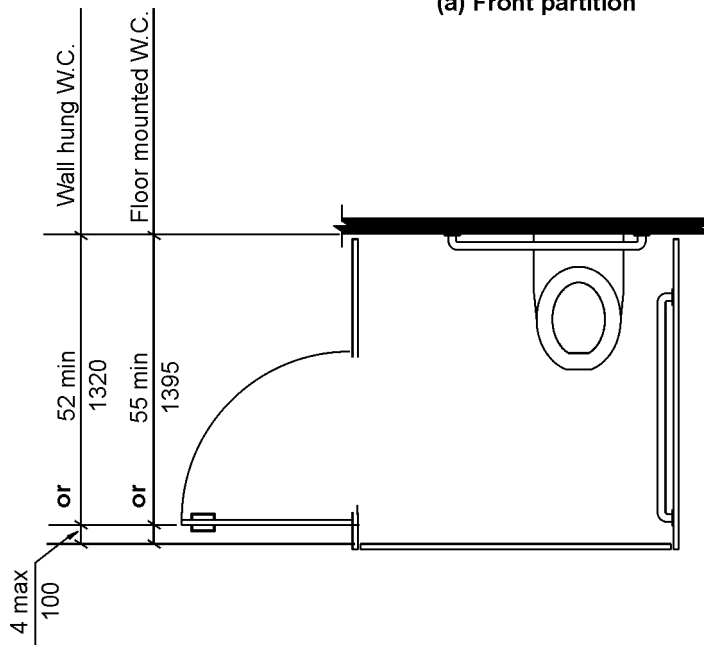
Door Opening Location	Measured From	Dimension
Front Wall or Partition	From the side wall or partition closest to the water closet	56 inches (1420 mm) minimum
	or	
	From the side wall or partition farthest from the water closet	4 inches (102 mm) maximum <u>4 inches 100 mm) minimum</u> <u>to 6 inches maximum (150 mm)</u>
Side Wall or Partition - Wall-Hung Water Closet	From the rear wall	52 inches (1320 mm) minimum
	or	
	From the front wall or partition	4 inches (102 mm) maximum <u>4 inches 100 mm) minimum</u> <u>to 6 inches maximum (150 mm)</u>
Side Wall or Partition - Floor-Mounted Water Closet	From the rear wall	55 inches (1395 mm) minimum
	or	
	From the front wall or partition	4 inches (102 mm) maximum <u>4 inches 100 mm) minimum</u> <u>to 6 inches maximum (150 mm)</u>

Revise Figure as follows:

Change the called dimension for door opening location to read: 4 inches (100 mm) minimum to 6 inches (150mm) maximum.



(a) Front partition



(b) Side wall or partition

Fig. 604.9.3.1

Wheelchair Accessible Compartment Doors

Reason:

1. Current absolute 4 inch (100 mm) maximum space from inside edge of side partition and door opening is an overly restrictive dimension creating installation and structural problems.
2. To maintain the 4 inch maximum space with a gap at the side all or with a coved floor into the wall the stile must be moved away from the wall and a 3" wide stile must be used. In many circumstances a 3" wide stile has a single floor anchor point providing minimum structural support for hinging the door.
3. As long as it would be allowed under the condition providing a wider compartment at the same time, allowing a range of 4 inches to 6 inches space for the door opening location would accommodate a number of field conditions; allowing the use of a 4" to 6" wide stile with two floor anchor points would greatly enhance the stability of the partition and door without compromising accessibility.

4. The 4" to 6" range for the location of the door opening would alleviate a structural issue on the Wheelchair Accessible Compartments wider than 60". With the current 4 inch maximum space stile at the other side of the door must be very wide reducing design flexibility and installation options.

Committee Action: AS AM D

604.9.3.1(TABLE)-GETTELMAN updated.doc

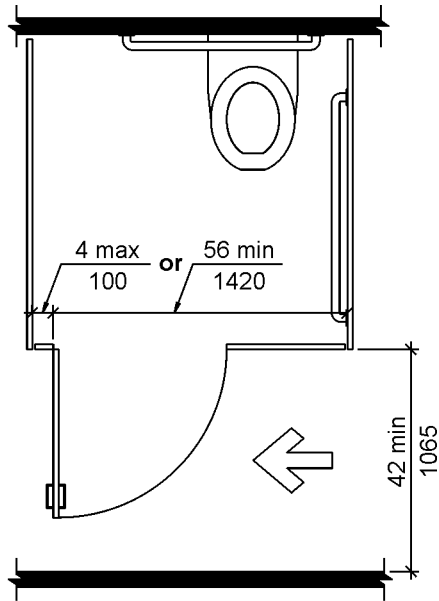
6-21 – 12

Figures 604.9.3.1 (a), (b), (c), Figure 604.9.5 (c)

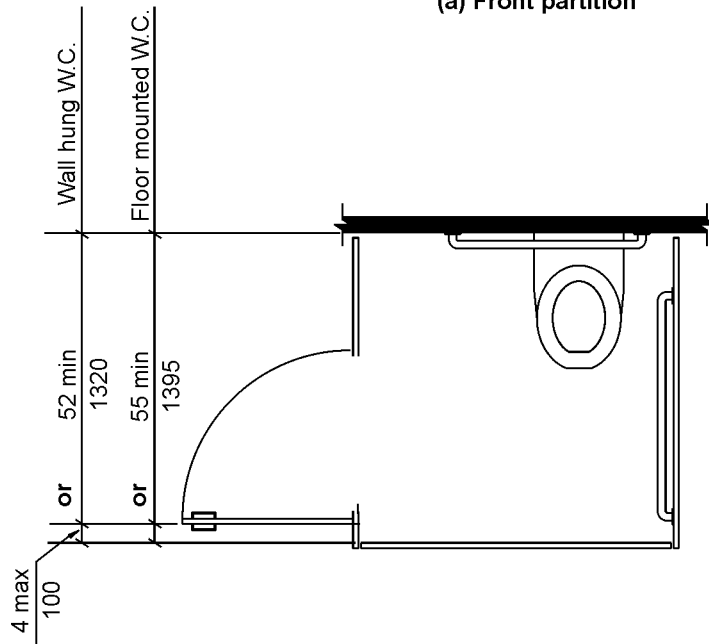
Proponent: Anthony Alarid, New Mexico Governor's Commission on Disability (NMGCD)

Revise as follows:

Revise each figure to indicate the placement of the vertical grab bar required for each.



(a) Front partition



(b) Side wall or partition

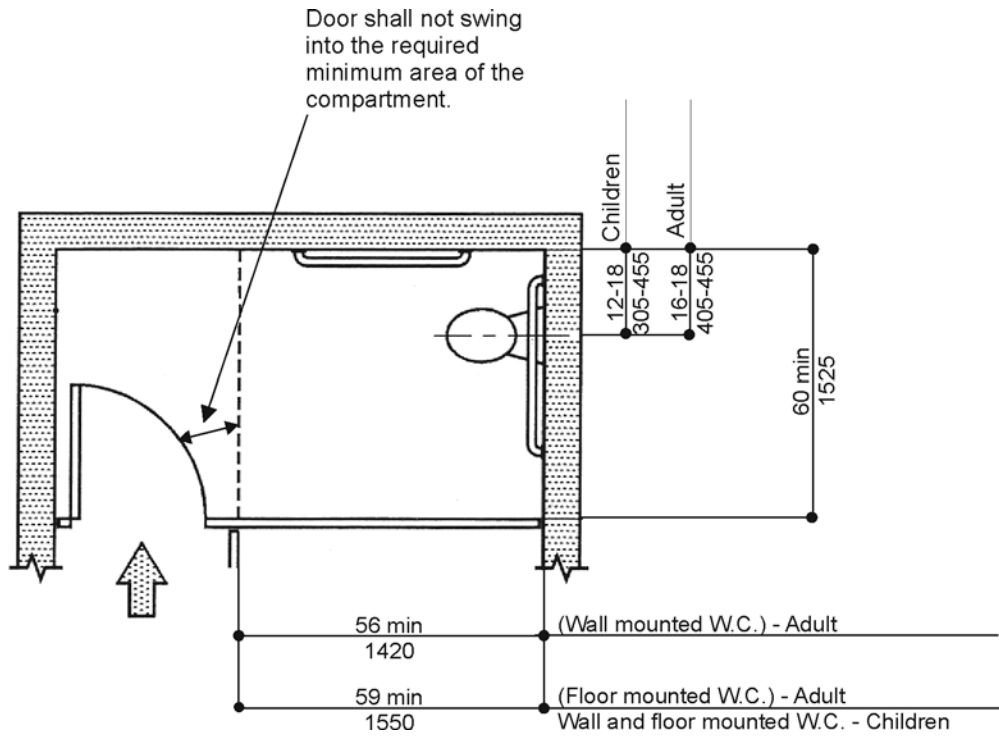
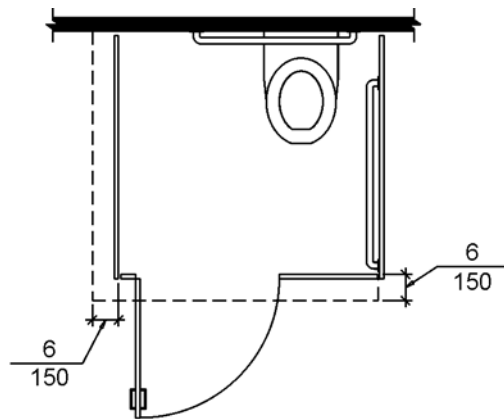


Fig 604.9.3.1 (c)
Wheelchair Accessible Compartment Doors – Alternate



(c)
Plan
Fig. 604.9.5
Wheelchair Accessible Compartment Toe Clearance

Reason: Figures 604.9.3.1(a), (b), (c) and 604.9.5 (c) do not reflect a vertical grab bar. Though these figures clearly address wheelchair accessible compartment door openings, they should be consistent with other illustrations which address other elements within the compartment yet reflect the vertical grab bar. To maintain consistency among Figures, the vertical grab bar should be reflected in these illustrations. The vertical grab bars are reflected in other figures – for example: Figures 604.9.2 (a), (b) address wall hung and floor mounted water closets yet they reflect a vertical grab bar in the illustrations. Example: Figures 604.9.2 (a), (b) specifically address wall hung and floor mounted water closets yet they reflect a vertical grab bar in the illustrations.

Committee Action: AS AM D

604.9.3.1(Figure)-ALARID.doc

6-22 – 12

604.9.5, Figure 604.9.5, 609.5.1, 609.5.2

Proponent: Edward Steinfeld, IDEA Center, School of Architecture and Planning, University at Buffalo, State University of New York

Revise as follows:

604.9.5 Toe Clearance at Compartments. ~~Toe clearance for compartments primarily for children's use shall comply with Section 604.9.5.2. Toe clearance for other wheelchair accessible compartments shall comply with Section 604.9.5.1.~~

604.9.5.1 Toe Clearance at Compartments. ~~The front partition and at least one side partition of compartments shall provide a toe clearance of 9 12 inches (230 305 mm) minimum above the floor and extending 6 8 inches (150 205 mm) beyond the compartment side face of the partition, exclusive of partition support members.~~

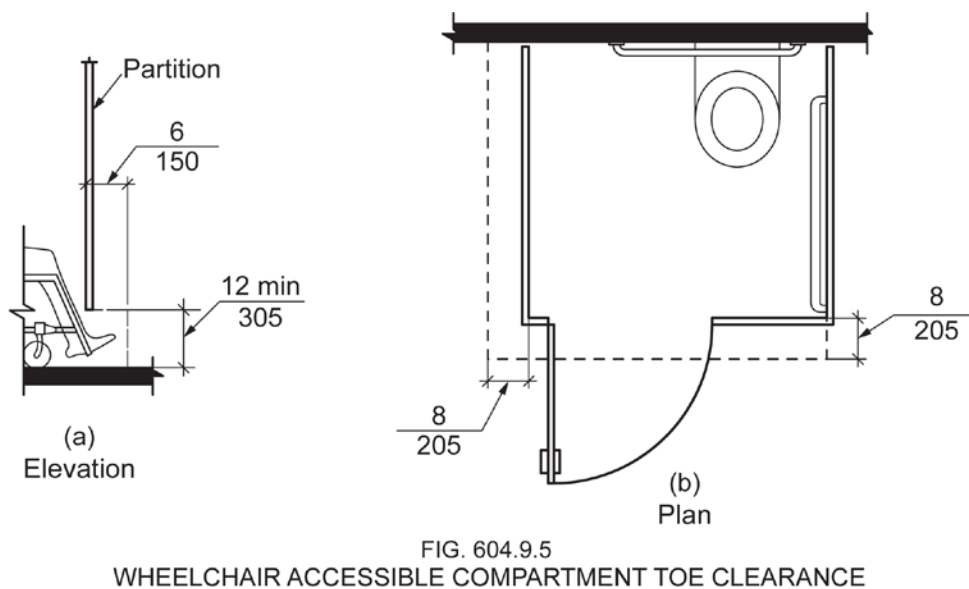
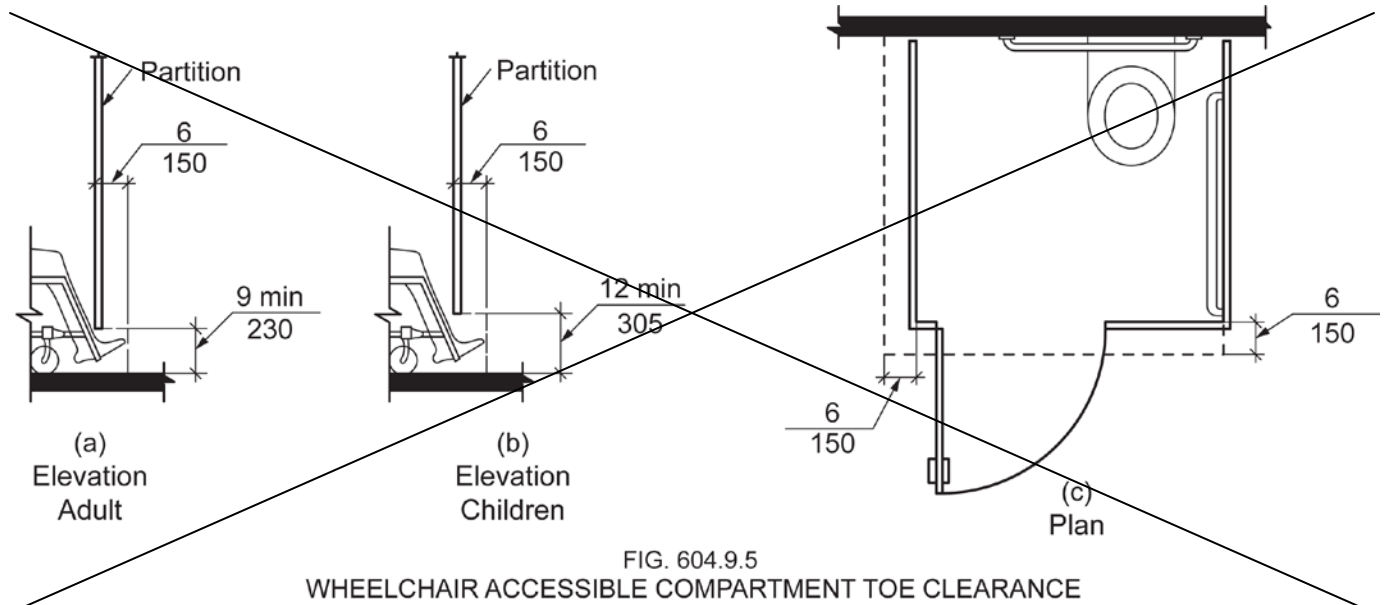
EXCEPTIONS:

- ~~1. At compartments not designed for children's use, toe clearance at the front partition is not required in a compartment greater than 62 64 inches (1575 1625 mm) in depth with a wall-hung water closet, or greater than 65 67 inches (1650 1700 mm) in depth with a floor-mounted water closet.~~
- ~~2. At all compartments designed for children's use, toe clearance at the front partition is not required in a compartment greater than 67 inches (1700 mm) in depth.~~
- ~~23. Toe clearance at the side partition is not required in a compartment greater than 66 68 inches (1675 1730 mm) in width.~~

604.9.5.2 Toe Clearance at Compartments for Children's Use. ~~The front partition and at least one side partition of compartments primarily for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the floor and extending 6 inches (150 mm) beyond the compartment side face of the partition, exclusive of partition support members.~~

EXCEPTIONS:

- ~~1. Toe clearance at the front partition is not required in a compartment greater than 65 inches (1650 mm) in depth.~~
- ~~2. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) in width.~~



Reason: Many of the technical requirements of the ICC/ANSI A117.1 (2009) Accessible and Usable Buildings and Facilities (ICC/ANSI) designed to accommodate wheeled mobility users are based on research completed from 1974 to 1978 using a research sample that included about 60 individuals who used manual wheelchairs (Steinfeld et al., 1979).

The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users (Steinfeld, et al., 2010). Measurements of body and device size were captured in three dimensions. The functional anthropometric measurements required measuring reaching ability, grip strength and the minimum space needed for turning. It is the most extensive anthropometric study of wheeled mobility device users in the United States. Additional information about the study can be found at <http://www.udeworld.com/ansi-standards-review>. The proposed revisions are based on new anthropometric information that was generated from the database of anthropometric measurements developed as part of the study.

Analysis

In addition to the findings reported in Steinfeld, et al., 2010, the IDeA Center developed a Design Resource entitled, *Knee and Toe Clearances for Wheeled Mobility Users* that provides more detailed information about the study reported in Steinfeld, et al., 2010.

The toe clearance necessary in a toilet compartment is necessarily different from that which is necessary when reaching or using a fixture such as a sink. This is because the objective for providing such clearance in a toilet compartment is to provide sufficient space for a wheeled mobility user to maneuver within the confined space. Hence, the objective is turning, as opposed to moving as close to the wall as possible (as would be the case in reaching).

When a wheeled mobility user is limited by a barrier at the ankle (a toilet compartment partition, for example), the current ANSI height of 9 inches accommodates fewer than 50% of manual wheelchair users. The 6 inches horizontal extension of toe clearance into the adjacent compartment accommodates fewer than 25% of manual wheelchair users. Changing these numbers to 12 inches and 8 inches, respectively, would increase the percentage accommodated to 75%. (D'Souza, et al., 2011, fig. 2)

These figures assume the wheelchair occupant is as far forward to the partition as possible but it does not account for the total occupied length of the device. Based on the existing ANSI standard, we propose that the exceptions be changed accordingly to account for the additional 2 inches of space added for toe clearance. This means that if an adjacent compartment does not have the requisite 8 inches, the accessible compartment must have 2 more inches than previously required in order to be exempted. Further, Steinfeld, et al., 2010 (pg. 95, fig. 4-5) notes that in order to allow 95% of power and manual wheelchair users to perform a 180-degree turn, a 67-inch width is necessary, which is consistent with the proposed change to the exemptions.

There is no research to support changes to the children's figure, thus our proposal of a 12-inch toe clearance height now aligns with the existing children's toe clearance height, therefore we have eliminated the distinction in this proposal.

NOTE: This change necessitates a change to Fig. 604.9.5 to ensure consistency. Thus, the proposed revised figure has been attached, along with the existing figure for comparison purposes.

References (See <http://www.udeworld.com/ansi-standards-review> for full text)

D'Souza, C., White, J., Steinfeld, E., and Paquet, V. (2011). *Knee and Toe Clearances for Wheeled Mobility Users*. Buffalo, NY: University at Buffalo Center for Inclusive Design and Environmental Access.

Steinfeld, E., Paquet, V., D'Souza, C., Joseph, C., and Maisel, J. (2010). *Final Report: Anthropometry of Wheeled Mobility Project*. Washington, DC: U.S. Access Board.

Steinfeld, E. Schroeder, S. and Bishop, M. (1979). *Accessible buildings for people with walking and reaching limitations*. Washington, DC: U.S. Department of Housing and Urban Development.

Committee Action: AS AM D

604.9.5-STEINFELD.doc

6-23 – 12

604.9.5.1, 604.9.5.2

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

604.9.5.1 Toe Clearance at Compartments. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the floor ~~and extending that extends 6 inches (150 mm) minimum~~ beyond the compartment side face of the partition, exclusive of partition support members.

EXCEPTIONS:

1. Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) in depth with a wall-hung water closet, or greater than 65 inches (1650 mm) in depth with a floor-mounted water closet.
2. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) in width.

604.9.5.2 Toe Clearance at Compartments for Children's Use. The front partition and at least one side partition of compartments primarily for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the floor ~~and extending that extends 6 inches (150 mm) minimum~~ beyond the compartment side face of the partition, exclusive of partition support members.

EXCEPTIONS:

1. Toe clearance at the front partition is not required in a compartment greater than 65 inches (1650 mm) in depth.
2. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) in width.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

This proposal is intended to help clean up a problem that existed in the 2003 edition of the standard and then was partially addressed by the committee in the 2009 edition.

Figure 604.8.5 in the 2003 edition showed the toe space extending "6 Min" [6 inches minimum] beyond the compartment partition. At the committee's July 2006 meeting a decision was made by the committee to issue an errata and delete the word "min" from the figure. While deleting that wording from the figure does coordinate the figure with the actual text shown in the standard (604.9.5.1 in 2009 standard) it also established the 6 inch requirement as an absolute dimension. Since section 104.2 states "Dimensions that are not stated as "maximum" or "minimum" are absolute." it now appears that the open space beneath the partition may not extend beyond the 6 inch depth versus only allowing the 6 inches to count as toe clearance. It cannot be less than 6 inches, and cannot be more than 6 inches. To enforce this provision to the absolute, a barrier would be required to be installed to exactly 6 inches out from the inside portion of the toe clearance to ensure the clearance is maintained at an absolute 6-inch dimension.

Consideration needs to be given to Section 306.2 that outlines the minimum and maximum toe clearances. During the final development work of the 2009 standard the editorial task group looked at this issue and made the following comment and suggestion:

It is more probable that errata should never have been issued to change Figure 604.8.5. It is the text of Section 604.8.5 as shown in the 2003 edition that needs to be revised as follows:

604.8.5 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the floor ~~and extending that extends 6 inches (150 mm) minimum~~ beyond the compartment side face of the partition, exclusive of partition support members. *(Remainder unchanged)*

Since revising the 6 inch dimension from an absolute requirement to a minimum would have been considered a substantive change the task group was not able to approve this as an editorial revision. This proposal is being brought forward to allow the committee to consider the editorial task group's recommendation and to clarify that the 6 inch toe space is not an absolute dimension but that it may extend beyond the 6 inch depth and coordinate with Section 306.2.4 and allow the additional clearance but simply not count it as toe clearance.

Committee Action:

AS

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604.9.5.1-PAARLBERG.doc

6-24 – 12

604.10.2, 604.11.2, 605.2

Proponent: Ed Roether, representing the ADA/A117 Harmonization Task Group

Revise as follows:

604.10.2 Size. The minimum area of an ambulatory accessible compartment shall be 60 inches (1525 mm) minimum in depth and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum-36 inches (915 mm) in width.

Fig. 604.10 Ambulatory Accessible Stall

Revise figure to be consistent with change to Section 604.10.2 -

604.11.2 Location. The water closet primarily for children's use 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 except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.10.1. Water closets located in ambulatory accessible toilet compartments specified in Section 604.10 shall be located as specified in Section 604.2.

605.2 Height and Depth. Urinals shall be of the stall type or shall be of the wall hung type with the rim at 17 inches (430 mm) maximum above the floor. ~~Wall hung Urinals shall be 13 ½ inches (345 mm)~~ minimum in depth measured from the outer face of the urinal rim to the wall.

Reason: The ADA/A117 Harmonization Task Group (HTG) was created as a task group of the A117.1 Committee to compare the 2010 ADA with the 2009 A117.1 Standard. The HTG has recommend a series of changes through a set of change proposals. The HTG is recommending changes, for the most part, address where the ADA was viewed as more stringent than the A117. Where the A117 contained provisions not addressed in the ADA, these were not considered a conflict needing action to amend the A117. In addition there are a number of places where the ADA and A117.1 are different as a result of specific actions, by the A117.1 Committee during the development of the 2009 edition, to remain or create a difference where, in the judgment of the committee the ADA was deficient.

This proposal incorporates all identified issues in Chapter 6

Reason for 604.10.2, 604.11.2, Figure 604.10: ADA has changed the width of the ambulatory accessible stall from a set 36 inches to a range of 35 to 37. This requires adjusting the A117.1.

Reason for 605.2: ADA does not limit the application of this section to just wall hung urinals..

Committee Action: AS AM D

604.10.2-ROETHER.doc

6-25 – 12

604.10.2

Proponent: Francine Wai, Executive Director, Disability & Communication Access Board

Revise as follows:

604.10.2 Size. The minimum area of an ambulatory accessible compartment shall be 60 inches (1525 mm) minimum in depth and ~~36 inches (915 mm)~~ 35 inches (890 mm) minimum and 37 inches (940 mm) maximum in width.

Reason: The 2010 ADA Standards allow a range on the width of the ambulatory stall. For consistency and harmonization between codes and standards, it is recommended that the provision be revised to mirror the Department of Justice's 2010 ADA Standards, which states:

604.8.2.1 Size. Ambulatory accessible 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.

Committee Action: AS AM D

604.10.2-WAI.doc

6-26 – 12

604.10.2, Figure 604.10

Proponent: Alan Gettelman, Bobrick Washroom Equipment, Inc.

Revise as follows:

604.10.2 Size. The minimum area of an ambulatory accessible compartment shall be 60 inches (1525 mm) minimum in depth and ~~36~~ 40 inches (~~915~~ 1015 mm) in width.

Revise figure as follows:

Change the called out dimension for the width of the compartment from ~~36 (915)~~ to 40 inches (1015)

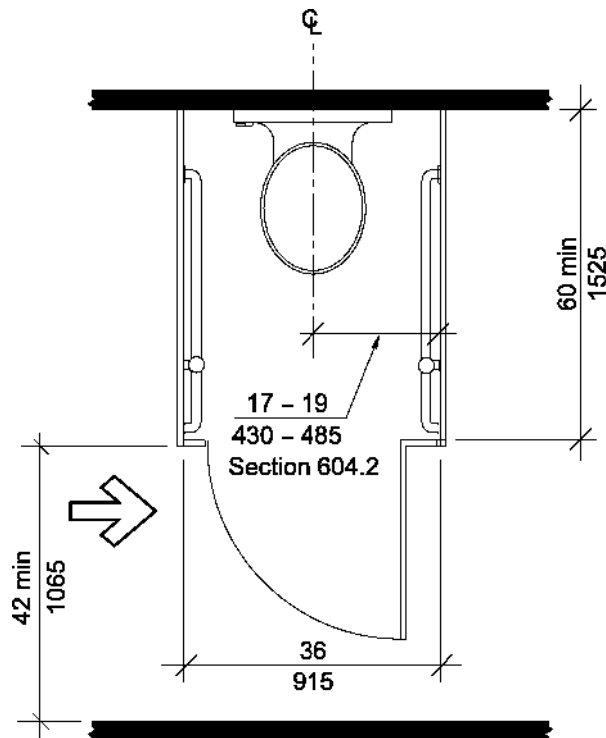


Fig. 604.10
Ambulatory Accessible Compartment

Reason:

1. A 40" Ambulatory Accessible compartment would allow use of a 3" wide stile on each side of the door opening. The 3" wide stile would provide room for attachment of door hinges and latch keepers. The 3" wide stiles would provide more structural support and rigidity for the side panels and the door hinging and closing than a 1" wide stile or wall post. The 3" wide stile conforms to toilet partition industry standard practice. The 1" wide stile or wall post is not standard.
2. The 36" wide Ambulatory Accessible Compartments have created installation problems for years. Current 36 inch wide ICC A117.1 Ambulatory Accessible Compartment with 32" clear door opening allows for only 1" wide stile or wall post on each side of door opening. The 1" wide stile or wall post is not wide enough for mounting door hinges and latch keepers.
3. It isn't clear that anthropometric or ergonomic data support a 40" dimension in this location.

Committee Action: AS AM D

604.10.2-GETTELMAN.doc

6-27 – 12

604.11.1, Table 604.11.1 (New)

Proponent: Hope Reed, New Mexico Governor's Commission on Disability (NMGCD)

Revise as follows:

604.11.1 General. Accessible water closets and toilet compartments primarily for children's use shall comply with Section 604.11. Table 604.11.1 provides the specifications for water closets for children according to the age group served and reflects the differences in the size, stature, and reach ranges of children ages 3 through 12. The specifications chosen shall correspond to the age of the primary user group. The specifications of one age group shall be applied consistently in the installation of a water closet and related elements.

Table 604.11.1 – Specifications for Water Closets Serving Children Ages 3 through 12			
	Ages 3 and 4	Ages 5 through 8	Ages 9 through 12
<u>Water closet centerline</u>	<u>12 inches (305 MM)</u>	<u>12 to 15 inches (305 to 380 mm)</u>	<u>15 to 18 inches (380 to 455 mm)</u>
<u>Toilet Seat Height</u>	<u>11 to 12 inches (280 to 305 mm)</u>	<u>12 to 15 inches (305 to 380 mm)</u>	<u>15 to 17 inches (380 to 430 mm)</u>
<u>Horizontal Grab Bar Height</u>	<u>18 to 20 inches (455 to 510 mm)</u>	<u>20 to 25 inches (510 to 635 mm)</u>	<u>25 to 27 inches (635 to 685 mm)</u>
<u>Vertical Grab Bar Height at bottom</u>	<u>21 to 30 inches (535 to 760 mm)</u>	<u>21 to 30 inches (535 to 760 mm)</u>	<u>21 to 30 inches (535 to 760 mm)</u>
<u>Vertical Grab Bar Distance to rear wall</u>	<u>34 to 36 inches (865 to 915 mm)</u>	<u>34 to 36 inches (865 to 915 mm)</u>	<u>34 to 36 inches (865 to 915 mm)</u>
<u>Dispenser Height</u>	<u>14 inches (355 mm)</u>	<u>14 to 17 inches (355 to 430 mm)</u>	<u>17 to 19 inches (430 to 485 mm)</u>

Reason: This guide provides useful information **within** the A117.1, provides compliance with 2010 ADA Advisory 604.9, and it includes the ANSI vertical grab bar. Standards should be written so they "support" those who are expected to enforce them.

Committee Action: AS AM D

604.11.1-REED.doc

6-28 – 12

604.11.4

Proponent: Edward Steinfeld, IDEA Center, School of Architecture and Planning, University at Buffalo, State University of New York

Revise as follows:

604.11.4 Height. The height of water closet seats primarily for children’s use shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum above the floor, measured to the top of the seat. Seats shall not be sprung to return to a lifted position. The height of water closet seats primarily for children’s use shall not be less than the toe clearance height of any adjacent partition.

Reason: Section 604.9.5.2 requires a 12-inch (305 mm) toe clearance under the partition at children’s water closets. The current minimum standard of only 11 inches (280 mm) height could then be visible under the partition. This contradiction would reduce privacy of those using the water closet, particularly in larger restrooms with greater viewing angles and viewers of short stature (such as other children). Since the standard allows a range, this would not *always* pose a privacy problem, but could. Adding the proposed language ensures that any seat within or adjacent to the accessible stall would be high enough to not be visible by any standing person, regardless of room size, or the viewer’s eye height.

Committee Action: AS AM D

604.11.4-STEINFELD.doc

6-29 – 12

604.11.7

Proponent: Hope Reed, New Mexico Governor's Commission on Disability (NMGCD)

Revise as follows:

604.11.7 Dispensers. Toilet paper dispensers primarily for children's use shall comply with Section 309.4. The outlet of dispensers shall be located within an area 24 inches (610 mm) minimum and ~~42~~ 36 inches (~~1065~~ 915 mm) maximum from the rear wall. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor. There shall be a clearance of 1½ inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.

Reason: For adults the reach range to the dispenser below the grab bar is 42 inches maximum. Provide a standard maximum useable reach range for all children.

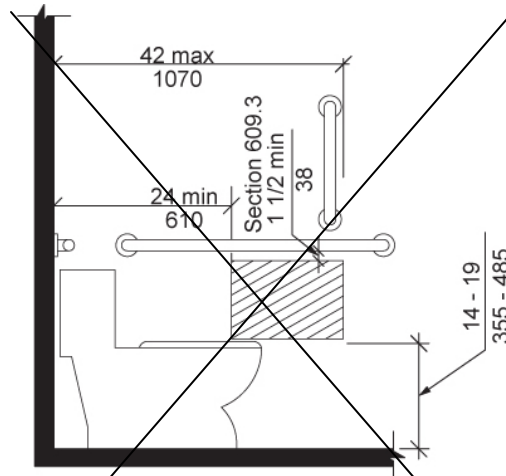
Committee Action: AS AM D

604.11.7-REED.doc

6-30 – 12
Figure 604.11.7

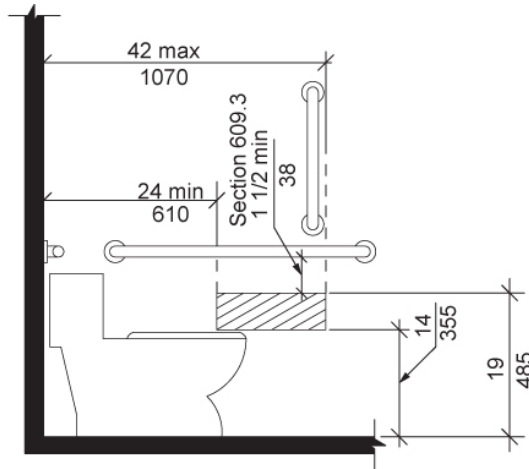
Proponent: Edward Steinfeld, IDEA Center, School of Architecture and Planning, University at Buffalo, State University of New York

Delete and substitute as follows:



Note: For adult dimensions see Fig. 604.7

FIG. 604.11.7
 CHILDREN'S DISPENSER OUTLET LOCATION



Note: For adult dimensions see Fig. 604.7

FIG. 604.11.7
 CHILDREN'S DISPENSER OUTLET LOCATION

Reason: Section 604.11.7 requires, "The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor." However, the existing figure does not accurately depict this condition. The figure depicts the bottom location of the dispenser as being within a range of 14-19 inches, but gives no dimension for the top of the dispenser. The figure should be corrected to more accurately reflect the text. It should label 14 inches to the bottom of the shaded area, and 19 inches to the top of the shaded area. The existing drawing was included above for reference purposes.

Committee Action: AS AM D

604.11.7(Figure)-STEINFELD.doc

6-31 – 12

604.12 (New), 604.12.1 (New), 604.12.2 (New), Figure 604.12.2 (New), 604.12.3 (New), Figure 604.12.3 (New), 604.12.3.1 (New), 604.12.3.2 (New), 604.12.4 (New), 604.12.5 (New), 604.12.6 (New), 604.12.7 (New)

Proponent: Terri Stewart, The American Institute of Architects, representing The Task Force on Aging

Add new text as follows:

604.12 Water Closets and Toilet Compartments for Elder Use.

604.12.1 General. Accessible water closets and toilet compartments primarily for elder use shall comply with Section 604.12.

604.12.2 Location. The water closet shall be located with a wall or partition to the rear. The centerline of the water closet shall be 30 inches (760 mm) minimum from any side wall, partition or fixture. Water closets located in ambulatory accessible toilet compartments specified in Section 604.9 shall be located as specified in Section 604.2.

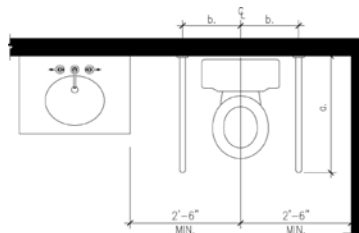


Fig. 604.12.2
Elder Water Closet Location*

** Dimension a. and b will be determined upon research results currently being conducted. (See Chapter 5)*

604.12.3 Clearance.

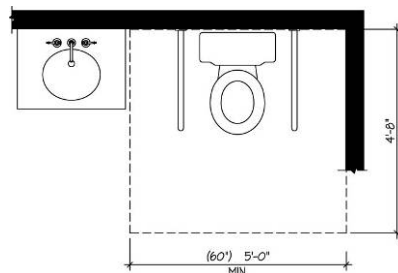


Fig. 604.12.3
Elder Size of Clearance for Water Closet

604.12.3.1 Size A clearance around a water closet 60 inches (1525 mm) minimum, measured perpendicular from the sidewall, and 56 inches (1420 mm) minimum, measured perpendicular from the rear wall, shall be provided.

604.12.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, paper dispensers, sanitary napkin receptacles, coat hooks, shelves,

accessible routes, clear floor space at other fixtures and the turning space. No other fixtures or obstructions shall be within the required water closet clearance.

604.12.4 Height. The height of water closet seats complying with Section 604.4 shall be provided.

604.12.5 Grab Bars. Grab bars for water closets shall comply with Section 604.5.3

604.12.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with Section 309. Flush controls shall be permitted to be located on either side of the water closet.

604.12.7 Dispensers. Toilet paper dispensers shall comply with Section 309.4 and shall be located on the fold-up grab bar 3 inches (76 mm) maximum behind the front of the water closet measured to the center line of the dispenser. The outlet of the dispenser shall be 21 inches (533 mm) minimum above the floor. There shall be a clearance of 1 inch (38 mm) minimum below the grab bar. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.

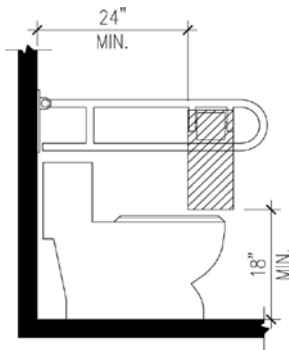


Fig. 604.12.7
Dispenser Location

Reason: Increased side wall clearance. Space is needed on both sides of the toilet to accommodate the range of transfer techniques including the front approach normally used in independent sit to stand transfers; caregivers to stand on either or both sides, for one- or two-person assisted transfers as necessary; and for use of a mechanical lifting device.

Dispenser Location for Caregivers. For both independent and assisted toileting, dispensers need to be located for both resident and caregiver, convenience when using fold up grab bars and when the distance from the center of the toilet exceeds 19 inches.

Committee Action: AS AM D

604.12 (New)-STEWART.doc

6-32 – 12

606.2

Proponent: Candace Biddle, City of Des Moines, IA

Revise as follows:

606.2 Clear Floor Space. A clear floor space complying with Section 305.3, positioned for forward approach, shall be provided. The clear floor space shall be centered on the fixture. Knee and toe clearance complying with Section 306 shall be provided. The dip of the overflow shall not be considered in the determining knee and toe clearances.

EXCEPTIONS:

1. A parallel approach complying with Section 305 and centered on the sink, shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided.
2. The requirement of knee and toes clearance shall not apply to 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.
3. A knee clearance of 24 inches (610 mm) minimum above the floor shall be permitted at lavatories and sinks used primarily by children ages 6 through 12 where the rim or counter surface is 31 inches (785 mm) maximum above the floor.
4. A parallel approach complying with Section 305 and centered on the sink, shall be permitted at lavatories and sinks primarily by children ages 5 and younger.
5. The requirement for knee and toe clearance shall not apply to more than one bowl of a multi-bowl sink.
6. A parallel approach complying with Section 305 and centered on the sink, shall be permitted at wet bars.

Reason: 2009 IPC currently states the following:

"A water closet, urinal, lavatory or bidet shall not be set closer than 15 inches (381 mm) from its center to any side wall, partition, vanity or other obstruction, or closer than 30 inches (762 mm) center to center between adjacent fixtures"

People who have mobility issues or who do not have use of one side of their body such as a stroke victim would be unable to reach the controls of a lavatory that is shoved into the corner of a restroom.

Committee Action: AS AM D

606.2-BIDDLE.doc

6-33 – 12

606.2

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

606.2 Clear Floor Space. A clear floor space complying with Section 305.3, positioned for forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided. The dip of the overflow shall not be considered in determining knee and toe clearances.

EXCEPTIONS:

1. (unchanged)
2. (unchanged)
3. A knee clearance of 24 inches (610 mm) minimum above the floor shall be permitted at lavatories and sinks used primarily by children ages 6 through 12 where the higher of the rim or counter surface is 31 inches (785 mm) maximum above the floor.
4. (unchanged)
5. (unchanged)
6. (unchanged)

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

This proposal is intended to coordinate with the language which is used in Section 606.3. The phrasing "higher of the rim or counter surface" is used in Section 606.3.

As it is currently written the standard would appear to allow the measurement to be taken to either the rim of the lavatory or the surface of the counter. Given some of the modern lavatory bowls that are available and being installed, it may be helpful to clarify where the measurement is to be taken.

Committee Action: AS AM D

606.2-PAARLBERG.doc

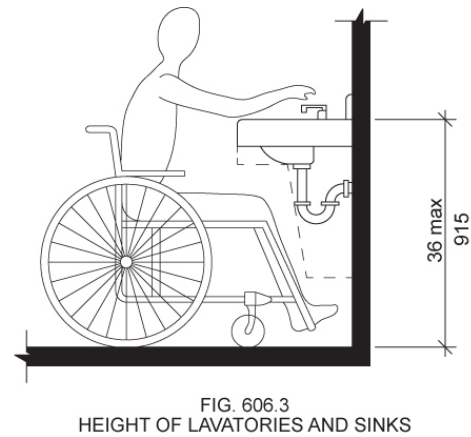
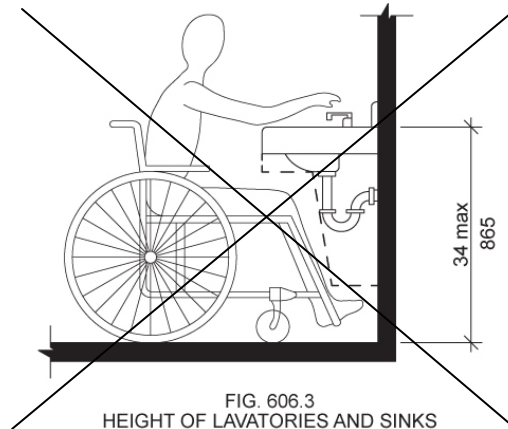
6-34 – 12

606.3, Figure 606.3

Proponent: Edward Steinfeld, IDEA Center, School of Architecture and Planning, University at Buffalo, State University of New York

Revise as follows:

606.3 Height. The front of lavatories and sinks shall be ~~34~~ 36 inches (~~865~~ 915 mm) maximum above the floor, measured to the higher of the rim or counter surface.



Reason: Many of the technical requirements of the ICC/ANSI A117.1 (2009) Accessible and Usable Buildings and Facilities (ICC/ANSI) designed to accommodate wheeled mobility users are based on research completed from 1974 to 1978 using a research sample that included about 60 individuals who used manual wheelchairs (Steinfeld et al., 1979).

The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users (Steinfeld, et al., 2010). Measurements of body and device size were captured in three dimensions. The functional anthropometric measurements required measuring reaching ability, grip strength and the minimum space needed for turning. It is the most extensive anthropometric study of wheeled mobility device users in the United States. Additional information about the study can be found at <http://www.udeworld.com/ansi-standards-review>. The proposed revisions are based on new anthropometric information that was generated from the database of anthropometric measurements developed as part of the study.

Analysis

A proposed change to Section 306 would raise the knee clearance height minimum to 29 inches, up from 27 inches, a difference of 2 inches. Changing the maximum rim height by the same 2 inches would allow many existing lavatory products to still comply with the standard by only being mounted 2 inches higher. Steinfeld, et al., 2010 demonstrates that the limiting factor in reaching a target (faucet controls, for example) when using a forward approach is not the height of the obstruction; it is the depth that influences

control reachability for people using wheeled mobility devices. This proposal will allow more wheelchair users to get a forward approach to the lavatory, as is often required for use of the lavatory.

Further, by raising the maximum height to 36 inches, it would now align with the common industry practice of 36-inch height countertops. It is reasonable to assume such a change would not affect other groups of individuals such as those with short stature because the proposed 36 inches is still lower than the current ANSI requirement of 38 inches maximum height for checkout counters.

NOTE: This change necessitates a change to Fig. 606.3 to ensure consistency. Thus, the proposed revised figure has been attached, along with the existing figure for comparison purposes.

References (See <http://www.udeworld.com/ansi-standards-review> for full text)

Steinfeld, E., Paquet, V., D'Souza, C., Joseph, C., and Maisel, J. (2010). *Final Report: Anthropometry of Wheeled Mobility Project*. Washington, DC: U.S. Access Board.

Steinfeld, E., Schroeder, S. and Bishop, M. (1979). *Accessible buildings for people with walking and reaching limitations*. Washington, DC: U.S. Department of Housing and Urban Development.

Committee Action: AS AM D

606.3-STEINFELD.doc

6-35 – 12

606.4

Proponent: Len Swatkowski, Plumbing Manufacturers International

Revise as follows:

606.4 Faucets. Faucets, whether they are side mounted faucets or provisions for approaching the sink from the side if space is available, shall comply with Section 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

Reason: Clarify the use of dual-handles in side sink locations by addressing dual faucet handles in side sink mounting situations to ensure adequate access to both controls. This also needs to address side mounted faucets and provisions for approaching the sink from the side if space is available.

Committee Action: AS AM D

606.4-SWATKOWSKI.doc

6-36 – 12

606.4, 606.5

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

606.4 Faucets. Faucets shall comply with Section 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

EXCEPTION: Automatic faucets are not required to comply with Section 309 provided that the reach depth to activate the faucets and the water flow is 11 inches maximum.

606.5 Lavatories with Enhanced Reach Range. Where enhanced reach range is required at lavatories, faucets and soap dispenser controls shall have a reach depth of 11 inches (280 mm) maximum ~~or, if automatic, shall be activated within a reach depth of 11 inches (280 mm) maximum.~~ Water and soap flow shall be provided with a reach depth of 11 inches (280 mm) maximum. The rim of the lavatory shall be 34 inches maximum above the floor, measured to the higher of the rim or counter surface.

EXCEPTIONS:

1. Enhanced reach range faucets are not required on lavatories provided with automatic faucets where the reach depth to activate the faucets and the water flow has a reach depth 11 inches maximum.
2. Enhanced reach range soap dispensers are not required on lavatories provided with automatic faucets where the reach depth to activate the soap dispensers and the soap flow is 11 inches maximum.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

There are two different ideas expressed in this proposal.

1) The height of the lavatory with enhanced reach range. The current text does not indicate a height. The 34" is from the enhanced reach Table 603.6. While the standard bathroom lavatory used to be about 28 inches, the current standard is not 34" and some of the lavatories are even higher.

2) Automatic faucets at accessible and enhanced reach range lavatories. While automatic faucets might typically be evaluated as alternative means, the enhanced reach lavatories have criteria for automatic faucets, while the accessible lavatory does not. The exceptions will clarify and make the criteria consistent.

There is the question if a touch faucet would be considered an automatic faucet vs. a motion sensor faucet? Need input from the plumbing industry on correct terminology.

Committee Action: AS AM D

606.4(NEW)-PAARLBERG.doc

6-37 – 12

606.5 (New)

Proponent: Judith K. Pipher, IndependenceFirst

Add new text as follows:

606.5 Basin Location. The interior edge of the rim of the lavatory basin shall be located 3 inches (75 mm) maximum from the front edge of the fixture or countertop.

Reason: Lavatory basins need to be accessible not only regarding reach ranges for faucets but for persons performing hygiene activities such as brushing their teeth or using mouthwash. Quite simply, basins need to be located to allow a person in a wheelchair to move his or her head and mouth over the basin to spit out toothpaste, mouthwash or other waste materials. Particularly where lavatories are dropped into countertops (but also where pedestal lavatories have especially deep horizontal ledges between their leading edges and the bowl) the location of the basin should be within a range that makes it usable to persons in a seated position.

A dimension of ± 3 inches (75 mm) is typical of kitchen sink locations and should be sufficient to providing this level of access to wheelchair users and persons of short stature at bathroom and toilet room lavatories.

While this issue is greatest in dwelling units, many persons perform hygiene activities in commercial facilities such as office or airport toilet rooms. Because of this, the change in Section 606 is appropriate.

Committee Action: AS AM D

606.5 (New)-PIPHER.doc

6-38 – 12

606.6

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

606.6 Exposed Pipes and Surfaces. Water supply and drainpipes under lavatories and sinks shall be ~~insulated~~ padded or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

There are some suppliers that are using the word 'insulated' to interpret that the pipes must meet the same flame spread and smoke development as specified in the building code for pipe insulation. The differing interpretations of the requirement have led to significant competitive actions between various manufacturers. It is not the intent of this language to specify piping insulation.

Committee Action: AS AM D

606.6-PAARLBERG.doc

6-39 – 12
607.2

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

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

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

Section 607.4.1 sets the 'depth' of the seat. The current language skips the piece between the 'length of the tub' and the end of the extension. This is a technical issue that just gives you all the pieces. Please see graphic revision attached.

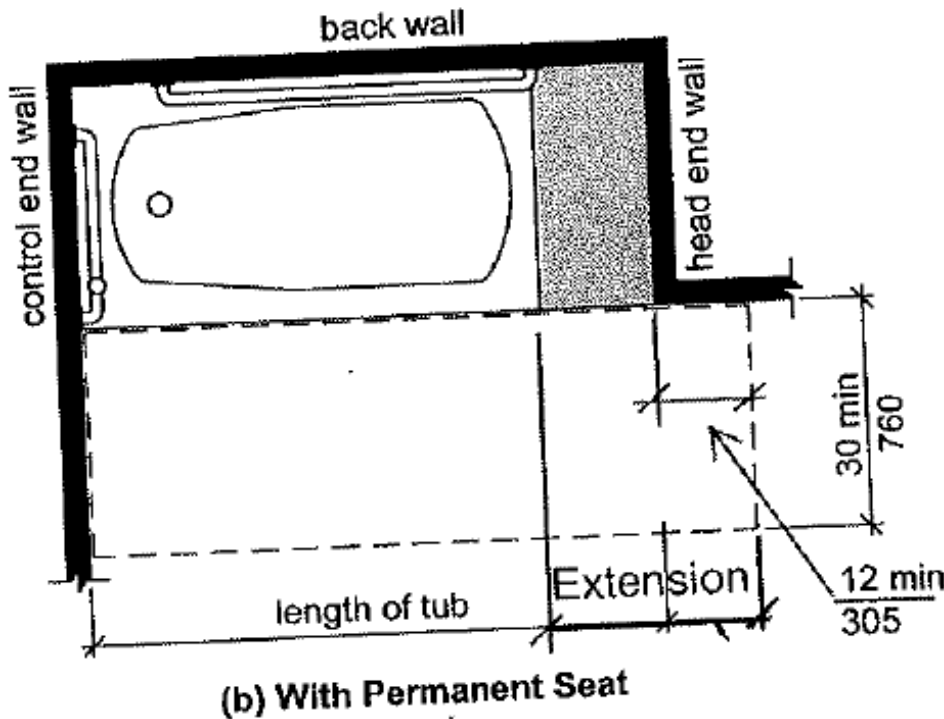


FIG. 607.2(b)
CLEARANCE FOR BATHTUBS

Committee Action: AS AM D

607.2(NEW)-PAARLBERG.doc

6-40 – 12

607.2, 607.2.1 (New)

Proponent: Thomas Hirsch FAIA, Hirsch Group LLC, representing Thomas Hirsch & Henry Kosarzycki

Revise as follows:

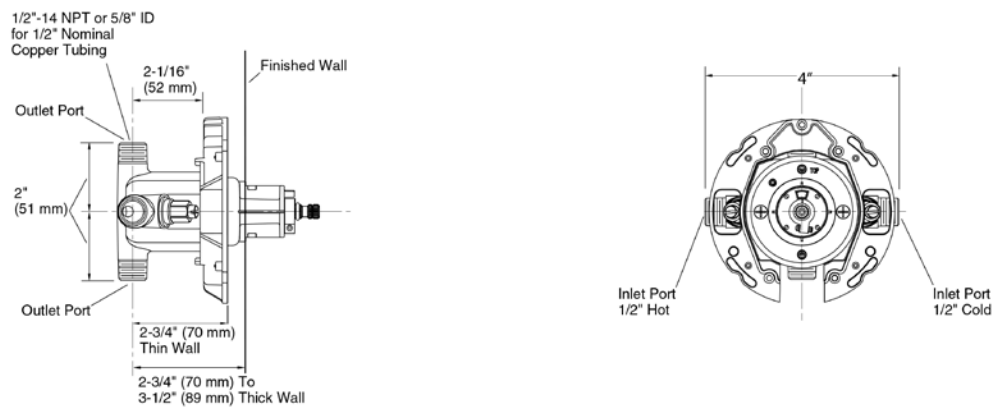
607.2 Transfer Clearance. A clearance in front of bathtubs extending the length of the bathtub and 30 inches minimum in depth shall be provided. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches minimum beyond the wall at the head end of the bathtub.

607.2.1 Control Clearance. Where the controls are located within 5" from the approach side of the bathtub the clearance shall extend 5 inches minimum beyond the control end wall. Where the controls measured from the approach side of the bathtub are located between 5 and 9 inches from the approach side of the tub the clearance shall extend 9 inches minimum beyond the control end wall.

Reason: Current Reach Ranges permit controls which realistically can only be used by 15% of persons with upper body mobility (those likely to bathe without assistance). 2012 Anthropometry of Wheeled Mobility Report, page 105, and elsewhere, indicates side reach is possible for far greater numbers of persons if feet extend beyond plane of the controls ("toe space").

1. Closest valve installation is 5" from approach side to center line, and not higher than 29" AFF to avoid conflict with in-wall blocking for grab bars. (Kohler valve installation diagrams, attached)
2. For toe space at 5" if offset is 5" 58% of sample could reach; if offset is 9" then 45% of sample could reach.
3. For toe space at 9" if offset is 5" then 72% of sample could reach, and if offset is 9" then 65% of sample could reach.

Tub/Shower valve installation diagrams, based on Kohler 304-PS



KOHLER

Committee Action: AS AM D

607.2 #2-HIRSCH.doc

6-41 – 12

607.3 (New)

Proponent: Hank Falstad, Access Technologies Services, Inc., representing self

Add new text as follows:

607.3 Height. The top of the bathtub rim shall be between 17 inches minimum and 19 inches maximum above the floor.

(Renumber subsequent sections)

Reason:

1. There is a transfer from the wheelchair.
2. Could be a removable seat across the tub.
3. Could be a removable seat that is inside the tub.
4. Bathtubs come with different rim heights; the bathtub rim needs to be in the established transfer range.

Committee Action: AS AM D

607.3 (New)-FALSTAD.doc

6-42 – 12

607.3.1

Proponent: Hank Falstad, Access Technologies Services, Inc, representing self

Revise as follows:

~~607.3~~ **607.3.1 Seat.** A permanent seat at the head end of the bathtub or a removable in-tub seat shall be provided. Seats shall comply with Section 610. Sign on lower right hand corner of mirror indicating how one gets the removable in-tub seat.

Reason:

1. Bench seats “walk” from the property.
2. The 3 leg tub seat chair is in the way, so neither the chair or the bench is in the room; therefore need the sign.

Committee Action: AS AM D

607.3.1-FALSTAD updated.doc

6-43 – 12

607.4.1.2

Proponent: Hank Falstad, Access Technologies Services, Inc., representing self

Delete and substitute as follows:

~~**607.4.1.2 Control End Wall.** Control end wall grab bars shall comply with Section 607.4.1.2.~~

~~**EXCEPTION:** An L-shaped continuous grab bar of equivalent dimensions and positioning shall be permitted to serve the function of separated vertical and horizontal grab bars.~~

607.4.1.2 Control End Wall. Control end wall grab bar shall be an L-shaped continuous grab bar. The horizontal portion of the grab bar shall be 24 (610 mm) inches minimum in length and shall be provided on the control end wall beginning 4 inches (100 mm) maximum inward from the front edge of the bathtub and extending toward the inside corner of the bathtub. The vertical portion of the grab bar shall be 18 inches (455 mm) minimum in length.

Reason:

1. Have a one piece grab bar.
2. Manufacturer will make that L bar.
3. Need one less mounting bracket.
4. Looks neater.

Committee Action: AS AM D

607.4.1.2-FALSTAD.doc

6-44 – 12

607.4.2.3

Proponent: Hank Falstad, Access Technologies Services, Inc., representing self

Revise as follows:

607.4.2.3 Head End Wall. ~~A horizontal grab bar 12 inches (305 mm) minimum in length shall be provided on the head end wall at the front edge of the bathtub.~~ Head end wall grab bar shall be an L-shaped continuous grab bar. The horizontal portion of the grab bar shall be 12 inches (305 mm) minimum in length and shall be provided on the head end wall beginning 4 inches (100 mm) maximum inward from the front edge of the bathtub. The vertical portion of the grab bar shall be 18 inches (455 mm) minimum in length.

Reason:

1. We see bathtub slip and fall cases.
2. Prevent slip and fall.
3. Additional safety.

Committee Action: AS AM D

607.4.2.3-FALSTAD.doc

6-45 – 12
106.5, 607.6, 608.5

Proponent: Len Swatkowski, Plumbing Manufacturers International

Revise as follows:

106.5 Defined Terms.

Hand-held shower. An accessory to a supply fitting, that can be held or fixed in place for the purpose of spraying water on a bather, and which is connected to a flexible hose.

607.6 Hand-held Shower. A hand shower with a hose 59 inches (1500 mm) minimum in length, that can be used as both a fixed shower head and as a hand shower, shall be provided. ~~The hand shower shall have a control with a nonpositive shut-off feature.~~ Where provided, an adjustable-height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars.

608.5 Hand-held Showers. A hand shower with a hose 59 inches (1500 mm) minimum in length, that can be used both as a fixed shower head and as a hand shower, shall be provided. ~~The hand shower shall have a control with a nonpositive shut-off feature.~~ Where provided, an adjustable-height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars.

EXCEPTION: In other than Accessible units and Type A units, a fixed shower head located 48 inches (1220 mm) maximum above the shower floor shall be permitted in lieu of a hand shower.

Reason: The reference in Hand showers to non-positive shutoffs has created confusion and potential safety issues in the field. Remove the reference to non-positive shutoffs to align with the language in ADAAG, CSA B651, California and Texas.

Also, the term "hand-held shower" is not defined in standard ASME/ICC A117.1 and therefore is being proposed for this standard as it is also being proposed for ASME A112.18.1-2011/CSA B125.1-11.

Committee Action: AS AM D

607.6-SWATKOWSKI.doc

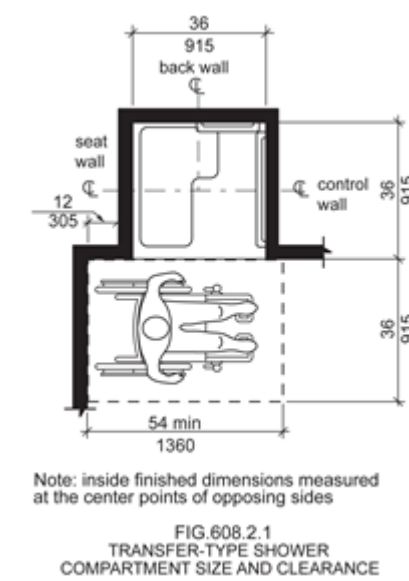
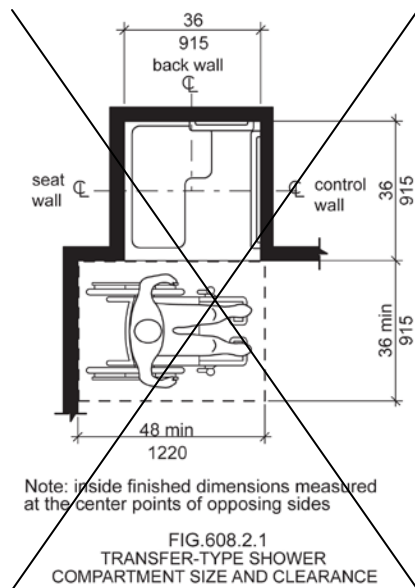
6-46 – 12

608.2.1.2, Figure 608.2.1

Proponent: Edward Steinfeld, IDEA Center, School of Architecture and Planning, University at Buffalo, State University of New York

Revise as follows:

608.2.1.2 Clearance. A clearance of ~~48~~ **54** inches (~~1220~~ **1360** mm) minimum in length measured perpendicular from **12** inches beyond the ~~control~~ **seat** wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment.



Reason: Many of the technical requirements of the ICC/ANSI A117.1 (2009) Accessible and Usable Buildings and Facilities (ICC/ANSI) designed to accommodate wheeled mobility users are based on research completed from 1974 to 1978 using a research sample that included about 60 individuals who used manual wheelchairs (Steinfeld et al., 1979).

The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users (Steinfeld, et al., 2010). Measurements of body and device size were captured in three dimensions. The functional anthropometric measurements required measuring reaching ability, grip strength and the minimum space needed for turning. It is the most extensive anthropometric study of wheeled mobility device users in the United States. Additional information about the study can be found at <http://www.udeworld.com/ansi-standards-review>. The proposed revisions are based on new anthropometric information that was generated from the database of anthropometric measurements developed as part of the study.

Analysis

Unlike turning spaces that are based on dynamic requirements, clear floor space represents the space required for a stationary wheeled mobility device. This area is typically depicted as a rectangular space the dimensions of which are based on measurements of occupied length and occupied breadth of wheeled mobility devices, which are defined as follows:

- **Occupied length:** measured as the horizontal distance between the forward-most point and the rear-most point on the wheelchair or occupant.
- **Occupied width:** measured as the horizontal distance between the side-most points of the wheelchair or participant on the right and left sides.

The results of our analysis suggest that the existing standard on clear floor space (48" length, 30" width) does not accommodate the occupied lengths and widths of the wheeled mobility user population and excludes powered wheeled mobility device users disproportionately as compared to manual device users. A length of 48" accommodates the occupied length of 75% of manual wheelchair users and only about 50% of powered chair and scooter users. A width of 30" accommodates the occupied width of 90% of manual wheeled mobility device users and only 75% of powered chair users.

We have taken the position that the clear floor space standards should accommodate the occupied lengths and widths of at least 90% of manual and powered wheeled mobility device users. A width of 32" accommodates the occupied widths of over 95% of manual wheeled mobility device users and 90% of the powered wheelchair users. **Proposed changes to subsection 608.2.1.2 Clearance would accommodate an occupied length of 54" while not changing the overall dimensions of the shower facility.**

Instead, we propose allowing the front of the wheelchair and/or person to extend beyond the control wall by the additional 6" in order to accommodate those with large occupied wheelchair lengths.

The analysis was summarized in the Final Project Report to the U.S. Access Board and in a memorandum entitled "Evaluation of Clear Floor Space Requirements," that was submitted to the ICC/ANSI A117 Task Force on Anthropometry of Wheeled Mobility Subcommittee on Clear Floor Space Clearances.

References (See <http://www.udeworld.com/ansi-standards-review>)

Paquet, V. (2012). *Evaluation of Clear Floor Space Requirements*. A memorandum submitted to the ICC/ANSI A117 Task Force on Anthropometry of Wheeled Mobility Subcommittee on Clear Floor Space Clearances.

Steinfeld, E., Paquet, V., D'Souza, C., Joseph, C., and Maisel, J. (2010). *Final Report: Anthropometry of Wheeled Mobility Project*. Washington, DC: U.S. Access Board.

Steinfeld, E., Schroeder, S. and Bishop, M. (1979). *Accessible buildings for people with walking and reaching limitations*. Washington, DC: U.S. Department of Housing and Urban Development.

Committee Action: AS AM D

608.2.1.2-STEINFELD.doc

6-47 – 12

608.2.1.2, 608.2.1.4(NEW), 608.2.2.2, 608.2.2.4(NEW)

Proponent: Thomas Hirsch FAIA, Hirsch Group LLC, representing Thomas Hirsch & Henry Kosarzycki

Revise as follows:

608.2.1.2 Transfer Clearance. A clearance in front of bathtubs extending the length of the bathtub and 30 inches minimum in depth shall be provided. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches minimum beyond the wall at the head end of the bathtub.

608.2.1.4 Control Clearance. Where the controls are located within 5 inches from the approach side of the bathtub the clearance shall extend 5 inches minimum beyond the control end wall. Where the controls measured from the approach side of the bathtub are located between 5 and 9 inches from the approach side of the tub the clearance shall extend 9 inches minimum beyond the control end wall.

608.2.2.2 Transfer Clearance. A clearance in front of bathtubs extending the length of the bathtub and 30 inches minimum in depth shall be provided. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches minimum beyond the wall at the head end of the bathtub.

608.2.2.4 Control Clearance. Where the controls are located within 5 inches from the approach side of the bathtub the clearance shall extend 5 inches minimum beyond the control end wall. Where the controls measured from the approach side of the bathtub are located between 5 and 9 inches from the approach side of the tub the clearance shall extend 9 inches minimum beyond the control end wall.

Reason: Current Reach Ranges permit controls which realistically can only be used by 15% of persons with upper body mobility (those likely to bathe without assistance). 2012 Anthropometry of Wheeled Mobility Report, page 105, and elsewhere, indicates side reach is possible for far greater numbers of persons if feet extend beyond plane of the controls ("toe space").

1. Closest valve installation is 5" from approach side to center line, and not higher than 29" AFF to avoid conflict with in-wall blocking for grab bars. (Kohler valve installation diagrams, attached)
2. For toe space at 5" if offset is 5" 58% of sample could reach; if offset is 9" then 45% of sample could reach.
3. For toe space at 9" if offset is 5" then 72% of sample could reach, and if offset is 9" then 65% of sample could reach.

Committee Action: AS AM D

608.2.1.2-HIRSCH.doc

6-48 – 12

608.2.1.3

Proponent: Francine Wai, Executive Director, Disability & Communication Access Board

Revise as follows:

608.2.1.3 Seat. A folding or non-folding seat complying with Section 610 shall be provided on the wall opposite the control wall.

~~**EXCEPTION:** A seat is not required to be installed in a shower for a single occupant, accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of a shower seat.~~

Reason: The Department of Justice's 2010 ADA Standards do not appear to allow a transfer shower accessed only through a private office and not for common or public use to be exempt from providing a shower seat. As currently written the A117.1 exception does not comply with the 2010 ADA Standards.

For consistency and harmonization, it is recommended that the exception be deleted.

Committee Action: AS AM D

608.2.1.3-WAI.doc

6-49 – 12

608.2.2.2

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

608.2.2.2 Clearance. A clearance of ~~60 inches (1525 mm) minimum in length~~ located adjacent to the 60-inch (1525 mm) width of the full length of the open face of the shower compartment, and with a depth of 30 inches (760 mm) minimum in depth, shall be provided.

EXCEPTION: A lavatory complying with Section 606 shall be permitted at the end of the clearance opposite the seat.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

This is to clarify the exact location of the 30x60 clearance location. Otherwise, the clearance might be parallel to but not align with the shower compartment, thus reducing accessibility into and out of the shower.

This proposal came out of the previous development cycle in response to work that the editorial task group considered. While the task group did understand the suggested wording it was viewed as being a substantive change and therefore ruled to be beyond their assigned task.

This proposed language will provide greater clarity to ensure that the 60 x 30 clear space is not offset from the 60 inch opening. The argument being that 60 x 30 space would still be "adjacent to" the opening even if it was offset some distance.

Providing more precision regarding the relationship of the clearance to the element it serves may call into question the intent of other clearance requirements. The committee may wish to discuss this issue and then determine how to proceed. If a change is made, it could be applied throughout the document. This concern for alignment or limiting offsets has been used in other places within the document (608.2.1.2, 611.2, 804.5.6, etc.)

Committee Action: AS AM D

608.2.2.2-PAARLBERG update.doc

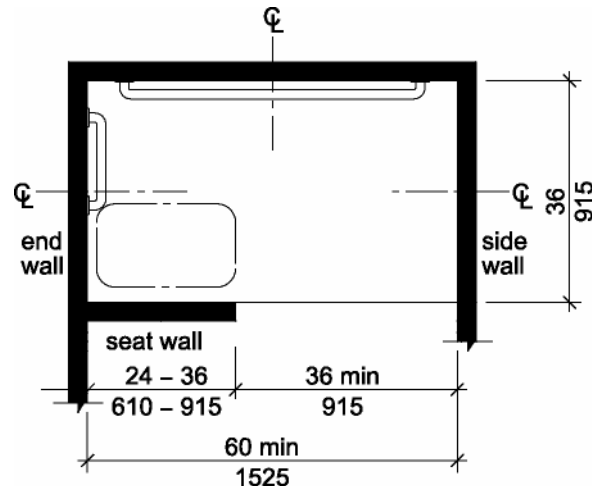
6-50 – 12

608.2.3, Figure 608.2.3, 608.2.3.1, 608.3.3, Figure 608.3.3, 608.4.3, Figure 608.4.3, 610.3

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

608.2.3 Alternate Roll-in-Type Combination Shower Compartments. Alternate roll-in-type Combination shower compartments shall comply with Section 608.2.3.



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

Fig. 608.2.3
**Alternate Roll-in-Type Combination Shower Compartment
Size and Clearance**

608.2.3.1 Size. Alternate roll-in Combination shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width, and 36 inches (915 mm) in depth, measured at the center point of opposing sides. An entry 36 inches (915 mm) minimum in width shall be provided at one end of the 60-inch (1525 mm) width of the compartment. A seat wall, 24 inches (610 mm) minimum and 36 inches (915 mm) maximum in length, shall be provided on the entry side of the compartment.

608.3.3 Alternate Roll-in-Type Combination Showers. In alternate roll-in-type combination showers, grab bars shall be provided on the back wall and the end wall adjacent to the seat. Grab bars shall not be provided above the seat. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.

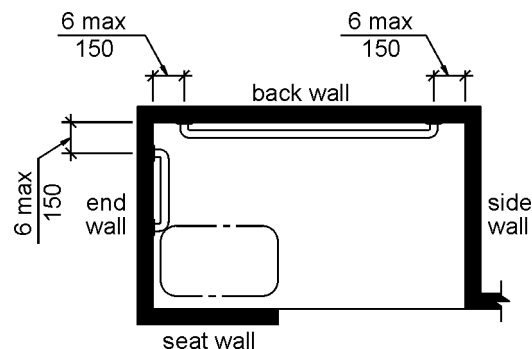


Fig. 608.3.3
Grab Bars in Alternate Roll-in-Type Combination Showers

608.4.3 Alternate Roll-in Combination Showers. In alternate roll-in combination showers, the controls and hand shower shall be located 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor. In alternate roll-in combination showers with controls and hand shower located on the end wall adjacent to the seat, the controls and hand shower shall be 27 inches (685 mm) maximum from the seat wall. In alternate roll-in combination showers with the controls and hand shower located on the back wall opposite the seat, the controls and hand shower shall be located within 15 inches (380 mm), left or right, of the centerline of the seat.

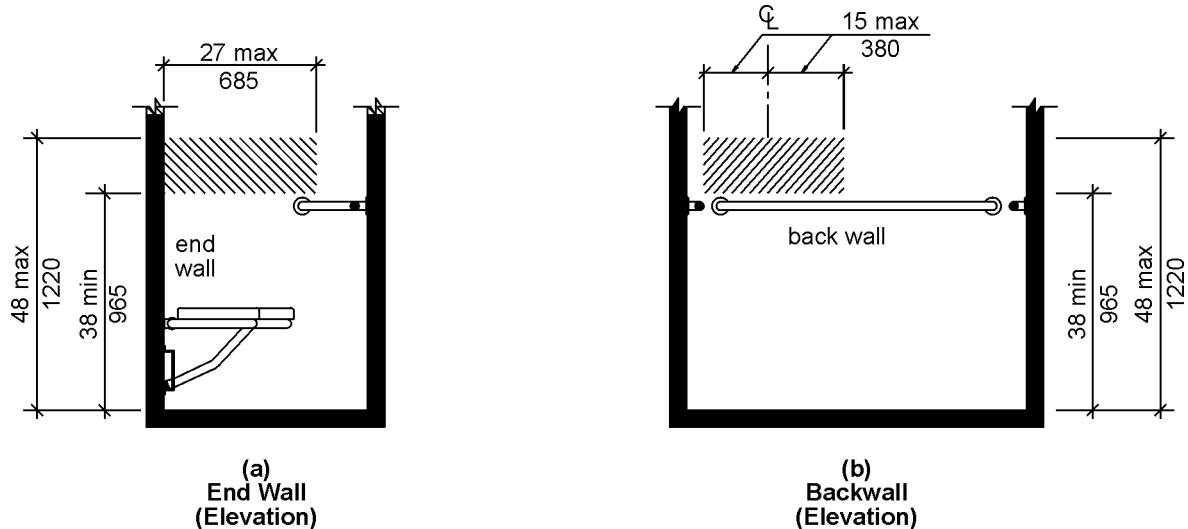


Fig. 608.4.3
Alternate Roll-in-Type Combination Shower Control and Handshower Location

610.3 Shower Compartment Seats. The height of shower compartment seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom floor, measured to the top of the seat. In transfer-type and alternate roll-in-type combination showers, the seat shall extend along the seat wall to a point within 3 inches (75 mm) of the compartment entry. In standard roll-in-type showers, the seat shall extend from the control wall to a point within 3 inches (75 mm) of the compartment entry. Seats shall comply with Section 610.3.1 or 610.3.2.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

This change (or something similar) may be more appropriate in the scoping documents, but providing the revision in the A117.1 standard will help to clarify that there are truly three separate types of showers within the standard and provide further distinction between a standard roll-in shower and an alternate roll-in shower.

Table 1107.6.1.1 of the *International Building Code* and Table 224.2 of the federal *2010 Standards for Accessible Design* require that a certain number Accessible dwelling or sleeping units be provided with roll-in showers and a certain number units are "without roll-in showers." This leads to the question of whether an alternate roll-in shower is allowed in the units "without roll-in showers" or not. While it may ultimately be better if these scoping documents clarify the types of bathing fixtures that are acceptable in these units "without roll-in showers" the A117 committee has the opportunity to make its position known and show through the technical requirements that the alternate roll-in shower does offer a variety of options which make it different from a standard roll-in shower.

Because the "alternate roll-in shower" does provide the user a choice of options (roll-in or transfer) they should be acceptable in the units required to be "without roll-in showers". Since the real intent of that requirement is to provide some units which have a bathtub or a transfer shower, the alternate roll-in shower should also be acceptable since it may be used in a variety of ways and it will allow for a transfer which is comparable to that of a transfer shower.

I do not hold any strong feelings for the terminology "combination shower" and if the committee can determine a more appropriate term it should feel free to make a change.

I have included a portion of Table 224.2 from the 2010 Standards for Accessible Design so the scoping language can be seen.

Table 224.2 Guest Rooms with Mobility Features

Total Number of Guest Rooms Provided	Minimum Number of Required Rooms Without Roll-in Showers	Minimum Number of Required Rooms With Roll-in Showers	Total Number of Required Rooms
1 to 25	1	0	1
26 to 50	2	0	2
51 to 75	3	1	4
76 to 100	4	1	5

Committee Action: AS AM D

608.2.3-PAARLBERG.doc

6-51 – 12

608.2.4 (New), 608.2.4.1 (New),

Proponent: Thomas Hirsch FAIA, Hirsch Group LLC, representing Thomas Hirsch & Henry Kosarzycki

Add new text as follows:

608.2.4 Transfer-Type Shower Compartment for Alterations. Where an existing bathing room is altered and it is determined to be technically infeasible, a transfer-type shower compartments shall have at least a clear inside dimension of 48 inches in width and 32 inches in depth, measured at the center point of opposing sides. An entry 36 inches minimum in width shall be provided. A clearance of 48 inches minimum in length measured perpendicular from the control wall, and 36 inches minimum in depth shall be provided adjacent to the open face of the compartment.

608.2.4.1 Transfer-Type Shower Compartment for Alteration Controls. Where the controls are located within 5 inches from the approach side of the bathtub the clearance shall extend 5 inches minimum beyond the control end wall. Where the controls measured from the approach side of the bathtub are located between 5 and 9 inches from the approach side of the tub the clearance shall extend 9 inches minimum beyond the control end wall.

Reason: In rehabilitation of existing Bathrooms conversions from Tub to Showers is often desired. Using the concept of “technical infeasible” to avoid wall removal and replacement, as well as the consequent loss of space in adjoining space, bathing can be provided with little diminution of use-ability in the replacement shower.

Committee Action: AS AM D

608.2.4(NEW)-HIRSCH.doc

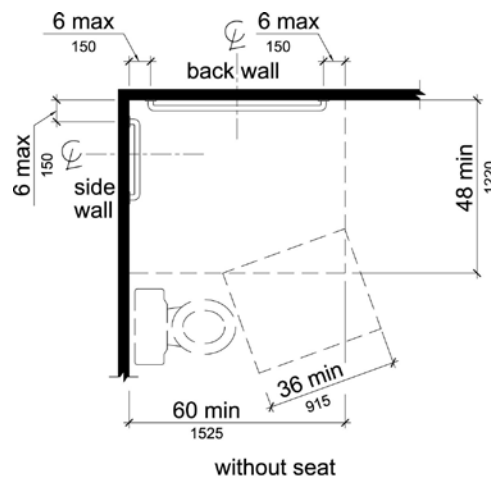
6-52 – 12

608.2.4 (New), Figure 608.2.4 (New)

Proponent: Terri Stewart, The American Institute of Architects, representing The Task Force on Aging

Add new text as follows:

608.2.4 Alternate Roll-In Type Shower Compartments for Elder Use. Roll-in type shower compartments for elder use shall be 48 inches (1220 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. A grab bar shall be provided on the back wall beginning at 6 inches (150 mm) maximum from the adjacent wall. The back wall grab bar shall extend the length of the wall but shall not be required to exceed 48 inches (1220 mm) in length. A grab bar shall be provided on the side wall. The side wall grab bar shall extend the length of the wall beginning at 6 inches (150 mm) maximum from the adjacent back wall but shall not be required to exceed 30 inches (760 mm) in length.



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

Fig. 608.2.4
Alternate Roll-In Shower
Compartment Size and Clearance

Reason: Provides equivalent size and clearance as Section 608.2.3 without seat and front wall for assistance in bathing. Also provides shower overlap for toilet clearance. Also, see White Paper of April 22, 2012.

Committee Action: AS AM D

608.2.4 (New)-STEWART.doc

6-53 – 12
608.3.1

Proponent: Hank Falstad, Access Technologies Services, Inc, representing self

Revise as follows:

608.3.1 Transfer-Type Showers. Grab bars for transfer type showers shall comply with Section 608.3.1.

EXCEPTION: An L-shaped continuous grab bar of equivalent dimensions and positioning shall be permitted to serve the function of separate vertical and horizontal grab bars.

Reason: Prevent slip and fall.

Committee Action: AS AM D

608.3.1 #1-FALSTAD.doc

6-54 – 12

608.3.1.2

Proponent: Hank Falstad, Access Technologies Services, Inc., representing self

Revise as follows:

608.3.1.2 Vertical Grab Bar. Vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the ~~control end seat wall~~; 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the shower.

Reason:

1. Now there is a vertical bar on both sides of the transfer shower.
2. Improved safety in making the transfer

Committee Action: AS AM D

608.3.1.2 FALSTAD Update.doc

6-55 – 12

608.3.2

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

608.3.2 Standard Roll-in-Type Showers. In standard roll-in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall to within 6 inches (150 mm) of the side wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length. Grab bars on the side wall shall be 6 inches (150 mm) maximum from the adjacent back wall.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

The intent of this proposal is to address a problem within the standard which occurs in gang showers or in a standard roll-in shower which exceeds the minimum size requirements.

Look at the two highlighted sentences below. If the back wall grab bar is only 48" in length in a long (exceeding min. dimension) shower, how can it also be no more than 6" from the intersecting wall opposite the seat?

608.3.2 Standard Roll-in-Type Showers. In standard roll-in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.

The initial proposal above is intended to recognize that when the shower exceeds the minimum size that a 48 inch long grab bar may not extend within 6 inches of the side wall. In a minimum size shower the first part of the paragraph adequately addresses the location, position and length of the back wall grab bar. Therefore the last sentence can be modified so it only addresses the side wall grab bar location. Where the shower exceeds the minimum sizes, the first part again adequately locates the back wall grab bar so it is usable on the seat or in the seat location. On these larger showers it is important that the side wall grab bar (if provided) is located near the corner of the shower so it is in a usable position. That is why the 6 inch location from the adjacent wall intersection is important.

Another option (but a bit more complex revision) would be to divide the requirements into separate sections which deal with the back wall and side wall grab bars separately. The primary difference between the proposed Sections 608.3.2.1 and 608.3.2.2 below is seen in the exceptions. The back wall grab bar which is of the 48 inch maximum required length is not required to extend within 6 inches of the side wall. Whereas the side wall grab bar which is of the 30 inch maximum required length is required to extend with 6 inches of the adjacent back wall.

The committee can accept or modify the following alternate proposal if they prefer this format or concept.

608.3.2 Standard Roll-in-Type Showers. Grab bars in standard roll-in showers shall comply with Section 608.3.2.

608.3.2.1 Back wall grab bar. In standard roll-in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent side wall opposite the seat.

Exceptions:

1. The back wall grab bar but shall not be required to exceed 48 inches (1220 mm) in length.
2. The back wall grab bar is not required to extend within 6 inches (150 mm) of the adjacent side wall opposite the seat if it would require the grab bar length to exceed 48 inches (1220 mm) in length.

608.3.2.2 Side wall grab bars. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent back wall.

Exception: The side wall grab bar but shall not be required to exceed 30 inches (760 mm) in length. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.

Committee Action: AS AM D

608.3.2 #2-PAARLBERG.doc

6-56 – 12

608.3.2

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

608.3.2 Standard Roll-in-Type Showers. In standard roll-in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.

EXCEPTIONS:

1. Grab bars on the back wall shall not be required to begin within 6 inches (150 mm) from the adjacent wall in the following locations:
 - 1.1. Where the grab bar would need to extend above the seat in order to meet the 6 inch (150 mm) requirement.
 - 1.2. Where the length of the grab bar would be required to exceed 48 inches (1220 mm) in length in order to meet the 6 inch (150 mm) requirement.
2. Grab bars on the end walls shall not be required to begin within 6 inches (150 mm) from the adjacent wall in the following locations:
 - 2.1 Where the grab bar would need to extend above the seat in order to meet the 6 inch (150 mm) requirement.
 - 2.2 Where the length of the grab bar would be required to exceed 30 inches (760 mm) in length in order to meet the 6 inch (150 mm) requirement.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

Due to revisions that were made in the 2009 standard, the size of the grab bars in larger showers do not need to exceed 48 inches if located on the back wall or 30 inches if located on an end wall. That text which was added in the last cycle does not work well with the last sentence which says the grab bars are required to start 6 inches maximum from the adjacent wall. It also does not provide any type of exception where the 6 inch requirement would place the bar above the seat.

The proposed exceptions are intended to address the conflicts that the current text creates. These conflicts are: (a) that the larger showers would not require the bar to extend within 6 inches of the wall, and (b) that the existing text does not address the fact that by prohibiting the bar above the seat will mean the bar won't be within 6 inches of the adjacent wall when it terminates at the edge of the seat.

The committee could decide that the 6 inch requirement found in the last sentence needs to be tied to a standard size shower and not to showers larger than the minimum, or the requirement needs to go away or be modified in some other manner. One aspect that the current text and this new proposal do not address is whether in a shower that exceeds the minimum size if it is better for the grab bars to be located towards the opening, centered on the wall, or towards the corner of the shower.

For reference, here are the revisions that were made in the 2009 standard which began to address larger showers and limited the length of the required grab bars.

~~608.3.2 Standard Roll-in-Type Showers. In standard roll-in type showers, grab bars shall be provided on three walls of showers without seats. Where a seat is provided in a standard roll-in type shower, a grab bars shall be provided on the back wall and on the wall opposite beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.~~

Committee Action: AS AM D

608.3.2-PAARLBERG.doc

6-57 – 12

608.3.2

Proponent: Hank Falstad, Access Technologies Services, Inc, representing self

Revise as follows:

608.3.2 Standard Roll-in-Type Showers. In standard roll-in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.

A vertical grab bar 18 inches minimum in length shall be provided on the side wall opposite of the seat 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the shower.

Reason: Prevent slip and fall.

Committee Action: AS AM D

608.3.2 #1-FALSTAD.doc

6-58 – 12

608.3.2

Proponent: Hank Falstad, Access Technologies Services, Inc., representing self

Revise as follows:

608.3.2 Standard Roll-in-Type Showers. ~~In standard roll in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall. In the standard roll-in type showers, an L-shaped grab bar shall be provided on the back wall beginning at the edge of the seat with an 18 inches minimum vertical grab bar. The grab bars shall not be provided above the seat. The back wall horizontal grab bar shall extend the length of the wall but shall not be required to exceed 48 inches in length. The (“END” note Figure 608.3.2 has two end walls) side wall L-shaped grab bar opposite the seat wall shall extend horizontally the length of the wall and then turn up 90 degrees for a distance of 18 inches minimum. That vertical grab bar shall be 4 inches maximum inward from the front edge of the shower.~~

Reason:

1. Safety for someone standing, the 18 inches vertical bar on the end wall.
2. Safety for someone making the transfer to the seat, the 18 inches vertical bar on the back wall adjacent to the seat.

Committee Action: AS AM D

608.3.2 #2-FALSTAD.doc

6-59 – 12

608.3.3

Proponent: Hank Falstad, Access Technologies Services, Inc, representing self

Revise as follows:

608.3.3 Alternate 2-Standard Roll-in-Type Showers. In standard alternate roll-in type showers, a grab bar an L-shaped continuous grab bar with an 18 inch (455 mm) vertical shall be provided on the back end wall beginning at the edge of the seat. The Grab bars shall not be provided above the seat. ~~The back wall grab bar shall extend the length of the wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length.~~ On the seat wall an 18 inch vertical (455 mm) minimum in length grab bar shall be installed 4 inches – 6 inches above the top of the horizontal grab bars and 4 inches maximum from the entrance into the shower. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.

Reason: Prevent slip and fall.

Committee Action: AS AM D

608.3.3-FALSTAD.doc

6-60 – 12

608.4.1, 608.4.2, 608.4.3, 608.5

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

608.4.1 Transfer-Type Showers. In transfer-type showers, the controls and hand shower shall be located:

1. On the control wall opposite the seat,
2. At a height above the grab bar and of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor, and
3. 15 inches (380 mm) maximum, from the centerline of the control wall toward the shower opening.

608.4.2 Standard Roll-in Showers. In standard roll-in showers, the controls and hand shower shall be located:

1. On the back wall,
2. At a height above the grab bar and 48 inches (1220 mm) maximum above the shower floor, and
3. 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the end wall behind the seat.

608.4.3 Alternate Roll-in Showers. In alternate roll-in showers, the controls and hand shower shall be located:

1. ~~38 inches (965 mm) minimum and~~ At a height above the grab bar and 48 inches (1220 mm) maximum above the shower floor, and
2. ~~In alternate roll-in showers with controls and hand shower~~ Where located on the end wall adjacent to the seat, the controls and hand shower shall be 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the wall behind the seat wall, or
3. ~~In alternate roll-in showers with the controls and hand shower~~ Where located on the back wall opposite the seat, the controls and hand shower shall be located within 15 inches (380 mm) maximum, left or right, of from the centerline of the seat toward the transfer space.

608.5 Hand Showers. A hand shower with a hose 59 inches (1500 mm) minimum in length, that can be used both as a fixed shower head and as a hand shower, shall be provided. The hand shower shall have a control with a nonpositive shut-off feature. Where provided, an adjustable-height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars.

EXCEPTIONS:

1. Redundant shower head mounts shall be permitted to be installed above 48 inches above the shower floor.
2. The vertical bar for adjustable-height shower head mounts shall be permitted to extend above 48 inches maximum above the shower floor.
3. In other than Accessible units and Type A units, a fixed shower head located 48 inches (1220 mm) maximum above the shower floor shall be permitted in lieu of a hand shower.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

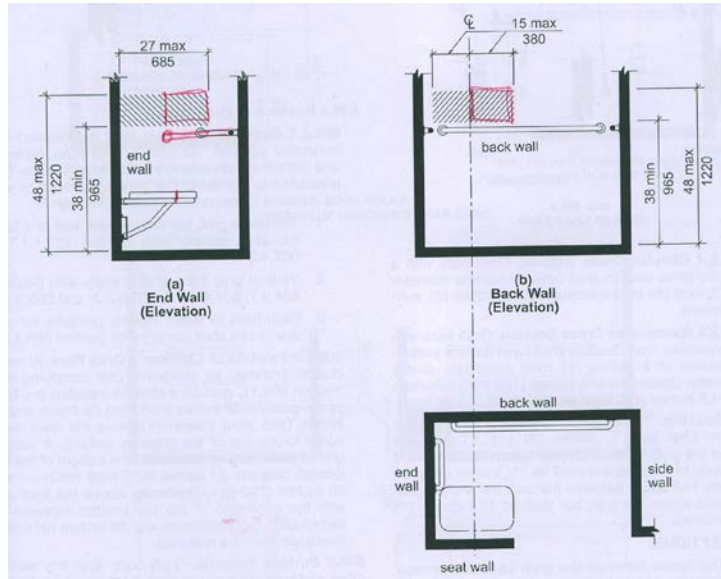
There are multiple reasons for this proposal.

1) To make the format of the controls for all three types of showers the same

2) Last cycle 608.4.2 has taken out the 38" minimum height as part of an ADA coordination item. The requirement to be 1-1/2 inches above the grab bar (Section 609.3 Exception 1) would set a lower height depending on what elevation the grab bar was located (33-36 height). 608.4.1 and 608.4.3 should be addressed the same.

3) Section 608.4.3 allows for alternate roll-in shower to locate controls over the seat (which is in conflict with the roll-in shower) or away from the transfer location (which is in conflict with the transfer shower). This proposal would match the other showers for control locations.

4) Section 608.4 says the hand showers have to comply with 608.4 (location) and (608.5) which says the hand showers have to work as both a fixed head and hand shower. This really means either a mount post on the wall, or a vertical bar with an adjustable mount. Many standing persons cannot shower with a head at 48 inches. For family members or for persons with mobility impairments that are standing, the shower head should be able to work for everyone. The additional exceptions would allow for redundant heights.



Committee Action:

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608.4.1(NEW)-PAARLBERG.doc

6-61 – 12

608.4.2

Proponent: Hope Reed, New Mexico Governor's Commission on Disability (NMGCD)

Revise as follows:

608.4.2 Standard Roll-in Showers. In standard roll-in showers, the controls and hand shower shall be located on the back wall above the grab bar, 48 inches (1220 mm) maximum above the shower floor and 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the end wall behind the seat.

EXCEPTION: Additional controls and hand shower shall be permitted on the end wall opposite the seat wall of a standard roll-in shower.

Reason: The roll-in-type shower needs to be usable by able-bodied, ambulatory, and disabled individuals. Many people prefer the walk-in shower and grab bars to maintain a safe balance. Most able-bodied people and many ambulatory people prefer to stand when showering. Requiring the hand shower to be installed on the back wall makes it more difficult to contain water within the shower area.

The additional hand shower will allow more flexibility and usability for a greater number of people.

Committee Action: AS AM D

608.4.2-REED.doc

6-62 – 12

608.4.3, Figure 608.4.3

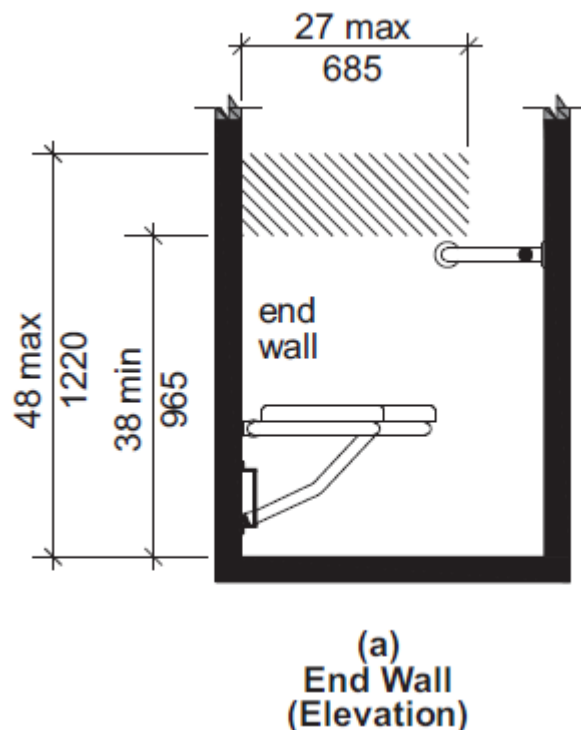
Proponent: Kim Paarlberg, International Code Council

Revise as follows:

608.4.3 Alternate Roll-in Showers. In alternate roll-in showers, the controls and hand shower shall be located 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor. In alternate roll-in showers with controls and hand shower located on the end wall adjacent to the seat, the controls and hand shower shall be 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the seat wall. In alternate roll-in showers with the controls and hand shower located on the back wall opposite the seat, the controls and hand shower shall be located within 15 inches (380 mm), left or right, of the centerline of the seat.

Revise Figure 608.4.3 as follows:

Modify figure to show a 16 inch minimum requirement to go along with the existing 27 inch maximum dimension to create a range for controls to be located and measured from seat wall.



Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

In the 2009 edition of the standard, Section 608.4.2 dealing with a standard roll-in shower was modified to create this 16 to 27 inch range for the controls. The purpose behind that change was to ensure the controls were not located over the seat and did not require a person using the seat to reach beside or behind them to operate the controls. It seems appropriate to make the alternate roll-in shower requirement consistent and also keep the controls forward where they will be more usable.

Although this will reduce the possible location for the controls on this end wall by creating a more limited range, the alternate roll-in shower has the option to place the controls on the back wall opposite the seat. It seems that additional alternative of being able to use the back wall should make up for the reduced size range on the end wall.

Committee Action:

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608.4.3-PAARLBERG.doc

6-63 – 12

608.4.4 (New), Figure 608.4.4 (New)

Proponent: Terri Stewart, The American Institute of Architects, representing The Task Force on Aging

Add new text as follows:

608.4.4 Alternate Roll-In Type Shower Compartments for Elder Use. The controls and hand shower provided in a roll-in type shower compartment for elder use shall be located on the back wall above the grab bar, 48 inches (1220 mm) maximum above the shower floor and 16 inches (405 mm) minimum and 44 inches (1120 mm) maximum 33 inches (840 mm) from the side wall.

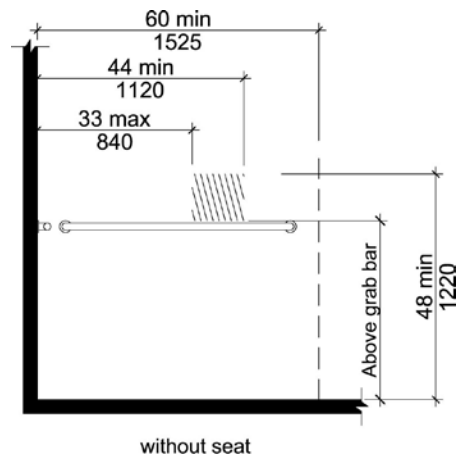


Fig. 608.4.4
Alternate Roll-In Shower
Compartment for Elder Use
Control and Hand Shower Location

Reason: Provides location for assistance in bathing. See , also White Paper, dated April 22, 2012

Committee Action: AS AM D

608.4.4 (New)-STEWART.doc

6-64 – 12

608.5

Proponent: Hank Falstad, Access Technologies Services, Inc, representing self

Delete and substitute as follows:

~~**608.5 Hand Showers.** A hand shower with a hose 59 inches (150 mm) minimum in length, that can be used both as a fixed shower head and as a hand shower, shall be provided. The hand shower shall have a control with a non-positive shut-off feature. Where provided, an adjustable height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars.~~

~~**EXCEPTION:** In other than Accessible units and Type A units, a fixed shower head located 48 inches (1220 mm) maximum above the shower floor shall be permitted in lieu of a hand shower.~~

608.5 Hand Showers. A hand shower with a hose 59 inches (150 mm) minimum in length that can be used as a hand shower shall be provided. The hand shower shall have a separate central with a non-positive shut-off feature. The hand shower shall be located adjacent to the seat; at a height of 40 inches (1015 mm) maximum above the finish floor.

Reason: More functional, get side of slide bar.

Committee Action: AS AM D

608.5-FALSTAD.doc

6-65 – 12

608.5

Proponent: Hope Reed, New Mexico Governor's Commission on Disability (NMGCD)

Revise as follows:

608.5 Hand Showers. A hand shower with a hose 59 inches long (1500 mm) minimum in length, that can be used both as a fixed shower head and as a hand shower, shall be provided. The hand shower shall have a control with a nonpositive shut-off feature. Where provided, an adjustable-height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars. A hook, to hold the hand shower wand, while water is running, shall be provided above the grab bar.

EXCEPTIONS: In other than Accessible units and Type A units, a fixed shower head located 48 inches (1220 mm) maximum above the shower floor shall be permitted in lieu of a hand shower.

Reason: Many people with disabilities have to get the hotel staff to come up and unhook the hand shower. Then the hand shower hangs down. Depending on water pressure, kinks in the hose, and similar the hand shower can be difficult to grab and keep from spraying outside the shower when adjusting temperatures.

Some hotels have several hooking places at the bottom of the vertical bar or a hook on the wall to hang the hand shower wand. This keeps the hand shower at a convenient location and allows the spray to be directed back into the shower while adjusting temperatures and soaping up.

Committee Action: AS AM D

608.5-REED.doc

6-66 – 12

609.3

Proponent: Francine Wai, Executive Director, Disability & Communication Access Board

Revise as follows:

609.3 Spacing. The space between the wall and the grab bar shall be 11/2 inches (38 mm). The space between the grab bar and projecting objects below and at the ends of the grab bar shall be 11/2 inches (38 mm) minimum. The space between the grab bar and projecting objects above the grab bar shall be 12 inches (305 mm) minimum.

EXCEPTIONS:

- 1- The space between the grab bars and shower controls, shower fittings, and other grab bars above the grab bar shall be permitted to be 11/2 inches (38 mm) minimum.
- 2- ~~Recessed dispensers projecting from the wall 1/4 inch (6.4 mm) maximum measured from the face of the dispenser and complying with Section 604.7 shall be permitted within the 12 inch (305 mm) space above and the 11/2 inch (38 mm) spaces below and at the ends of the grab bar.~~

Reason: ADAAG Advisory information explains that tolerances include field conditions and those that are a consequence of a particular manufacturing process. The choice of a product that would protrude into the required clearance is a design choice not a consequence of the manufacturing process or construction field condition. There are other products that would comply without having to encroach into the 12 inch space above or the 1-1/2 inches below the grab bar.

Dispenser mounted per exception #2 may be found not in compliance with the 2010 ADA Standards.

For harmonization with the 2010 ADA Standards, only exception #1 should be allowed.

Committee Action: AS AM D

609.3-WAI.doc

6-67 – 12
609.8.1 (New)

Proponent: Thomas Hirsch FAIA, Hirsch Group LLC, representing Thomas Hirsch & Henry Kosarzycki

Revise as follows:

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

609.8.1 Bathtub and Shower Modules. Where a bathtub or shower module is installed additional blocking shall be installed between the module and supporting structure.

Reason: My experience in architectural practice is that in-wall blocking is not sufficient. In-wall blocking is useful alongside toilets and showers that are site-built, that is, have their grab bars mounted directly on the wall surfaces. However, where pre-manufactured tub or shower modules are used, however, the bars will mount on the module surface and typically there is a substantial gap between the module and the wall or wall framing behind it. The screws for the bars, therefore, have substantial unsupported length in that gap and because the modules have flexibility will tend to rock cracking the surface finish of the module and/or causing the screw to break.

Committee Action: AS AM D

608.2.4(NEW)-HIRSCH.doc

6-68 – 12

610.2, Figure 610.2, 610.3

Proponent: Edward Steinfeld, IDEA Center, School of Architecture and Planning, University at Buffalo, State University of New York

Revise as follows:

610.2 Bathtub Seats. The height of bathtub seats shall be 17 inches (430 mm) minimum and ~~19~~ 20 inches (485 510 mm) maximum above the bathroom floor, measured to the top of the seat. Removable in-tub seats shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum in depth. Removable in-tub seats shall be capable of secure placement. Permanent seats shall be 15 inches (380 mm) minimum in depth and shall extend from the back wall to or beyond the outer edge of the bathtub. Permanent seats shall be positioned at the head end of the bathtub.

EXCEPTION: An accessible seat which is adjustable in height is permitted to provide adjustability within a range of 15 inches (380 mm) minimum to 25 inches (635 mm) maximum, provided that at least one adjustment setting provides a seat within the range specified in Section 610.2.

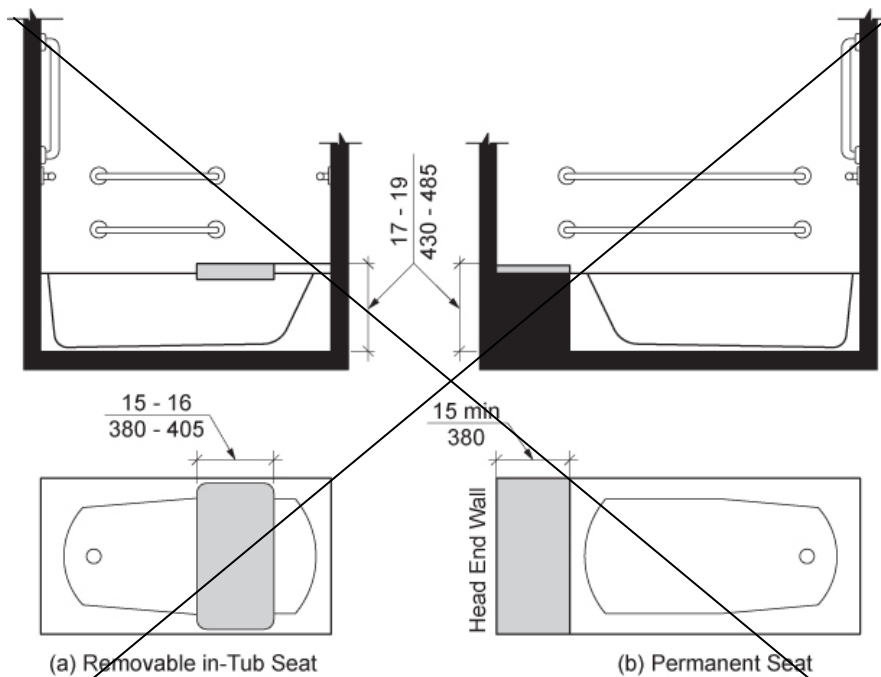


FIG. 610.2
BATHTUB SEATS

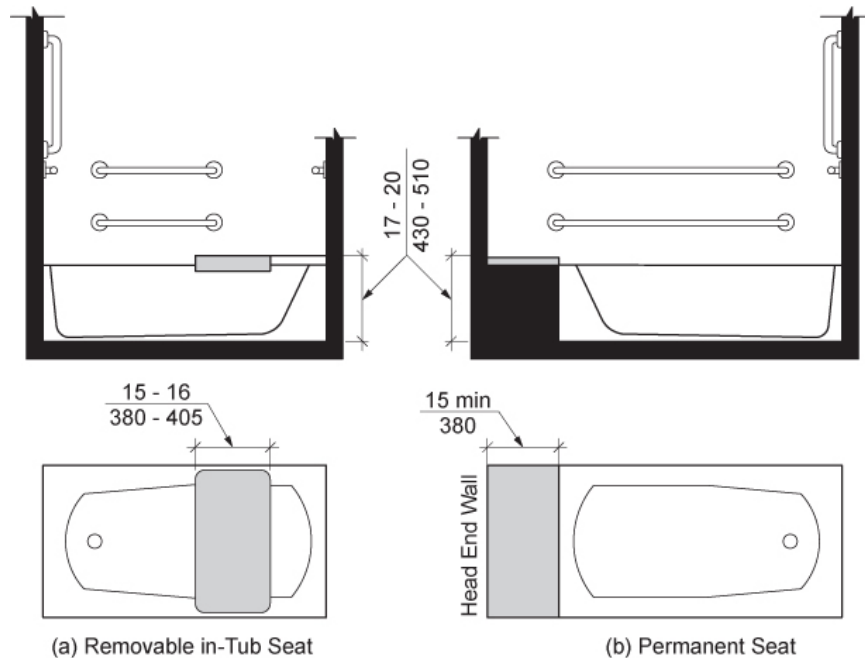


FIG. 610.2
BATHTUB SEATS

610.3 Shower Compartment Seats. The height of shower compartment seats shall be 17 inches (430 mm) minimum and ~~19~~ 20 inches (485 ~~510~~ mm) maximum above the bathroom floor, measured to the top of the seat. In transfer-type and alternate roll-in-type showers, the seat shall extend along the seat wall to a point within 3 inches (75 mm) of the compartment entry. In standard roll-in-type showers, the seat shall extend from the control wall to a point within 3 inches (75 mm) of the compartment entry. Seats shall comply with Section 610.3.1 or 610.3.2.

EXCEPTION: An accessible seat which is adjustable in height is permitted to provide adjustability within a range of 15 inches (380 mm) minimum to 25 inches (635 mm) maximum, provided that at least one adjustment setting provides a seat within the range specified in Section 610.2.

Reason: Many of the technical requirements of the ICC/ANSI A117.1 (2009) Accessible and Usable Buildings and Facilities (ICC/ANSI) designed to accommodate wheeled mobility users are based on research completed from 1974 to 1978 using a research sample that included about 60 individuals who used manual wheelchairs (Steinfeld et al., 1979).

The Center for Inclusive Design and Environmental Access (IDeA) at the University at Buffalo, SUNY recently completed an anthropometric study of 500 wheeled manual and powered mobility device users (Steinfeld, et al., 2010). Measurements of body and device size were captured in three dimensions. The functional anthropometric measurements required measuring reaching ability, grip strength and the minimum space needed for turning. It is the most extensive anthropometric study of wheeled mobility device users in the United States. Additional information about the study can be found at <http://www.udeworld.com/ansi-standards-review>. The proposed revisions are based on new anthropometric information that was generated from the database of anthropometric measurements developed as part of the study.

Analysis

In addition to the findings reported in Steinfeld, et al., 2010, the IDeA Center developed a Design Resource entitled, *Analysis of Seat Height for Wheeled Mobility Devices* that provides more detailed information about the study reported in Steinfeld, et al., 2010. *Analysis of Seat Height for Wheeled Mobility Devices* indicates that the current maximum height of 19 inches (485 mm) accommodates 51% of female manual wheelchair users, 30% of manual wheelchair users, and fewer than 20% of power and scooter users. The report indicates a seat height of 25 inches (635 mm) would accommodate over 95% of all wheeled mobility device users (D'Souza and Steinfeld, 2011, pg. 5).

Increasing the maximum seat height to 20 inches (510 mm) would allow 75% of female manual wheelchair and 53% of male manual wheelchair users (D'Souza and Steinfeld, 2011, pg. 5) to transfer comfortably. Comfort in this case is determined by how closely the height of the transfer surface matches the height of a wheelchair seat. Steinfeld, et. Al., 2010 (pg. 85) report that "keeping the height of a transfer surface close to the height of a wheelchair seat reduces the effort necessary to transfer and provides a safer environment, especially in bathing and toilet rooms."

However, a fixed seat any higher than 20 inches (510 mm) would likely disadvantage people of short stature, particularly if it was the *only* seat. Encouraging innovation would help to accommodate a greater number of wheeled mobility users without disadvantaging people of short stature. Adjustability is the best option to accommodate the widest population but in the meantime, the upper limit should be raised to 20 inches (Steinfeld, et al., 2010, pgs. 85-86).

NOTE: This change necessitates a change to Fig. 610.2 to ensure consistency. Thus, the proposed revised figure has been attached, along with the existing figure for comparison purposes.

References (See <http://www.udeworld.com/ansi-standards-review> for full text)

D'Souza, C. and Steinfeld, E. (2011). *Analysis of Seat Height for Wheeled Mobility Devices*. Buffalo, NY: University at Buffalo Center for Inclusive Design and Environmental Access.

Steinfeld, E., Paquet, V., D'Souza, C., Joseph, C., and Maisel, J. (2010). *Final Report: Anthropometry of Wheeled Mobility Project*. Washington, DC: U.S. Access Board.

Steinfeld, E. Schroeder, S. and Bishop, M. (1979). *Accessible buildings for people with walking and reaching limitations*. Washington, DC: U.S. Department of Housing and Urban Development.

Committee Action: AS AM D

610.2-STEINFELD.doc

6-69 – 12

611.3

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

611.3 Operable Parts. Operable parts, including doors, lint screens, detergent and bleach compartments, shall comply with Section 309.

EXCEPTION: The height of the obstruction can be 36 inches (915 mm).

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

You let the door for the top loader be at 36" high, but you literally do not allow for the operable parts to be located over the unit.



Committee Action: AS AM D

611.3 (revised)-PAARLBERG.doc

6-70 – 12

612.2

Proponent: Kim Paarlberg, International Code Council

Revise as follows:

612.2 Bench. Where seating is provided in saunas and steam rooms, at least one bench shall comply with Section 903. Doors shall not swing into the clear floor space required by Section 903.2.

EXCEPTION: Where the room is for individual use and a clear floor space complying with Section 305.3 is provided within the room beyond the arc of the door swing, the door shall not be required to comply with Section 612.2.

Reason: The quantity of change proposals submitted by International Code Council is reflective of three elements of our work: 1. ICC is the Secretariat for the Standard and some changes reflect inconsistencies or improvements suggested by staff; 2. ICC develops and publishes a Commentary on the standard and writing the commentary illuminates issues of the text and figures; and 3. ICC provides an interpretation service for the standard which results in the observation of provisions the users find most confusing.

This proposal is intended to coordinate with other sections of the standard which do allow a door to swing into a room or floor space if there is adequate space to maneuver away from the swing of the door. This proposed exception was copied from the toilet and bathing room requirements of Section 603.2.2 (with the section reference being revised to be Section 612.2).

If the user can maneuver away from the door, it should not be a problem for the door to swing into the space. If the committee was feeling more generous, the proposal could be modified to coordinate with the door swing requirements for dressing, fitting and locker rooms in Section 803.3. That section also allows for a door to swing into the room but it does not contain the limitation of the space being "for an individual user."

Committee Action: AS AM D

612.2-PAARLBERG.doc