ICC A117.1 STANDARD

SECOND PUBLIC REVIEW DRAFT

BACKGROUND REPORT

November 7, 2014

ICC/ANSI A117.1 STANDARD DEVELOPMENT - 2015 EDITION

ICC A117.1 Standard – Accessible and Usable Buildings and Facilities
Second Public Review Draft – Background Report
November 7, 2014

This document is an informational companion to the Second Public Review Draft of the 2015 edition of the ICC A117.1 Standard. The Second Public Review Draft only shows the changes to the text of the standard which are changes to the First Public Review Draft. These changes were approved based on background information provided by the proponents, the information supplied by those submitting comments to the First Public Review Draft and supplemented through the Committee's consideration. This Background Report contains the information supporting each change included in the Second Public Review Draft. Each change is identified by a number assigned when originally proposed – for example 9-7-12. Subsequent public comments are identified by PC added to the proposal number – for example 9-7-12 PC2. These numbers are used in this report for each corresponding change.

For further information please see the following documents. The documents are found the A117.1 Standard page of the ICC website.
http://www.iccsafe.org/cs/standards/A117/Pages/default.aspx

1. Second Public Review Draft
2. Second Public Review Draft – Supplement
3. First Public Review Draft Background Report.

Providing Public Comment on the Second Public Review Draft

Comments can be made to the Second Public Review Draft. Comments will only be accepted on the changes which have been approved by the Committee and are included Second Public Review Draft. Comments unrelated to the changes in the Second Public Review Draft will be set aside for consideration after the 2015 edition is published.

If you have questions, please direct them to Kermit Robinson, krobinson@iccsafe.org

Closing Date for Public Comments – Monday, December 22, 2014.

ICC A117.1 Standard – Accessible and Usable Buildings and Facilities 2012 to 2015* Development Cycle.

Chronology

	Date	Event.	
1.	2012	Notice	Call for proposal to amend the 2009 edition of the ASC/ICC A117.1 Standard.
2.	July 2012	Publish	New Proposals to amend standard published.
3.	August 27-31, 2012 January 14-18, 2013	Meetings	Committee consideration of new proposals.
4.	March 12, 2013	Publish	Committee Action Report (CAR) actions on proposed changes
5	April 19, 2013	Notice	Proponents of new proposals notified of Committee's action and their opportunity to comment.
6	March-May 2013	Ballot	Committee confirms actions of CAR or provides negative ballot comment
7	June 14, 2013	Publish	Ballot Comment and Proponent Comment Agenda
8	July 15-19, 2013	Meeting	Committee consideration of Ballot and Proponent Comments.
9	August 7, 2013	Publish	Committee Action Report (CAR) on Ballot and Proponent Comments
10	September 20, 2013	Notice	Proponents asked if their issue has been resolved by the committee's action
11	August-October, 2013	Ballot	Committee confirms actions of CAR (actions published 8/7/13)
12	October 25, 2013	Publish	First Public Review Draft – Open draft for public comments
13	December 23, 2013	Publish	Public Comment Report – Comments on First Public Review Draft
14	January 3, 2014	Publish	Unresolved Issues Report
15	January 21-24, 2014 July 14-16, 2014	Meetings	Committee consideration of Public Comment Report and Unresolved Issues Report
16	August 21, 2014**	Publish	Committee Action Reports (CAR) on Public Comments and Unresolved Issues Reports
17	**November 7, 2014**	Publish	Second Public Review Draft – Draft available for public comments
18	**December 22, 2014**	Deadline	Close of public comment period on Second Public Review Draft.
19	**January TBD, 2015**	Publish	Public Comment Report – Comments on Second Public Review Draft
20	**February 2-6. 2015**	Meeting	Committee consideration of Public Comment report – Second Public Review Draft

***** Earlier documents identified the next edition as the 2014 edition.

Chapter 1

1-4 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

102 Human Factor ~~Anthropometric~~ Provisions. The technical criteria in this standard are based on body sizes and functional abilities of adults and, in some sections, children. They provide minimum conditions of accessibility. ~~adult dimensions and anthropometrics. This standard also contains technical criteria based on children's dimensions and anthropometrics for drinking fountains, water closets, toilet compartments, lavatories and sinks, dining surfaces, work surfaces and benches.~~

1-4-12 PC1

Larry Perry, representing self

Revise as follows:

102 Human Factor Provisions. The technical criteria in this standard are based on body sizes and functional abilities of adults and, in ~~some~~ those sections where specifically noted, children. ~~They provide minimum conditions of accessibility.~~

Reason: Proposed revision to the first sentence is for clarity. The standard already specifically notes where it includes technical criteria for children, so this section should indicate that; the current vague text leaves it unclear if other criteria in the standard are also based on body sizes and abilities of children.
The second sentence is not appropriate in this section. The previous section (102 Purpose) already clearly states the broad range of abilities intended to be accommodated by the standard, and the intent to allow independent access to and use of buildings, facilities, and elements.

Committee action on 1-4-12 PC1

Approve Public Comment 1-4-12 PC1.

Reason: The committee concurred with the reason provided by Mr. Perry. Further they concluded that the change improved the standard.

1-10 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise or add the following definitions:

106.5 Defined terms

assembly area. A *building* or *facility*, or portion thereof, used for the purpose of entertainment, worship, educational or civic gatherings, or similar purposes. For the purposes of these requirements, *assembly areas* include, but are not limited to, classrooms, lecture halls, courtrooms, public meeting rooms, public hearing rooms, legislative chambers, spaces utilized for viewing motion picture projections, auditoria, theaters, playhouses, dinner theaters, concert halls, centers for the performing arts, amphitheaters, arenas, stadiums, grandstands, places of religious worship or convention centers.

assistive listening system (ALS). An amplification system utilizing transmitters, receivers, and coupling devices to bypass the acoustical *space* between a sound source and a listener by means of induction loop, radio frequency, infrared, or direct-wired equipment.

place of religious worship. A building or a portion thereof intended for the performance of religious services.

space. A definable area, such as a room, toilet room, hall, *assembly area*, *entrance*, storage room, alcove, courtyard, or lobby.

transition plate. A sloping pedestrian walking surface located at the ends of a *gangway*.

vehicular way. A route provided for vehicular traffic, such as in a street, driveway, or parking *facility*.

1-10-12 PC1

Larry Perry, representing self

Delete without substitution:

106.5 Defined terms

~~**space.** A definable area, such as a room, toilet room, hall, *assembly area*, *entrance*, storage room, alcove, courtyard, or lobby.~~

Reason: This definition was deleted from the standard during the 1992 edition revision cycle. It adds no clarity to the standard; the standard definition is adequate.

Committee action on 1-10-12 PC1

Approve Public Comment 1-10-12 PC1.

Reason: The committee concurred with the reason provided by Mr. Perry. The definition added no clarity to the standard and is not needed.

1-10-12 PC2

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Delete without substitution:

~~**place of religious worship.** A building or a portion thereof intended for the performance of religious services.~~

Reason: The term place of religious worship only appears in the definition of assembly area in this same section. There is a list of areas that are included in the definition of assembly area, none are of which are further defined in Section 107.5. It is inconsistent to define one term at the exclusion of the others.

Committee action on 1-10-12 PC2

Approve Public Comment 1-10-12 PC2.

Reason: The committee concurred with the reason provided by Mr. Wiehle. Further they concluded that the definition is inconsistent with the ADA/ABA and shouldn't be included in the standard.

Chapter 3

3-4 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

303 Changes in Level

303.1 General. Changes in level in floor surfaces shall comply with Section 303.

303.2 Vertical. Changes in level of 1 /4 inch (6.4 mm) maximum in height shall be permitted to be vertical.

303.3 Beveled. Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall comply with one of the following:

1. The change in level shall be beveled with a slope not steeper than 1:2.
2. The change in level shall be a combination of vertical change in level of ¼ inch (6.4 mm) maximum below a bevel with a slope not steeper than 1:2.

3-4-12 PC4

Hope Reed, – representing New Mexico Governor's Commission on Disability (NMGCD)

Revise as follows:

~~**303.3 Beveled.** Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall comply with one of the following:~~

~~1. The change in level shall be beveled with a slope not steeper than 1:2.~~

~~2. The change in level shall be a combination of vertical change in level of ¼ inch (6.4 mm) maximum below a bevel with a slope not steeper than 1:2.~~

303.3 Beveled. Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall be beveled with a slope not steeper than 1:2.

Reason: The new language does not improve accessibility, understanding, or enforcement. Leave the language to remain in compliance with 2010 ADA. Provide exception for door thresholds. See companion proposal 404.2.4.

Committee action on 3-4-12 PC4 and PC5

These two public comments seek the same revision to 3-4-12. The committee took one action which addressed both comments.

Approve Public Comments 3-4-12 PC4 and PC5.

Reason: After considerable debate regarding the geometry of thresholds and how best to describe the requirement in text, the Committee concluded that they had not found language which was an improvement over the existing standard.

3-4-12 PC5

Michael Tierney, – representing The Builders Hardware Manufacturers Association

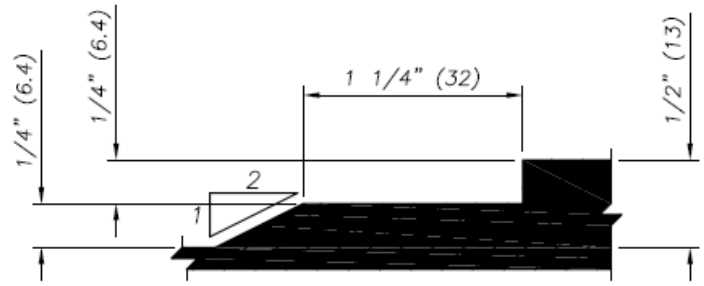
Revise as follows:

~~**303.3 Beveled.** Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall comply with one of the following:~~

~~1. The change in level shall be beveled with a slope not steeper than 1:2.~~

~~2. The change in level shall be a combination of vertical change in level of ¼ inch (6.4 mm) maximum below a bevel with a slope not steeper than 1:2.~~

303.3 Beveled. Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (13 mm) maximum in height shall be beveled with a slope not steeper than 1:2.



Reason: The current committee action would render hundreds of thousands of existing openings noncompliant – the bumper seal threshold style illustrated below has been in use for over two decades, and there is no record of any deleterious effects on accessibility.

The design, with the ¼ inch vertical above the ¼ inch bevel, functions, along with an applied gasket, to seal the bottom of the door from air, smoke or water infiltration, increasingly necessary for energy and other code requirements. Although not addressed currently, the ¼ inch vertical rise is separated by a minimum one inch horizontal run as shown in the proposed illustration. This design is clearly permitted by the 2009 A117.1 language of section 303.3.

See Committee action on 3-4-12 PC4

3-5 – 12

Ed Roether, Chair of Harmonization Task Group, proponent, asked for further consideration of Proposal 3-5-12.

Reason: Many valid points and concerns were raised during the ballot stage, but based upon the committee's action, comment 3-5 is unresolved. Potentially, some items in the proposal may be unresolvable. But, in an effort to reach a consensus please consider the following comments:

The proposed change to 304.2 is consistent with the ADA Advisory to 304.2 and therefore harmonizes with the 2010 ADA Standards. It is recognized that the ANSI Standards can exceed ADA, but please understand that many floor surfaces are incapable of providing a pure planar surface. If ANSI's intent is for a pure planar surface then the Standard would prohibit some floor surfaces even though many members of the committee would consider many of those "non-compliant" floor surfaces acceptable. The ANSI Standard does not include the clarifying language regarding its intent that is found in the ADA Standards where it states: "changes in level refers to surfaces with slopes and to surfaces with abrupt rise exceeding that permitted in Section 303.3".

The proposed change to 305.2, 404.2.3.1, 405.7.1, 502.5, 503.4 & 802.2 is intended for harmonization with the 2010 ADA Standards based upon the ADA Advisory to 304.2 statement that the phrase "changes in level refers to surfaces with slopes and to surfaces with abrupt rise exceeding that permitted in Section 303.3. Such changes in level are prohibited in required clear floor and ground spaces, turning spaces, and in similar spaces where people using wheelchairs and other mobility devices must park their mobility aids such as in wheelchair spaces, or maneuver to use elements such as at doors, fixtures, and telephones."

If the committee cannot accept the limits of 303.3 then the question to be answered is what limits would be acceptable for 304.2, 305.2, 404.2.3.1, 405.7.1, 502.5, 503.4 & 802? This proposed change was to harmonize with the 2010 ADA Standards. A pure planar surface for each of these conditions is unrealistic considering construction materials currently available. Developing limits that are attainable would better assure that each of these conditions could be constructed in compliance with the committee's intent. This comment will be unresolved until the committee's intent is clarified.

The remaining proposed changes account for where the term "changes in level" occurred within the standards. However, 504.4 address conditions where people using wheelchairs and other similar mobility devices would not park or maneuver. Even though other mobility aids would use the tread surface, this may not truly be a harmonization issue. It should receive similar consideration regarding the committee's intent, but for this comment the proposed change to 504.4 in 3-5 is withdrawn. Similarly, the committee's action to 405.4 is accepted and harmonizes with the 2010 ADA Standards, so a proposed change to 405.4 in 3-5 is not included with this comment.

304 Turning Space

304.2 Floor Surface. Floor surfaces of a turning space shall have a slope not steeper than 1:48 and shall comply with Section 302. Changes in level exceeding that permitted by Section 303.3 are not permitted within the turning space.

~~EXCEPTION:~~ ~~Slopes not steeper than 1:48 shall be permitted.~~

305 Clear Floor or Ground Space

305.2 Floor Surfaces. Floor surfaces of a clear floor space shall have a slope not steeper than 1:48 and shall comply with Section 302. Changes in level exceeding that permitted by Section 303.3 are not permitted within the clear floor space.

~~EXCEPTION:~~ ~~Slopes not steeper than 1:48 shall be permitted.~~

404.2 Manual doors

404.2.3.1 Floor Surface. Floor surface within the maneuvering clearances shall have a slope not steeper than 1:48 and shall comply with Section 302. Changes in level exceeding that permitted by Section 303.3 are not permitted within the maneuvering clearances.

405 Ramps

405.7.1 Slope. Landings shall have a slope not steeper than 1:48 and shall comply with Section 302. Changes in level exceeding that permitted by Section 303.3 are not permitted within the landings.

502 Parking spaces

502.5 Floor Surfaces. Parking spaces and access aisles shall comply with Section 302 and have surface slopes not steeper than 1:48. Access aisles shall be at the same level as the parking spaces they serve. Changes in level exceeding that permitted by Section 303.3 are not permitted within the parking spaces and access aisles.

503 Passenger loading zones

503.4 Floor Surfaces. Vehicle pull–up spaces and access aisles serving them shall comply with Section 302 and shall have slopes not steeper than 1:48. Access aisles shall be at the same level as the vehicle pull–up space they serve. Changes in level exceeding that permitted by Section 303.3 are not permitted within the vehicle pull-up spaces and access aisles.

802 Wheelchair spaces

802.2 Floor Surfaces. The floor surface of wheelchair space locations shall have a slope not steeper than 1:48 and shall comply with Section 302. Changes in level exceeding that permitted by Section 303.3 are not permitted within the floor surface of wheelchair space locations.

Committee action on 3-5-12 Unresolved Issue

Approve Item 3-5-12 as requested above.

Reason: The seven changes reflect the essential pieces of the original 3-5-12 proposal which are essential for coordination with the 2010 ADA.

3-6 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

304.3.1 Circular Space. The turning space shall be a circular space with a ~~60~~ 67 inch (~~1525~~ 1700 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306.

The following public comment contains revisions to various parts of the standard and was therefore technically a series of public comments. The committee took a single action on the group of public comments consolidated under 3-6-12 PC2.

3-6-12 PC2

The consolidated public comments are:

3-6-12 PC2	**3-6C-12 PC2**	**3-6D-12 PC1**	**3-6E-12 PC2**
3-8-12 PC1	**3-9-12 PC1**	**3-13-12 PC2**	**3-13B-12 PC1**
3-13C-12 PC1	**3-13D-12 PC1**	**3-13E-12 PC2**	**3-13F-12 PC1**
3-13H-12 PC1	**3-13K-12 PC1**	**3-20-12 PC2**	**4-5-12 PC1**
4-6-12 PC1	**4-7-12 PC2**	**4-8-12 PC1**	**4-9-12 PC1**
4-10-12 PC2	**4-11-12 PC1**	**4-15-12 PC1**	**4-56-12 PC2**
6-46-12 PC1	**8-2-12 PC1**	**8-3-12 PC1**	**8-9-12 PC1**

Ron Burton, PTW Advisors LLC, representing Building Owners and Managers Association, International; David S. Collins, The Preview Group, representing American Institute of Architects (AIA); Ron Nickson, representing the National Multi-housing Council; Steve Orlowski, representing the National Association of Home Builders; Kim Paarlberg, representing International Code Council

Revise as follows:

~~106.5~~ 107.5 Defined Terms.
Existing building. A building erected prior to the date of adoption of this standard, or one for which a legal building permit has been issued.

304.3.1 Circular Space.

304.3.1.1 New buildings. In new buildings, the turning space shall be a circular space with a 67 inch (1700 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306. Where the turning space includes knee and toe clearances under an obstruction, the overlap shall comply with all of the following: . (3-6-12) (3-8-12)

1. The depth of the overlap shall not be more than 10 inches (255 mm), and
2. The depth shall not exceed the depth of the knee and toe clearances provided, and
3. The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1. (3-8-12)

304.3.1.2 Existing buildings. In existing buildings, the turning space shall be a circular space with a 60 inch (1525 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306.

304.3.2 T-Shaped Space.

304.3.2.1 New construction. In new buildings, the turning space shall be a T–shaped space complying with one of the following:

1. A T-shaped space, clear of obstruction, that fits within an area 68 inches (1725 mm) wide and 60 inches (1525 mm) deep, with two arms and one base that are all 36 inches (915 mm) minimum in width.

Each arm shall extend 16 inches (405 mm) minimum from each side of the base located opposite the other, and the base shall extend 24 inches (610 mm) minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches (205 mm) minimum along both the arm and along the base.

2. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms 38 inches (965 mm) minimum in width and a base 42 inches (1065 mm) minimum in width. Each arm shall extend 11 inches (280 mm) minimum from each side of the base, located opposite the other, and the base shall extend 22 inches (560 mm) minimum from each arm.

3. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each arm shall be 16 inches (405 mm) minimum in each direction from the base and the base shall extend 24 inches (610 mm) minimum from each arm. (3-9-12)

T-TURN DIMENSIONS

	Rectangular Space		Widths		Chamfer	Length Clear of Obstructions	
	Width	Depth	Arms	Base		Arms	Base
1	68	60	36	36	8	16	24
2	64	60	38	42		11	22
3	64	60	40	40		12	20

304.3.2.2 Existing buildings. In existing buildings, the turning space shall be a T-shaped space within a 60-inch (1525 mm) minimum square, with arms and base 36 inches (915 mm) minimum in width. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction, and the base shall be clear of obstructions 24 inches (610 mm) minimum. The turning space shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or one arm.

305.3 Size.

305.3.1 New buildings. In new buildings, the clear floor space shall be 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width. (3-13-12)

305.3.2 Existing buildings and within new Type B units. In existing construction and within new Type B units, the clear floor space shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.7.2 Forward Approach.

305.7.2.1 New buildings. In new buildings, Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 20 inches (510 mm). (3-13-12)

305.7.2.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 24 inches (610 mm).

308.2 Forward Reach.

308.2.1 Unobstructed.

308.2.1.1 New buildings. In new buildings, where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 23 inches (585 mm) minimum above the floor. (3-20-12)

308.2.1.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor.

403.5.1 General. The clear width of an accessible route shall be 36 inches (915 mm) minimum. The clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum. (4-7-12) (4-5-12)

EXCEPTIONS:

1. In new buildings, the clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 52 inches (1320 mm) minimum in length and 36 inches (915 mm) minimum in width. (4-6-12)
2. In existing buildings and within new Type B units, the clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

3. The clear width of an exterior ramp shall comply with Section 405.5. (4-7-12)

~~**403.5.1**~~ **403.5.2 Clear Width at 180 Degree Turn**.

403.5.2.1 New buildings. In new buildings, where an accessible route makes a 180 degree turn around an object that is equal to or greater than 52 inches (1320 mm) in width, the clear widths in the turn shall comply with Section 405.5.1. Where an accessible route makes a 180 degree turn around an object that is less than 52 inches (1320 mm) inches in width, the clear widths approaching the turn, during the turn and leaving the turn, shall be one of the following sets of dimensions: (4-5-12)

1. Approaching width is 36 inches (915 mm) minimum, during width is 60 inches (1525 mm) minimum, and leaving width is 36 inches (915 mm) minimum.

2. Approaching width is 42 (1065 mm) inches minimum, during width is 48 inches (1220 mm) minimum, and leaving width is 42 (1065 mm) inches minimum.

3. Approaching width is 43 inches (1090 mm) minimum, during width is 43 inches (1090 mm) minimum, and leaving width is 43 inches (1090 mm) minimum. (4-8-12)

403.5.2.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, where an accessible route makes a 180 degree turn around an object that is less than 48 inches (1220 mm) in width, clear widths shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum during the turn and 42 (1065 mm) inches minimum leaving the turn.

EXCEPTION: Section 403.5.1 shall not apply where the clear width during the turn is 60 inches (1525 mm) minimum.

403.5.3 Clear Width at 90 Degree Turn.

403.5.3.1 New buildings. In new buildings, where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall be one of the following sets of dimensions:

1. Both legs of the turn shall be 40 inches (1016 mm) minimum in width The width of each leg of the turn shall be maintained for 28 inches minimum from the inner corner.

2. Where the interior corners of the turn are chamfered for 8 inches minimum (205 mm) along both walls, both legs of the turn shall be 36 inches (915 mm) minimum in width. (4-9-12)(4-10-12)

EXCEPTIONS:

1. Where one leg of the turn is 42 inches (1065 mm) minimum in width, the other shall be permitted to be 38 inches (965 mm) minimum in width. (4-10-12)

2. Where one leg of the turn is 44 inches (1115 mm) minimum in width, the other shall be permitted to be 36 inches (915 mm) minimum in width. (4-10-12)

403.5.3.2 Existing buildings and within Type B units. In existing buildings and within new Type B units, where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall be 36 inches (915 mm) minimum.

403.5.4 ~~403.5.2~~ Passing Space.

403.5.4.1 New construction. In new buildings, An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend 52 inches (1320 mm) minimum beyond the intersection. (4-6-12) (4-5-12)

403.5.4.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, an accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection. (4-6-12) (4-5-12)

404.2.3.2 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.3.2. (4-11-12)

Table 404.2.3.2—Maneuvering Clearances at Manual Swinging Doors and Gates

TYPE OF USE		MINIMUM MANEUVERING CLEARANCES	
Approach Direction	**Door or Gate Side**	**Perpendicular to Doorway**	**Parallel to Doorway (beyond latch unless noted)**
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	52 inches [5] (1320 mm)	0 inches (0 mm)3
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm)[1]	22 inches (560 mm)3 & 4
From latch side	Pull	48 inches (1220 mm)[2]	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm)[2]	24 inches (610 mm)

1. Add 6 inches (150 mm) if closer and latch provided.
2. Add 6 inches (150 mm) if closer provided.
3. Add 12 inches (305 mm) beyond latch if closer and latch provided.
4. Beyond hinge side. (4-11-12) (4-14-12)(4-15-12)
5. In existing buildings and within new Type B buildings the dimension perpendicular to the door for the front direction on the push side shall be 48 inches (122 mm) minimum.

404.2.3.3 Sliding and Folding Doors. Sliding doors and folding doors shall have maneuvering clearances complying with Table 404.2.3.3.

Table 404.2.3.3—Maneuvering Clearances at Sliding and Folding Doors

Approach Direction	MINIMUM MANEUVERING CLEARANCES	
	Perpendicular to Doorway	**Parallel to Doorway (beyond stop or latch side unless noted)**
From front	52 inches [2] (1320 mm)	0 inches (0 mm)
From nonlatch side	42 inches (1065 mm)	22 inches (560 mm)[1]
From latch side	42 inches (1065 mm)	24 inches (610 mm)

1. Beyond pocket or hinge side. (4-15-12)
2. In existing buildings and within new Type B buildings the dimension perpendicular to the door for the front direction shall be 48 inches (122 mm) minimum.

404.2.3.4 Doorways without Doors or Gates. Doorways without doors or gates that are less than 36 inches (915 mm) in width shall have maneuvering clearances complying with Table 404.2.3.4. (4-11-12)

Table 404.2.3.4—Maneuvering Clearances for Doorways without Doors (4-15-12)

Approach Direction	MINIMUM MANEUVERING CLEARANCES Perpendicular to Doorway
From front	52 inches (1320 mm) [1]
From side	42 inches (1065 mm)

1. In existing buildings and within new Type B buildings the dimension perpendicular to the doorway for the front direction shall be 48 inches (122 mm) minimum.

408 Limited-Use/Limited-Application Elevators

408.4.1 Inside Dimensions. Elevator cars shall provide a clear floor width of 42 inches (1065 mm) minimum. The clear floor area shall not be less than 15.75 square feet (1.46 m^2). The elevator car shall provide a clear floor space complying with Section 305.3.

EXCEPTIONS:

1. For installations in existing buildings, elevator cars that provide a clear floor area of 15 square feet (1.4 m^2) minimum, and provide a clear inside dimension of 36 inches (915 mm) minimum in width and 54 inches (1370 mm) minimum in depth, shall be permitted. This exception shall not apply to cars with doors on adjacent sides.

2. For installations in existing buildings, cars that provide a clear width 51 inches (1295 mm) minimum shall be permitted to provide a clear depth 51 inches (1295 mm) minimum provided that car doors provide a clear opening 36 inches (915 mm) wide minimum. (**4-56–12)**

409 Private Residence Elevators *(no exceptions for existing PRE currently)*

409.4.1 Inside Dimensions.

409.4.1.1 New buildings. In new buildings, elevator cars shall provide a clear floor area 36 inches (915 mm) minimum in width and 52 inches (1322 mm) minimum in depth. (3-13B-12)

409.4.1.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, elevator cars shall provide a clear floor area 36 inches (915 mm) minimum in width and 48 inches (1220 mm) minimum in depth.

410 Platform Lifts

410.5.1 Lifts with Single Doors or Doors on Opposite Ends.

410.5.1.1 New buildings. In new buildings, platform lifts with a single door or doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 52 inches (1322 minimum). (3-13C-12)

Exception: Incline platform lifts with passenger restraining arms, shall be permitted to provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220) mm. (3-13C-12)

410.5.1.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, platform lifts with a single door or doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220 minimum).

502.4.2 Width.

502.4.2.1 New buildings. In new buildings, access aisles serving car and van parking spaces shall be 67 inches (1700 mm) minimum in width**. (3-6C – 12)**

502.4.2.2 Existing buildings and within new Type B units. In existing buildings and seving new Type B units, access aisles serving car and van parking spaces shall be 60 inches (1525 mm) minimum in width.

503 Passenger Loading Zones

503.3.2 Width.

503.3.2.1 New buildings. In new buildings, access aisles serving vehicle pull-up spaces shall be 67 inches (1700 mm) minimum in width. (3-6D-12)

503.3.2.2 Existing buildings and within new Type B units. In existing buildings and seving new Type B units, access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) minimum in width.

608.2.1.2 Clearance.

608.2.1.2.1 New buildings. In new buildings, a clearance of 52 inches (? mm) minimum in length measured perpendicular from 12 inches beyond the seat wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment. (6-46-12)

608.2.1.2.2 Existing buildings and within new Type B units. In existing buildings and within new Type B units, a clearance of 48 inches (1220 mm) minimum in length measured perpendicular from the control wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment.

802 Assembly Areas

802.4 Depth.

802.4.1 New buildings. In new buildings, where a wheelchair space can be entered from the front or rear, the wheelchair space shall be 52 inches (1320 mm) minimum in depth. Where a wheelchair space can only be entered from the side, the wheelchair space shall be 60 inches (1525 mm) minimum in depth. (8-3-12)

802.4.2 Existing buildings. In existing buildings, where a wheelchair space can be entered from the front or rear, the wheelchair space shall be 48 inches (1220 mm) minimum in depth. Where a wheelchair space can only be entered from the side, the wheelchair space shall be 60 inches (1525 mm) minimum in depth.

802.5 Approach. The wheelchair space shall adjoin an accessible route. The accessible route shall not overlap the wheelchair space.

802.5.1 Overlap. A wheelchair space location shall not overlap the required width of an aisle.

> **Exception:** In new buildings, the depth of the wheelchair space shall be permitted to overlap the required aisle width a maximum of 4 inches (100 mm). (3-13D-12)

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. ~~The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 16 inches (??? mm) from the rear of the wheelchair space.~~ The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface. (3-13E-12)

> **EXCEPTION:** Companion seat alignment is not required in tiered seating that includes dining surfaces or work surfaces. (8-2-12)

> **802.7.2.1 New buildings.** In new buildings, the shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 16 inches (??? mm) from the rear of the wheelchair space.

> **802.7.2.2 Existing buildings.** In existing buildings, The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 12 inches (305 mm) from the rear of the wheelchair space.

804 Kitchens and Kitchenettes

804.2.2 U-Shaped Kitchens.

804.2.2.1 New buildings. In new buildings, in kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 67 inches (1700 mm) minimum. (3-6E-12)

> **EXCEPTION:** U-shaped kitchens with an island shall be permitted to comply with Section 804.2.1. (8-9-12)

804.2.2.2 Existing buildings. In existing buildings, in kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum. (3-6E-12)

> **EXCEPTION:** U-shaped kitchens with an island shall be permitted to comply with Section 804.2.1. (8-9-12)

805 Transportation Facilities

805.2.2 Dimensions.

805.2.2.1 New buildings and sites. In new buildings and sites, bus stop boarding and alighting areas shall have a 100-inch (2540 mm) minimum clear length, measured perpendicular to the curb or vehicle roadway edge, and a 60-inch (1525 mm) minimum clear width, measured parallel to the vehicle roadway. (3-13F-12)

805.2.2.2 Existing buildings and sites. In existing buildings and sites, bus stop boarding and alighting areas shall have a 96 -inch (2540 mm) minimum clear length, measured perpendicular to the curb or vehicle roadway edge, and a 60-inch (1525 mm) minimum clear width, measured parallel to the vehicle roadway.

1007.3.2 Golf Club Reach Range Area.

1007.3.2.1 New buildings. In new buildings, all areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor space 36 inches (915 mm) minimum in width and 52 inches (1320 mm) minimum in length complying with Section 305 having a running slope not steeper than 1:20. The clear floor space shall be served by an accessible route. (3-13H-12)

1007.3.2.2 Existing buildings. In existing buildings, all areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor space 36 inches (915 mm) minimum in width and 48 inches (1220 mm) minimum in length complying with Section 305 having a running slope not steeper than 1:20. The clear floor space shall be served by an accessible route.

1009.2.3 Clear Deck Space.

1009.2.3.1 New buildings. In new buildings, on the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) minimum in width and shall extend forward 52 inches (1320 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall have a slope not steeper than 1:48. (3-13K-12)

1009.2.3.2 Existing buildings. In existing buildings, on the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) minimum in width and shall extend forward 48 inches (1220 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall have a slope not steeper than 1:48.

Reason: The A117.1 Committee has proposed major changes to the basic building blocks in Chapter 3, accessible routes in Chapter 4, general site and building elements in Chapter 5, plumbing elements and facilities in Chapter 6, special rooms and spaces in Chapter 8, and recreational facilities in Chapter 10. The Committee debated both the need and cost of these changes prior to the release of the current Public Review Draft. While these major changes represent a significant construction cost increase for new buildings, they would represent a much more significant cost impact to existing buildings. More importantly, in many cases these changes will impose an impossible burden on these facilities by requiring dimensions that cannot be implemented given structural and other limitations in existing buildings. This comment proposes to include separate existing building provisions, most of which leave in place the current dimensions for the affected sections of the Standard for existing buildings while continuing to incorporate the revised dimensions included in the current Public Review draft for new buildings. This approach follows historical trends in recognizing the need to have exceptions for existing accessibility regulations such as in the ADAAG and earlier editions of Standard A117.1.

Committee action on the following public comments

This public comment contains revisions to various parts of the standard and was therefore technically a series of public comments. The committee took a single action on the group of public comments consolidated under 3-6-12 PC2. The group is:

Approve public comments as follows:

3-6-12 PC2 3-6C-12 PC2 3-6D-12 PC1 3-6E-12 PC2

3-8-12 PC1	**3-9-12 PC1**	**3-13-12 PC2**	**3-13B-12 PC1**
3-13C-12 PC1	**3-13D-12 PC1**	**3-13E-12 PC2**	**3-13F-12 PC1**
3-13H-12 PC1	**3-13K-12 PC1**	**3-20-12 PC2**	**4-5-12 PC1**
4-6-12 PC1	**4-7-12 PC2**	**4-8-12 PC1**	**4-9-12 PC1**
4-10-12 PC2	**4-11-12 PC1**	**4-15-12 PC1**	**4-56-12 PC2**
6-46-12 PC1	**8-2-12 PC1**	**8-3-12 PC1**	**8-9-12 PC1**

Reason: See reasons statement for 3-6-12 PC1. The proposal provides a comprehensive set of changes to address the impact of the new Wheeled Mobility Study standards would have on existing buildings if not addressed in this manner. Many on the Committee are concerned that these provisions should not be in the standard but should be in the International Existing Buildings Code and similar scoping documents. On the assumption that these are contained in the Second Public Review Draft of the standard, it will allow the public to comment on the approach to the issue of exit

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3-6C – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

502.4.2 Width. Access aisles serving car and van parking spaces shall be ~~60~~ 67 inches (~~1525~~ 1700 mm) minimum in width.

3-6C-12 PC2

See committee action under 3-6-12 PC2

3-6C-12 PC3

Chad Beebe, – representing American Society for Healthcare Engineering (ASHE)

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to our attention that several of the proposed changes will have a significantly negative impact to the healthcare industry design/built environment of buildings designed under the 2015 IBC. Further, it is our understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As we do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and since we question the authenticity of the underlying premise used to make such changes, we respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months so that further collaboration can be conducted with all interested parties. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

3-6C-12 / 3-6D-12 – The increasing of the accessible parking aisles being changed from 60-inches wide to 67-inches wide at both regular and van accessible spaces, an increase of 12 square feet for every required accessible parking aisles.

These new requirements would add thousands of required square feet to a new hospital and significantly impact any renovations to an existing hospital by requiring increased patient room sizes to meet the new requirements and thus, due to the fixed square footage within the building foot print, will reduce the number of allowable beds the hospital can maintain. With hospital construction cost averaging around $300.00 per square foot these additional increases in square footage will significantly impact the

cost of construction. Thank you for your consideration of this request, and in keeping alive the goals and mandates of the entire ICC organization and membership.

Committee action on 3-6C-12 PC3 through PC10

These eight public comments all requested disapproval of the 3-6C-12 change. The committee took one action which addressed all eight comments.

Approve Public Comments 3-6C-12 PC3 through PC10.

Reason: The Committee has considered the options regarding proposals related to the Wheeled Mobility Study and concluded that vast majority of those changes should remain approved. However, in this case, the Committee concluded that since t-turn can be accomplished in a 60 inch dimension, that 60 inches was an adequate width for access aisles. This action was taken during reconsideration after action was taken to maintain the 60 inch aisle next to loading zones.

3-6C-12 PC4

Larry Eberly, – representing Pennsylvania Builders Association

Disapprove the change. Return the text to that found in existing standard.

Reason: The size of a standard Handicap Accessible parking space which is widely accepted, planned in residential communities and consistent with other laws and standards is based on an aisle width of 60" adjacent to a parking space 96" with a typical total width of 13' wide; this change would increase total width to 13'-7" wide. This may conflict with existing approved site plans, increase impervious coverage and be difficult to implement.

This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons.

The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.

These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Background Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design. Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

See Committee action on 3-6C-12 PC3

3-6C-12 PC5

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

See Committee action on 3-6C-12 PC3

3-6C-12 PC6

Karen Gridley, representing Target Corporation

Disapprove the change. Return the text to that found in existing standard.

Reason: Since we are proposing in 3-6 – 12 that the size of the circular turning space should remain at the current dimension of 60 inches, and not be increased to 67 inches. We are also proposing that the width of the car and van access aisles remain at 60 inches. The reasoning is similar to our comment provided on proposal 3-6 – 12, as follows.

During the July 2013 Committee Action Meeting we heard comments by committee members wondering if there is data available regarding how the size of the current turning space works in "real world" applications as compared to findings in the study completed by Dr. Steinfeld.

In response, Target can offer some data that will help add real world context to the discussion.
For reference, Dr. Steinfeld's study, which lead the committee to propose a new 67" wide access aisle space, included 500 participants from a localized geographic area, as we understand it.

Target's data is based on feedback from people across the nation who visit our stores, totaling nearly 36 million transactions *per week*, on average. Keeping in mind that often the person making the transaction has another person with them so there are well into the multi-millions of guests at Target stores every week. Of these guests, many share comments of all sorts with Target (not just access related) through various channels. We find that of the guests who contacted us in 2012, the percentage of comments related to accessibility of the building (which includes our parking facilities) was limited to an extremely small fraction of less than 1%. (Less than .0003% of 1%.). Of that fraction of 1%, an even smaller fraction of those comments were related to concerns about turning space for wheeled mobility devices. This tells us that the current sizes and dimensions in the existing Standard work for circular turning space, as-is, for the greater majority of guests using wheeled mobility devices. The data presents no compelling evidence or reason to change the existing dimension.

Additional Information:
During the July 2013 Committee Action Meeting, members of the committee commented that the committee's only job was to look at the A117.1 Standard and implement changes to increase access through that document. In response, we urge the committee to consider that 'more and bigger is not always better, sometimes it's just more and bigger'.

Supporting this would be the observation that the committee has not done its due diligence in evoking or investigating the Wheeled Mobility Device Manufacturing Industry to see what can be accomplished to improve maneuvering through existing engineering practices in 'Like' industry trends and innovation in designs on their end, as that industry as a whole is changing too. Like the automotive industry that went from large cars, trucks and vans to smaller frame vehicles to achieve sustainable efficiencies throughout their redesign all while maintaining safety and functionality.

From an architectural perspective, designers and building owners do not have the luxury of looking at a building in isolation through only a single Standard or Regulation when we design buildings. We must consider many regulations and standards, each having an impact and interplay with other requirements that ultimately drive the size, shape and design of the spaces we provide for people. Considering this interplay, Target respectfully submits that increasing the width of the access aisle for cars and vans will actually result in decreased accessibility when applied in conjunction with forces in place from other codes and standards.

For example: Zoning regulations drive design, layout and quantity of parking stalls required on a site. The increase to the proposed odd dimension of 67 inches at access aisles would increasingly put us in violation of zoning regulations for loosing stalls in order to accommodate the wider access aisle width, Parking lots in most cases do not have space to expand or grow; they are bounded and constricted by property lines that are fixed.

It is true that designers can adjust, tweak, push and pull designs of the physical facilities to meet these conflicting requirements. However, the cost comes in what will subsequently be able to fit within in these facilities that are experiencing a compound squeeze (squeezed smaller in footprint on the outside, but interior spaces pushed larger from within). This will reduce capacity for parking stalls overall, which in turn reduces the required quantity of accessible parking stalls, limiting access to parking availability for person with disabilities, and ultimately reducing access in the larger picture. What was once able to be provided may no longer be available due to compromised available space, having a negative impact on guest's shopping trips. Considering the effort it takes to travel to shopping destinations for many persons with disabilities, it is a disservice to them to not be able to offer enough available parking stalls due to reduced ratios, making the trip as a whole inaccessible all together.

We encourage the committee to reconsider the proposals that would increase the width of the access aisle space, and other building block sizes, and instead maintain the current sizes. At least until such time as more investigation of the Wheeled Mobility Device Manufacturing Industry can take place to identify what can be done to improve design of those devices via engineering and technology advancements, towards improved access.

See Committee action on 3-6C-12 PC3

3-6C-12 PC7

Jeffrey T. O'Neill, AIA, ACHA – representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted, peer-reviewed, nor adopted by any other credible agency or (similar) jurisdictional body.

I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months, to give time for these proposed changes to be properly discussed and vetted. If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

See Committee action on 3-6C-12 PC3

3-6C-12 PC8

Kimberly Paarlberg,– representing ICC

Disapprove the change. Return the text to that found in existing standard.

Reason: The access aisle is not confined. Since it is at the same level, there will always be an overlap with the adjacent parking space. Even more so if this is a shared access aisle. In addition, this should be consistent with the access aisle recommended by DOT for street parking and approved by this committee in 5-1-12.

See Committee action on 3-6C-12 PC3

3-6C-12 PC9

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove the change. Return the text to that found in existing standard.

Comment: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

See Committee action on 3-6C-12 PC3

3-6C-12 PC10

Minh N. Vu – representing American Hotel and Lodging Association

Disapprove the change. Return the text to that found in existing standard.

Reason: See comment under 3-6-12.

See Committee action on 3-6C-12 PC3

3-6D – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

503.3.2 Width. Access aisles serving vehicle pull-up spaces shall be ~~60~~ 67 inches (~~1525~~ 1700 mm) minimum in width.

3-6D-12 PC1

See committee action under 3-6-12 PC2

3-6E – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

804.2.2 U-Shaped Kitchens. In kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be ~~60~~ 67 inches (~~1525~~ 1700 mm) minimum.

3-6E-12 PC2

See committee action under 3-6-12 PC2

3-6E-12 PC4

Larry Eberly, representing Pennsylvania Builders Association

Disapprove the change. Return the text to that found in existing standard.

Reason: This proposed change relates to the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which questions decades of universally accepted accessibility clearances and maneuverability contained within Chapter 3: Building Blocks. This revision is based on this single study and should be researched further before such changes occur in the standard.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons. The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities. These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact andconsequences.

Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design. Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1.

Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

Committee action on 3-6E-12 PC4 through PC6

These three public comments all requested disapproval of the 3-6E-12 change. The committee took one action which addressed all three comments.

Approve Public Comments 3-6E-12 PC4 through PC6.

Reason: Upon further consideration of how kitchens are designed and that they must include sinks and work spaces with clear floor space underneath each, the Committee concluded that the 67 inch turning circle was not needed.

3-6E-12 PC5

Tony Ewalt, representing Sletten Construction of Nevada, Inc.; Michael Gentille, representing Philip Chun North America, Inc.; Michael McGettigan, representing Terracon Consultant; Robert W. Potter, Construction Company, representing Affordable Concepts; Eric J. Rowland, representing Rowland Design;

Disapprove the change. Return the text to that found in existing standard.

Reason: In review of the 2014 Final Draft of the ICC A117.1 document, it has come to my attention that several of the proposed changes (ratified by this Committee) will have a significantly negative impact to the design/built environment of buildings designed under the 2015 IBC. Further, it is my understanding that the overwhelming majority of these changes have been derived from a single uncorroborated report which has neither been properly vetted nor adopted by any other credible agency or (similar) jurisdictional body.

As I do not feel these dramatic and substantial changes have been given proper and appropriate consideration by all interested stakeholders in this process, and I question the authenticity of the underlying premise used to make such changes, I respectfully request they either be removed entirely from consideration in this draft, or that the entire draft adoption process be held in abeyance for a minimum of 12-months.

If the Committee opts to delay this process for 12-months, it will be in keeping with the mission of the ICC, and best assure that all parties can be provided with the opportunity to reasonably participate in this process.

See Committee action on 3-6E-12 PC4

3-6E-12 PC6

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove the change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based.

Because the proposed changes would have an enormous impact on the design and construction community, further investigation is necessary.

See Committee action on 3-6E-12 PC4

3-8 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

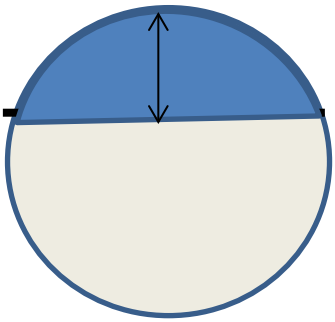
304.3.1 Circular Space. The turning space shall be a circular space with a 60-inch (1525 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306. Where the turning space includes knee and toe clearances under an obstruction, the overlap shall comply with all of the following:

1. The depth of the overlap shall not be more than 10 inches (255 mm), and

2. The depth shall not exceed the depth of the knee and toe clearances provided, and

3. The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1.

Figure 304.3.1



3-8-12 PC1

See committee action under 3-6-12 PC2

3-9 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

~~**304.3.2 T-Shaped Space.** The turning space shall be a T-shaped space within a 60-inch (1525 mm) minimum square with arms and base 36 inches (915 mm) minimum in width. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction, and the base shall be clear of obstructions 24 inches (610 mm) minimum. The turning space shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or one arm.~~

304.3.2 T–Shaped Space. The turning space shall be a T–shaped space complying with one of the following:

1. A T-shaped space, clear of obstruction, that fits within an area 68 inches (1730 mm) wide and 60 inches (1525 mm) deep, with two arms and one base that are all 36 inches (915 mm) minimum in width. Each arm shall extend 16 inches (405 mm) minimum from each side of the base located opposite the other, and the base shall extend 24 inches (610 mm) minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches (205 mm) minimum along both the arm and along the base.

2. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms 38 inches (965 mm) minimum in width and a base 42 inches (1065 mm) minimum in width. Each arm shall extend 11 inches (280 mm) minimum from each side of the base, located opposite the other, and the base shall extend 22 inches (560 mm) minimum from each arm.

3. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each arm shall be 16 inches (405 mm) minimum in each direction from the base and the base shall extend 24 inches (610 mm) minimum from each arm.

3-9-12 PC1

See committee action under 3-6-12 PC2

3-9-12 PC3

Kimberly Paarlberg, representing ICC

Further revise as follow:

304.3.2 T–Shaped Space. The turning space shall be a T–shaped space complying with one of the following:

1. A T-shaped space, clear of obstruction, that fits within an area 68 inches (1730 mm) wide and 60 inches (1525 mm) deep, with two arms and one base that are all 36 inches (915 mm) minimum in width. Each arm shall extend 16 inches (405 mm) minimum from each side of the base located opposite the other, and the base shall extend 24 inches (610 mm) minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches (205 mm) minimum along both the arm and along the base.

2. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms 38 inches (965 mm) minimum in width and a base 42 inches (1065 mm) minimum in width. Each arm shall extend 11 inches (280 mm) minimum from each side of the base, located opposite the other, and the base shall extend 22 inches (560 mm) minimum from each arm.

3. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each arm shall be 16 inches (405 mm) minimum in each direction from the base and the base shall extend 24 inches (610 mm) minimum from each arm.

T-TURN DIMENSIONS

	Rectangular Space		Widths		Chamfer	Length Clear of Obstructions	
	Width	Depth	Arms	Base	-	Arms	Base
1	68	60	36	36	8	16	24
2	64	60	38	42		11	22
3	64	60	40	40		12	20

305.7.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 20 inches (510 mm). Where used as a turning space, the alcove shall also comply with Section 304.3.2.

Reason: The change to T-turn is not coordinated with the alcove provisions. This will be constantly missed if we do not put in a reference. While turns are not always required at alcoves, I could not think of a situation where I would not want to be able to turn around to go back the way I came (i.e., drinking fountains, T-turns in bathrooms and kitchens under counters).

Committee action on 3-9-12 PC3

Approve Public Comment 3-9-12 PC3 as shown below; the changes include deleting the table and maintaining the figures. (This is a substitute for the 3-9-12 PC3 as shown above)

304.3.2 T–Shaped Space. The turning space shall be a T–shaped space complying with one of the following:

1. A T-shaped space, clear of obstruction, that fits within an area 68 inches (1730 mm) wide and 60 inches (1525 mm) deep, with two arms and one base that are all 36 inches (915 mm) minimum in width. Each arm shall extend 16 inches (405 mm) minimum from each side of the base located opposite the other, and the base shall extend 24 inches (610 mm) minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches (205 mm) minimum along both the arm and along the base.

2. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide 60 inches (1525 mm) deep, with two arms shall be 38 inches (965 mm) minimum in width and a base 42 inches (1065 mm) minimum in width. Each arm shall extend 11 inches (280 mm) minimum from each side of the base, located opposite the other, and the base shall extend 22 inches (560 mm) minimum from each arm.

3. A T-shaped space, clear of obstruction, 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each arm shall extend ~~be~~ ~~16~~ 12 inches (405 mm) minimum ~~in each direction~~ from each side of the base and the base shall extend ~~24~~ 20 inches (610 mm) minimum from each arm.

Exception: The turning space shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or one arm.

~~T-TURN DIMENSIONS~~

~~Rectangular Space (inches)~~		~~Widths (inches)~~ -		~~Chamfer (inches)~~	~~Length Clear of Obstructions (inches)~~	
~~Overall Width~~	~~Overall Depth~~	~~Arms~~	~~Base~~	-	~~Arms~~	~~Base~~
~~68~~	~~60~~	~~36~~	~~36~~	~~8~~	~~16~~	~~24~~
~~64~~	~~60~~	~~38~~	~~42~~		~~11~~	~~22~~
~~64~~	~~60~~	~~40~~	~~40~~		~~12~~	~~20~~

Reason: The existing 2009 text is:

304.3.2 T-Shaped Space. The turning space shall be a T-shaped space within a 60-inch (1525 mm) minimum square with arms and base 36 inches (915 mm) minimum in width. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in

each direction, and the base shall be clear of obstructions 24 inches (610 mm) minimum. The turning space shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or one arm.

The table appears in the report for the first draft, but is not referenced. The requirements are in the text, so it should be deleted.

The revisions to the three options in 304.3.2 for the T-turn is to do the following

- Uses a consistent language for the three options
- Corrects the dimensional error in the third option.

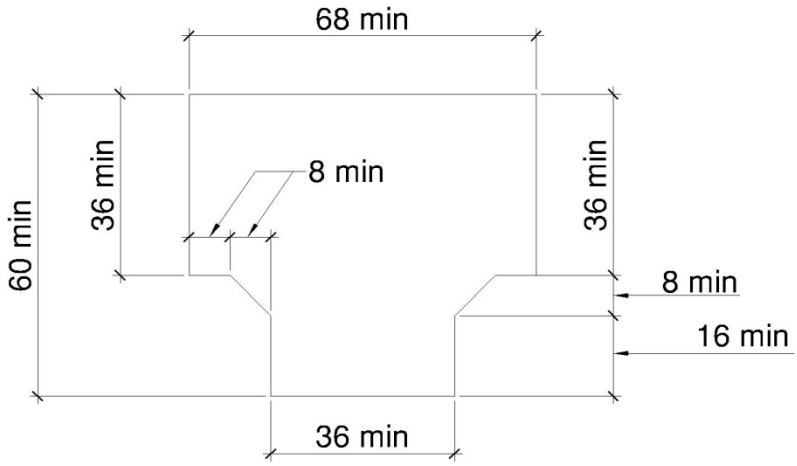


Figure 308.4.1(a)

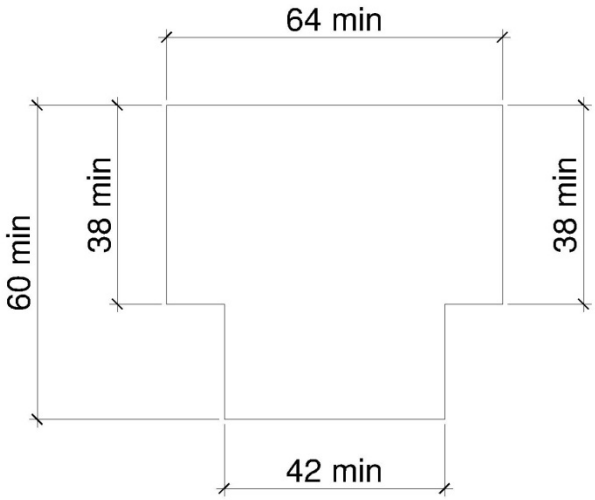


Figure 308.4.1(b)

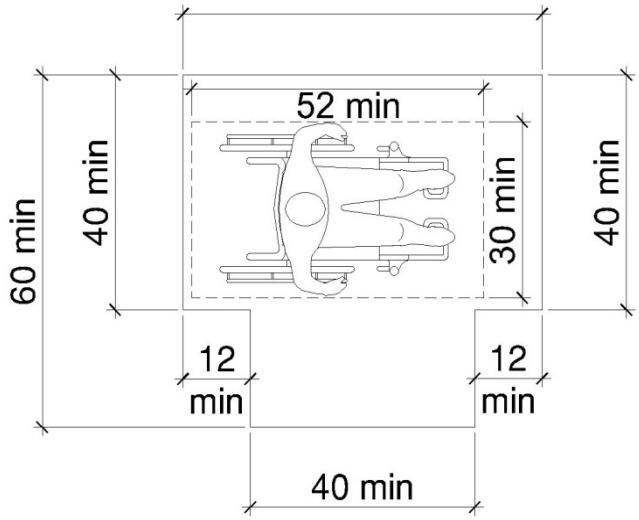


Figure 308.4.1(c)

3-13 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

305.3 Size. The clear floor space shall be ~~48 inches (1220 mm)~~ 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.7.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds ~~24~~ 20 inches (~~610~~ 508 mm).

3-13-12 PC2

See committee action under 3-6-12 PC2

3-13-12 PC4

Kimberly Paarlberg, representing ICC

Revise as follows:

305.3 Size. The clear floor space shall be 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width.

305.7.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 20 inches (508 mm).

> **Exception:** Alcoves in a kitchen or bathroom, formed by cabinets or appliances and providing for access to a sink, lavatory or accessible work surface, shall be 36 inches (915 mm) minimum in width where the depth exceeds 24 inches (610 mm).

Reason: The change in the alcove provisions will force all openings under sinks, lavatories and work surfaces to be at least 36" wide. There are already requirements for specific requirements for kitchens and bathrooms that should not be overridden. In addition, this could force sinks farther from the wall than required by the International Plumbing Code, thus creating another conflict.

Committee action on 3-13-12 PC4

Approve Public Comment 3-13-12 PC4.

Reason: The public comment provides a necessary coordination of the Wheeled Mobility Study dimensional changes and kitchen requirements.

3-13-12 PC5

Kim Paarlberg, representing ICC

Further 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. A parallel approach complying with Section 305 ~~and centered on the sink,~~ shall be permitted to a kitchen sink in space where a cook top or conventional range is not provided.
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. A parallel approach complying with Section 305 ~~and centered on the sink,~~ shall be permitted at lavatories an sinks used primarily by children ages 5 and younger.
5. (unchanged)
6. A parallel approach complying with Section 305 ~~and centered on the sink,~~ shall be permitted at wet bars.

Reason: Side reach allows for reach at the shoulder and forward. If the side approach is permitted, the sink should be at least 12" from the wall for optimum reach, not centered on the space. The International Plumbing Code required sinks to have a minimum center line 15" from the wall. The current requirement for centering, along with the new clear floor space approved in 3-13 forces the center line of the sink to be 27 inches from the wall. This does not improve access. Side approach is permitted in sinks in kitchenettes, wet bars and sinks for children under the age of 5**.**

Committee action on 3-13-12 PC5

Approve Public Comment 3-13-12 PC5.

Reason: The public comment provides a necessary coordination of the Wheeled Mobility Study dimensional changes and kitchen requirements and related plumbing code standards..

3-13B – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

409.4.1 Inside Dimensions. Elevator cars shall provide a clear floor area 36 inches (915 mm) minimum in width and ~~48~~ 52 inches (~~1220~~ 1322 mm) minimum in depth.

3-13B-12 PC1

See committee action under 3-6-12 PC2

3-13C – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

410.5.1 Lifts with Single Doors or Doors on Opposite Ends. Platform lifts with a single door or doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of ~~48~~ 52 inches (~~1220~~ 1322 minimum).

Exception: Incline platform lifts with passenger restraining arms, shall be permitted to provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220) mm.

3-13C-12 PC1

See committee action under 3-6-12 PC2

3-13D – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

802.5.1 Overlap. A wheelchair space location shall not overlap the required width of an aisle.

Exception: The depth of the wheelchair space shall be permitted to overlap the required aisle width a maximum of 4 inches (100 mm).

3-13D-12 PC1

See committee action under 3-6-12 PC2

3-13E – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or ~~12~~ 16 inches ~~(305~~ 405 mm) from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

3-13E-12 PC1

Gene Boecker, Code Consultants, Inc, representing National Association of Theatre Owners

Further revise as follows:

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 16 inches (405 mm) from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

EXCEPTION: In existing facilities, the companion seat shall be permitted to be positioned 12 inches (305 mm) from the rear of the wheelchair space.

Reason: Many of the existing theaters are designed for the existing 12 inch alignment. For example, where the wheelchair space is provided at the rear of the cross aisle, the wheelchair space will now project 4 inches further. While this is addressed by the proposal in 3-13D it does not address the adjoining companion seats. With the proposal, when seats are upgraded, they would need to be moved forward by 4 inches to provide shoulder alignment according to the new requirements. In many auditoriums, the cross aisle width is already the minimum allowed. While the seat typically retracts, the arms of the seat do not and may end up projecting into the aisle. The result would be that the seats in that part of the theater may need to be changed to be something smaller than the rest of the auditorium since moving the entire seating in front of the aisle is cost prohibitive. Providing different chairs for the cross aisle seats would result in an unequal experience for the companion; not in keeping with the spirit of the standard.

Committee action on 3-13E-12 PC1

Approve Public Comment 3-13E-12 PC1.

Reason: For consistency with the action taken to approve 3-6-12 PC 2.

3-13E-12 PC2

See committee action under 3-6-12 PC2

3-13E-12 PC3

Kimberly Paarlberg, representing ICC

Further revise as follows:

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant is considered to be 36 inches (915 mm) from the front or 16 inches (405 mm) from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

EXCEPTIONS:

1. Companion seat alignment is not required in tiered seating that includes dining surfaces or work surfaces.
2. For wheelchair spaces with front access, the shoulder alignment shall be permitted to be measures 12 inches (305 mm) from the rear of the space.

3. For wheelchair spaces with side access, the should alignment shall be permitted to be measured 12 inches (305 mm) from the rear of the space.

Reason: While the committee made concessions for the overlap (802.5.1) and the shoulder alignments (802.7.2) in consideration of line of site and to maintain current studies on assembly seating, this solution only totally works for rear approach seats off the cross aisle. It definitely does not work for when a space is located at the rear of a cross aisle since it will force the companion seat an additional 4" forward.

Neither concession leaves the side access seat the same since the wheelchair space now needs additional room.

Committee action on 3-13E-12 PC3

Approve Public Comment 3-13E-12 PC3.

Reason: The changes are needed to correlated the new Wheeled Mobility Study based standards with the placement of companion seating. Members of the committee expressed concerns regarding potential line of site impacts and that the language may be too broad.

3-13F – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

805.2.2 Dimensions. Bus stop boarding and alighting areas shall have a ~~96~~ 100-inch (~~2440~~ 2540 mm) minimum clear length, measured perpendicular to the curb or vehicle roadway edge, and a 60-inch (1525 mm) minimum clear width, measured parallel to the vehicle roadway.

3-13F-12 PC1

See committee action under 3-6-12 PC2

3-13H – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

1107.3.2 Golf Club Reach Range Area. All areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor space 36 inches (915 mm) minimum in width and ~~48~~ 52 inches (1220 mm) minimum in length complying with Section 305 having a running slope not steeper than 1:20. The clear floor space shall be served by an accessible route.

3-13H-12 PC1

See committee action under 3-6-12 PC2

3-13K – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

1109.2.3 Clear Deck Space. On the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) minimum in width and shall extend forward ~~48~~ 52 inches (~~1220~~ 1320 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall have a slope not steeper than 1:48.

3-13K-12 PC1

See committee action under 3-6-12 PC2

3-13L – 12

(This represents the language approved by the committee for the First Public Review Draft)

Add new text as follows:

1004.3.3 Clear Floor Space. For the purposes of Type B units, the clear floor space shall be 48 inches (1220mm) minimum in length and 30 inches (760 mm) minimum in width.

Revise as follows:

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Sections ~~309.2 and~~ 309.3 and 1004.3.3.

EXCEPTIONS:
(No change to the exceptions)

1004.10.1 Clear Floor Space. A clear floor space complying with Section ~~305.3~~ 1004.3.3 shall be provided. A parallel approach shall be provided for a top loading machine. A forward or parallel approach shall be provided for a front loading machine.

1004.11.2 Clear Floor Space. Clear floor spaces required by Section 1004.11.3.1 (Option A) or 1004.11.3.2 (Option B) shall comply with Sections 1004.11.2 and ~~305.3~~ 1004.3.3.

1004.11.2.1 Doors. Doors shall not swing into the clear floor space or clearance for any fixture.

EXCEPTION: Where a clear floor space complying with Section ~~305.3~~ 1004.3.3, excluding knee and toe clearances under elements, is provided within the room beyond the arc of the door swing.

1004.11.3.1.1 Lavatory. A clear floor space complying with Section ~~305.3~~ 1004.3.3, positioned for a parallel approach, shall be provided at a lavatory. The clear floor space shall be centered on the lavatory.

EXCEPTION:
A lavatory complying with Section 606 and 1004.3.3 shall be permitted. Cabinetry shall be

permitted under the lavatory provided the following criteria are met:

(a) The cabinetry can be removed without removal or replacement of the lavatory; and

(b) The floor finish extends under the cabinetry; and

(c) The walls behind and surrounding the cabinetry are finished.

1004.12.2 Clear Floor Space. Clear floor space at appliances shall comply with Sections 1004.12.2 and ~~305.3~~ 1004.3.3.

3-13L-12 PC9

Ron Nickson, – representing National Multi Housing Council

Further revise as follows – Please note this is Section 1004 in the current standard. The numbering below reflects committee action to exchange Chapters 10 and 11.

1104 Type B Units

1104.1 General. Type B units shall comply with Section 1104.

1104.1.1. Clear Floor Space. The clear floor space shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.

1004.1.2 Alcoves. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 24 inches (610 mm).

1004.1.3 Forward reach unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor.

1104.1.4. Mailboxes. Mailboxes serving Type B dwelling units and complying with Section 1101.2 shall be permitted an unobstructed side reach range at 54 inches (1370 m) maximum above the floor.

1104.1.5. Parking Space Width. Access aisles serving Type B units and adjacent to accessible and van accessible parking spaces shall be 60 inches (1525 mm) minimum in width.

1104.2 Primary Entrance. The accessible primary entrance shall be on an accessible route from public and common areas. The primary entrance shall not be to a bedroom unless it is the only entrance.

1104.3 Accessible Route. Accessible routes within Type B units shall comply with Section 1104.3.

1104.3.1 Location. At least one accessible route shall connect all spaces and elements that are a part of the unit. Accessible routes shall coincide with or be located in the same area as a general circulation path.

EXCEPTIONS:

1. An accessible route is not required to unfinished attics and unfinished basements that are part of the unit.

2. One of the following is not required to be on an accessible route:
    2.1 A raised floor area in a portion of a living, dining, or sleeping room; or
    2.2 A sunken floor area in a portion of a living, dining, or sleeping room; or
    2.3 A mezzanine that does not have plumbing fixtures or an enclosed habitable space.

1104.3.2 Components. Accessible routes shall consist of one or more of the following elements: walking surfaces with a slope not steeper than 1:20, doors and doorways, ramps, elevators, and platform lifts.

~~**1104.3.3 Clear Floor Space.** For the purposes of Type B units, the clear floor space shall be 48 inches (1220mm) minimum in length and 30 inches(760 mm) minimum in width. **(3-13L-12)**~~

1104.4 Walking Surfaces. Walking surfaces that are part of an accessible route shall comply with Section 1104.4.

1104.4.1 Clear Width. Clear width of an accessible route shall comply with Section 403.5.

EXCEPTIONS:

1. **180 Degree Turn.** Where an accessible route makes a 180 degree turn around an object that is less than 48 inches (1220 mm) in width, clear widths shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum during the turn and 42 (1065 mm) inches minimum leaving the turn.

2. **Turn Around an Object.** Where an accessible route makes a 180 degree turn around an object that is less than 48 inches (1220 mm) in width, the clear width approaching the turn and leaving the turn shall be 36 inches (915 mm) minimum Where the clear width during the turn is 60 inches (1525 mm) minimum.

3. **90 Degree Turn.** Where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall be 36 inches (915 mm) minimum.

4. **Clear Width.** The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

1104.4.2 Changes in Level. Changes in level shall comply with Section 303.

EXCEPTION: Where exterior deck, patio or balcony surface materials are impervious, the finished exterior impervious surface shall be 4 inches (100 mm) maximum below the floor level of the adjacent interior spaces of the unit.

1104.5 Doors and Doorways. Doors and doorways shall comply with Section 1104.5.

1104.5.1 Primary Entrance Door. The primary entrance door to the unit shall comply with Section 404.

EXCEPTION:

1. **Storm and Screen Doors.** Storm and screen doors serving individual dwelling or sleeping units are not required to comply with Section 404.2.5.
2. **Maneuvering Clearance.** For the maneuvering clearance at swinging doors, for the front

approach direction on the push side the dimension perpendicular to the door shall be 48 inches (122 mm) minimum.

3. **Clearance at Sliding and Folding Doors.** For the maneuvering clearance at sliding and folding doors, for the front approach direction the dimension perpendicular to the door shall be 48 inches (122 mm) minimum.

1104.5.2 User Passage Doorways. Doorways intended for user passage shall comply with Section 1104.5.2.

1104.5.2.1 Clear Width. Doorways shall have a clear opening of 31 3/4 inches (810 mm) minimum. Clear opening of swinging doors shall be measured between the face of the door and stop, with the door open 90 degrees.

1104.5.2.1.1 Double Leaf Doorways. Where the operable parts on an inactive leaf of a double leaf doorway are located more than 48 inches (1220 mm) or less than 15 inches (380 mm) above the floor, the active leaf shall provide the clearance required by Section 1004.5.2.1.

1104.5.2.2 Thresholds. Thresholds shall comply with Section 303.

EXCEPTION: Thresholds at exterior sliding doors shall be permitted to be 3/4 inch (19 mm) maximum in height, provided they are beveled with a slope not steeper than 1:2.

1104.5.2.3 Automatic Doors. Automatic doors shall comply with Section 404.3.

EXCEPTION: Unobstructed Reach. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor

1104.6 Ramps. Ramps shall comply with Section 405.

1104.7 Elevators. Elevators within the unit shall comply with Section 407, 408, or 409.

EXCEPTION:

1. **In a Private Residential Elevators, t**he inside dimensions of elevator cars shall provide a clear floor space in accordance with Section 1104.1.1.
2. **Controls.** Unobstructed forward reach for controls shall be permitted to comply with Section 1004.1.3.
3. **Unobstructed Reach.** Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor

1104.8 Platform Lifts. Platform lifts within the unit shall comply with Section 410.

EXCEPTION:

1. **Doors.** Platform lifts with a single door or doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor space complying with Section 1104.1.1.
2. Unobstructed forward reach for controls shall be permitted to comply with Section 1004.1.3.
3. **Controls.** Unobstructed forward reach for controls shall be permitted to comply with Section 1004.1.3.
4. **Unobstructed Reach.** Where a forward reach is unobstructed, the high forward reach

shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor.

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Sections ~~309.2~~ 1104.1.1 and 309.3.

EXCEPTIONS:

1. Unobstructed forward reach for operable parts shall be permitted to comply with Section 1004.1.3
2. Receptacle outlets serving a dedicated use.
3. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall ~~not~~ be required to comply with Sections ~~309.2~~ 1104.1.1 and 309.3.
4. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Sections ~~309.2~~ 1104.1.1 and 309.3 provided that the counter top is 7 square feet (0.65 m^2) maximum.
5. Floor receptacle outlets.
6. HVAC diffusers.
7. Controls mounted on ceiling fans.
8. Controls or switches mounted on appliances.
9. Plumbing fixture controls.
10. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.
11. Where redundant controls other than light switches are provided for a single element, one control in each space shall not be required to be accessible.
12. Within kitchens and bathrooms, lighting controls, electrical switches and receptacle outlets are permitted to be located over cabinets with counter tops 36 inches (915 mm) maximum in height and 25-1/2 inches (650 mm) maximum in depth.

1104.10 Laundry Equipment. Washing machines and clothes dryers shall comply with Section 1104.10.

1104.10.1 Clear Floor Space. A clear floor space complying with Section ~~305.3~~ 1104.1.1 shall be provided for each washing machine and clothes dryer. A parallel approach shall be provided for a top loading machine. A forward or parallel approach shall be provided for a front loading machine.

1104.11 Toilet and Bathing Facilities. Toilet and bathing fixtures shall comply with Section 1104.11.

EXCEPTION: Fixtures on levels not required to be accessible.

1104.11.1 Grab Bar and Shower Seat Reinforcement. Reinforcement shall be provided for the future installation of grab bars and shower seats at water closets, bathtubs, and shower compartments. Where walls are located to permit the installation of grab bars and seats complying with Section 604.5 at water closets; grab bars complying with Section 607.4 at bathtubs; and for grab bars and shower seats complying with Sections, 608.3, 608.2.1.3, 608.2.2.3 and 608.2.3.2 at shower compartments; reinforcement shall be provided for the future installation of grab bars and seats complying with those requirements.

EXCEPTIONS:

1. In a room containing only a lavatory and a water closet, reinforcement is not required provided the room does not contain the only lavatory or water closet on the accessible level of the unit.

2. At water closets reinforcement for the side wall vertical grab bar component required by Section 604.5 is not required.

3. At water closets where wall space will not permit a grab bar complying with Section 604.5.2, reinforcement for a rear wall grab bar 24 inches (610 mm) minimum in length centered on the water closet shall be provided.

4. At water closets where a side wall is not available for a 42-inch (1065 mm) grab bar complying with 604.5.1, reinforcement for a sidewall grab bar, 24 inches (610 mm) minimum in length, located 12 inches (305 mm) maximum from the rear wall, shall be provided.

5. At water closets where a side wall is not available for a 42- inch (1065 mm) grab bar complying with Section 604.5.1 reinforcement for a swing-up grab bar complying with Section 1104.11.1.1 shall be permitted.

6. At water closets where a side wall is not available for a 42-inch (1065 mm) grab bar complying with 604.5.1 reinforcement for two swing-up grab bars complying with Section 1104.11.1.1 shall be permitted to be installed in lieu of reinforcement for rear wall and side wall grab bars.

7. In shower compartments larger than 36 inches (915 mm) in width and 36 inches (915 mm) in depth reinforcement for a shower seat is not required

1104.11.1.1 Swing–up Grab Bars. A clearance of 18 inches (455 mm) minimum from the centerline of the water closet to any side wall or obstruction shall be provided where reinforcement for swing–up grab bars is provided. When the approach to the water closet is from the side, the 18 inches (455 mm) minimum shall be on the side opposite the direction of approach. Reinforcement shall accommodate a swing–up grab bar centered 15-3/4 inches (400 mm) from the centerline of the water closet and 28 inches (710 mm) minimum in length, measured from the wall to the end of the horizontal portion of the grab bar. Reinforcement shall accommodate a swing-up grab bar with a height in the down position of 33 inches (840 mm) minimum and 36 inches (915 mm) maximum. Reinforcement shall be adequate to resist forces in accordance with Section 609.8.

> **EXCEPTION:** Where a water closet is positioned with a wall to the rear and to one side, the centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the sidewall.

1104.11.2 Clear Floor Space. Clear floor spaces required by Section 1104.11.3.1 (Option A) or 1104.11.3.2 (Option B) shall comply with Sections 1104.11.2 and ~~305.3~~ 1104.1.1.

1104.11.2.1 Doors. Doors shall not swing into the clear floor space or clearance for any fixture.

> **EXCEPTION:** Where a clear floor space complying with Section 1104.1.1, excluding knee and toe clearances under elements, is provided within the room beyond the arc of the door swing.

1104.11.2.2 Knee and Toe Clearance. Clear floor space complying with Section 1104.1.1, at fixtures shall be permitted to include knee and toe clearances complying with Section 306.

1104.11.3 Toilet and Bathing Areas. Either all toilet and bathing areas provided shall comply with Section 1104.11.3.1 (Option A), or one toilet and bathing area shall comply with Section 1104.11.3.2 (Option B).

1104.11.3.1 Option A. Each fixture provided shall comply with Section 1104.11.3.1.

EXCEPTIONS:

1. Where multiple lavatories are provided in a single toilet and bathing area such that travel between fixtures does not require travel through other parts of the unit, not more than one lavatory is required to comply with Section 1104.11.3.1.

2. A lavatory and a water closet in a room containing only a lavatory and water closet, provided the room does not contain the only lavatory or water closet on the accessible level of the unit.

1104.11.3.1.1 Lavatory. A clear floor space complying with Section ~~305.3~~ 1104.1.1, positioned for a parallel approach, shall be provided at a lavatory. The clear floor space shall be centered on the lavatory.

EXCEPTION: A lavatory complying with Section 606 shall be permitted. Cabinetry shall be permitted under the lavatory provided the following criteria are met.

(a) The cabinetry can be removed without removal or replacement of the lavatory; and

(b) The floor finish extends under the cabinetry; and

(c) The walls behind and surrounding the cabinetry are finished.

1104.11.3.1.2 Water Closet. The water closet shall comply with Section 1104.11.3.1.2.

1104.11.3.1.2.1 Location. The centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from one side of the required clearance.

1104.11.3.1.2.2 Clearance. Clearance around the water closet shall comply with Sections 1104.11.3.1.2.2.1 through 1104.11.3.1.2.2.3.

EXCEPTION: Clearance complying with Sections 1103.11.2.4.2 through 1103.11.2.4.4.

1104.11.3.1.2.2.1 Clearance Width. Clearance around the water closet shall be 48 inches (1220 mm) minimum in width, measured perpendicular from the side of the clearance that is 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the water closet centerline.

1104.11.3.1.2.2.2 Clearance Depth. Clearance around the water closet shall be 56 inches (1420 mm) minimum in depth, measured perpendicular from the rear wall.

1104.11.3.1.2.2.3 Increased Clearance Depth at Forward Approach. Where a forward approach is provided, the clearance shall be 66 inches (1675 mm) minimum in depth, measured perpendicular from the rear wall.

1104.11.3.1.2.2.4 Clearance Overlap. A vanity or other obstruction 24 inches (610 mm) maximum in depth, measured perpendicular from the rear wall, shall be permitted to overlap the required clearance, provided the width of the remaining clearance at the water closet is 33 inches (840 mm) minimum.

1104.11.3.1.3 Bathing Fixtures. Where provided, a bathtub shall comply with Section 1104.11.3.1.3.1 or 1104.11.3.1.3.2 and a shower compartment shall comply with Section 1104.11.3.1.3.3.

1104.11.3.1.3.1 Parallel Approach Bathtubs. A clearance 60 inches (1525 mm) minimum in length and 30 inches (760 mm) minimum in width shall be provided in front of bathtubs with a parallel approach. Lavatories complying with Section 606 shall be permitted in the clearance. A lavatory complying with Section 1104.11.3.1.1 shall be permitted at one end of the bathtub if a clearance 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width is provided in front of the bathtub.

1104.11.3.1.3.2 Forward Approach Bathtubs. A clearance 60 inches (1525 mm) minimum in length and 48 inches (1220 mm) minimum in width shall be provided in front of bathtubs with a forward approach. A water closet and a lavatory shall be permitted in the clearance at one end of the bathtub.

1104.11.3.1.3.3 Shower Compartment. If a shower compartment is the only bathing facility, the shower compartment shall have dimensions of 36 inches (915 mm) minimum in width and 36 inches (915 mm) minimum in depth. A clearance of 48 inches (1220 mm) minimum in length, measured perpendicular from the shower head wall, and 30 inches (760 mm) minimum in depth, measured from the face of the shower compartment, shall be provided.

> **EXCEPTION:** A shower compartment with dimensions of 30 inches (760 mm) minimum in depth and 44 inches (1120 mm) minimum in width shall be permitted.

1104.11.3.2 Option B. One of each type of fixture provided shall comply with Section 1104.11.3.2. The accessible fixtures shall be in a single toilet/bathing area, such that travel between fixtures does not require travel through other parts of the unit.

1104.11.3.2.1 Lavatory. Lavatories shall comply with Sections 1104.11.3.1.1 and 1104.11.3.2.1.

1104.11.3.2.1.1 Height. The front of the lavatory shall be 34 inches (865 mm) maximum above the floor, measured to the higher of the rim or counter surface.

1104.11.3.2.2 Water Closet. The water closet shall comply with Section 1104.11.3.1.2.

1104.11.3.2.3 Bathing Fixtures. The accessible bathing fixture shall be a bathtub complying with Section 1104.11.3.2.3.1 or a shower compartment complying with Section 1104.11.3.2.3.2

1104.11.3.2.3.1 Bathtub. A clearance 48 inches (1220 mm) minimum in length measured perpendicular from the control end of the bathtub, and 30 inches (760 mm) minimum in width shall be provided in front of bathtubs.

1104.11.3.2.3.2 Shower Compartment. A shower compartment shall comply with Section 1104.11.3.1.3.3.

1104.12 Kitchens. Kitchens and kitchenettes shall comply with Section 1104.12.

1104.12.1 Clearance. Clearance complying with Section 1104.12.1 shall be provided.

1104.12.1.1 Minimum Clearance. Clearance between all opposing base cabinets, counter tops, appliances, or walls within kitchen work areas shall be 40 inches (1015mm) minimum.

1104.12.1.2 U-Shaped Kitchens. In kitchens with counters, appliances, or cabinets on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

EXCEPTION: U-shaped kitchens with an island shall be permitted to comply with Section 1104.12.1.1.

1104.12.2 Clear Floor Space. Clear floor space at appliances shall comply with Sections 1104.12.2 and ~~305.3~~ 1104.1.1.

EXCEPTION: Where the clear floor space complying with Section 1104.1.1 is positioned for a forward approach, the alcove shall comply with Section 1104.1.2.

1104.12.2.1 Sink. A clear floor space complying with Section 1104.1.1 positioned for a parallel approach to the sink, shall be provided. The clear floor space shall be centered on the sink bowl.

EXCEPTION: A sink with a forward approach complying with Section 1103.12.4.1, except the clear floor space shall be permitted to comply with Section 1104.1.1 and the alcove with Section 1104.1.2.

1104.12.2.2 Dishwasher. A clear floor space positioned for a parallel or forward approach to the dishwasher, shall be provided. The dishwasher door in the open position shall not obstruct the clear floor space for the dishwasher.

1104.12.2.3 Cooktop. Cooktops shall comply with Section 1104.12.2.3.

1104.12.2.3.1 Approach. A clear floor space positioned for a parallel or forward approach to the cooktop, shall be provided.

1104.12.2.3.2 Forward approach. Where the clear floor space is positioned for a forward approach, knee and toe clearance complying with Section 1104.1.1 and 1104.1.2 shall be provided. The underside of the cooktop shall be insulated or otherwise configured to prevent burns, abrasions, or electrical shock.

1104.12.2.3.3 Parallel approach. Where the clear floor space is positioned for a parallel approach, the clear floor space shall be centered on the appliance.

1104.12.2.4 Oven. A clear floor space positioned for a parallel or forward approach adjacent to the oven shall be provided. The oven door in the open position shall not obstruct the clear floor space for the oven.

1104.12.2.5 Refrigerator/Freezer. The refrigerator/freezer shall comply with Section 1104.12.2.5.

1104.12.2.5.1 Approach. A clear floor space positioned for a parallel or forward approach to the refrigerator/freezer shall be provided.

1104.12.2.5.2 Forward Approach. Where the clear floor space is positioned for a forward approach, the centerline of the clear floor space shall be offset 15 inches (380 mm) maximum from the centerline of the appliance.

1104.12.2.5.3 Parallel Approach. Where the clear floor space is positioned for a parallel approach, the centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.

1104.12.2.6 Trash Compactor. A clear floor space, positioned for a parallel or forward approach to the trash compactor, shall be provided.

Reason: The proposed modification addresses only the Type B dwellings unit. The proposal includes all of the changes approved for the Type B Dwelling Unit acted on during the committee process to develop the next version of the ANSI standard. The changes in the comment are intended to allow the Type B dwelling unit to remain technically as it was in the 2009 version of the standard by not incorporating the changes in the buildings blocks for clear floor space, turning circle and U-turn, etc. that were approved during the committee deliberations.

Committee action on 3-13L-12 PC9

Approve Public Comment 3-13L-12 PC9.

Reason: The public comment, as approved, allows Type B dwelling units/sleeping unit requirements to remain as currently found in the 2009 editions.

3-20 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be ~~15~~ 23 inches (~~380~~ 585 mm) minimum above the floor.

3-20-12 PC1

Fritz Rasmussen, – representing Kwik Trip Inc.

Comment: -Bad- 308.2.1 Unobstructed (Forward Reach). This raises the lowest forward reach point from 15" AFF to 23" AFF. *This would raise all electrical outlets that are in public spaces. Baby seats would have to be raised up to meet this requirement*

See Committee action on 3-20-12 PC3

3-20-12 PC2

See committee action under 3-6-12 PC2

3-20-12 PC3

Larry Eberly, – representing Pennsylvania Builders Association

Disapprove this change. Return the text to that found in existing standard.

Reason: This decrease in reach range necessitates changes in typical construction and installation of electrical outlets and HVAC systems and does not address the implications for Kitchen and bathroom vanity drawers and base cabinets, low shelving, dishwasher racks, refrigerators, range ovens and other appliances, plumbing fixture controls and window hardware typically below 23" above the floor.
Pennsylvania Builders Association opposes any change to the ANSI 117.1 building blocks for numerous reasons.
The requirements within Chapter 3: Building Blocks are the standard and precedent for the development of decades of accessibility required clearances, maneuverability and reach ranges both in ANSI A117.1 and federal accessibility laws and their standards (ADA/FHA/ ABA/ UFAS, etc).

Any changes will conflict with and be more stringent than these accepted laws and standards and contradictory to the efforts of the ADA/A117 Harmonization Task Group (HTG) to provide consistent language with the ADA. Residual unforeseen consequences and conflicts with these laws and within the ANSI 117.1 standard itself due to the vast references to this chapter will require extensive future coordination, revisions and clarifications and create a financial burden for residential communities.
These changes are predicated on the anthropometric study of mobility device users by The Center for IDeA at the University at Buffalo, SUNY which predominantly addresses the potential need to accommodate existing electric mobility devices. The Committee's and Wheeled Mobility Task Group's (WMTG) supporting documentation and comments contained in the Backround Report raises serious questions to the study's testing methods, criteria and results and clearly acknowledges the unforeseen residual impact and consequences.
Instead of changing the Building Blocks, a more prudent approach would be to require mobility device manufacturers to comply with the decades of accepted standards, particularly taking in consideration future technology and advances in design.

Stringent changes to the requirements in the ANSI 117.1 standards make private residential communities more handicap accessible than public, institutional and commercial buildings and sites including USPS postal centers, hospitals, schools, retail, office, recreational and cultural establishments. A substantial disparity and financial burden is placed on residential communities, homeowners and builders by requiring residential buildings to comply with stricter standards. In addition, any change to these basic building blocks may also set a precedent for a re-evaluation of all other clearances and requirements not currently included in these proposed changes, particularly dwelling unit bathroom and kitchens.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC. without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

Committee action on 3-20-12 PC1 and PC3 through PC6

These five public comments all requested disapproval of the 3-20-12 change. The committee took one action which addressed all five comments.

Approve Public Comments 3-20-12 PC1 and PC3 through PC6.

Reason: The Committee has considered the options regarding proposals related to the Wheeled Mobility Study and concluded that vast majority of those changes should remain approved. With respect to this proposal, the Committee concluded that raising the forward reach range was not fully supportable and had not been coordinated through the rest of the standard.

3-20-12 PC4

Kimberly Paarlberg, – representing International Code Council

Disapprove this change. Return the text to that found in existing standard.

Reason: The study on reach is not complete. No reach over an obstruction was studied. Reach requirements should not be revised piecemeal.

This will have the most effect on the location of electrical outlets. At 23" above the floor, this will put the outlet above furniture. This is considered a visual eyesore; therefore, outlets that are not required will typically be removed. Is this not decreasing options for everyone?

By reference to 309, and therefore 308, this reach range could adversely effect control panels within elevator cars and on platform lifts. The low reach is needed to fit in emergency phones.

What exactly are we trying to affect?

An alternative –
308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 23 inches (585 mm) minimum above the floor

Exception: The following elements shall be permitted to have a low forward reach of 15 inches (380 mm) minim above the floor:

1. Electrical outlets
2. Emergency equipment in elevator cars

See Committee action on 3-20-12 PC3

3-20-12 PC5

Robin Roberts, Chair, Technical Standards Committee, representing Accessibility Professionals Association

Disapprove this change. Return the text to that found in existing standard.

Reason: Many of the comments provided in the background reports expressed reservations regarding the study upon which the proposals are based. Because the proposed changes would have an enormous impact on the design and construction community, further investigation seems necessary.

See Committee action on 3-20-12 PC3

3-20-12 PC6

Minh N. Vu, – representing American Hotel & Lodging Association

Disapprove this change. Return the text to that found in existing standard.

Reason: The ANSI Committee has proposed to change the accessible forward reach range from 15 and 48 inches to 23 and 48 inches above the finished floor ("AFF"). The American Hotel & Lodging Association (AHLA) opposes this change because it is based on the findings of a single study that provides no insight into the reaching capabilities of Wheeled Mobility Device users in the United States and would have far-reaching negative implications for lodging facilities that the ANSI Committee has not considered.

I. The proposed change is based on a single study that provides no empirical data about the reaching ability of WhMD users in the United States.

The proposed change is based on findings from a study conducted by the Center for Inclusive Design and Environmental Access (IdeA) Anthropometry of Wheeled Mobility Project, Final Report (December 31,2010) (hereinafter, the "study') in which none of the study participants could execute a forward reach below 16"-17" AFF. The Study found that 51% of study participants using manual wheelchairs and 36% of study participants in power wheelchairs would be able to execute a forward reach at 23-24 inches AFF. Thus, the ANSI Committee has proposed to raise the minimum height for a forward reach to 23" AFF.

The Study cannot be the basis for setting a nationwide standard because the Study participant pool was not a representative sample of WhMD users in the United States (Study at 13.) In particular:

- The 495 study participants were not randomly selected WhMD users. Instead, they were recruited from Buffalo, NY; Pittsburg, PA and Ithaca NY (Study at 3).
- The Study 'intentionally oversampled powered wheelchair users" who, according to the Study's finding, had the greatest difficulty with executing a forward reach (Study at 13.)
- The Study made no attempt to choose participants whose medical conditions proportionately reflect the medical conditions of WhMD users in the United States (Study at 36). The Study's authors stated that there was 'a higher prevalence of spinal cord injuries' in the Study sample in addition to a larger percentage of participants with 'nervous sstem disorders' relative to the percentage of people with such conditions in the U.S. population. Indeed, 32% of the study participants have 'nervous system disorders,' whereas only 8% of the general population of WhMD users have such conditions (Study at 36). The disproportionately higher percentage of Study participants with spinal cord and central nervous system injuries likely increased the number of people who would have difficulty executing a forward-reach.

In is a basic principle of statistics that a study sample must accurately reflect the overall population in order for the findings to be extended to that population. The Study made no attempt to capture a random sample of WhMD users in the United States in order to study their reach range limitations. Accordingly, the Study provides no information concerning the reach-range of WhMD users in the United States and cannot serve as the basis for a radical change to national accessibility standards.

II. The proposed change would negatively impact lodging facilities in new and renovated facilities.

In addition to having no legitimate justification, the proposed forward reach range change would have very negative impacts on lodging facilities. Outlets, in room safes, closet shelves, kitchen cabinets, storage drawers, controls at individual PTAC units, toilet paper dispensers and bathtub controls would all have to be raised. In new construction, the space in which these items could be placed would be extremely limited. In an accessible guest room with kitchen cabinets, for example, fifty percent of the storage must be within an accessible reach range under the 2010 ADA Standards. If the minimum low reach is raised to 23 inches AFF, none of the lower cabinets would qualify as accessible storage. The upper cabinets, which must be mounted above the counter, would also not qualify because they would be above 48 inches AFF. The result: kitchen cabinets would have to be mounted in a single row at chest height.

The proposed changes would pose even greater challenges in existing lodging facilities that are renovated. All of the elements described above in accessible guest rooms would have to be relocated and there would be no space for some of the elements (e.g. kitchen cabinets) to be placed within the proposed, extremely limited reach range.

III. The proposed change will make the ANSI A117.1 Standard inconsistent with the new 2010 ADA Standards and undermine harmonization and compliance objectives.

As the ANSI Committee is well aware, for the first twenty years of the Americans with Disabilities Act of 1990, the ANSI A117.1 Standard was not the same as the ADA Standards for Accessible Design adopted by the United States Department of Justice. The lack of harmonization caused a great deal of confusion among owners of public accommodations and commercial facilities who had to comply with building code and ADA requirements which differed. In September 2010, the DOJ issued the 2010 Standards which was the culmination of an effort by the ANSI Committee and the Access Board to harmonize the ANSI A117.1 Standard with the 2010 ADA Standards. The 2010 ADA Standards have only been in effect for fewer than two years.

If adopted, the proposed change to the forward-reach range would undo this harmonization effort by introducing an entirely different standard into future editions of the International Building Code which will then be adopted by state governments as their building codes. Owners seeking to comply with both sets of requirements will yet again be thrown into a state of confusion even though, as discussed above, there is no legitimate reason for the change. In AHLA's experience, compliance regimes that are confusing or difficult to understand/implement usually result in less accessibility and operate to the detriment of individuals with disabilities. AHLA, thus, urges the ANSI Committee to reject any rule changes that would conflict with the 2010 ADA Standards, including the proposed minimum forward-reach range.

IV. At a Minimum, the proposed changes should not apply to existing buildings.

As can be seen throughout the preceding discussion, the proposed changes -- once they re adopted by jurisdictions asw part of their building codes -- will be particularly problematic for existing facilities that will have to comply with them in future renovations. In most instances, lodging facility owners will face three unacceptable alternatives: (1) Comply with the new requirements by relocating outlets, PTAC;s, safes, toilet paper dispensers, bathtub controls and storage units; (2) Attempt to seek a variance from local building officials assuming such a process is available; or (3) Not renovate or improve facilities. All options are highly undesirable. The first tw2o options will add substantial cost and uncertainty to renovation projects. The third option would actually undermine accessibility because renovations typically result in improved access. Accordingly, if the ANSI Committee is unwilling to postpone the adoption of the proposal for further study, it should, at a minimum, limit its application to facilities constructed after a jurisdiction adopts the changes.

See Committee action on 3-20-12 PC3

3-21 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 and knee and toe clearance complying with Section 306 shall extend beneath the element for a distance not less than the ~~required~~ reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum above the floor where the reach depth over the obstruction is 20 inches (510 mm) maximum. Where the reach depth over the obstruction is more than ~~exceeds~~ 20 inches (510 mm) and 25 inches (635 mm) or less, the high forward reach shall be 44 inches (1120 mm) maximum above the floor, ~~and the reach depth shall be 25 inches (635 mm) maximum~~.

3-21-12 PC2

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Revise as follows:

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 and knee and toe clearance complying with Section 306 shall extend beneath the element for a distance not less than the reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum above the floor where the reach depth over the obstruction

is 20 inches (510 mm) maximum. ~~Where the reach depth over the obstruction is more than 20 inches (510 mm) and 25 inches (635 mm) or less, the high forward reach shall be 44 inches (1120 mm) maximum above the floor.~~ The high forward reach shall be 44 inches (1120 mm) maximum above the floor where the reach depth over the obstruction is greater than 20 inches (510 mm) and not more than 25 inches (635 mm).

Reason: Editorial change to use consistent language within the provision.

Committee action on 3-21-12 PC2

Approve Public Comment 3-21-12 PC2

Reason: The comment was approved as an editorial improvement to the 3-21-12 proposal.

3-24 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

308.3.1 Unobstructed. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the floor.

EXCEPTION<u>S</u>:

1. Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.
2. Mailboxes serving Type B dwelling units and complying with Section 1001.2 shall be permitted a high reach range at 54 inches (1370 mm) maximum above the floor.

3-24-12 PC1

Marsha K. Mazz, representing U.S. Access Board (ATBCB)

Revise as follows:

308.3.1 Unobstructed. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the floor.

EXCEPTIONS:

1. Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.
2. Mailboxes serving Type B dwelling units and complying with Section 1001.2 shall be permitted ~~a~~ an unobstructed high side reach ~~range at~~ 54 inches (1370 mm) maximum above the floor.

Reason: Often shelves or large parcel lockers are located beneath a bank of mailboxes. The modification clarifies that only the "unobstructed" high reach can be 54 inches high. It further clarifies that, in the rare instance where the reach is a forward reach, that the maximum high forward reach is unmodified by the exception.

Committee action on 3-24-12 PC1

Approve Public Comment 3-24-12 PC1

Reason: A higher reach range is needed, especially if the Postal Service sticks to its requirement for 100 percent of mailboxes being accessible. The revision in the public comment clarifies the exception as noted by Ms. Mazz.

Chapter 4

4-5 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

403.5 Clear width. The clear width of an accessible route shall comply with Section 403.5.1. 403.5.2 or 403.5.3 as applicable.

403.5.1 General. The clear width of an accessible route shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

403.5.2 ~~403.5.1~~ Clear Width at 180 Degree Turn. Where an accessible route makes a 180 degree turn around an object that is less than 48 inches (1220 mm) in width, clear widths shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum during the turn, and 42 inches (1065 mm) minimum leaving the turn.

EXCEPTION: Section 403.5.2 ~~403.5.1~~ shall not apply where the clear width during the turn is 60 inches (1525 mm) minimum.

403.5.3 ~~403.5.2~~ Passing Space. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection.

4-5-12 PC1

See committee action under 3-6-12 PC2

4-6 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

403.5 Clear Width. The clear width of an accessible route shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are ~~48~~ 52 inches (~~1220~~ 1320 mm) minimum in length and 36 inches (915 mm) minimum in width.

403.5.2 Passing Space. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend ~~48~~ 52 inches (~~1220~~ 1320 mm) minimum beyond the intersection.

4-6-12 PC1

See committee action under 3-6-12 PC2

4-7 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

403.5 Clear Width. The clear width of an interior accessible route shall be 36 inches (915 mm) minimum. The clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum.

Exceptions:

1. The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

2. The clear width of an exterior ramp comply with Section 405.5.

4-7-12 PC1

Gene Boecker, Code Consultants, Inc. representing National Association of Theatre Owners

Further revise as follows:

403.5 Clear Width. The clear width of an interior accessible route shall be 36 inches (915 mm) minimum. The clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum.

Exceptions:

1. The clear width of the interior accessible route shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

2. The clear width of an exterior ramp comply with Section 405.5.

Reason: During the discussions on this item, it was mentioned that the intent was to include a requirement similar to what was noted in the Proposed Rights of Way Guidelines (PROWAG). The guidelines also do not allow reduction of the 48-inch width. If the intent is to mimic the PROWAG, then the exception needs to be specific to allow the reduction in width to only interior accessible routes.

Committee action on 4-7-12 PC1

Approve Public Comment 4-7-12 PC1 with modifications.

Modification:

403.5 Clear Width. The clear width of an interior accessible route shall be 36 inches (915 mm) minimum. The clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum.

Exceptions:

1. The clear width ~~of the interior accessible route~~ shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

2. The clear width of an exterior ramp comply with Section 405.5.

3. The clear width of a circulation path of a Type C dwelling unit shall be 36 inches (915 mm) minimum.

4. The clear width of an exterior accessible route located within seating areas shall be 36 inches (915 mm) minimum.

Reason: The proposed text of exception 1 would have limited its application to interior routes. The Committee did not feel that exterior routes should be prohibited from having small, narrow segments. It will solve situations where existing installations such as utility poles would make a full width route impractical. The discussion raised the Committee's awareness of the need for other exceptions to requiring all exterior routes to be a full 48 inches width.

4-7-12 PC2

See committee action under 3-6-12 PC2

4-8 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

403.5.1 Clear Width at 180 Degree Turn. Where an accessible route makes a 180 degree turn around an object that is ~~less~~ equal to or greater than ~~48 inches (1220 mm) in width, clear widths shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum during the turn and 42 (1065 mm) inches minimum leaving the turn~~ 52 inches (1320 mm) in width minimum, clear widths shall be as permitted for turn complying with 405.5.1. Where an accessible route makes a 180 degree turn around an object that is less than 52 inches (1320 mm) inches, the clear widths approaching the turn, during the turn and leaving the turn, shall be one of the following sets of dimensions:

1. Approaching 36 inches (915 mm) minimum, during 60 inches (1525 mm) minimum, and leaving 36 inches (915 mm) minimum.

2. Approaching 42 inches (1065 mm) minimum, during 48 inches (1220 mm) minimum, and leaving 42 inches (1065 mm) minimum.

3. Approaching 43 inches (1090 mm) minimum, during 43 inches (1090 mm) minimum, and leaving 43 inches (1090 mm) minimum.

EXCEPTION: ~~Section 403.5.1 shall not apply where the clear width during the turn is 60 inches (1525 mm) minimum.~~

4-8-12 PC1

See committee action under 3-6-12 PC2

4-9 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Add text as follows:

403.5.2 Clear Width at 90 Degree Turn. Where an accessible route makes a 90 degree turn the clear widths approaching the turn and leaving the turn shall be one of the following sets of dimensions:

1. Both legs of the turn shall be 40 inches (1016 mm) minimum.

2. Where the interior corners of the turn are chamfered for 8 inches (205 mm) minimum along both walls, both legs of the turn shall be 36 inches (915 mm) minimum.

4-9-12 PC1

See committee action under 3-6-12 PC2

4-10 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Add text as follows:

403.5.3 Clear Width at 90 Degree Turn. Where an accessible route makes a 90 degree turn, the clear width shall be 40 inches (1015 mm) minimum. The width of each leg of the turn shall be maintained for 28 inches (710 mm) minimum from the inner corner.

EXCEPTIONS:

1. Where one leg of the turn is 42 inches (1065 mm) minimum in width, the other shall be permitted to be 38 inches (965 mm) minimum in width.

2. Where one leg of the turn is 44 inches (1115 mm) minimum in width, the other shall be permitted to be 36 inches (915 mm) minimum in width.

4-10-12 PC2

See committee action under 3-6-12 PC2

4-11 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

402.2 Components. Accessible routes shall consist of one or more of the following components: Walking surfaces with a slope not steeper than 1:20, doors and doorways, gates, ramps, curb ramps excluding the flared sides, elevators and platform lifts. All components of an accessible route shall comply with the applicable portion of this standard.

404 Doors, ~~and~~ Doorways and Gates

404.1 General. **Doors, ~~and~~ doorways and gates that are part of an accessible route shall comply with Section 404.**

EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with 404.2.3, 404.2.6, 404.2.7, 404.2.8, 404.3.2 and 404.3.4 through 404.3.6.

404.2 Manual Doors, Doorways and Manual Gates. Manual doors and doorways, and manual gates, intended for user passage ~~including ticket gates~~, shall comply with Section 404.2.

~~**EXCEPTION:** Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.2.6, 404.2.7, and 404.2.8.~~

404.2.3 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with Section 404.2.3.and shall include the full clear opening width of the doorway and the required latch side or hinge side clearance~~. Required door maneuvering clearances shall not include knee and toe clearance.~~

404.2.3.2 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.3.2.

Table 404.2.3.2—Maneuvering Clearances at Manual Swinging Doors and Gates

TYPE OF USE		MINIMUM MANEUVERING CLEARANCES	
Approach Direction	**Door or Gate**	**Perpendicular to Doorway**	**Parallel to Doorway (beyond latch unless noted)**

	Side		
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)

(*Balance of table is not changes)*

404.2.3.4 Doorways without Doors or Gates. Doorways without doors or gates that are less than 36 inches (915 mm) in width shall have maneuvering clearances complying with Table 404.2.3.3

Table 404.2.3.4—Maneuvering Clearances for Doorways without Doors or Gates

Approach Direction	MINIMUM MANEUVERING CLEARANCES Perpendicular to Doorway
From front	48 inches (1220 mm)

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

404.2.5 Two Doors and Gates in Series. Distance between two hinged or pivoted doors or gates in series shall be 48 inches (1220 mm) minimum plus the width of any door or gate swinging into the space. The space between the doors shall provide a turning space complying with Section 304

Fig. 404.2.5
Two Doors or Gates in a Series

404.2.6 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on accessible doors and gates shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the floor. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

~~**EXCEPTION:** Locks used only for security purposes and not used for normal operation shall not be required to comply with Section 404.2.6.~~

404.2.7 Closing Speed. Door and gate closing speed shall comply with Section 404.2.8.

404.2.7.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to an open position of 12 degrees shall be 5 seconds minimum.

404.2.7.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from an open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.8 Door and Gate Opening Force. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors or gates other than fire doors shall be as follows:

1.Interior hinged doors and gates: 5.0 pounds (22.2 N) maximum

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2.Sliding or folding doors: 5.0 pounds (22.2 N) maximum

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

404.2.9 Door and Gate Surface. Door and gate surfaces within 10 inches (255 mm) of the floor, measured vertically, shall be a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in such surface shall be within $^{1}/_{16}$ inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

EXCEPTIONS:

(Exceptions 1 and 2 are not changed)

3. Doors and gates that do not extend to within 10 inches (255 mm) of the floor shall not be required to comply with Section 404.2.9.

404.2.10 Vision Lites. Doors, gates and sidelites adjacent to doors or gates containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one panel on either the door or an adjacent sidelite 43 inches (1090 mm) maximum above the floor.

(*Exception is not changed*)

404.3 Automatic Doors and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist and low–energy doors shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

~~**EXCEPTION**: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.~~

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors and gates shall comply with Section 404.2.3.

404.3.4 Two Doors or Gates in Series. Doors or gates in series shall comply with Section Section 404.2.5.

4-11-12 PC1

See committee action under 3-6-12 PC2

4-15 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

TABLE 404.2.3.2—MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS

TYPE OF USE		MANEUVERING CLEARANCES AT MANUAL	
Approach Direction	**Door Side**	**Perpendicular to Doorway**	**Parallel to Doorway (beyond latch unless noted)**
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	~~48~~ 52 inches (~~1220~~ 1320 mm)	0 inches (0 mm)[3]
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm)[1]	22 inches (560 mm)[3 & 4]
From latch side	Pull	48 inches (1220 mm)[1]	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm)[2]	24 inches (610 mm)

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

TABLE 404.2.3.3 – MANEUVERING CLEARANCES AT SLIDING AND FOLDING DOORS

Approach Direction	MINIMUM MANEUVERING CLEARANCES	
	Perpendicular to Doorway	**Parallel to Doorway (beyond stop or latch side unless noted)**
From front	~~48~~ 52 inches (~~1220~~ 1320 mm)	0 inches (0 mm)
From nonlatch side	42 inches (1065 mm)	22 inches (560 mm) [1]
From latch side	42 inches (1065 mm)	24 inches (610 mm)

[1.] Beyond pocket or hinge side.

TABLE 404.2.3.4 - *MAN*EUVERING CLEARANCES FOR DOORWAYS WITHOUT DOORS

Approach direction	MINIMUM MANEUVERING CLEARANCES Perpendicular to Doorway
From front	~~48~~ 52 inches (~~1220~~ 1320 mm)
From side	42 inches (1065 mm)

4-15-12 PC1

See committee action under 3-6-12 PC2

4-23 – 12

Please Note: The version of 4-23-12 included in the public review draft was not the final version of 4-23-12 as approved by the committee. The version approved by the committee is as shown in 4-23-12 PC1

4-23-12 as shown in the public review draft

Revise as follows:

404.2.8 Door-Opening Force. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors other than fire doors shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum
2. Sliding or folding door: 5.0 pounds (22.2 N) maximum

These forces ~~do not~~ shall also apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.

EXCEPTION: The 5.0 pounds force to retract latch bolts or disengage other devices that hold the door in a closed position shall not apply to panic hardware, delayed egress devices or fire-rated hardware.

4-23-12 PC1

Michael Tierney, representing The Builders Hardware Manufacturers Association

Please note: The following reflects the version of 4-23-12 approved by the Committee.

404.2.6 Door Hardware. Handles, pulls, latches, locks, and other operable parts on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate. The operational force to retract latches or disengage devices that hold the door in a closed position shall be as follows:

1. Hardware operation by a forward, pushing or pulling motion: 15 pounds (66.7 N) maximum
2. Hardware operation by a rotational motion: 28 inch-pounds (315 N·cm) maximum

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

EXCEPTION: Locks used only for security purposes and not used for normal operation are permitted in any location.

404.2.8 Door-Opening Force. Fire doors shall have the minimum opening force allowable in scoping provisions adopted by the appropriate administrative authority. For other doors, the ~~The~~ force for pushing or pulling open doors ~~other than fire doors~~ shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum
2. Sliding or folding door: 5.0 pounds (22.2 N) maximum

~~These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.~~

Committee action on 4-23-12 PC1

Approve Public Comment 4-23-12 PC1.

Reason: The Committee approved PC1 which reconfirms their previous approval of 4-23-12 as modified.

4-23-12 PC2

Julie Ruth, JRuth Code Consulting, representing American Architectural Manufacturers Association

Further revise as follows:

404.2.8 Door-Opening Force. Fire doors shall have the minimum opening force allowable in scoping provisions adopted by the appropriate administrative authority. For other doors the force for pushing or pulling open doors shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum
2. Interior ~~S~~sliding or folding door: 5.0 pounds (22.2 N) maximum
3. Exterior sliding door: 10.0 pounds (45 N) maximum

Opening forces for exterior sliding doors shall be determined in accordance with AAMA 513.

Add new reference standard as follows:

106.2.12 Standard Laboratory Test Method for Determination of Forces and Motions Required to Activate Operable Parts of CW and AW Class Operable Windows, Sliding Glass Doors and Terrace Doors in Accessible Spaces, AAMA 513 - 12 (AAMA, 1827 Walden Office Square, Suite 550, Schaumburg, IL 60173-4268)

Reason: This comment specifies the standard to be used to measure the opening force of accessible exterior sliding doors and it provides a more achievable maximum opening force of 10 pounds for these doors.

An informal survey of AAMA members whose product met the requirements of the International Building Code for resistance to structural load and water penetration, and the International Energy Conservation Code for air leakage, indicate that at the present time there are no commercial class, manually operated exterior sliding doors that can be opened with no more than 5 pounds force. The survey results did indicate, however, that some residential class horizontal sliding windows of up to 6 feet in height can be opened manually with no more than 10 lbs force. This information indicates that although achieving a manually operated, exterior sliding door that can be opened with no more than 10 pounds force would be a challenge, it may be achievable.

This comment separates the requirement for interior sliding doors from that for exterior sliding doors. Exterior sliding doors are subjected to concerns that do not apply to interior products. These include the code required resistance to wind, water penetration, air leakage and forced entry that is mentioned above. For interior products that are not subject to these concerns a 5 pound opening force may be reasonable.

The comment also adds reference to AAMA 513 for measuring the opening force of these doors. AAMA 513 was developed specifically to clarify the methodology that is to be used to measure the force required to open, close, lock and unlock, latch and unlatch commercial grade (Class CW and AW) operable windows, exterior sliding glass doors and exterior side hinged doors. Section 404.2.8 only addresses the force to open accessible doors. Therefore, the reference to AAMA 513 in this section only pertains to its use to determine opening force.

Committee action on 4-23-12 PC2

Approve Public Comment 4-23-12 PC2.

Reason: Opening force for doors remains an ongoing issue. AAMA has developed a standard to, among other things, measure the force needed. The Committee has approved this change to allow consideration of the AAMA 513 standard during the next Public Review Draft.

4-30– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

404.3 Automatic Doors and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist and low–energy doors shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

> **EXCEPTION**: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors shall comply with Section 404.2.3. Clearances at swinging automatic doors and gates without standby power and serving an *accessible means of egress* shall comply with Section 404.2.3.

> **EXCEPTION:** Where automatic doors and gates remain open in the power-off condition, compliance with Section 404.2.3 shall not be required.

404.3.5 Controls ~~Switches~~. Manually operated controls ~~switches~~ shall comply with Section 309. The clear floor space adjacent to the control ~~switch~~ shall be located beyond the arc of the door swing.

4-30-12 PC1

Kim Paarlberg, representing International Code Council

Further revise as follows:

404.3 Automatic Doors and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist and low–energy doors shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

> **EXCEPTION**: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors shall comply with Section 404.2.3. ~~Clearances at swinging automatic doors and gates without standby power and serving an *accessible means of egress* shall comply with Section 404.2.3.~~

~~**EXCEPTION:** Where automatic doors and gates remain open in the power-off condition, compliance with Section 404.2.3 shall not be required.~~

404.3.5 Controls. Manually operated controls shall comply with Section 309. The clear floor space adjacent to the control shall be located beyond the arc of the door swing.

Reason: Multiple changes for the automatic door provisions were approved. This text and exception is a duplication of the requirements approved in 4-31-12. This deletion will coordinate changes 4-11, 4-30, 4-31 and 4-34.

Committee action on 4-30-12 PC1

Approve Public Comment 4-30-12 PC1.

Reason: The public comment is essentially editorial. It eliminates duplicative language and allows for coordination of four approved changes.

4-31– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

404.3 Automatic Doors. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power-assist doors and low-energy automatic doors shall comply with ANSI/BHMA A1 56.19 listed in Section 105.2.3.

EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.

404.3.2 Maneuvering Clearances. Maneuvering clearances at power-assisted doors shall comply with Section 404.2.3. Maneuvering clearances shall be provided on the egress side of low-energy automatic doors and full power automatic doors that serve as part of the accessible means of egress.

EXCEPTIONS:

1. Low-energy automatic doors and full power automatic doors that have standby power or battery back-up shall not be required to comply with this section.

2. Low-energy automatic doors and full power automatic doors that remain open in the power-off condition shall not be required to comply with this section.

3. Full power automatic sliding doors that include a break-away feature shall not be required to comply with this section.

404.3.4 Two Doors in Series. Doors in series shall comply with Section 404.2.5.

EXCEPTION: Where both doors are power assist doors, low energy automatic doors or full power automatic doors, two doors in a series shall not be required to provide a turning space between the doors.

404.3.5 Control<u>s</u> ~~Switches~~. Manually operated control<u>s</u> ~~switches~~ shall comply with Section 309. The clear floor space adjacent to the control switch shall be located beyond the arc of the door swing.

<u>404.3.6 Break Out Opening.</u> <u>Where full power automatic sliding doors and gates are equipped with a break out feature, the clear break out opening shall be 32 inches (815 mm) minimum when operated in emergency mode.</u>

4-31-12 PC1

Kim Paarlberg, representing International Code Council

Further revise as follows:

404.3 Automatic Doors <u>and Power-Assisted Doors and Gates</u>. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors <u>and gates</u> shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist doors <u>and gates</u> and low–energy automatic doors <u>and gates</u> shall comply with ANSI/BHMA A156.19 listed in Section.105.2.7.

> **EXCEPTION**: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors <u>and gates</u> shall comply with Section 404.2.3. Maneuvering clearances <u>complying with Section 404.2.3</u> shall be provided on the egress side of low-energy automatic doors <u>and gates</u> and full power automatic doors <u>and gates</u> that serve as part of the accessible means of egress.

EXCEPTIONS:

1. Low-energy automatic doors <u>and gates</u> and full power automatic doors <u>and gates</u> that have standby power or battery back-up shall not be required to comply with this section.
2. Low-energy automatic doors <u>and gates</u> and full power automatic doors <u>and gates</u> that remain open in the power-off condition shall not be required to comply with this section.
3. Full power automatic sliding doors <u>and gates</u> that include a break-away feature shall not be required to comply with this section.

404.3.4 Two Doors <u>or Gates</u> in Series. Doors <u>or gates</u> in series shall comply with Section 404.2.5.

> **EXCEPTION:** Where both doors <u>or gates in series</u> are power assist doors, low energy automatic doors or full power automatic doors, <u>the</u> two doors <u>and gates</u> in a series shall not be required to provide a turning space between the doors.

404.3.5 Controls. Manually operated controls shall comply with Section 309. The clear floor space adjacent to the control switch shall be located beyond the arc of the door swing.

404.3.6 Break Out Opening. Where full power automatic sliding doors and gates are equipped with a break out feature, the clear break out opening shall be 32 inches (815 mm) minimum when operated in emergency mode.

Reason: Multiple changes for the automatic door provisions were approved. This proposal would coordinate those provisions. This is the combined changes 4-11, 4-30, 4-31 & 4-34 with revisions.

> **404.3 Automatic Doors and Power-Assisted Doors and Gates**. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power–assist

doors and low–energy automatic doors shall comply with ANSI/BHMA A156.19 listed in Section.105.2.7. (4-11-12) (4-30-12) (4-31-12)

404.3.2 Maneuvering Clearances. Maneuvering clearances at power–assisted doors and gates shall comply with Section 404.2.3. ~~Clearances at swinging automatic doors and gates without standby power and serving an *accessible means of egress* shall comply with Section 404.2.3.~~ Maneuvering clearances complying with Section 404.2.3 shall be provided on the egress side of low-energy automatic doors and gates and full power automatic doors and gates that serve as part of the accessible means of egress. **(4-30-12)(4-11-12)(4-31-12)**

EXCEPTIONS:

1. ~~Where automatic doors and gates remain open in the power-off condition, compliance with Section 404.2.3 shall not be required.~~ **(4-30-12)**
2. Low-energy automatic doors and gates and full power automatic doors and gates that have standby power or battery back-up shall not be required to comply with this section.
3. Low-energy automatic doors and gates and full power automatic doors and gates that remain open in the power-off condition shall not be required to comply with this section.
4. Full power automatic sliding doors and gates that include a break-away feature shall not be required to comply with this section. **(4-31-12)**

404.3.4 Two Doors or Gates in Series. Doors or gates in series shall comply with Section 404.2.5. (4-11-12)

EXCEPTIONS:

1. Where both doors or gates in series are power assist doors, low energy automatic doors or full power automatic doors, the two doors and gates in a series shall not be required to provide a turning space between the doors. (4-31-12)

~~2. Full power automatic doors in a series are not required to provide a turning space complying with Section 304.~~ **(4-34-12)**

Committee action on 4-31-12 PC1

Approve Public Comment 4-31-12 PC1.

Reason: The public comment reflects questions raised by the Editorial Task Group in trying to coordinate various approved changes.

4-33– 12

Joseph Hetzel, proponent, asked for further consideration of Proposal 4-33-12.

We request that Proposal 4-33-12, which was originally disapproved, be approved as modified using Public Comment 4-33.2 and as further modified by the following editorial changes:

404.3 Automatic Doors. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power-assist and low-energy doors shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4 and 404.3.5.

Where more than two doors are located at an accessible route entrance to a building or facility, other than dwelling units and sleeping units, at least one door shall be an automatic door. Where an accessible route entrance has a vestibule with more than two exterior entrance doors and more than two interior entrance doors, at least one exterior automatic door and one interior automatic door shall be provided.

Reason: The Committee supports the principle that automatic doors enhance accessibility. To fulfill that principle, the standard needs clear threshold based requirements for specifying automatic doors in locations involving higher public traffic areas.

We believe the Committee should be working toward approving a proposal that satisfies the "automatic doors enhance accessibility" principle. Therefore, we believe Committee disapproval of our comment 4-33.2 is insufficient toward that goal. Our response to the Committee reasoning is as follows:

Committee point #1: The proposed text was found to be vague. It is unclear what is intended by 'accessible doors'?
AAADM response: The proposal intends to address building/facility entrance situations involving more than two doors in an "accessible route", a term used throughout A117.1 including the Chapter 4 title. Therefore, we have made editorial changes accordingly. Our editorial changes result in the proposed text being clear and not vague.

Committee point #2: Is it clear that across a vestibule that these automatic doors should line up?
AAADM response: A Committee member actually pointed out that doors do not always line up in a vestibule. Exterior doors may be side entrances at a 90 degree angle to interior entrances. Therefore, this Committee point should not be a reason to disapprove the proposal.

Committee point #3: *The proposal seemed to make what had been an exception in the original proposal, a requirement.*
AAADM response: The originally submitted proposal is a requirement along with two Exceptions to that requirement.

Therefore, we request that the Committee reconsider their action on comment 4-33.2, and approve new language in Section 404.3 supporting accessibility enhancement through automatic doors.

Committee action on 4-33-12 Unresolved Issue

Approve Proposal 4-33-12 with modifications: The modification is a substitute proposal for the original submittal:

Modification – Add new section as follows:

404.3.1 Public Entrances. Where an automatic door is required at a building or facility public entrance, it shall be a full powered automatic door or a low-energy door. Where the entrance includes a vestibule that has exterior and interior entrance doors, at least one exterior door and one interior door in the vestibule shall be either a full powered automatic door or a low-energy door.

Reason: The Committee via this proposal has been exploring how to make automatic doors essential to building entrances in an accessible route. This approved proposal is intended to be of a technical origin. If an automatic door is specified for an application, full powered automatic doors and low-energy doors hold a distinct advantage over power-assist doors from an accessibility standpoint, because they require no intended effort on the part of the door user to access the building or facility. This results in access for a much wider range of people with disabilities.

Clarification is needed regarding automatic doors used in vestibules. The proposed vestibule language is from GSA Facilities Standard P100. Both doors need to be either full powered or low-energy to support the concept of getting people completely inside a building or facility.

4-34– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

404.3.4 Two Doors in Series. Doors in series shall comply with Section 404.2.5.

EXCEPTION: Full power automatic doors in a series are not required to provide a turning space complying with Section 304.

404.3.5 Control Switches. Manually operated control switches shall comply with Section 309. The clear floor space adjacent to the control switch shall be located beyond the arc of ~~the~~ door swings.

404.3.6 Door Hardware. Handles, pulls, latches, locks, and other operable parts shall comply with Section 404.2.6,

4-34-12 PC1

Kim Paarlberg, representing International Code Council

Further revise as follows:

404.3.4 Two Doors in Series. Doors in series shall comply with Section 404.2.5.

> **~~EXCEPTION:~~** ~~Full power automatic doors in a series are not required to provide a turning space complying with Section 304.~~

404.3.5 Control Switches. Manually operated control switches shall comply with Section 309. The clear floor space adjacent to the control switch shall be located beyond the arc of ~~the~~ door swings.

404.3.6 Door Hardware. Handles, pulls, latches, locks, and other operable parts shall comply with Section 404.2.6.

Reason: The exception is already covered in 4-31-12. This change will coordinate 4-11, 4-30, 4-31 and 4-34.

Committee action on 4-34-12 PC1

Approve Public Comment 4-34-12 PC1.

Reason: This change will coordinate 4-11, 4-30, 4-31 and 4-34.

4-42– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

~~406 Curb Ramps~~

~~406.1 General.~~ ~~Curb ramps on accessible routes shall comply with Sections 406, 405.2, 405.3, and 405.10.~~

~~406.2 Counter Slope.~~ ~~Counter slopes of adjoining gutters and road surfaces immediately adjacent to the curb ramp shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters and streets shall be at the same level.~~

~~406.3 Sides of Curb Ramps.~~ ~~Where provided, curb ramp flares shall comply with Section 406.3.~~

~~406.3.1 Slope.~~ ~~Flares shall not be steeper than 1:10.~~

~~**406.4 Width.** Curb ramps shall be 36 inches (915 mm) minimum in width, exclusive of flared sides.~~

~~**406.5 Floor Surface.** Floor surfaces of curb ramps shall comply with Section 302.~~

~~**406.7 Landings.** Landings shall be provided at the tops of curb ramps. The clear length of the landing shall be 36 inches (915 mm) minimum. The clear width of the landing shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.~~

~~**EXCEPTION:** In alterations, where there is no landing at the top of curb ramps, curb ramp flares shall be provided and shall not be steeper than 1:12.~~

~~**406.10 Diagonal Curb Ramps.** Diagonal or corner-type curb ramps with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. The bottoms of diagonal curb ramps shall have 48 inches (1220 mm) minimum clear space outside active traffic lanes of the roadway. Diagonal curb ramps provided at marked crossings shall provide the 48 inches (1220 mm) minimum clear space within the markings. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches (610 mm) minimum in length on each side of the curb ramp and within the marked crossing.~~

~~**406.11 Islands.** Raised islands in crossings shall be a cut-through level with the street or have curb ramps at both sides. Each curb ramp shall have a level area 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width at the top of the curb ramp in the part of the island intersected by the crossings. Each 48-inch (1220 mm) by 36-inch (915 mm) area shall be oriented so the 48-inch (1220 mm) length is in the direction of the running slope of the curb ramp it serves. The 48-inch (1220 mm) by 36-inch (915 mm) areas and the accessible route shall be permitted to overlap.~~

406 Curb Ramps and Blended Transitions

406.1 General. Curb ramps and blended transitions on accessible route shall comply with Section 406

406.2 Perpendicular Curb Ramps. Perpendicular curb ramps shall comply with Sections 406.2 and 406.5.

406.2.1 Turning Space. A turning space 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap other turning spaces and clear spaces. Where the turning space is constrained at the back-of-sidewalk, the turning space shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inches (1525 mm) dimension shall be provided in the direction of the ramp run.

406.2.2 Running Slope. The running slope of the curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum but shall not require the ramp length to exceed 15 feet (4570 mm). The running slope of the turning space shall be 1:48 maximum.

406.3 Parallel Curb Ramps. Parallel curb ramps shall comply with Sections 406.3 and 406.5.

406.3.1 Turning Space. A turning space 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the bottom of the curb ramp and shall be permitted to overlap other turning spaces and clear spaces. Where the turning space is constrained on 2 or more sides, the turning space shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm). The 60 inches (1525 mm) dimension shall be provided in the direction of the pedestrian street crossing.

406.3.2 Running Slope. The running slope of the curb ramp shall be in-line with the direction of sidewalk travel. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum but shall not require the ramp length to exceed 15 feet (4570 mm). minimum. The running slope of the turning space shall be maximum.

406.4 Blended Transitions. Blended transitions shall comply with Sections 406.4 and 406.5.

406.4.1 Running Slope. The running slope of blended transitions shall be 1:20 maximum.

406.5 Common Requirements. Curb ramps and blended transitions shall comply with Section 406.5.

406.5.1 Width. The clear width of curb ramp runs (excluding any flared sides), blended transitions, and turning spaces shall be 48 inches (1220 mm) minimum.

406.5.2 Grade Breaks. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.

406.5.3 Cross Slope. The cross slope of curb ramps, blended transitions, and turning spaces shall be 1:48 maximum. At pedestrian street crossings without yield or stop control and at midblock pedestrian street crossings, the cross slope shall be permitted to equal the street or highway grade.

406.5.4 Counter Slope. The counter slope of the gutter or street at the foot of curb ramp runs, blended transitions, and turning spaces shall be 1:20 maximum.

406.5.5 Clear Space. Beyond the bottom grade break, a clear space 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided within the width of the pedestrian street crossing and wholly outside the parallel vehicle travel lane.

406.5.6 ~~**406.3.2**~~ **Marking.** If curbs adjacent to the ramp flares are painted, the painted surface shall extend along the flared portion of the curb.

406.5.7 ~~**406.6**~~ **Location.** Curb ramps and the flared sides of curb ramps shall be located so they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

406.5.9 ~~**406.8**~~ **Obstructions.** Curb ramps shall be located or protected to prevent their obstruction by parked vehicles.

406.5.10 ~~**406.9**~~ **Handrails.** Handrails shall not be required on curb ramps.

Add the following definitions:

blended transition. A raised pedestrian street crossing, depressed corner, or similar connection between the pedestrian access route at the level of the sidewalk and the level of the pedestrian street crossing that has a grade of 1:20 or less.

curb line. A line at the face of the curb that marks the transition between curb and the gutter, street or highway.

curb ramp. A short ramp cutting through a curb or built up to it. Curb ramps can be perpendicular or parallel, or a combination of parallel and perpendicular ramps.

grade break. The line where two surface planes with different grades meet.

4-42-12 PC1

Kim Paarlberg, representing International Code Council

Further revise as follows:

406.2.1 Turning Space. A turning space 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap other turning spaces and clear spaces. Where the turning space is constrained at the back-of-sidewalk, the turning space shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inches (1525 mm) dimension shall be provided in the direction of the curb ramp run.

406.2.2 Running Slope. The running slope of the curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum. ~~but shall not require~~ The curb ramp run length shall not be required to exceed 15 feet (4570 mm). The running slope of the turning space shall be 1:48 maximum.

406.3.2 Running Slope. The running slope of the curb ramp shall be in-line with the direction of sidewalk travel. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum. ~~but shall not require~~ The curb ramp run length shall not be required to exceed 15 feet (4570 mm) minimum. The running slope of the turning space shall be 1:48 maximum.

406.5.2 Grade Breaks. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the curb ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.

Balance of 4-42 remains unchanged.

Reason: The editorial committee identified some terminology issues. This is intended as a clarification only.

Committee action on 4-42-12 PC1

Approve Public Comment 4-42-12 PC1.

Reason: The comment identified editorial issues as found by the Editorial Task Group.

4-42-12 PC2

Larry Perry, representing self

Further revise as follows:

curb ramp. A short ramp cutting through a curb or built up to it. ~~Curb ramps can be perpendicular or parallel, or a combination of parallel and perpendicular ramps.~~

Balance of 4-42 remains unchanged.

Reason: Delete the added language. It intended to explain all the configurations possible, it is commentary and therefore not needed. If intended to prohibit configurations that are not perpendicular, parallel, or a combination thereof, it is introducing a requirement into a definition, which is not appropriate.

Committee action on 4-42-12 PC2

Approve Public Comment 4-42-12 PC2.

Reason: The second sentence is at best commentary. It doesn't not help to define (curb ramp).

4-42-12 PC3

Hope Reed, representing New Mexico Governor's Commission of Disability; Robin Roberts, representing Accessibility Professionals Association.

Revise by adding new text as follows:

406.2.3 Flared Sides. Where a pedestrian circulation path crosses the curb ramp, flared sides shall be sloped 10 percent maximum, measured parallel to the curb line.

Balance of 4-42 remains unchanged

Reason:

REED: Proposal 4-42-12 appears to have missed the requirement for flared sides, add PROWAG text shown below:

> **R304.2.3 Flared Sides.** Where a pedestrian circulation path crosses the curb ramp, flared sides shall be sloped 10 percent maximum, measured parallel to the curb line.

ROBERTS: In following with the Access Board's Proposed Public Rights of Way standards, R304.2.3 provides the user the maximum slope of the flare and how it is measured for the locations referenced in the document. Additionally, the 2010 Standards at 406.3 also states that curb ramp flares cannot be more than 10% slope. Adding this section to the A117.1 be consistent with harmonizing the regulations.

Committee action on 4-42-12 PC3

Approve Public Comment 4-42-12 PC3. As modified

Modification:

406.2.3 Flared Sides. Where a pedestrian circulation path crosses the curb ramp, flared sides shall be provided and shall be sloped 10 percent maximum, ~~measured parallel to the curb line~~.

Reason: The proposal provides consistency with the Access Board's proposed Public Rights of Way standards. The Committee felt that given the wide variety of curb and curb ramp configurations, requiring measurement parallel to the curb line to be problematic

4-42-12 PC4

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

406.2.1 ~~Turning Space~~ Landing. A ~~turning space~~ landing 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap ~~other turning spaces~~ pedestrian routes and clear spaces. Where the ~~turning space~~ landing is constrained at the back-of-sidewalk, the ~~turning space~~ landing shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inch~~es~~ (1525 mm) dimension shall be provided in the direction of the ramp run. The slope of the landing shall be 1:48 maximum in all directions.

406.2.2 Running Slope. The running slope of the curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum ~~but shall not require the ramp length to exceed 15 feet (4570 mm)~~. ~~The running slope of the turning space shall be 1:48 maximum.~~

406.3.1 ~~Turning Space~~ Landing. A ~~turning space~~ landing 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the bottom of the curb ramp and shall be permitted to overlap ~~other turning spaces~~ pedestrian routes and clear spaces. Where the ~~turning space~~ landing is constrained on 2 or more sides, the ~~turning space~~ landing shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inch~~es~~ (1525 mm) dimension shall be provided in the direction of the pedestrian street crossing. The slope of the landing shall be 1:48 maximum in all directions.

406.3.2 Running Slope. The running slope of the curb ramp shall be in-line with the direction of sidewalk travel. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum ~~but shall not require the ramp length to exceed 15 feet (4570 mm)~~.. ~~The running slope of the turning space shall be 1:48 maximum.~~

406.5.1 Width. The clear width of curb ramp runs (excluding any flared sides)~~,~~ and blended transitions~~, and turning spaces~~ shall be 48 inches (1220 mm) minimum.

406.5.2 Grade Breaks. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and ~~turning spaces~~ landings. Surface slopes that meet at grade breaks shall be flush.

406.5.3 Cross Slope. The cross slope of curb ramps~~,~~ and blended transitions~~, and turning spaces~~ shall be 1:48 maximum. At pedestrian street crossings without yield or stop control and at midblock pedestrian street crossings, the cross slope shall be permitted to equal the street or highway grade.

406.5.4 Counter Slope. The counter slope of the gutter or street at the foot of curb ramp runs, blended transitions, and ~~turning spaces~~ landings shall be 1:20 maximum.

Balance of 4-42 remains unchanged

Reason: The area at top and bottom of curb ramps should not be confused with a turning space. Maintain current curb ramp language which refers to this area as a landing.
Relocate the slope of the landing [turning space] requirement to the landing [turning space] sections.
Delete the reference to a maximum length of 15 feet as this implies that curbs can be 15 inches high.
The minimum size of the landing [turning space] has been addressed and does not need to be restated at Section 406.5.1.
The slope of the landing [turning space] has been addressed and does not need to be restated at Section 406.5.3.

Committee action on 4-42-12 PC4

Approve Public Comment 4-42-12 PC4 with modifications.

Modifications:

406.2.1 Landing. A landing 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap pedestrian routes and clear spaces. Where the landing is constrained at the back-of-sidewalk, the landing shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inch~~es~~ (1525 mm) dimension shall be provided in the direction of the ramp run. The slope of the landing shall be 1:48 maximum in all directions.

406.3.1 Landing. A landing 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the bottom of the curb ramp and shall be permitted to overlap pedestrian routes and clear spaces. Where the landing is constrained on 2 or more sides, the landing shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inch~~es~~ (1525 mm) dimension shall be provided in the direction of the pedestrian street crossing. The slope of the landing shall be 1:48 maximum in all directions.

406.2.2 Running Slope. The running slope of the curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum but shall not require the ramp length to exceed 15 feet (4570 mm).

406.3.2 Running Slope. The running slope of the curb ramp shall be in-line with the direction of sidewalk travel. The running slope of the curb ramp shall be 1:20 minimum and 1:12 maximum but shall not require the ramp length to exceed 15 feet (4570 mm)..

Reason: The public comment pointed out a key issue that would have been confusing in application – that what is being discussed here are landings – not turning spaces. Turning spaces have a totally different connotation in the balance of the standard. The maximum ramp length language was restored as essential to these new provisions.

4-44– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

~~**406.12 Detectable Warnings at Raised Marked Crossings.** Marked crossings that are raised to the same level as the adjoining sidewalk shall be preceded by a detectable warning 24 inches (610 mm) in depth complying with Section 705. The detectable warning shall extend the full width of the marked crossing.~~

406.12 Where detectable warnings are required. Detectable warning surfaces complying with Section 705 shall be provided at the following locations on pedestrian access routes and at transit stops:

1. Curb ramps and blended transitions at pedestrian street crossings;

2. Pedestrian refuge islands;

3. Pedestrian at-grade rail crossings not located within a street or highway;

4. Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards; and

5. Boarding and alighting areas at sidewalk or street level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.

Exception: Detectable warning surfaces are not required at pedestrian refuge islands that are cut-through at street level and are less than 6 feet (1830 mm) in length in the direction of pedestrian travel.

~~**406.13 Detectable Warnings at Curb Ramps.** Where detectable warnings are provided on curb ramps, they shall comply with Sections 406.13 and 705.~~

~~**406.13.1 Area Covered.** Detectable warnings shall be 24 inches (610 mm) minimum in depth in the direction of travel. The detectable warning shall extend the full width of the curb ramp or flush surface.~~

~~**406.13.2 Location.** The detectable warning shall be located so the edge nearest the curb line is 6 inches (150 mm) minimum and 8 inches (205 mm) maximum from the curb line.~~

~~**406.14 Detectable Warnings at Islands or Cut-through Medians.** Where detectable warnings are provided on curb ramps or at raised marked crossings leading to islands or cut-through medians, the island or cut-through median shall be provided with detectable warnings complying with Section 705, that are 24 inches (610 mm) in depth, and extend the full width of the pedestrian route or cut-through. Where such island or cut-through median is less than 48 inches (1220 mm) in depth, the entire width and depth of the pedestrian route or cut-through shall have detectable warnings.~~

705.6 Size. Detectable warning surfaces shall extend 24 inches (610 mm) minimum in the direction of pedestrian travel. At curb ramps and blended transitions, detectable warning surfaces shall extend the full width of the curb ramp run excluding any flared sides or blended transition. At pedestrian at-grade rail crossings not located within a street or highway, detectable warnings shall extend the full width of the crossing. At boarding platforms for buses and rail vehicles, detectable warning surfaces shall extend the full length of the public use areas of the platform. At boarding and alighting areas at sidewalk or street level transit stops for rail vehicles, detectable warning surfaces shall extend the full length of the transit stop.

705.7 Placement. The placement of detectable warning surfaces shall comply with Section 705.7.

705.7.1 Perpendicular Curb Ramps. On perpendicular curb ramps, detectable warning surfaces shall be placed as follows:

1. Where the ends of the bottom grade break are in front of the back of curb, detectable warning surfaces shall be placed at the back of curb.

2. Where the ends of the bottom grade break are behind the back of curb and the distance from either end of the bottom grade brake to the back of curb is 60 inches (1525 mm) or less, detectable warning surfaces shall be placed on the ramp run within one dome spacing of the bottom grade break.

3. Where the ends of the bottom grade break are behind the back of curb and the distance from either end of the bottom grade brake to the back of curb is more than 60 inches (1525 mm), detectable warning surfaces shall be placed on the lower landing at the back of curb.

705.7.2 Parallel Curb Ramps. On parallel curb ramps, detectable warning surfaces shall be placed on the turning space at the flush transition between the street and sidewalk.

705.7.3 Blended Transitions. On blended transitions, detectable warning surfaces shall be placed at the back of curb. Where raised pedestrian street crossings, depressed corners, or other level pedestrian street crossings are provided, detectable warning surfaces shall be placed at the flush transition between the street and the sidewalk.

705.7.4 Pedestrian Refuge Islands. At cut-through pedestrian refuge islands, detectable warning surfaces shall be placed at the edges of the pedestrian island and shall be separated by a 24 inches (610 mm) minimum length of surface without detectable warnings.

705.7.5 Pedestrian At-Grade Rail Crossings. At pedestrian at-grade rail crossings not located within a street or highway, detectable warning surfaces shall be placed on each side of the rail crossing. The edge of the detectable warning surface nearest the rail crossing shall be 72 inches (1830) minimum and 15 feet (4570 mm) maximum from the centerline of the nearest rail. Where pedestrian gates are provided, detectable warning surfaces shall be placed on the side of the gates opposite the rail.

705.7.6 Boarding Platforms. At boarding platforms for buses and rail vehicles, detectable warning surfaces shall be placed at the boarding edge of the platform.

705.7.7 Boarding and Alighting Areas. At boarding and alighting areas at sidewalk or street level transit stops for rail vehicles, detectable warning surfaces shall be placed at the side of the boarding and alighting area facing the rail vehicles.

805.10 Track Crossings. Where a circulation path crosses tracks, it shall comply with Section 402 and shall have a detectable warning ~~24 inches (610 mm) in depth~~ complying with Section 705 ~~extending the full width of the circulation path. The detectable warning surface shall be located so that the edge nearest the rail crossing is 6 foot (1830 mm) minimum and 15 foot (4570 mm) maximum from the centerline of the nearest rail.~~

EXCEPTION: Openings for wheel flanges shall be permitted to be $2^1/_2$ inches (64 mm) maximum.

4-44-12 PC3

Karen Gridley, representing Target Corporation

Further revise as follows:

406.12 Where detectable warnings are required. Detectable warning surfaces complying with Section 705 shall be provided at the following locations on pedestrian access routes within the public right-of-way and at transit stops:

1. Curb ramps and blended transitions at pedestrian street crossings;

2. Pedestrian refuge islands;

3. Pedestrian at-grade rail crossings not located within a street or highway;

4. Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards; and

5. Boarding and alighting areas at sidewalk or street level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.

Exception: Detectable warning surfaces are not required at pedestrian refuge islands that are cut-through at street level and are less than 6 feet (1830 mm) in length in the direction of pedestrian travel

Balance of 4-44-12 remains unchanged.

Reason: Per our other public comment on the same item, Target does not support the addition of this section of proposed scoping language. However, if the Committee approves the inclusion of this new scoping language for detectable warnings, additional clarifying language should be added indicating the requirement is only for detectable warnings located within the Public Right-of-Way in order to maintain consistency and harmonization with the action taken by the Access Board for other Federal rulemaking, providing much needed clarity for enforcement officials.

The proposed language of 406.12 is scoping language and should not be included in the technical criteria of the A117.1 Standard. Per Chapter 2 of A117.1 it is made clear that "*This standard provides technical criteria…*" and, "*The administrative authority shall provide scoping provisions to specify the extent to which these technical criteria apply.*"

The Access Board has gone to great lengths to relocate the requirement for detectable warnings out of the 2010 ADA Standards and into rulemaking on the public-right-of way, clarifying that detectable warnings are not required at buildings or facilities covered by Title II and Title III, and that detectable warnings are only intended to be provided within the public right-of-way at specific pedestrian access route locations.

If this proposed scoping language is included in the new A117.1 Standard, it will again effectively require detectable warnings at buildings or facilities covered by Title II and Title III, which is in conflict with the action taken on relocating the scoping requirement into public right-of-way rulemaking, and brings A117.1 out of harmonization with the new 2010 ADA Standards.

Committee action on 4-44-12 PC3

Approve public comment 4-44-12 PC3 with modifications:

Modification:

406.12 Where detectable warnings are required. Where detectable warning surfaces are provided, they shall comply ~~complying~~ with Section 705~~,~~.

406.13 Required locations.Detectable warning surfaces shall be provided at the following locations on pedestrian access routes and at transit stops:

(*Balance as shown in the public comment)*

Reason: The revision clarifies that the detectable warnings must meet the technical design criterial found in Section 705 – this is one section. Followed by a separate section indicating which accessible route locations must include detectable warnings.

4-54– 12

(This represents the language approved by the committee for the First Public Review Draft)

407.4.10 Emergency communications. Visual and audible emergency two-way communication systems between the elevator car and a point outside the hoistway shall comply with Section 407.4.10 and ASME A17.1/CSA B44 listed in Section 105.2.5 and provide a two-way visual communication device.

407.4.10.1 Visual Display Device shall be provided for two-way visual communication to be activated by the elevator occupant. Visual communication devices shall consist of a key pad and monitor to enable text based or sign-language communication provided through a certified Visual relay Service.

4-54-12 PC1

Kim Paarlberg, representing International Code Council

Disapprove this change. Return the text to that found in existing standard.

Reason: Due to the requirements for access to the call buttons, the two way communication system in elevators is typically in a box down near the floor. Some two way communications are to remote sites. I do not see how this location would work with a key pad or a sign language system.

Committee action on 4-54-12 PC1 through PC3

These three public comments all requested disapproval of the 4-54-12 change. The committee took one action which addressed all three comments.

Approve Public Comments 4-54-12 PC1 through PC3.

Reason: The concept needs considerable work so that it will coordinate with the A17.1 standard. The Committee concurs with the reason provided by Ms. Paarlberg (PC1).

4-54-12 PC2

Harold Kiewel, representing self

Disapprove this change. Return the text to that found in existing standard.

Comment: OMG ! Has this technology been proofed, staffed up, made vandal resistant, and cheap enough that a hotelier in Wall, SD, with an annualized occupancy rate of 60-precent of his 50 rooms, can make this commitment to the American public?

See Committee action on 4-54-12 PC1

4-54-12 PC3

Minh N. Vu; representing American Hotel and Lodging Association.

Disapprove this change. Return the text to that found in existing standard.

Reason: The American Hotel and Lodging Association(hereinafter, "AH&LA")opposes the proposed new requirement for a visual display device that allows for text-based or sign language communication through relay services in every elevator car. (Sections 407.4.10 and 407.4.10.1). To meet this requirement lodging facility owners would have to install a TTY device that is connected to a phone line that can be used to call a relay service and a videophone that is connected to a phone line which can be used to call a relay service that is staffed with operators who know sign language. This proposal must be rejected for at least three reasons.

First, it is unclear whether this technology even exists for elevators, or whether there is enough room in the elevator panel for this equipment. Second, the cost of providing and maintaining these visual display devices would be high because they would be prone to vandalism and misuse. Third, and most importantly, a requirement for this device would conflict with the ASME A17.1/CSA B44-13 Safety Code for Elevators and Escalators. A17.1//B44 requires the emergency communication system in elevator cars to call authorized personnel who can take appropriate action with respect to the elevator emergency and communicate the proper building location and elevator number to such personnel. (See Sec. A17.1/B44 227.1.13). Having a visual display device which allows a deaf person to call a relay operator is not consistent with these requirements and, more importantly, would not help deaf passengers. If a deaf passenger were to call a relay operator, the passenger would have no idea what elevator he was in and the relay operator would not know who to call to get help.

For all the above reasons, the ANSI Committee should reject this proposal.

See Committee action on 4-54-12 PC1

4-56– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

408.4.1 Inside Dimensions. Elevator cars shall provide a clear floor width of 42 inches (1065 mm) minimum. The clear floor area shall not be less than 15.75 square feet (1.46 m^2). <u>The elevator car shall provide a clear floor space complying with Section 305.3.</u>

EXCEPTION<u>S</u>:

<u>1.</u> For installations in existing buildings, elevator cars that provide a clear floor area of 15 square feet (1.4 m^2) minimum, and provide a clear inside dimension of 36 inches (915 mm) minimum in width and 54 inches (1370 mm) minimum in depth, shall be permitted. This exception shall not apply to cars with doors on adjacent sides.

<u>2. For installations in existing buildings, cars that provide a clear width 51 inches (1295 mm) minimum shall be permitted to provide a clear depth 51 inches (1295 mm) minimum provided that car doors provide a clear opening 36 inches (915 mm) wide minimum.</u>

4-56-12 PC2

See committee action under 3-6-12 PC2

Chapter 5

5-11– 12

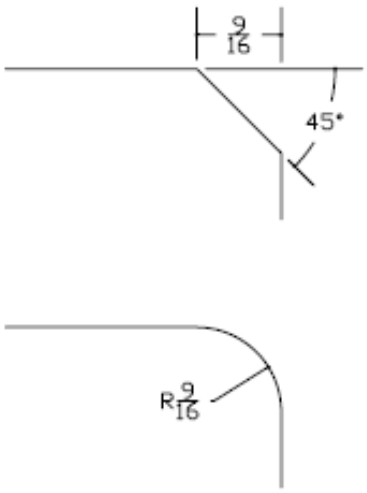
David W. Cooper, proponents askeed for further consideration of Proposal 5-11-12.

Reason: The committee needs to reconsider the intent of this proposal modified and approved at the July meeting. It has been misunderstood and is a needed proposal. Figure one provides a graphic explanation to clarify the limits and provides a comparison to what is allowed in other codes mentioned in prior comments.

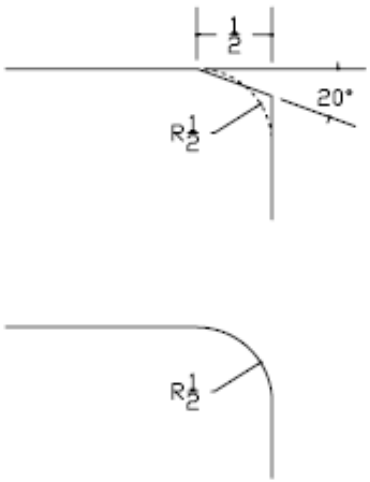
504.5 Nosings. Nosings shall be curved or beveled. The radius of curvature at the leading edge of the tread shall ~~be~~ not exceed the limit described by a ½ inch (13 mm) radius ~~maximum~~. A bevel shall not exceed the limit described by a plane that is tangent to a ½ inch (13 mm) radius of curvature at the leading edge of the upper surface of treads. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall be 1 ½ inches (38 mm) maximum over the tread or floor below.

5-11-12 Figure One

Allowed by IBC and IRC

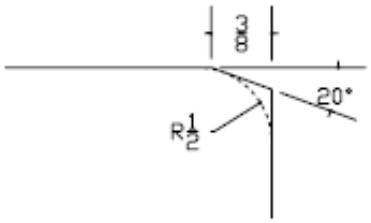


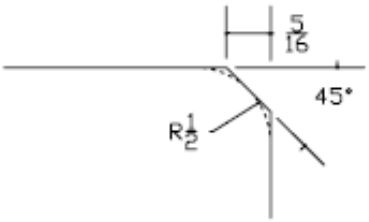
Allowed by NFPA 101

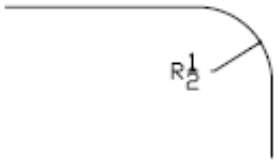


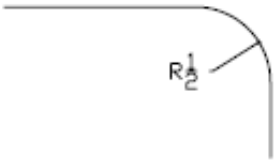
Allowed by Proposed Change 5-11-12

As angle of bevel increases the encroachment on the tread decreases and increases the flat surface of the tread due to the limit imposed by the 1/2 inch radius.



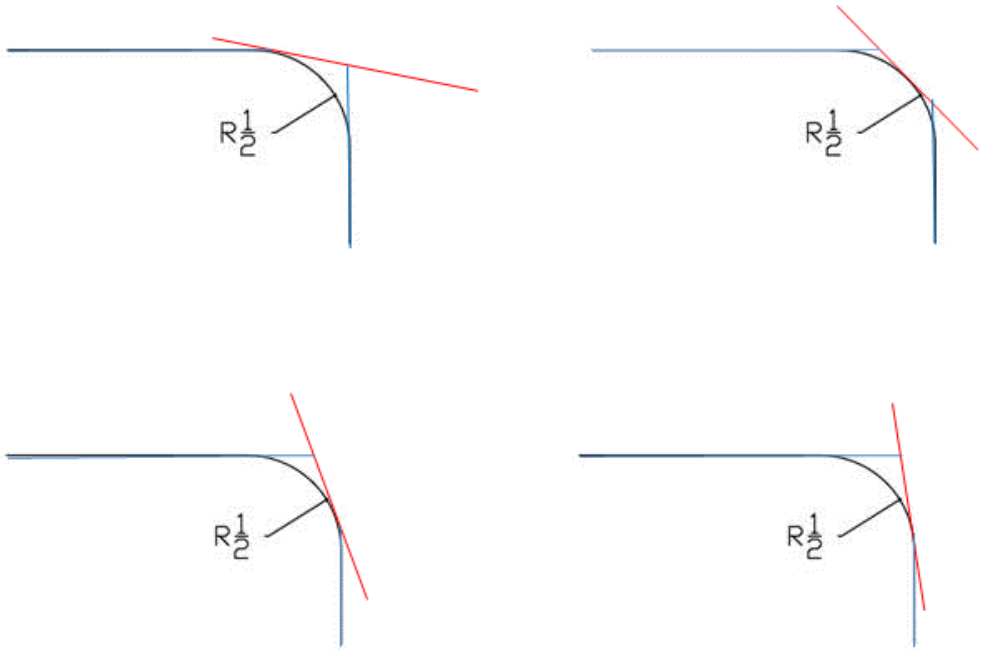






The following **figure 2** shows a section through the tread at the nosing and upper surface of the tread. The "limiting plane" is described as a red line. In each example the "limiting plane" is shown tangent to different points on the ½ inch (13mm) radius of curvature.

FIGURE 2 for Issue 5-11-12



Committee action on 5-11-12 Unresolved Issue

Approve with modifications – Proposal 5-11-12

Modification:

~~**504.5 Nosings.** Rounding or beveling at the leading edge of the tread shall not exceed the limit of a ½ inch (13 mm) radius. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall be 1 ½ inches (38 mm) maximum over the tread or floor below.~~

504.5 Nosings. Nosings shall comply with 504.5.1 through 504.6.3.

504.5.1 Nosings within a stairway shall be uniform.

504.5.2 If rounded, the radius of curvature at the leading edge shall be 1/2 inch (13 mm) maximum.

504.5.3 If beveled, the bevel shall slope at 45 degrees to the plane of the top surface of the tread and landing and extend for a horizontal distance of 1/2 inch (13 mm) maximum.

504.5.4 Nosings that project beyond the risers shall have the underside of the leading edge curved or beveled.

504.5.5 Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall be 1 1/2 inches (38 mm) maximum over the tread or floor below.

Reason: The Committee approved 5-11-12 to have Section 504.5 read as indicated by the paragraph, above, which is struck through. Upon reconsideration, the Committee revised the section to provide clear requirements in a clear format. Stairway nosings are a critical element of stairway design and must work. There has been considerable Committee debate on the issue. The above revision was believed to be the best reflection of the needed standards and should be included in the Second Public Review Draft and available for public comment.

Staff note: The Section 504.6.3 referred to in the charging provision refers to sections contained in 5-13-12 Approved as modified.

5-13– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

504.5.1 Visual contrast. The leading 2 inches (51 mm) of the landing and tread shall have visual contrast of dark on-light or light-on-dark from the remainder of the tread.

5-13-12 PC1

Allan B. Fraser, representing self

Delete and substitute as follows:

~~**504.5.1 Visual contrast.** The leading 2 inches (51 mm) of the landing and tread shall have visual contrast of dark on-light or light-on-dark from the remainder of the tread.~~

504.5.1 Visual contrast.

505.5.1.1 Every tread and landing shall have two surface colors for visual contrast, dark on-light or light-on dark.

505.5.1.2 The contrasting color of the leading edge of the tread or landing shall:

a. Extend the full width of the tread or landing,
b. Start at a line 2 inches (51 mm) back from the furthest point of the nosing and,
c. Extend on the tread or landing toward the nosing, perpendicular to the path of travel, continuing to cover the profile of the nosing and down the riser until the color has extended 3 inches (75 mm) from the start line.

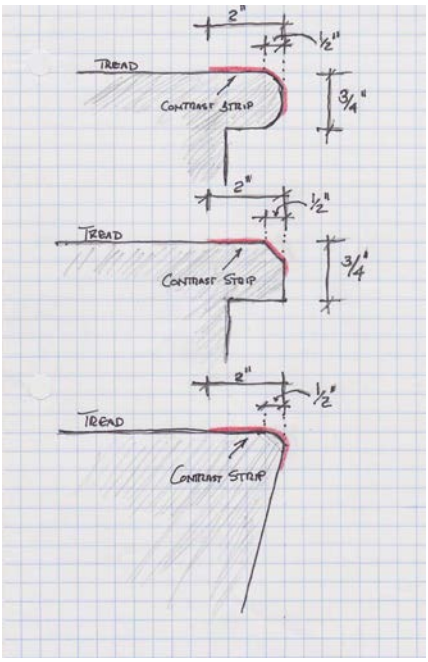


FIGURE 504.1

Reason: The concept in Proposal 5-13-13 has great merit, but the committee was unable to agree on adequate language to describe the contrasting edge stripe so that it is clear as to what is required. The proposed language and figure do that.

Committee action on 5-13-12 PC1

Approve with modifications – 5-13-12 PC1

Modification:

~~**504.5.1 Visual contrast.** The leading 2 inches (51 mm) of the landing and tread shall have visual contrast of dark on light or light on dark from the remainder of the tread.~~

504.5.6 Visual contrast. Visual contrast shall comply with either Sections 504.5.6.1 and 504.5.6.2, or Section 504.5.6.3

504.5.6.1 The leading 1 to 2 inches (51 mm) of every tread and landing, measured horizontally from the leading edge of the nosing, shall consist of a solid color having visual contrast of dark-on-light or light-on-dark from the remainder of the tread.

504.5.6.2 The contrasting marking shall be durable, and shall extend from one side of each tread to the other side of each tread.

504.5.6.3 Durable distinctive warning markings required by the adopted building code or ANSI safety standard.

Reason: As with nosings, applying the visual contrast concept to the stairways had resulting in considerable discussion. The committee, upon reconsideration, approved 5-13-12 based on a modification of PC1. It is a companion piece to the modification approved under 5-11-12. Both provide

clear standard, clearly organized which will improved compliance. It is hoped that this revision contained in the Second Public Review Draft will attract comments to improve the standard.

5-16 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

504.9 ~~Stair Level Identification~~ Tactile signage within the stairway enclosure. Stair level identification signs in raised characters and braille complying with Sections 703.3 and 703.4 shall be located at each floor level landing in all enclosed stairways adjacent to the door leading from the stairwell into the corridor to identify the floor level. The exit door discharging to the outside or to the level of exit discharge shall have a sign with raised characters and braille stating "EXIT."

504.10 Tactile signage at exits. A sign stating EXIT in raised characters and Braille and complying with Sections 703.3 and 703.4 shall be provided adjacent to each door to an *area of refuge*, an exterior area for assisted rescue, an *exit stairway*, an *exit ramp*, an *exit passageway* and the *exit discharge*.

5-16-12 PC1

Christopher G. Bell, representing American Council of the Blind

Comment: **ACB is concerned that 504.9 & 504.10 only require signage which is tactile, and in braille. There is no cross-reference whether such signage is required to satisfy the BSF LRV standard provided for in Chapter 7. There are many different ways that 504.9 &504.10 could be amended to make clear that the reference signage must also provide sufficient contrast. Revisions could also be made to proposal number 7-1– 12**

To rectify this issue. ACB is not providing a proposed revision to solve these issues because there are so many possible ways by which this issue could be addressed. However, ACB strongly believes that the signage referenced in 504.9 & 504.10 must have the requisite contrasting colors for the text.

Committee action on 5-16-12 PC1

Approve with additional modifications - Public Comment 5-16-12 PC1.

Modification:

504.10 Tactile signage at exits. A sign stating EXIT in raised characters and Braille and complying with Sections 703.3 and 703.4 shall be provided adjacent to each door to ~~an area of refuge,~~ an exterior area for assisted rescue, an exit stairway, an exit ramp, an exit passageway and the exit discharge.

Reason: Elevator lobbies are sometimes the location of an area of refuge. An elevator lobby is not an exit and requiring a sign at such locations stating the such is an exit would be incorrect.

5-22– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

506.1 General. Where operable ~~Accessible~~ windows are provided in an accessible room or space, at least one shall be accessible and have operable parts complying with Section 309. Where operable

windows required to provide natural ventilation or operable windows are required to provide an emergency escape and rescue openings that window shall be the accessible operable window.

EXCEPTIONS:

1. Operable windows that are operated only by employees are not required to comply with this section.

2. Operable windows in Type A units that comply with Section 1003.13.

3. Operable skylights are not required to comply with this section.

506.2 Opening force. The opening force for opening operable windows shall be as follows:

1. 8.5 pounds (37.7 N) maximum for casement or horizontal sliding windows
2. 25 pounds (111 N) maximum for double hung windows

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, ~~operating hardware for operable windows,~~ plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:
(Exceptions are not changed)

1002.13 Windows. Operable windows shall comply with Section ~~1002.13~~ 506.1.

EXCEPTIONS:

1. Windows in kitchens are not required to comply with this section.
2. Windows in bathrooms are not required to comply with this section.

~~**1002.13.1 Natural ventilation.** Operable windows required to provide natural ventilation shall comply with Sections 309.2 and 309.3.~~

~~**1002.13.2 Emergency escape.** Operable windows required to provide an emergency escape and rescue opening shall comply with Section 309.2.~~

1003.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, ~~operating hardware for operable windows,~~ plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:
(Exceptions are not changed)

1003.13 Windows. Operable windows shall comply with Section 1003.13.

1003.13.1 Natural ventilation. Operable windows required to provide natural ventilation shall comply with Sections 309.2 and 309.3.

1003.13.2 Emergency escape. Operable windows required to provide an emergency escape and rescue opening shall comply with Section 309.2.

5-22-12 PC2

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

Further revise as follows:

506.1 General. Where operable windows are provided in an accessible room or space, at least one shall be accessible and have operable parts complying with Section 309. Where operable windows required to:

1. Provide natural ventilation,
2. To provide an emergency escape and rescue ~~openings~~ opening or operable windows are required that window shall be the accessible operable window.

EXCEPTIONS:

1. Operable windows that are operated only by employees are not required to comply with this section.
2. Operable windows in Type A units that comply with Section ~~1003.13~~ 1103.13.
3. Operable skylights are not required to comply with this section.

506.2 Opening force. The opening force for opening operable windows shall be as follows:

1. 5.0 pounds (22.2 N) 8.5 pounds (37.7 N) maximum for casement or horizontal sliding windows
2. ~~25 pounds (111 N) maximum for double hung windows~~

(Balance of 5-22-12 remains unchanged)

Reason: Correct citation number from ~~1003.13~~ to 1103.13

ANSI's general approach to measurements is to provide a range. There are windows on the market that can be operable with 5 pounds of force. To be consistent with ANSI, GCD recommends providing a range for casement and sliding window opening force. This will encourage designers to find windows with the lowest opening force.

Delete the exception to allow 25 opening force for double hung widows. This is not an accessible standard. This is not usable by people with disabilities. This is the industry standard, it does not provide good access, and does not belong in ANSI.

Double hung windows can be operably at less than 5 lbs. opening force with an attached operating mechanism. ANSI should lead designers to find the most accessible window on the market.

ANSI should not provide a double hung window opening force just as it does not providing an exterior door opening weight. Remain silent if there is no good solution.

Committee action on 5-22-12 PC2

Approve PC 5-22-12 PC2 with modifications

This proposal complete replaces the original public comment PC2

506.2 Opening force. The opening force for opening operable windows shall be as follows:

1. 8.5 pounds (37.7 N) maximum for casement or horizontal sliding windows

~~2. 25 pounds (111 N) maximum for double hung windows.~~

Reason: Twenty-five pound of force should not be considered accessible.

5-22-12 PC4

Julie Ruth, representing American Architectural Manufacturers Association

Further revise as follows:

506.1 General. Where operable windows are provided in an accessible room or space, at least one shall be accessible and have operable parts complying with Section 309. Where operable windows required to provide natural ventilation or operable windows are required to provide an emergency escape and rescue openings that window shall be the accessible operable window.

EXCEPTIONS:

1. Operable windows that are operated only by employees are not required to comply with this section.

2. Operable windows in Type A units that comply with Section 1003.13.

3. Operable skylights are not required to comply with this section.

506.2 ~~Opening~~ Operating force. The operating force for windows includes forces for opening, closing, locking or latching, and unlocking or unlatching, and shall be determined in accordance with AAMA 513. Operable parts shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required for locking or latching and unlocking or unlatching shall be 5 pounds (22.2 N) maximum. The ~~opening~~ operating force for opening and closing operable windows shall be as follows:

1. 8.5 pounds (37.7 N) maximum for casement or horizontal sliding windows
2. 25 pounds (111 N) maximum for double hung windows

Add new reference standard as follows:

106.2.12 Standard Laboratory Test Method for Determination of Forces and Motions Required to Activate Operable Parts of CW and AW Class Operable Windows, Sliding Glass Doors and Terrace Doors in Accessible Spaces AAMA 513 (AAMA, 1827 Walden Office Square, Suite 550, Schaumburg, IL 60173-4268)

(Balance of 5-22-12 remains unchanged)

Reason: This comment specifies the standard to be used to measure the operating force of accessible, operable windows. AAMA 513 was developed specifically to clarify the methodology that is to be used to measure the force required to open, close, lock and unlock, latch and unlatch commercial grade (Class CW and AW) operable windows. Applicable provisions of Section 309 regarding the operability of the accessible components have also been brought forward to clarify that these provisions apply to window operation as well.

Committee action on 5-22-12 PC4

Approve PC 5-22-12 PC4 with modifications:

506.2 Operating force. The operating force for windows includes forces for opening, closing, locking or latching, and unlocking or unlatching, ~~and shall be determined in accordance with AAMA 513~~. Operable parts shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.

The force required for locking or latching and unlocking or unlatching shall be 5 pounds (22.2 N) maximum. The operating force for opening and closing operable windows shall be as follows:

1. 8.5 pounds (37.7 N) maximum for casement or horizontal sliding windows

2. 25 pounds (111 N) maximum for double hung windows

~~**106.2.12**~~ ~~Standard Laboratory Test Method for Determination of Forces and Motions Required to Activate Operable Parts of CW and AW Class Operable Windows, Sliding Glass Doors and Terrace Doors in Accessible Spaces AAMA 513 (AAMA, 1827 Walden Office Square, Suite 550, Schaumburg, IL 60173-4268)~~

Reason: The AAMA standard was not completed at the time of committee review. Therefore reference to it was removed. The balance of the public comment provided improved language for the standard.

5-23– 12

(This represents the language approved by the committee for the First Public Review Draft)
Add new text as follows:

507 Accessible Routes through Parking. Where accessible routes pass through parking facilities, the routes shall be physically separated from vehicular traffic.

EXCEPTIONS:

1. Crossings at drive aisles shall not be required to comply with Section 507.
2. Parking spaces complying with Section 502 and passenger loading zones complying with Section 503 shall not be required to comply with Section 507.

5-23-12 PC1

Karen Gridley, representing Target Corporation

Further revise as follows:

507 Accessible Routes through Parking. Where accessible routes pass through parking facilities, the routes shall be physically separated from vehicular traffic.

EXCEPTIONS:

1. Crossings at drive aisles shall not be required to comply with Section 507.
2. Parking spaces and access aisles complying with Section 502 and passenger loading zones complying with Section 503 shall not be required to comply with Section 507.
3. Where an accessible route is provided at the head of accessible parking stalls and access aisles complying with Section 502, the head-of-stall accessible route shall not be required to comply with Section 507.

Reason: In parking facilities providing a “head-of-car” accessible route at the head of accessible parking stalls and access aisles, these routes are already considered to be a safe path of travel by not compelling users to go behind parked cars or in drive aisles. The stalls and access aisles themselves create a separation from the drive aisles. Adding this additional exception will provide clarity for enforcing officials who might otherwise require other barriers or tripping hazards where connection is intended to be made

with, and intersect the head-of-stall route. Without the clarifying exception, inconsistent interpretation and random requirements will be problematic.

Some examples of problematic applications at head-of-stall accessible routes include:

Where a raised sidewalk is used as the separation from traffic and the sidewalk also leads past the head of accessible parking stalls, as this proposed Section 507 is currently written, in order to access the sidewalk one would need to recess the sidewalk at access aisles, and ramp up and down at each accessible stall creating a cumbersome, undulating route of travel for both mobility device users and ambulatory persons alike at the head-of-stall accessible route from accessible parking area, which in itself could be hazardous to traverse.

In lieu of ramping up and down at the head-of-stall route, where routes that are flush with access aisles, enforcement officials could require installation of raised curbs along the sides of the route, creating trough-like conditions with openings at access aisles to join the path. H**owever**, raised curbs and wheel stops have proven to be dangerous tripping hazards for ambulatory persons when located within the accessible parking area and adjacent to the head-of-stall accessible route. Raised curbs and wheel stops become especially problematic when there is no vehicle utilizing an accessible stall to block someone from tripping over the obstruction. Rather than wheel stops, raised curbs or raised sidewalks to prevent cars from pulling too far forward over the head-of-stall accessible route, existing vertical protection bollards and post mounted signage already serve as a separation element between the accessible route and vehicles. Without the additional proposed clarifying exception enforcement official could easily require some sort of other random separation that could cause hazardous path of travel conditions or hinder access to the accessible route.

Committee action on 5-23-12 PC1

Approve with additional modifications - Public Comment 5-23-12 PC1.

Modification:

507 Accessible Routes through Parking. Where accessible routes pass through parking facilities, the routes shall be physically separated from vehicular traffic.

EXCEPTIONS:

1. Accessible routes crossing~~s at~~ drive aisles shall not be required to comply with Section 507.

2. Accessible routes only from parking spaces and access aisles complying with Section 502 and passenger loading zones complying with Section 503 to accessible entrances shall not be required to comply with Section 507.

3. ~~Where an accessible route is provided at the head of accessible parking stalls and access aisles complying with Section 502, the head-of-stall accessible route shall not be required to comply with Section 507.~~

Reason: The Committee continues is support of providing protected accessible routes through parking. By approving this public comment, which clarifies the application of the exceptions, the topic will be presented in the Second Public Review Draft and available for public comment.

5-24– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

309.1 General. Operable parts required to be accessible shall comply with Section 309.

Exception: Equipment used only for emergencies by emergency responders or emergency personnel shall not be required to comply with Section 309.

5-24-12 PC1

Marsha K. Mazz, representing U.S. Access Board (ATBCB)

Further revise as follows:

309.1 General. Operable parts required to be accessible shall comply with Section 309.

Exception: ~~Equipment~~ Firefighting devices, such as hose connections, valve controls, gauges, and annunciator panels shall not be required to comply with Section 309 provided that they are used only for emergencies by ~~emergency responders or~~ emergency personnel ~~shall not be required to comply with Section 309~~ acting in their official capacity.

Reason: The terms "emergency responder" and "emergency personnel" are somewhat ambiguous. Anyone who responds to an emergency can be considered an emergency responder. This proposal clarifies that the exception applies only where responders would act in an official capacity to distinguish between professional responders and ordinary building occupants. We found the list in the original proposal.

Committee action on 5-24-12 PC1

Approved Public Comment 5-24-12 PC1.

Reason: The revisions included in the public comment clarified that the application of the exception will be for equipment which is part of the building versus portable or non-permanent equipment.

Chapter 6

6-1– 12

Kim Paarlberg, proponent, asked for further consideration of Proposal 6-1-12.

There are two concerns, so I would like to split the question.

Question 1:

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 3 1/2 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.

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 purpose is to reorganize the drinking fountain section to clearly differentiate between the requirements for wheelchair and standing drinking fountains. Since these are separate drinking fountains, they requirements for each need to be clear.

Since side approach is now only allowed for children (and is no longer permitted as an option for existing), that can also be clarified and made consistent. The current height for the spout outlet for children is listed as an exception under clear floor space. The revised text would deal with children's drinking fountains in the same manner under clear floor space, spout outlet, and spout location.

Question 2:

602.1 General. Accessible drinking fountains shall comply with Sections 602 and 307.

602.2 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. Wheelchair accessible 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.

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

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:** 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.

602.5 Spout Location. The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125mm) maximum from the front edge of the drinking fountain, including bumpers. Where only a parallel approach is provided, the spout shall be located $3^1/_2$ inches (90 mm) maximum from the front edge of the drinking fountain, including bumpers.

602.6 Water Flow. The spout shall provide a flow of water 4 inches (100 mm) minimum in height. The angle of the water stream from spouts within 3 inches (75 mm) of the front of the drinking fountain shall be 30 degrees maximum, and from spouts between 3 inches (75 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 current text only allows for designing for children at the wheelchair drinking fountains. In facilities such as day care and primary schools, all the drinking fountains within certain areas are designed for the children. The drinking fountains (and bathrooms) for all teachers are in a different location. The exception would allow for both drinking fountains serving children to be designed for kids. If the drinking fountains serve adults, they cannot use this option for either the standing or wheelchair fountains. If this is not allowed, the children are too short to use the standing drinking fountain, so current text are discriminatory towards their height limits.

Committee action on 6-1-12 Unresolved Issue

Approve Proposal 6-1-12 as reflected in Questions 1 and 2, above.

Reason: The proposal clarifies the standard by organizing the drinking fountain section so that there are distinct sections for wheelchair accessible drinking fountains and standing fountains. Also clarified is the interaction with children's facilities.

6-14– 12

(This represents the language approved by the committee for the First Public Review Draft)

Further 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 (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front 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 (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser

6-14-12 PC2

Kimberly Paarlberg, representing ICC

Further revise as follows:

604.7 Dispensers. Toilet paper dispensers shall comply with Section 309.4. 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 Dispensers.** Toilet paper dispensers shall comply with Section 309.4.~~ **604.7.1 Location.** 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.~~

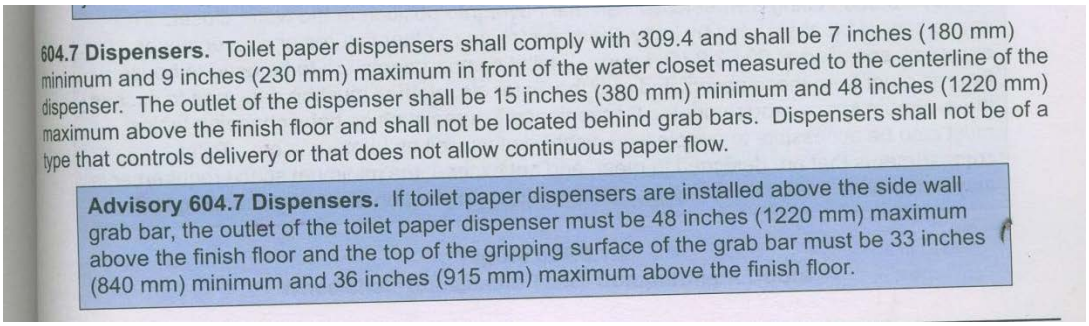
EXCEPTION: Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5 inch (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the floor.

604.11.7 Dispensers. Toilet paper dispensers primarily for children's use shall comply with Section 309.4. 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.

~~**604.11.7 Dispensers.** Toilet paper dispensers primarily for children's use shall comply with Section 309.4~~. **604.7.11.7.1 Location.** The outlet of toilet paper dispensers primarily for children's use 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 (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor.

Reason: For adults - The original intent was to allow for an exception consistent with 2010 ADA. Current organization of text is unclear as to what pieces the exception is applicable too (i.e., just distance forward or also height). Moving the three sentences into a different paragraph would help, but then the height is not clear without the additional sentence in the exception. Would ADA require the toilet paper dispenser to meet the 1-1/2" below and 12" above in 609.3? Child size implies this. The last sentence in 2010 ADA 607.4 is unclear.

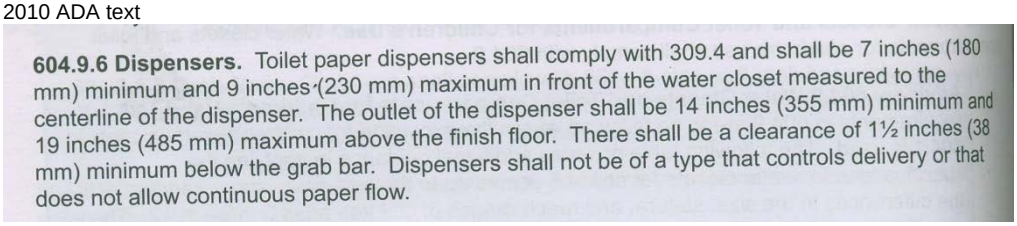


604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum 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.

Advisory 604.7 Dispensers. If toilet paper dispensers are installed above the side wall grab bar, the outlet of the toilet paper dispenser must be 48 inches (1220 mm) maximum above the finish floor and the top of the gripping surface of the grab bar must be 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor.

For children - Original diagram has errata. The original intent was to allow for an exception consistent with 2010 ADA. Current organization of text is unclear as to what pieces the exception is applicable too (i.e., just distance forward or also height). Moving the three sentences into a different paragraph would help, but then the height is not clear without the additional sentence in the exception.

2010 ADA text



604.9.6 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 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1½ inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

Committee action on 6-14-12 PC2

Approve Public Comment 6-14-12 PC2.

Reason: The public comment provides a better organization of these provisions.

6-20– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise Table as follows:

Table 604.9.3.1 – Door Opening Locations

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~~ 5 inches (~~102~~ 127 mm) maximum
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~~ 5 inches (~~102~~ 127 mm) maximum
Side Wall or Partition	From the rear wall	55 inches (1395 mm) minimum

- Floor-Mounted Water Closet	**Or**	
	From the front wall or partition	~~4~~ 5 inches (~~102~~ 127 mm) maximum

6-20-12 PC1

Kim Paarlberg, representing ICC

Disapprove the change. Return the text to that found in existing standard.

Reason: The committee did a great job last cycle of revising the requirements to allow for larger stalls and the correct placement of the door. The proposal to change the 4" to 5" was based on the proponent saying then needed more than 4" for support. Well, they could already do that under the current provisions by providing a larger stall so they could get any size support they wanted. There was no technical justification for requiring an additional 1" for the inside stall dimension. Other manufacturers have not identified that that the 4" support does not work for them. In addition, this could put bathrooms currently in compliance in violation for no technical reason. This text should be restored to what it says in the 2009 ICC A117.1.

Committee action on 6-20-12 PC1

Approve as modified – 6-20-12 PC1

Modification:

Table 604.9.3.1 – Door Opening Locations

Door Opening Location	Measured From	Dimension
	From the side wall or partition closest to the water closet	56 inches (1420 mm) minimum
Front Wall or Partition	**~~Or~~**	
	From the side wall or partition farthest from the water closet	5 inches (127 mm) maximum
Side Wall or Partition - Wall-Hung Water Closet	From the rear wall	52 inches (1320 mm) minimum
	~~Or~~	
	From the front wall or partition	5 inches (127 mm) maximum
Side Wall or Partition - Floor-Mounted Water Closet	From the rear wall	55 inches (1395 mm) minimum
	~~Or~~	
	From the front wall or partition	5 inches (127 mm) maximum

Reason: Upon reconsideration of this item, the Committee addressed Ms. Paarlberg's concern by deleting the 'or' from the table in 3 locations. This allows compliance even though the original change from 4 to 5 inches provided compliance issues when mixed with the other measurement.

6-24– 12

(This represents the language approved by the committee for the First Public Review Draft)

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~~.

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 Section 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.

6-24-12 PC1

Kimberly Paarlberg, representing ICC

Further 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.

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 Section 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. 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 new language is in bad code form. In addition, it is not needed as it is already permitted by the reference in the last section.

Committee action on 6-24-12 PC1

Approve Public Comment 6-24-12 PC1.

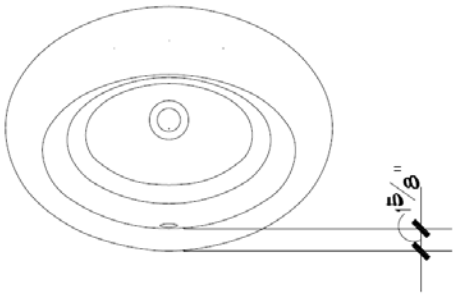
Reason: The new text was found to be unnecessary besides it being less than clear language.

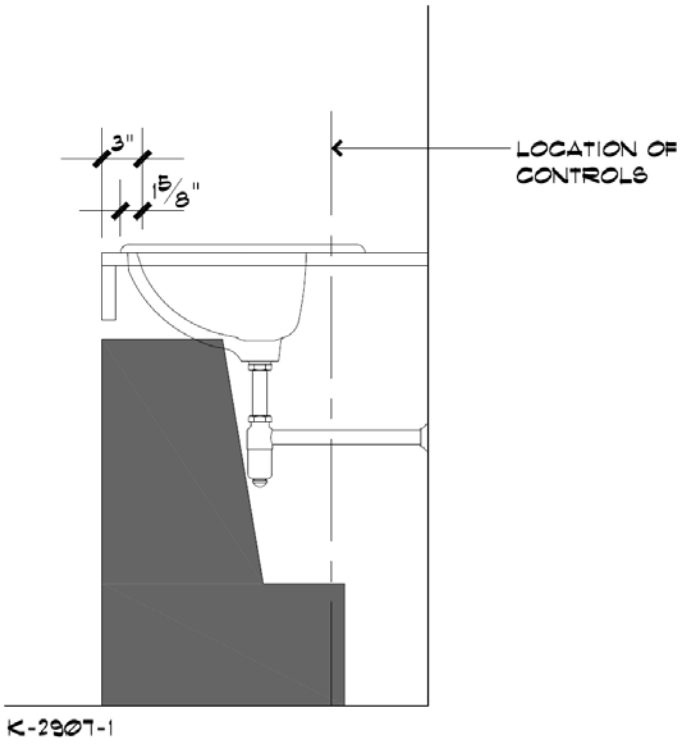
6-37– 12

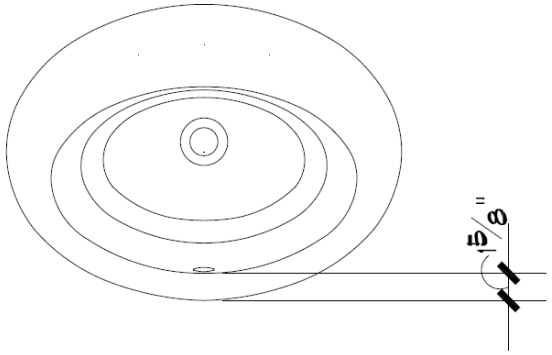
(This represents the language approved by the committee for the First Public Review Draft)

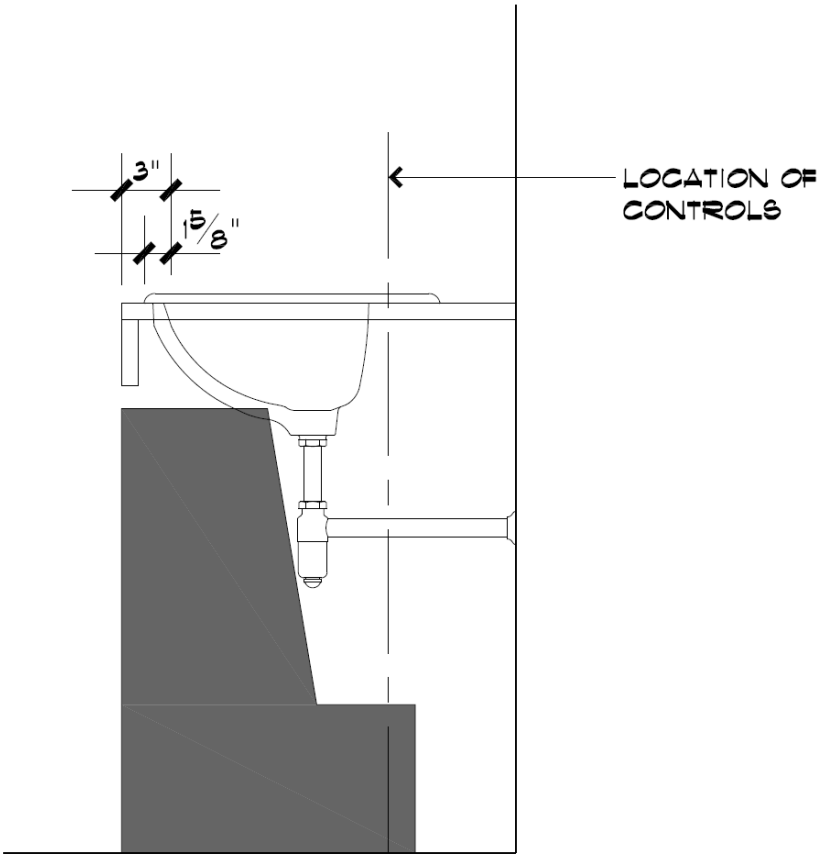
Add new text as follows:

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.

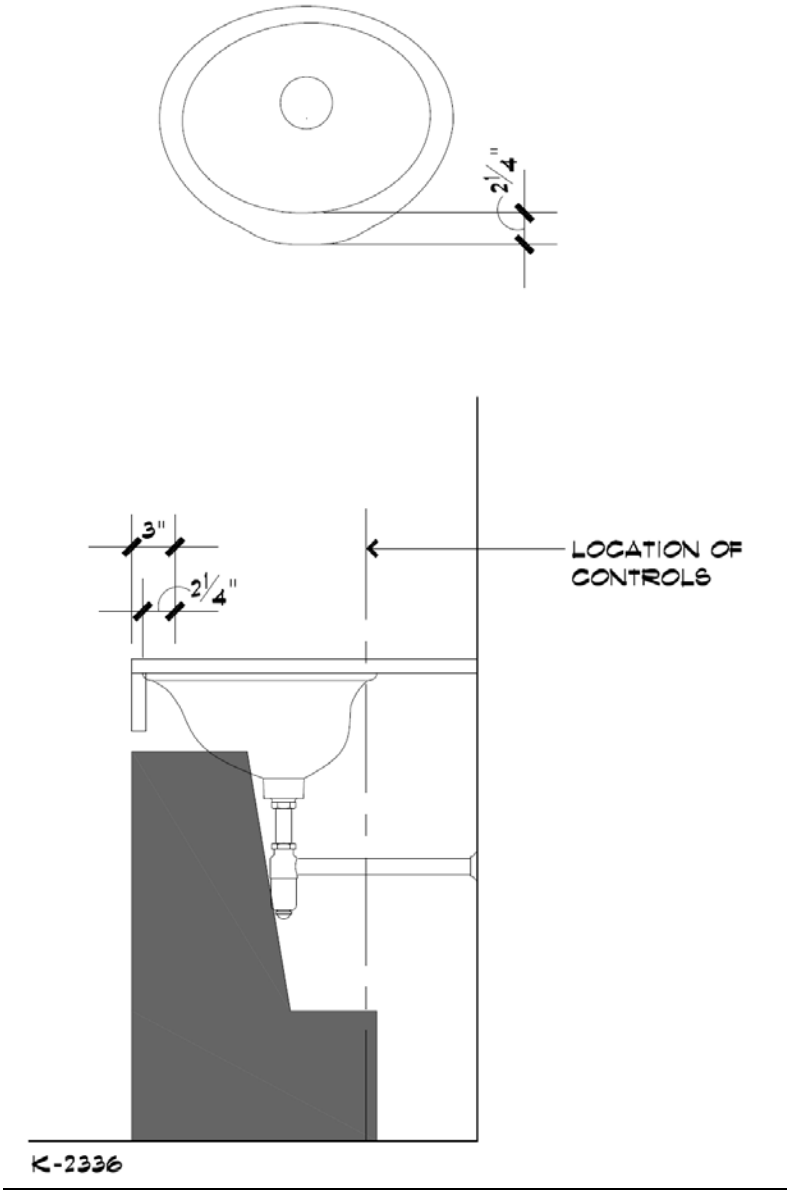


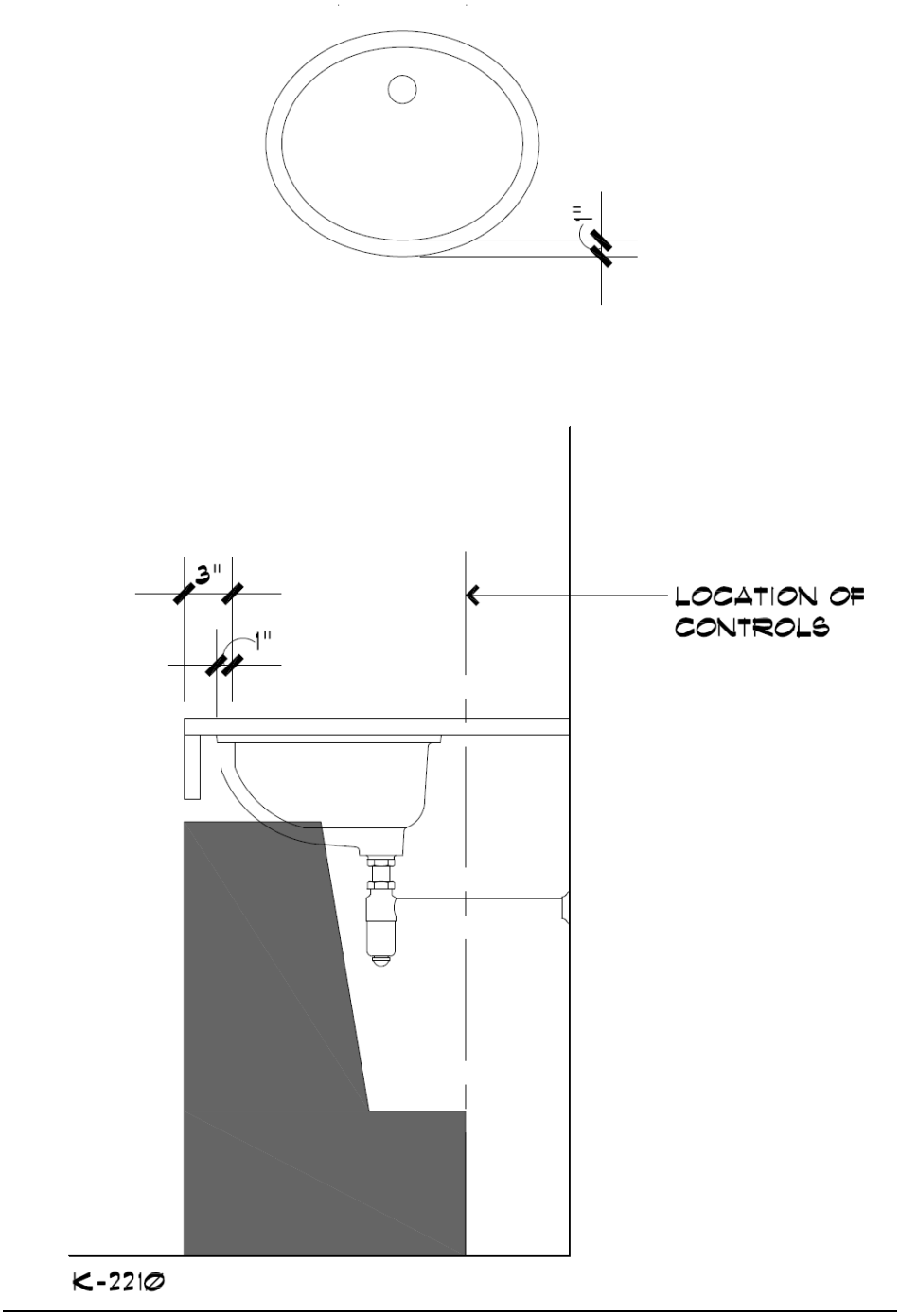


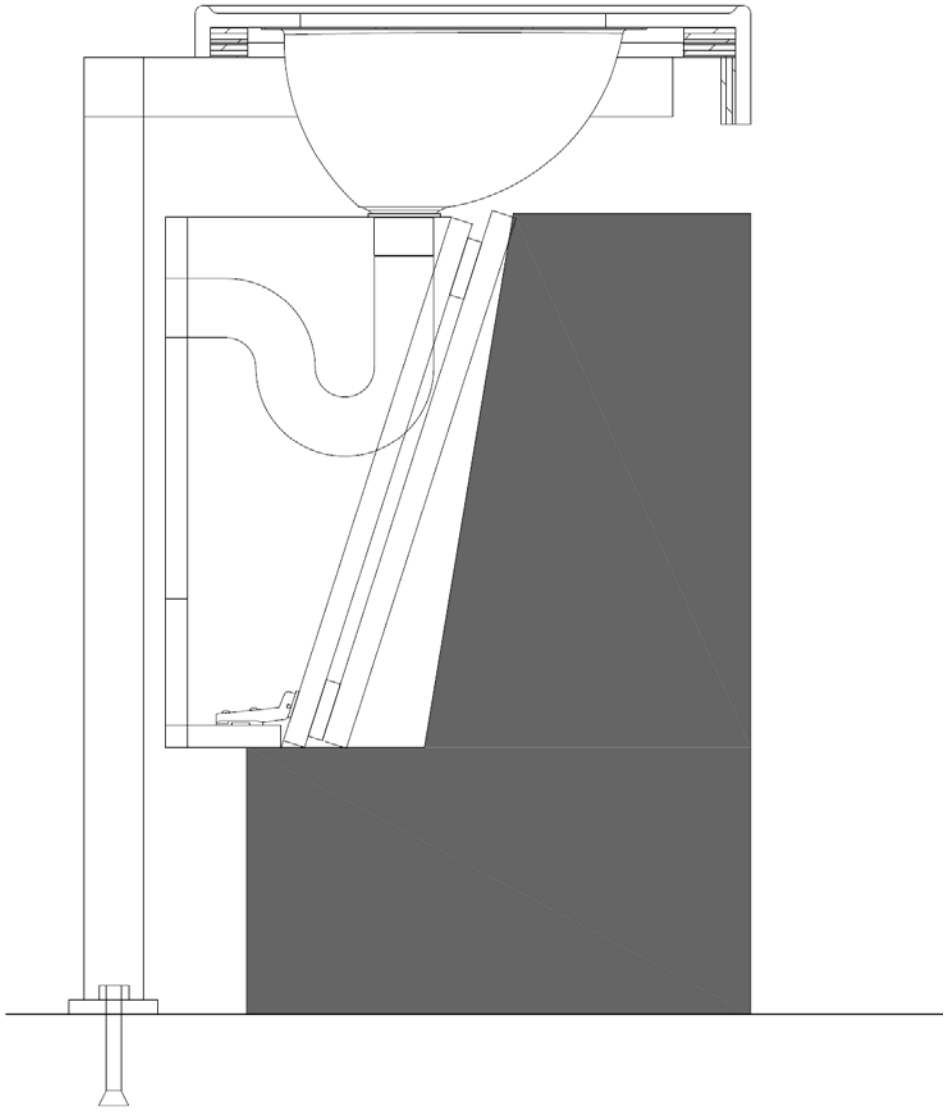




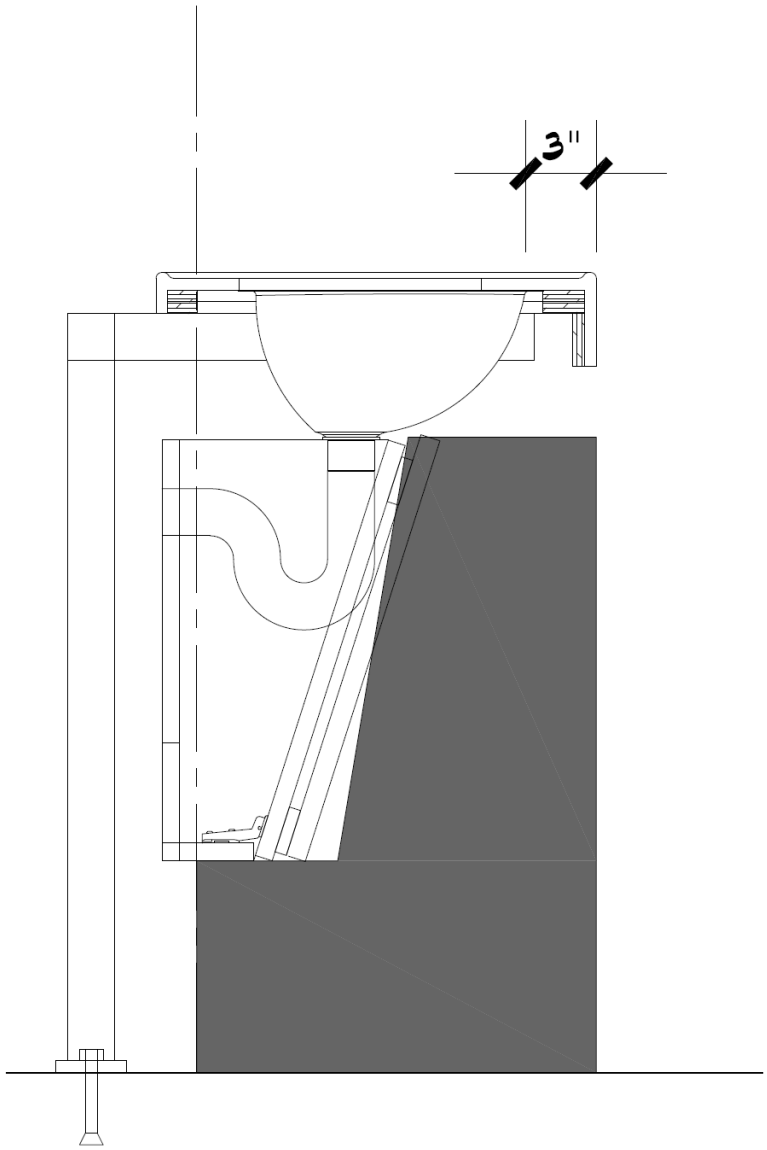
K-2907-4


2¼"
3"
2¼"
LOCATION OF CONTROLS
K-2336

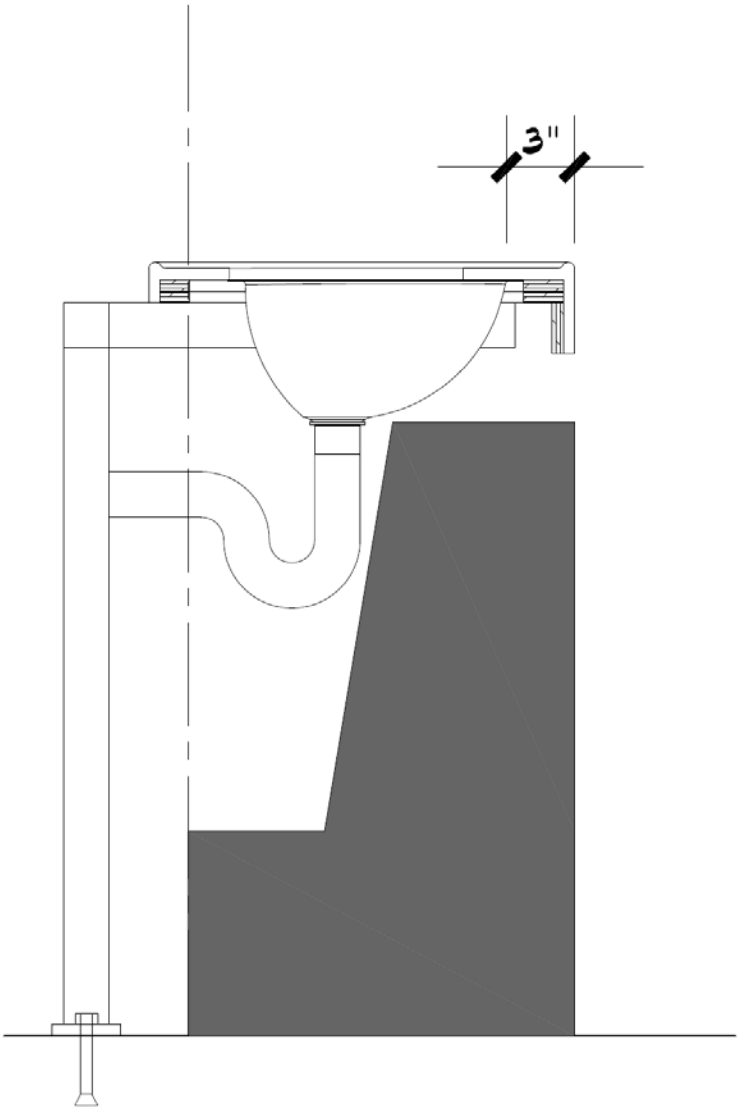

1"
3"
1"
LOCATION OF CONTROLS
K-2210



EXISTING DESIGN



DESIGN W/ NEW PROPOSED STANDARD



DESIGN W/ NEW PROPOSED STANDARD
(PROTECTIVE SHROUD REMOVDED)

6-37-12 PC1

Brad Gaskins, representing self

Further revise as follows:

606.5 Basin Location. The interior edge of the rim of the lavatory basin shall be located 3 ½ inches (~~75~~ 90 mm) maximum from the front edge of the fixture or countertop.

Reason: At the current 3" from the front edge most sinks would not be able to comply with the required knee clearance. It would be impossible to meet the 8" deep requirement.

Committee action on 6-37-12 PC1

Approve Public Comment 6-37-12 PC1.

Reason: Mr. Gaskins demonstrated that the 3 inch measurement would not allow other provisions to be in compliance. The 3.5 depth still addresses the need raised by this original proposal and allows overall compliance.

6-46– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

608.2.1.2 Clearance. A clearance of ~~48~~ 52 inches (~~1220~~ 1360 mm) minimum in length measured perpendicular from 12 inches (305 mm) beyond the ~~control~~ seat wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment.

6-46-12 PC1

See committee action under 3-6-12 PC2

6-46-12 PC2

Kimberly Paarlberg, representing ICC

Further revise as follows:

608.2.1.2 Clearance. A clearance of 52 inches (1360 mm) minimum in length measured perpendicular from ~~12 inches (305 mm) 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: The increased clear floor space, combined with the change to measure from the seat wall instead of the control wall now prohibits the transfer shower from ever being located in the corner. The shower has to have at least 4" offset (see figure). The study information provided for the increase in clear floor space did not include information on acceptable transfers. The plumbing industry has done these studies. They should be investigated before revising this measurement.

In addition, the transfer location in an alternate roll-in shower does not include the same offset. Therefore, the standard is inconsistent in application.

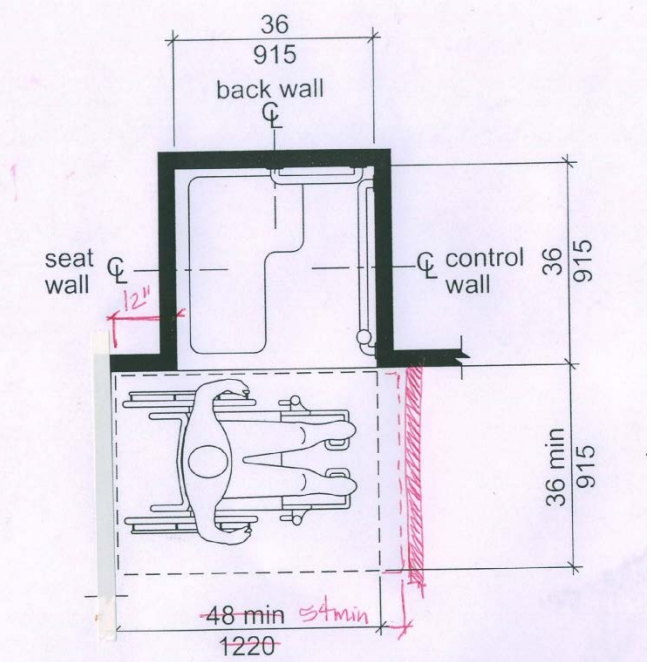
608.2.3 Alternate Roll-in-Type Shower Compartments. Alternate roll-in-type shower compartments shall comply with Section 608.2.3.

608.2.3.1 Size. Alternate roll-in 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.

Committee action on 6-46-12 PC2

Approve Public Comment 6-46-12 PC2.

Reason: The public comment changes how the length of the clearance next to the transfer shower is to be measured. The comment shifts focus from the seat wall to the control wall.



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

FIG. 608.2.1
TRANSFER-TYPE SHOWER

6-46-12 PC3

Larry Perry, representing self

Further revise as follows:

608.2.1.2 Clearance. A clearance of 48 ~~52~~ inches (1220 ~~1360~~ mm) minimum in length measured perpendicular from ~~12 inches (305 mm) 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: If the change to increase the wheelchair clear floor space from 48" to 52" does move forward, the proposed transfer shower language is too complicated and is unclear. If the change survives, the clear floor space should be measured from the control wall, as the current text requires.

As proposed, the text doesn't clearly say that the 12" from the control wall would need to be measured away from the shower compartment.

Committee action on 6-46-12 PC3

Approve Public Comment 6-46-12 PC3.

Reason: The public comment changes how the length of the clearance next to the transfer shower is to be measured. The comment shifts focus from the seat wall to the control wall. This public comment mirrors PC2, but in addition reduces the clearance length from 52 inches back to 48 inches.

6-55 – 12

Please Note: The version of 6-55-12 included in the public review draft was not the final version of 6-55-12 as approved by the committee. The version approved by the committee is a shown in 6-55-12 PC1

6-55-12 as show in public review draft

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.

6-55-12 PC1

Kim Paarlberg, representing ICC

Please note: The following reflects the version of 6-55-12 that was approved by the Committee.

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 on 6-55-12 PC1

Approve Public Comment 6-55-12 PC1.

Reason: The committee approved the public comment; reaffirming its earlier approved version of 6-55-12.

6-55-12 PC3

Curt Wiehle, Minnesota Construction Codes and Licensing, representing self

Further revise as follows:

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.~~

Reason: The first exception already limits the length of the bar to 48 inches. Exception 2 is redundant.

Committee action on 6-55-12 PC3

Approve Public Comment 6-55-12 PC3.

Reason: The Committee agreed with Mr. Wiehle's observation that the 2nd exception is redundant.

6-61– 12

Hope Reed, proponent, asked for further consideration of Proposal 6-61-12.

Using the **Approved as Modified proposal 6-60** as the basis, see below further modifications from NMGCD in support of proposal **6-61.5 (Ambulatory Roll-in Showers)** and companion proposal for Grab Bars:

608.4 Controls and Hand Showers. Controls and hand showers shall comply with Section 608.4 and 309.4.

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 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 not be located above the seat. Controls and hand showers shall be located:

1. On the back wall,
2. At a height of 38 inches minimum 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 wall behind the seat.

608.4.2.1 Ambulatory Roll-In Showers. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, an additional shower control and hand shower may be located on this side wall:

1. At a height of 38 inches (965 mm) minimum to 48 inches (1220 mm) maximum above the shower floor, and
2. 17 inches (430 mm) to 19 inches (485 mm) from the back wall.

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

1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor, and
2. Where the controls and hand shower are 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. Where the controls and hand shower are located on the back wall opposite the seat, the controls and hand shower shall be located within 15 inches (380 mm) maximum from, the centerline of the seat toward the transfer space.

Companion proposal for Grab Bars:

608.3 Grab Bars.

608.3.2 Standard Roll-in Type Showers. Grab bar for standard roll-in showers shall comply with Section 608.3.2. ~~In standard roll-in type showers, grab bars shall be provided~~

608.3.2.1 Horizontal Grab Bars. Horizontal grab bars shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be located 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 sea 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.

> **608.3.2.1.1 Vertical Grab Bar.** Where an ambulatory roll-in shower control and hand spray are provided, a vertical grab bar shall be provided. A vertical grab bar 18 inches (45 mm) minimum in length shall be provided on the ambulatory control side 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: Many people with walking disabilities prefer to walk into the shower and stand while they shower. People with walking disabilities frequently have knee or hip problems that severely restrict their ability to easily sit and rise from a wet shower seat. The roll-in shower controls and spray located on the back wall are not easily usable by a person who prefers to stand and use the grab bars while showering because the water sprays out into the room and their elbows hit the back wall. Provide option for additional Ambulatory Roll-in Shower Controls and Hand Shower. See sketches at end.

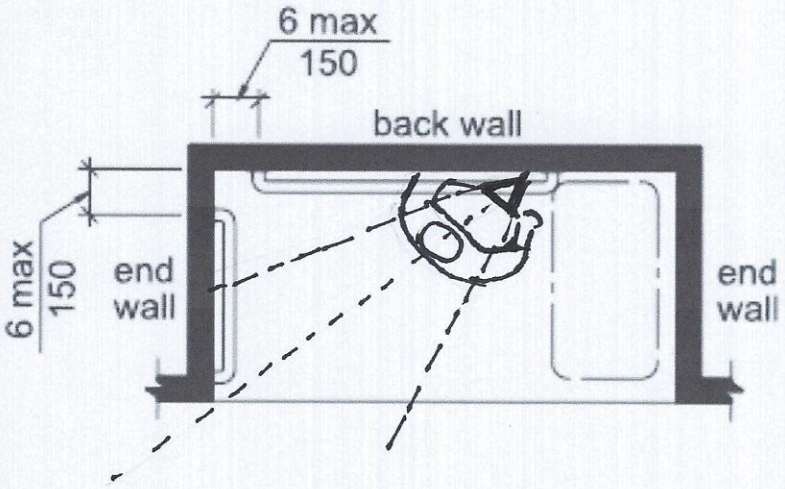
Four benefits of this proposal include:

1. Serve a greater number of people with disabilities in the Standard Roll-in Shower (those using wheelchairs and those who are walking impaired)
2. Add language for consistency in preventing installation of controls and hand showers above the seat in 608.4.2
3. Reformat a Standard Roll-in Shower and add new section for optional Ambulatory Roll-in Showers controls and hand showers in 608.4.2.1
4. Re-format Roll-in Showers horizontal grab bar, and add optional vertical grab bar for consistency in 608.3.2

Committee action on 6-61-12 Unresolved Issue

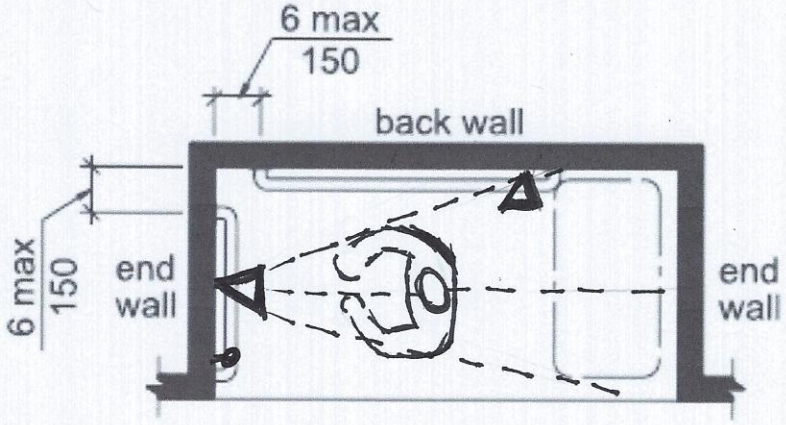
Approve proposal 6-61-12 as outlined above.

Reason: The proposal allows more flexibility in the use of roll-in showers for persons who are ambulatory and not just those who use a wheelchair or other mobility device.



Existing ANSI 608 Standard Roll-in Shower

- Half the spray goes out into the room.
- Person must stand as close as possible to spray and their elbows hit the back wall



Proposed Additional Ambulatory

- Controls and Hand Shower located on end wall l
- Vertical Grab Bar provided by standing entry

Chapter 7

7-1– 12

(This represents the language approved by the committee for the First Public Review Draft)

Add new text as follows:

105.2.13 Light reflectance value (LRV) of a surface. Method of Test. BS 8493:2008 + A1: 2010 (British Standards Institution, 389 Chiswick High Road, London W4 4AL, United Kingdon).

701.1.2 Light Reflectance Value. The light reflectance value (LRV) of surfaces shall be determined in accordance with BS 8493 for the following surface types:

1. Opaque paint coatings and paint systems, including those that cause extreme angular dependences of reflected light and those that have a surface texture of less than 2 mm;

2. Opaque coverings including those that cause extreme angular dependences of reflected light, and those that have an unyielding texture of less than 2 mm;

3. Opaque coverings with a yielding pile, e.g. carpet;

4. Opaque materials, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm, e.g. finished metals;

5. Opaque materials coated with non-opaque coatings or coverings, e.g. timber door coated with a woodstain, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm;

6. Multi-colored surfaces;

701.1.2.1 Other Surfaces. Other surfaces shall comply with Section 703.1.3.1.

701.1.3 Contrast Value. The contrast between the LRVs of adjacent surfaces required by Sections 703.2.1.2, 703.5.3.2, 703.6.3.2, 705.3, and 504.5.1 shall be determined by Equation 7-1,

Contrast = [(B1-B2)/B1] x 100 percent **Equation 7-1**

Where

B1 = light reflectance value (LRV) of the lighter surface,
B2 = light reflectance value (LRV) of the darker surface.

701.1.3.1 Other Surfaces. Surfaces not within the scope of BS 8493 shall provide contrast between adjacent surfaces that are either light on dark or dark on light.

Revise as follows

703.2.1 General. Visual characters shall comply with the following:

(Balance of section is not changed)

703.2.1.1 Nonglare Finish. The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.

703.2.1.2 Contrast. The Light Reflectance Value (LRV) of characters and their background shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

703.5.3 Finish and Contrast. Pictograms and their fields shall have a nonglare finish. Pictograms shall contrast with their fields, with either light pictograms on a dark field, or dark pictograms on a light field.

703.5.3.1 Nonglare Finish. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 as measured on a 60-degree gloss meter.

703.5.3.2 Contrast. The Light Reflectance Value (LRV) of pictograms and their fields shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

703.6.2 Finish and Contrast. Symbols of accessibility and their backgrounds shall have non-glare finish. Symbols of accessibility shall contrast with their backgrounds with either a light symbol on a dark background or a dark symbol on a light background.

703.6.3.1 Nonglare Finish. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 as measured on a 60-degree gloss meter.

703.6.3.2 Contrast. The Light Reflectance Value (LRV) of symbols of accessibility and their backgrounds shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

705.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.

The Light Reflectance Value (LRV) of the surfaces shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

504.5.1 Visual Contrast. The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.

The Light Reflectance Value (LRV) of the 2-inch (51 mm) stripe and tread shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

7-1-12 PC3

Teresa E. Cox, representing International Sign Association

Delete and substitute as follows:

~~**105.2.13 Light reflectance value (LRV) of a surface. Method of Test.** BS 8493:2008 + A1: 2010 (British Standards Institution, 389 Chiswick High Road, London W4 4AL, United Kingdon).~~

701.1.2 Light Reflectance Value. The light reflectance value (LRV) of surfaces shall be determined in accordance with BS 8493 for the following surface types:

1. Opaque paint coatings and paint systems, including those that cause extreme angular dependences of reflected light and those that have a surface texture of less than 2 mm;

2. Opaque coverings including those that cause extreme angular dependences of reflected light, and those that have an unyielding texture of less than 2 mm;

3. Opaque coverings with a yielding pile, e.g. carpet;

4. Opaque materials, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm, e.g. finished metals;

5. Opaque materials coated with non-opaque coatings or coverings, e.g. timber door coated with a woodstain, including those that cause extreme angular dependences of reflected light, and those that have a texture of less than 2 mm;

6. Multi-colored surfaces;

701.1.2.1 Other Surfaces. Other surfaces shall comply with Section 703.1.3.1.

701.1.3 Contrast Value. The contrast between the LRVs of adjacent surfaces required by Sections 703.2.1.2, 703.5.3.2, 703.6.3.2, 705.3, and 504.5.1 shall be determined by Equation 7-1,

Contrast = [(B1-B2)/B1] x 100 percent **Equation 7-1**

Where

B1 = light reflectance value (LRV) of the lighter surface,
B2 = light reflectance value (LRV) of the darker surface.

701.1.3.1 Other Surfaces. Surfaces not within the scope of BS 8493 shall provide contrast between adjacent surfaces that are either light on dark or dark on light.

Revise as follows

703.2.1 General. Visual characters shall comply with the following:

(Balance of section is not changed)

703.2.1.1 Nonglare Finish. The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.

703.2.1.2 Contrast. The Light Reflectance Value (LRV) of characters and their background shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.

703.5.3 Finish and Contrast. Pictograms and their fields shall have a nonglare finish. Pictograms shall contrast with their fields, with either light pictograms on a dark field, or dark pictograms on a light field.

~~**703.5.3.1 Nonglare Finish**. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 as measured on a 60-degree gloss meter.~~

~~**703.5.3.2 Contrast.** The Light Reflectance Value (LRV) of pictograms and their fields shall contrast 70 percent minimum as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

~~**703.6.2 Finish and Contrast.** Symbols of accessibility and their backgrounds shall have non-glare finish. Symbols of accessibility shall contrast with their backgrounds with either a light symbol on a dark background or a dark symbol on a light background.~~

~~**703.6.3.1 Nonglare Finish**. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 as measured on a 60-degree gloss meter.~~

~~**703.6.3.2 Contrast.** The Light Reflectance Value (LRV) of symbols of accessibility and their backgrounds shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

~~**705.3 Contrast.** Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.~~

~~The Light Reflectance Value (LRV) of the surfaces shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

~~**504.5.1 Visual Contrast.** The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.~~

~~The Light Reflectance Value (LRV) of the 2-inch (51 mm) stripe and tread shall contrast 70 percent minimum, as determined in accordance with Equation 7-1. The lighter surface shall have a LRV of not less than 45.~~

703.2.1 General. Visual characters shall comply with the following:

(Balance of section is not changed)

703.2.1.1 Nonglare Finish. The glare from coverings, the finish of characters and their background shall not exceed 19 as measured on a 60-degree gloss meter.

703.2.10 Contrast. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.

703.5.3.1 Nonglare Finish. The glare from coverings and the finish of pictograms and their fields shall not exceed 19 as measured on a 60-degree gloss meter.

703.5.3.2 Contrast. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.

703.6.2 Finish and Contrast. Symbols of accessibility and their backgrounds shall have non-glare finish. Symbols of accessibility shall contrast with their backgrounds with either a light symbol on a dark background or a dark symbol on a light background.

703.6.3.1 Nonglare Finish. The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 as measured on a 60-degree gloss meter.

705.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.

504.5.1 Visual Contrast. The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.

Reason: 1. The LRV's of many standard sign materials cannot be measured using the British Standard Method of Test.

2. Site conditions, particularly the type and intensity of lighting, have great impact on perceived contrast. Following the formula without considering site conditions, would allow combinations that do not have enough contrast, and prohibit others that are perfectly legible when appropriate lighting is provided.

3. The British Standard states in part "The method described in this standard is not appropriate for making on-site measurements. Therefore it is recommended that published LRV data, determined in accordance with this standard, are used for the determination of visual contrast." Relying on the British Standard (BS) establishes a design standard that lacks a corresponding field method to accurately calculate conforming color contrast of signs installed on-site.

4. The BS is referenced by a British government accessibility standard, Approved Document M (ADM 2010, with 2013 amendments), in association with measuring the difference in LRV's of adjacent building elements. Consistent with this application, the BS specifies sample sizes ranging from 450 mm x 450 mm (appx. 17.7 inches x 17.7 inches) to 25 mm x 25 mm (appx. 1 inch x 1 inch). But there appears to be no supporting evidence that the BS's LRV difference measurements are predictive of legibility for any population with special visual needs (e.g. elders, those with mild low vision), and the BS does not provide a means to measure for conformance, under actual field conditions, the LRV's of small graphic elements, especially text or visual symbols.

5. This proposal is really no different than proposals that have been defeated numerous times for multiple reasons, except for the addition of a new standard of questionable utility. The mere addition of any new standard, though, does not in any way support the adoption of 70% as a threshold value. In fact, the 70% figure is not mentioned in the BS.

6. Research is sorely needed to provide a rational basis for a signage contrast standard that can be applied simply, and prior to final site installation, whose conformance is predictive of legibility under typical if not actual field conditions.

Committee action on 7-1-12 PC3

Approve Public Comment 7-1-12 PC3.

Reason: The Committee concluded that the was insufficient information for the standard to use the contrast analysis methods and testing included in 7-1-12. They wish for the discussions and research to continue, and by making this amendment, the issue appears in the next public review draft and is avialble for comment. The glare provisions are appropriate to maintain going into the next edition of the standard.

7-16– 12

(This represents the language approved by the committee for the First Public Review Draft)

Add new text as follows:

704.8 Visual Relay Service Booth. Each public Visual Relay Service Booth shall be accessible and accommodate one user with seating, a visual monitor, control device, diffuse lighting with a minimum lighting level of 20 foot candles (215 lux). And privacy enclosure with a flat, non-textured surface and finish color in contrast with the full range of human skin tones to provide a background for clear visual communication.

7-16-12 PC2

Rick Lupton, representing self

Revise as follows:

704.8 Visual Relay Service Booth. Each public Visual Relay Service Booth shall be ~~accessible and~~ accommodate one user with seating and privacy enclosure, a visual monitor, a video camera device, control device, diffuse lighting with a minimum lighting level of 20 foot candles (215 lux). ~~And privacy enclosure with a flat, non-textured surface and finish color in contrast with the full range of human skin tones to provide a background for clear visual communication.~~ The background of the seating area, and within range of the video camera device, shall have a flat, non-textured surface and finish color in the bright green or blue range.

Reason: The current proposal omits necessary equipment for the facility, includes language that cannot be consistently enforced, and is grammatically incorrect. This Public Comment attempts to address each of these issues.

The current last sentence is grammatically incorrect and cannot be enforced consistently. The "full range of human skin tones" is quite broad and unless one is expert, is subject to interpretation (see picture in Supporting Information below). In addition, the extent of contrast is not specified. I've proposed a color in the bright green or blue range. This is based on the need for a background at the seating area and in view of a video camera that provides a contrast from a broad range of human skin tones to provide a background for signing. Bright green or blue are specifically used in the film industry (see Supporting Information below) as mattes because they are seldom within the human skin color spectrum and so enable the human to stand out. There may be other colors that work but this provision should include the degree of contrast and point to the contrast provisions proposed for A117.1. In addition, the current language appears to require the entire privacy screen to require contrasting color, not addressing the specific need of a background to the video area.

I've added a video camera device to the laundry list of requirements for this facility (see FCC quote in Supporting Information below) and clarified (what I think was intended) that the privacy enclosure is for the seating area and not just the monitor.

I've omitted "be accessible" as scoping. Where accessibility is required by the scoping document, the current language provides no guidance. By accessible, is it intended that a wheelchair space be provided in addition to the seating, etc.

The result of this Public Comment is not perfect, but maintains the intent of the proposed provision while clarifying much of what is intended.

A description of visual relay service by the Federal Communications Commission (http://www.fcc.gov/guides/video-relay-services):
How VRS Works
VRS, like other forms of TRS, allows persons who are deaf or hard-of-hearing to communicate through the telephone system with hearing persons. The VRS caller, using a television or a computer with a video camera device and a broadband (high speed) Internet connection, contacts a VRS CA, who is a qualified sign language interpreter. They communicate with each other in sign language through a video link. The VRS CA then places a telephone call to the party the VRS user wishes to call. The VRS CA relays the conversation back and forth between the parties -- in sign language with the VRS user, and by voice with the called party. No typing or text is involved. A voice telephone user can also initiate a VRS call by calling a VRS center, usually through a toll-free number.
• From an article on photography and green screens, Creating Realistic Composites, Part 1: Shooting on a Green Screen by Rob Taylor (http://photography.tutsplus.com/tutorials/creating-realistic-composites-part-1-shooting-on-green-screen--photo-14288)

"Why am I choosing green? Well, chroma green is a color rarely found in nature, particularly human skin tones, so people stand out nicely in front of it."

A Color Wheel Based On The Range Of Human Skin Tones (http://www.fastcodesign.com/1669972/a-color-wheel-based-on-the-range-of-human-skin-tones#5)

Committee action on 7-16-12 PC2

Approve Public Comment 7-16-12 PC2.

Reason: The comment provides some improvement to the text. By approving amendments to the provision, the issue will be in the next public review draft and available for additional comments to improve the standard.

Images courtesy of Superscript and Pierre David

7-23– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

703.3.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Spacing between individual raised characters shall be 15% or 1/8 inch (3.2 mm) minimum, whichever is greater, and 35% maximum of the character height measured at the top of the surface of the characters, 1/16 inch (1.6 mm) minimum measured at the base of the characters, ~~and four times the raised character stroke width maximum.~~ Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

7-23-12 PC1

Sharon Toji, representing Hearing Loss self

Disapprove the change. Return the text to that found in existing standard.

Reason: The proponents did not analyze the effect of the change. The proposed change would actually have, in many cases, the opposite effect to what they wish, and would have other negative impacts as well.

The proponents of the change state that the current standard does not allow for good graphic design in terms of spacing, because it forces artificial spacing between characters. However, the proposed solution is just as artificial, makes more work for layout artists, plan checkers and inspectors, and does not satisfy the designer's wishes for either tighter kerning or more design freedom. It does just the opposite, except for the very smallest sign characters.

Do the math!

We are requiring minimum spacing of 1/8 inch between the two closest points of characters because of a test we carried out, many years ago, of a large number of people at the national convention of the American Council of the Blind, under the direction of Julie Carroll, a former Committee delegate. Let's assume that the Committee has accepted that.

Since we are retaining the 1/8 inch space as a minimum, we must check and perhaps alter the spacing for all signs with characters up 7/8 inches in height (most designers would not tend to specify 27/32 inch characters.) Many designers prefer 5/8 inch characters for signs, but 15 percent of character height is not even 1/10 inch. Here is a chart for the smaller size characters normally used for tactile signs. It shows when we can begin to use the 15 percent minimum spacing. It also shows that, in regard to "standard" spacing, the 35 percent maximum is more restrictive than the original maximum of 4 times the character stroke width, based on the minimum stroke width requirement of 10 percent:

Height	Decimal of 15%	Decimal of 35%	Required (1/8 inch)	Maximum 4 x stroke	Use 15%	Use 35%
5/8 inch (.625)	**.09375**	**.21875**	**.125**	**.250**	**No**	**Yes**
3/4 inch (.75)	.1125	.2625	.125	.300	No	Yes
13/16 inch (.8125)	.121875	.284375	.125	.325	No	Yes
53/64 inch (.8281)	.124215	.289835	.125	.33124	No	Yes
27/32 inch (.8437)	**.126555**	**.295295**	**.125**	**.33748**	**Yes**	**Yes**
7/8 inch (.875)	**.13125**	**.30625**	**.125**	**.350**	**Yes**	**Yes**

Once we go to characters 7/8 inch high, and if we use standard Adobe Illustrator spacing for characters, we find that very few character pairs don't already have spacing of at least 1/8 inch. In checking a number of common room function names, most words have one, or perhaps two such character pairs. Therefore, assuming we are satisfied with standard Adobe Illustrator character spacing, there will be very few necessary changes in the spacing. Whichever code you apply, the current one or the proposed one, you will have to tweak those few pairs of characters.
For instance, in any word with "ROOM," there is not 15 percent space between the two "Os." That is the case even with two inch high characters.

Height	Decimal of 15%	Decimal of 35%	Required (1/8 inch)	Maximum 4x stroke	Use 15%	Use 35%
53/64 inch (.8281)	**.124215**	**.289835**	**.125**	**.33124**	**No**	**Yes**
27/32 inch (.8437)	**.126555**	**.295295**	**.125**	**.33748**	**Yes**	**Yes**
7/8 inch (.875)	**.13125**	**.30625**	**.125**	**.350**	**Yes**	**Yes**
1 1/2 inch (1.500)	**.225**	**.525**	**.125**	**.600**	**Yes**	**Yes**
2 inch (2.00)	**.300**	**.700**	**1.25**	**.800**	**Yes**	**Yes**

Therefore, for every job, the layout artist for the tactile characters may not only have to increase certain spacing to meet the 1/8 inch rule, but may also have to increase additional character spacing to meet the 15 percent rule. On top of that, the 35 percent maximum rule is slightly more restrictive. There will be more "tweaking" rather than less. Where is the benefit? There is none.

The other losers are the plan checker and the inspector. With the 1/8 inch rule, it is very fast and simple to have a tool with a 1/8 inch measurement. When characters appear very tight, the tool can determine in an instant if 1/8 inch space is there or not. With the 15 percent rule, you have to measure the height, determine what 15 percent is, and then devise a measurement tool just for that job.

Now, you have to measure for both 1/8 inch and 15 percent. As an inspector, you would have to take a a whole key-chain of measurement tools with you, for every eventuality from 7/8 to 2 inch high characters.

Part of the problem is that many people are not correctly understanding what the current standard requires.

1. It does not require "monospacing." Every letter pair does not require 1/8 inch spacing, no more or less. Variable spacing generally in line with accepted spacing protocols for visual signs is acceptable and possible within this standard.

2. The measurement is between the two closest points, not between two artificial rectangles drawn around all the points of each character.

3. There are several ways to mitigate the visual appearance of the signs:

A. Do not use the smallest possible characters. The minimum size is not really the best size for visual readers, so don't use it except when absolutely necessary. With larger characters, the required spacing will also be more pleasing.

B. Ease, bevel, or provide a "shoulder" for the edges of the raised characters. They will be much easier to read by touch, and the top surfaces of the characters will be slightly further apart, so most normal character spacing will be compliant. As a designer, if you use certain types of materials and an extreme bevel, you can place the characters as close as 1/16 inch to each other.

C. Whenever possible, use the new rule that allows two separate sign sections, one visual and one tactile. The visual characters allow for much tighter spacing, and the tactile characters can be “invisible," so the wide spacing will not have a visual impact on the appearance. Each section can be easier to read for more people with varying types of disability.

D. Be sure you are choosing sans serif font styles. "Simple serif" styles for tactile characters went out with the original ADAAG. If you have to separate the tips of serifs by 1/8 inch, naturally you will get much larger and more unattractive spaces between letter pairs.

Although the requirement for 35 percent space maximum, rather than 4 times the stroke width, makes very little practical difference in character pairs we have looked at, it’s probably easier for an inspector to make a quick measurement on site of four times the stroke width, than it is to calculate 35 percent of the character height. Since thirty-five percent is actually a slightly more limiting standard, at least when calculated using the minimum stroke width of 10 percent of character height, why not just retain it? For instance, for a one inch high character, the range of maximum space allowed would be between 40 and 60 percent of character height, versus 35 percent. Although a plan checker or inspector may need to measure some spaces to determine if they are no more than 35 percent, and that restriction may mean that layout artists have to artificially change spacing of a few characters,that will almost never happen with the current requirement. Allowing more space between characters will not usually be an incentive to designers to widen the spacing, since they almost always prefer tighter spacing.

Following are some slides that I intend to show at the January meeting. They clearly demonstrate the fact that more space “tweaking” is required when you use a standard of 15 percent of character height, than if you retain our original requirement of 1/8 inch.

The only exception is between characters when the characters are between 5/8 inch and 7/8 inches high.

However, since our ANSI project some years ago showed that 1/8 inch was the minimum required between characters if people who are blind can distinguish one letter from the other, the Committee has at this point decided to retain a requirement for 1/8 inch minimum between characters.

Committee action on 7-23-12 PC1

Approve Public Comment 7-23-12 PC1.

Reason: The issue of spacing of letters in signs remains a hotly debated topic. There is not consensus and based on that the Committee approved this public comment to eliminate the change at this stage. This change will appear in the next public review draft – allowing public comment on the topic.

Staff Note: The word ‘minimum’ after 1/8 inch is existing text and was inappropriately shown in the public comment as underlined new text. It has been corrected.

Chapter 8

8-2 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

802.1 General. Wheelchair spaces and wheel chair space locations in assembly areas with spectator seating shall comply with Section 802. Where tiered seating includes dining surfaces or work surfaces, wheelchair spaces and wheelchair space locations shall comply with Section 802.6, 802.7, 802.9, 802.10 and 902. Team and player seating shall comply with Sections 802.2 through 802.6.

802.7.2 Companion Seat Alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant shall be measured either 36 inches (915 mm) from the front or 12 inches (305 mm) from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

EXCEPTION: Companion seat alignment is not required in tiered seating includes dining surfaces or work surfaces.

8-2-12 PC1

See committee action under 3-6-12 PC2

8-3– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

802.4 Depth. Where a wheelchair space can be entered from the front or rear, the wheelchair space shall be ~~48~~ 52 inches (~~1220~~ 1320 mm) minimum in depth. Where a wheelchair space can only be entered from the side, the wheelchair space shall be 60 inches (1525 mm) minimum in depth.

8-3-12 PC1

See committee action under 3-6-12 PC2

8-6– 12

(This represents the language approved by the committee for the First Public Review Draft)

Add new text as follows:

802.11 Stage Lighting for Sign Language Interpreters. Lighting shall be provided at each side of a stage for the purposes of illuminating a Sign Language Interpreter. The illuminated presentation area shall be 25 square feet (2.3 m^2) minimum measured in a vertical plane with the bottom edge at 48 inches (1220 mm) above the finished floor and a minimum of 36 inches (915 mm) measured from the presentation wall. The illumination shall be provided by directional light fixtures controlled independently from the general room lighting. The fixtures shall be located as necessary to provide a diagonal cast of light for facial illumination at no less than 15 degrees from the vertical plane. The illumination shall be 10 foot candles (108 lux) minimum greater than the least light level.

8-6-12 PC1

Hansel Bauman representing National Association of the Deaf

Further revise as follows:

~~**802.11 Stage Lighting for Sign Language Interpreters.** Lighting shall be provided at each side of a stage for the purposes of illuminating a Sign Language Interpreter. The illuminated presentation area shall be 25 square feet (2.3 m^2) minimum measured in a vertical plane with the bottom edge at 48 inches (1220 mm) above the finished floor and a minimum of 36 inches (915 mm) measured from the presentation wall. The illumination shall be provided by directional light fixtures controlled independently from the general room lighting. The fixtures shall be located as necessary to provide a diagonal cast of light for facial illumination at no less than 15 degrees from the vertical plane. The illumination shall be 10 foot candles (108 lux) minimum greater than the least light level.~~

802.11 General. Sign language interpreter stations shall comply with 802.11.

802.11.1 Area. A sign language interpreter station shall provide a level and clear floor of sufficient floor area necessary to enable a sign language interpreter to produce sign language legible from the seating area identified in 802.11.2 and allow periodic interpreter shift changes to take place.

802.11.2 Location. Sign language interpreter stations shall be located so that seating within an arc centered on the station and subtending 120 degrees maximum and not more than 65 feet from the station is provided with sightlines providing unobstructed view of the signers from top of their heads to their waists and to an arm's length to both sides of the signer, all as measured to the center of the station. The vertical viewing angle to the interpreter station shall not exceed 30 degrees.

802.11.4 Illumination: The sign language interpreter station shall be illuminated in compliance with 802.11.2 while signing is underway. Illumination of the sign language interpreter station shall comply with the Recommended Maintained Illuminance Targets established for a “Transitional Sermon” by IES Handbook 10th Edition, Table 37.2.

802.11.5 Backdrop. When a sign language interpreter station is located no grater than 10 feet in front of a permanent wall as measured tangent to the centerline of the arc described in 802.11.2 a portion of the wall measuring 69 inches wide centered on the sign language interpreter station and 96 inches high from the finish floor shall be considered as a backdrop. *The surface treatment of the backdrop shall comply*

with 802.11.5 while sign language interpretation is being provided. The backdrop shall provide a flat, smooth surface with a monochromatic, low-luster finish treatment.

Reason: The proposed revision to **802.11 Stage Lighting for Sign Language Interpreters** is a complete replacement of the text provided in the Public Review Draft dated October 25, 2013. The revised proposal provides a performance standard for **Sign Language Interpreter Stations** to accommodates a reasonable range of possible performance venues where sign language interpreting would likely be provided rather than providing targeted guidance for a specific location. The revision provides measureable lighting conditions, spatial relationships and adds guidance for the surface treatment for a backdrop which could greatly enhance ones acuity of reading sign language from a prescribed area within audience seating.

In the revised text the sign language interpreter station (the station) is defined in terms of its performance as an area that enables an interpreter to perform visual communication. The station is located in relation to a seating area within the audience that would have reasonable visual access to the station. The dimensions and geometry used to describe the Location / seating area derived from information on acceptable theater viewing angles published in Time Saver Standards for Building Types by De Chiara and Callender.

Measures for lighting are provided by way of reference to the Illuminating Engineering Society (IES) Handbook. The proposed lighting levels and methods for measuring the lighting levels at the station are consistent with lighting levels determined as beneficial for viewing sign language in similar conditions observed over time at public forums held at Gallaudet University where sign-language interpreting is used in public forums on a daily basis. The IES standard substantiates the lighting levels for viewing gestures in sermons that are video recorded. Until further detailed research is provided this the IES standard provides a reasonable measure of light levels in both the vertical and horizontal directions in which sign language is viewed.

Finally the proposal provides guidance for surface treatment for a permanent wall that, because of its proximity to the area identified as the station would serve as a backdrop to the sign language produced by the interpreter. The proposed language seeks to provide a reasonable requirement for an architectural backdrop that would not interfere or be a part of the stage set of the performance being interpreted. Furthermore, the standard for the backdrop intends to allows reasonable flexibility to the wall surface treatment while controlling glare and visual vibrations caused by shadows produced by heavy wall texture and or surface patterns. Controlling these adverse conditions greatly reduces eye strain and enhances acuity.

Committee action on 8-6-12 PC1

Approve Public Comment 8-6-12 PC1

Reason: The public comment is a significant improvement over that previously approved, providing clear design parameters for sign language interpreter stations. The committee hopes including this in the next public review draft will promote comments to improve it further..

8-9– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

804.2.2 U-Shaped Kitchens. In kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

EXCEPTION: U-shaped kitchens with an island shall be permitted to comply with Section 804.2.1.

1003.12.1.2 U-Shaped Kitchens. In kitchens with counters, appliances, or cabinets on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

EXCEPTION: U-shaped kitchens with an island shall be permitted to comply with Section 1003.12.1.1.

1004.12.1.2 U-Shaped Kitchens. In kitchens with counters, appliances, or cabinets on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

EXCEPTION: U-shaped kitchens with an island shall be permitted to comply with Section 1004.12.1.1.

8-9-12 PC1

See committee action under 3-6-12 PC2

8-15– 12

(This represents the language approved by the committee for the First Public Review Draft)

Add new text as follows:

Section 808
Acoustics

808.1 General. Classrooms not exceeding 20,000 cubic feet (565 m^3) and required to provide enhanced acoustics shall comply with Section 808.

808.2 Reverberation Time. Classrooms shall provide reverberation times complying with Sections 808.2.1 or 808.2.2. Reverberation times shall apply to fully furnished classrooms while not in use.

808.2.1 Compliance Method A. In each of the octave frequency bands of 500, 1000, and 2000 Hz, reverberation times for sound to decay by 60 dB (*T*60) shall not exceed the times specified below:

1. 0.6 seconds in classrooms 10,000 cubic feet (285 m^3) maximum.

2. 0.7 seconds in classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3).

Reverberation times shall be field verified and shall be measured over a minimum level decay of 20 dB for which the maximum time shall not exceed 0.2 seconds for classrooms listed in item #1 and 0.23 seconds for classrooms listed in item #2 .

808.2.2 Compliance Method B. Small classrooms 10,000 cubic feet (285 m^3) maximum complying with Table 808.2.2(a) for T60 of 0.6 s., and large classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3) complying with Table 808.2.2(b) for T60 of 0.7s., shall be deemed to comply with Section 808.2.

Table 808.2.2(a) — Minimum surface area of acoustical treatment for small classrooms.

Sound absorption coefficient, α_1	**Ceiling height, H, ft.**								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								

0.45	112	130	148	167	185	203	221	239	257
0.50	101	117	134	150	166	183	199	215	232
0.55	92	107	121	136	151	166	181	196	211
0.60	84	98	111	125	139	152	166	179	193
0.65	78	90	103	115	128	141	153	166	178
0.70	72	84	95	107	119	130	142	154	166
0.75	67	78	89	100	111	122	133	144	154
0.80	63	73	83	94	104	114	124	135	145
0.85	59	69	79	88	98	107	117	127	136
0.90	56	65	74	83	92	101	111	120	129
0.95	53	62	70	79	88	98	105	113	116
1.00	50	59	67	75	83	91	100	108	116

Table 808.2.2(b) — Minimum surface area of acoustical treatment for large classrooms.

Sound absorption coefficient, α_1	**Ceiling height, H, ft.**								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	91	107	122	138	154	169	185	200	216
0.50	82	96	110	124	138	152	166	180	194
0.55	75	87	100	113	126	138	151	164	177
0.60	68	80	92	104	115	127	139	150	162
0.65	63	74	85	96	106	117	128	139	149
0.70	59	69	79	89	99	109	119	129	139
0.75	55	64	73	83	92	102	111	120	130
0.80	51	60	69	78	86	95	104	113	121
0.85	48	57	65	73	81	90	98	106	114
0.90	46	53	61	69	77	85	92	100	108
0.95	43	51	58	65	73	80	88	95	102
1.00	41	48	55	62	69	76	83	90	97

808.3 Ambient Sound Level. Ambient sound levels within a classroom shall comply with Section 808.3. Ambient sound levels from exterior and interior sound sources shall be evaluated individually. The greatest one-hour averaged sound levels shall be evaluated at a height of 36 inches (915 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window, or fixed object. Ambient sound levels shall apply to fully furnished classrooms while not in use.

808.3.1 Exterior Sound Sources. Ambient sound levels within a classroom 20,000 cubic feet (565 m^3) maximum shall not exceed 35 dBA and 55 dBC for noise intrusion from exterior sound sources.

808.3.2 Interior Sound Sources. Ambient sound levels within a classroom not larger than 20,000 cubic feet (565 m^3) shall not exceed 35 dBA and 55 dBC, for noise from interior sound sources.

8-15-12 PC4

Robert H. Mallory, FCSI, CCS, CCPR, CCCA, LEED AP BD+C, representing self

Further revise as follows:

Section 808
Acoustics

808.1 General. Classrooms not exceeding 20,000 cubic feet (565 m^3) and required to provide enhanced acoustics shall comply with Section 808.

808.2 Reverberation Time. Classrooms shall provide reverberation times complying with Sections 808.2.1 or 808.2.2. Reverberation times shall apply to ~~fully furnished~~ unfurnished classrooms while not in use.

808.2.1 Compliance Method A. In each of the octave frequency bands of 500, 1000, and 2000 Hz, reverberation times for sound to decay by 60 dB (*T*60) shall not exceed the times specified below:

1. 0.6 seconds in classrooms 10,000 cubic feet (285 m^3) maximum.

2. 0.7 seconds in classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3).

Reverberation times shall be field verified and shall be measured over a minimum level decay of 20 dB for which the maximum time shall not exceed 0.2 seconds for classrooms listed in item #1 and 0.23 seconds for classrooms listed in item #2 .

808.2.2 Compliance Method B. Small classrooms 10,000 cubic feet (285 m^3) maximum complying with Table 808.2.2(a) for T60 of 0.6 s., and large classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3) complying with Table 808.2.2(b) for T60 of 0.7s., shall be deemed to comply with Section 808.2.

Table 808.2.2(a) — Minimum surface area of acoustical treatment for small classrooms.

Sound absorption coefficient, α_1	Ceiling height, H, ft.								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	112	130	148	167	185	203	221	239	257
0.50	101	117	134	150	166	183	199	215	232
0.55	92	107	121	136	151	166	181	196	211
0.60	84	98	111	125	139	152	166	179	193
0.65	78	90	103	115	128	141	153	166	178
0.70	72	84	95	107	119	130	142	154	166
0.75	67	78	89	100	111	122	133	144	154
0.80	63	73	83	94	104	114	124	135	145
0.85	59	69	79	88	98	107	117	127	136
0.90	56	65	74	83	92	101	111	120	129
0.95	53	62	70	79	88	98	105	113	116
1.00	50	59	67	75	83	91	100	108	116

Table 808.2.2(b) — Minimum surface area of acoustical treatment for large classrooms.

Sound absorption coefficient, α_1	Ceiling height, H, ft.								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	91	107	122	138	154	169	185	200	216
0.50	82	96	110	124	138	152	166	180	194
0.55	75	87	100	113	126	138	151	164	177
0.60	68	80	92	104	115	127	139	150	162
0.65	63	74	85	96	106	117	128	139	149
0.70	59	69	79	89	99	109	119	129	139
0.75	55	64	73	83	92	102	111	120	130
0.80	51	60	69	78	86	95	104	113	121
0.85	48	57	65	73	81	90	98	106	114
0.90	46	53	61	69	77	85	92	100	108
0.95	43	51	58	65	73	80	88	95	102
1.00	41	48	55	62	69	76	83	90	97

808.3 Ambient Sound Level. Ambient sound levels within a classroom shall comply with Section 808.3. Ambient sound levels from exterior and interior sound sources shall be evaluated individually. The greatest one-hour averaged sound levels shall be evaluated at a height of 36 inches (915 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window, or fixed object. Ambient sound levels shall apply to ~~fully furnished~~ unfurnished classrooms while not in use.

808.3.1 Exterior Sound Sources. Ambient sound levels within a classroom 20,000 cubic feet (565 m^3) maximum shall not exceed 35 dBA and 55 dBC for noise intrusion from exterior sound sources.

808.3.2 Interior Sound Sources. Ambient sound levels within a classroom not larger than 20,000 cubic feet (565 m^3) shall not exceed 35 dBA and 55 dBC, for noise from interior sound sources.

Reason: I see that the reverberation times are for fully furnished classrooms. This will make the modeling much more unpredictable and will not provide for flexibility in use of the classroom space. If, for example the room is modeled with 30 desks, plus teacher's desk and appurtenances, then the requirements change to an open classroom with different furniture, the reverberation time could change significantly. I have seen great variation in how standard classrooms are being furnished.

It seems much more predictable to model an unfurnished classroom, and assume that furniture will add to the absorption. The unfurnished method will provide a school district with much more flexibility as the rooms will all be controlled to the same T-60 initially. Plus it will add a standardization to the methodology. I can fore vision continuing arguments with Architects and Designers concerning furnishings, and then have some poor school district end up with spaces with high reverberation times when they change out furniture to something less absorptive than the originally modeled arrangement

Committee action on 8-15-12 PC4

Approve Public Comment with modifications - 8-15-12 PC4.

Modified as follows:

808.2 Reverberation Time. Classrooms shall provide reverberation times complying with Sections 808.2.1 or 808.2.2. ~~Reverberation times shall apply to fully furnished classrooms while not in use.~~

808.2.1 Compliance Method A. In each of the octave frequency bands of 500, 1000, and 2000 Hz, reverberation times for sound to decay by 60 dB (*T*60) shall not exceed the times specified below:

1. 0.6 seconds in classrooms 10,000 cubic feet (285 m^3) maximum.

2. 0.7 seconds in classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3).

Reverberation times shall apply to fully furnished classrooms while not in use. Reverberation times shall be field verified and shall be measured over a minimum level decay of 20 dB for which the maximum time shall not exceed 0.2 seconds for classrooms listed in item #1 and 0.23 seconds for classrooms listed in item #2.

808.3 Ambient Sound Level. Ambient sound levels within a classroom shall comply with Section 808.3. Ambient sound levels from exterior and interior sound sources shall be evaluated individually. The greatest one-hour averaged sound levels shall be evaluated at a height of 36 inches (915 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window, or fixed object. Ambient sound levels shall apply to fully furnished ~~unfurnished~~ classrooms while not in use.

Reason: The Committee was not convinced that the appropriate condition in which the measurements should be taken is when the classroom is not yet furnished. They maintained the original text regarding testing when fully furnished. However they concluded that the requirement was misplaced and approved this public comment with the sole purpose of relocating the sentence.

Staff note: As both PC4 and PC5 to 8-15-12 were approved, they will both be included in the Second Public Review draft. A merged version of the two will be included.

8-15-12 PC5

Mark Schaffer, representing self

Delete and replace as follows:

~~Section 808~~
~~Acoustics~~

~~808.1 General.~~ ~~Classrooms not exceeding 20,000 cubic feet (565 m^3) and required to provide enhanced acoustics shall comply with Section 808.~~

~~808.2 Reverberation Time.~~ ~~Classrooms shall provide reverberation times complying with Sections 808.2.1 or 808.2.2. Reverberation times shall apply to fully furnished classrooms while not in use.~~

~~808.2.1 Compliance Method A. I~~~~n each of the octave frequency bands of 500, 1000, and 2000 Hz, reverberation times for sound to decay by 60 dB (*T*60) shall not exceed the times specified below:~~

~~1. 0.6 seconds in classrooms 10,000 cubic feet (285 m^3) maximum.~~

~~2. 0.7 seconds in classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3).~~

Reverberation times shall be field verified and shall be measured over a minimum level decay of 20 dB for which the maximum time shall not exceed 0.2 seconds for classrooms listed in item #1 and 0.23 seconds for classrooms listed in item #2 .

808.2.2 Compliance Method B. Small classrooms 10,000 cubic feet (285 m^3) maximum complying with Table 808.2.2(a) for T60 of 0.6 s., and large classrooms more than 10,000 cubic feet (285 m^3) but not exceeding 20,000 cubic feet (565 m^3) complying with Table 808.2.2(b) for T60 of 0.7s., shall be deemed to comply with Section 808.2.

Table 808.2.2(a) — Minimum surface area of acoustical treatment for small classrooms.

Sound absorption coefficient, α_1	Ceiling height, H, ft.								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	112	130	148	167	185	203	221	239	257
0.50	101	117	134	150	166	183	199	215	232
0.55	92	107	121	136	151	166	181	196	211
0.60	84	98	111	125	139	152	166	179	193
0.65	78	90	103	115	128	141	153	166	178
0.70	72	84	95	107	119	130	142	154	166
0.75	67	78	89	100	111	122	133	144	154
0.80	63	73	83	94	104	114	124	135	145
0.85	59	69	79	88	98	107	117	127	136
0.90	56	65	74	83	92	101	111	120	129
0.95	53	62	70	79	88	98	105	113	116
1.00	50	59	67	75	83	91	100	108	116

Table 808.2.2(b) — Minimum surface area of acoustical treatment for large classrooms.

Sound absorption coefficient, α_1	Ceiling height, H, ft.								
	8	9	10	11	12	13	14	15	16
	Ceiling height, H, m.								
	2.44	2.74	3.05	3.35	3.66	3.96	4.27	4.57	4.88
	Minimum combined area of wall and ceiling sound-absorbing material as a percentage of the floor area								
0.45	91	107	122	138	154	169	185	200	216
0.50	82	96	110	124	138	152	166	180	194
0.55	75	87	100	113	126	138	151	164	177
0.60	68	80	92	104	115	127	139	150	162
0.65	63	74	85	96	106	117	128	139	149
0.70	59	69	79	89	99	109	119	129	139
0.75	55	64	73	83	92	102	111	120	130
0.80	51	60	69	78	86	95	104	113	121
0.85	48	57	65	73	81	90	98	106	114
0.90	46	53	61	69	77	85	92	100	108
0.95	43	51	58	65	73	80	88	95	102
1.00	41	48	55	62	69	76	83	90	97

808.3 Ambient Sound Level. Ambient sound levels within a classroom shall comply with Section 808.3. Ambient sound levels from exterior and interior sound sources shall be evaluated individually. The

~~greatest one-hour averaged sound levels shall be evaluated at a height of 36 inches (915 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window, or fixed object. Ambient sound levels shall apply to fully furnished classrooms while not in use.~~

~~**808.3.1 Exterior Sound Sources.** Ambient sound levels within a classroom 20,000 cubic feet (565 m^3) maximum shall not exceed 35 dBA and 55 dBC for noise intrusion from exterior sound sources.~~

~~**808.3.2 Interior Sound Sources.** Ambient sound levels within a classroom not larger than 20,000 cubic feet (565 m^3) shall not exceed 35 dBA and 55 dBC, for noise from interior sound sources.~~

Section 808
Acoustics

808.1 General. This section applies to classrooms with volumes up to 20,000 cubic feet (565 m^3)

808.2 Reverberation Time. Classroom Reverberation Times shall comply with either section 808.2.1 or section 808.2.2, depending on the size of the room. Reverberation times shall apply to fully-furnished, unoccupied classrooms.

808.2.1 Performance Method. For each of the octave frequency bands with center frequencies of 500, 1000, and 2000 Hz, the Reverberation Time (*T*60) shall not exceed the times specified below:

1. 0.6 seconds in classrooms with volumes up to and including 10,000 cubic feet (285 m^3).

2. 0.7 seconds in classrooms with volumes of more than 10,000 cubic feet (285 m^3), but less than 20,000 cubic feet (566 m^3).

Reverberation times shall be field-verified via measurements made in accordance with ASTM E2235-04(2012) "Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods" over a minimum 20 dB decay in each octave frequency band.

808.2.2 Prescriptive Method. The Noise Reduction Coefficient (NRC) ratings for floor, wall and ceiling surface finishes shall conform to the following equations:

For a classroom with a volume less than or equal to 10,000 cubic feet (285 cubic meters):

$$(NRC_{Floor} \times S_{Floor}) + (NRC_{Ceiling} \times S_{Ceiling}) + (NRC_{Wall} \times S_{Wall}) \geq Volume/12$$

For a classroom with a volume between 10,000 cubic feet (285 cubic meters) and 20,000 cubic feet (565 cubic meters):

$$(NRC_{Floor} \times S_{Floor}) + (NRC_{Ceiling} \times S_{Ceiling}) + (NRC_{Wall} \times S_{Wall}) \geq Volume/14$$

where NRC_{Floor} = NRC rating of the floor finish material
S_{Floor} = floor area in square feet
$NRC_{Ceiling}$ = NRC rating of the ceiling finish material
$S_{Ceiling}$ = ceiling area in square feet
NRC_{Wall} = NRC rating of the wall acoustical treatment
S_{Wall} = wall treatment area in square feet
Volume = room volume in cubic feet

Where a floor, ceiling or wall has multiple surface finishes, the NRC x S product for each surface finish shall be added to the left side of the equation.

808.3 Ambient Sound Level. Classroom ambient sound levels shall comply with Sections 808.3.1 and 808.3.2. Ambient sound levels from sound sources outside and inside the classroom shall be evaluated individually. The greatest one-hour averaged sound levels shall be evaluated at the loudest usable location in the room at a height of 36 inches (915 mm) to 42 inches (1065 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window, or object. The ambient sound level limits shall apply to fully-furnished, unoccupied classrooms, and with only permanent HVAC, electrical and plumbing systems functioning. Classroom equipment, including, but not limited to, computers, printers, fish tank pumps shall be turned off during these measurements.

808.3.1 Sound Sources Outside of the Classroom. Classroom ambient sound levels shall not exceed 35 dBA and 55 dBC due to intruding noise from sound sources outside of the classroom, whether from the exterior or from other interior spaces.

808.3.2 Sound Sources Inside the Classroom. Classroom ambient sound levels shall not exceed 35 dBA and 55 dBC for noise from sound sources inside the classroom.

Reason: Includes edits from Mark Schaffer. I'm sorry to not have followed the specified review protocol, but I found that the number of suggested changes made my "Track Changes" document very difficult to read. I offer the wording below with the knowledge that the vast majority of this section's users will not be familiar with acoustical terminology and calculation methods. For example, the tables in paragraph 808.2.2. assume that the reader knows how to calculate an average sound absorption coefficient; I doubt that this is the case. I know that the NRC method that I suggest below is not as accurate as a calculation method that uses octave band absorption coefficients, but I believe that in the overall scheme of things it is accurate enough, while being more accessible to non-acoustical people.

Committee action on 8-15-12 PC5

Approve Public Comment 8-15-12 PC5.

Reason: The public comment provides an improved organization for this provision. It will prove easier for understandability and compliance.

Staff note: As both PC4 and PC5 to 8-15-12 were approved, they will both be included in the Second Public Review draft. A merged version of the two will be included.

Chapter 9

9-1– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

901.1 Scope. ~~Built-in~~ furnishings and equipment required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 9.

905.1 General. Accessible built-in storage facilities shall comply with Section 905.

9-1-12 PC1

Meg Haley, representing self

Revise Title of Chapter as follows:

Chapter 9. ~~Built-in~~ Furnishings and Equipment

Reason: Consistent with accepted revisions in body of chapter and intent of the code to provide that all furnishings, whether fixed or not, should be accessible based on the scoping of IBC Section 1108.2.9 Deletion accepted to strike "built-in" from "901.1 Scope" per revision 9-1-12.

Committee action on 9-1-12 PC1

Approve Public Comment 9-1-12 PC1.

Reason: The comment was approved. The Committee viewed this as editorial.

9-4– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

903.2 Clear Floor Space. A clear floor space complying with Section 305, positioned ~~for a parallel approach to the bench seat, shall be provided.~~ at the end of the bench seat and parallel to the short axis of the bench.

> **Exception.** A clear floor space positioned for a parallel approach to the front of the bench seat, shall be permitted where a clear floor space is also positioned at the end the bench seat.

9-4-12 PC1

Kim Paarlberg, representing ICC

Further revise as follow:

903.2 Clear Floor Space. A clear floor space complying with Section 305, positioned at the end of the bench seat and parallel to the short axis of the bench.

> ~~**Exception.** A clear floor space positioned for a parallel approach to the front of the bench seat, shall be permitted where a clear floor space is also positioned at the end the bench seat.~~

Reason: There is no need for an exception that says you can exceed the minimum requirement. At a minimum the exception has to be deleted. If the committee believes that someone can transfer to a bench from the front vs. the end, then the original text should be restored.

Committee action on 9-4-12 PC1 and PC2

These two public comments requested approval of the 9-4-12 change with the same modifications. The committee took one action which addressed both comments.

Approve Public Comments 9-4-12 PC1 and PC2.

Reason: The language of the exception provides additional clear floor space in addition to what is required by the text of 903.2. The standard doesn't need to state that you can provide additional space.

9-4-12 PC2

Larry Perry, representing self

Further revise as follow:

903.2 Clear Floor Space. A clear floor space complying with Section 305, positioned at the end of the bench seat and parallel to the short axis of the bench.

> ~~**Exception.** A clear floor space positioned for a parallel approach to the front of the bench seat, shall be permitted where a clear floor space is also positioned at the end the bench seat.~~

Reason: The proposed exception is either meaningless or is unclear and needs to be re-written.
As written, it appears to state that you can provide additional space at the bench, as long as you provide the clear floor space as specified in the base paragraph. If that is the intent, the exception is meaningless and should be deleted.

If the intent is that by providing additional clear floor space in front of the bench, the orientation or position of the clear floor space at the end of the bench can change, that needs to be more clearly stated.

See Committee action on 9-4-12 PC1

9-10– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

904.3 Sales and Service Counters. Sales and service counters and windows shall comply with Sections 904.3.1 ~~or~~ and 904.3.2 or 904.3.3. Where a counter is provided, the accessible portion of the countertop shall extend the same depth as the sales and service countertop provided for standing customers.

904.3.1 Vertical separation. At service windows or service counters, any vertical separation shall be at a height of 43 inches (1090 mm) maximum above the floor.

> **Exception:** Transparent security glazing is permitted above the 43 inches (1090 mm) maximum height.

~~**904.3.1**~~ **904.3.2 Parallel Approach.** A portion of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. Where the counter surface is less than 36 inches (915 mm) in length, the entire counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible counter, shall be provided. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

~~**904.3.2**~~ **904.3.3 Forward Approach.** A portion of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

9-10-12 PC2

Karen Gridley, representing Target Corporation

Further revise as follow:

904.3.2 Parallel Approach. A portion of the public side of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. At pass-through or hand-off portions of counters, the counter surface shall be 12 inches minimum in length. Where the counter surface at pass-through or hand-off elements of a counter is less than 36 inches (915 mm) in length, the entire pass-through or hand-off element of the counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible counter, shall be provided. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

904.3.3 Forward Approach. A portion of the public side of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

Balance of 9-10-12 remains unchanged

Reason: For reference, we have submitted an additional and separate comment with alternate language changes for consideration on this item.

This code change proposal is the second of two comments we have submitted for this item. It is an attempt to remove the ambiguous language over the 36 inch length provided for public use. In one sentence the requirement states the counter *shall* be 36 inches in length. But in a following sentence it states *"…where the counter surface is less than 36 inches…*", which implies it is OK to have a length less than 36, and seems to provide an allowance or exception to the length. The language in the two sentences conflict with each other and are confusing because there is no clear exception stated.

Considering the implication is that it is ok to have a length less than 36 inches, this proposal provides clear criteria on the dimension allowance for a shorter length of 12 inches at pass-through or hand-off elements of counters. Effective lengths could vary depending on the purpose for which a counter is in place.

For example:

In current real world applications we see a variety of existing counters where the pass-through portion of the counter is clearly less than 36 inches in length; some as narrow as 12 inches, and they work extremely well in their intended application. Counters where this would be beneficial are food & beverage hand-off counters, pass-through windows, quick service style counters, teller windows and ticket windows, to name a few, where the only action occurring is to hand off or pass through small items such as food or beverages, tickets, or payment.

This comment also introduces the idea of identifying different elements of counters that might have different length requirements, such as the pass-through portion of the counter versus the front public side, and which widths are appropriate at those different counter elements.

Committee action on 9-10-12 PC2

Approve Public Comment with modifications – 9-10-12 PC2.

Modified as follows:

904.3.2 Parallel Approach. A portion of the public <u>use</u> side of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. ~~At pass-through or hand-off portions of counters, the counter surface shall be 12 inches minimum in length. Where the counter surface at pass-through or hand-off elements of a counter is less than 36 inches (915 mm) in length, the entire pass-through or hand-off element of the counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor~~. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible counter, shall be provided. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

<u>Exception:</u> <u>At pass-through or hand-off portions of counters, the counter surface shall be 12 inches minimum in length. Where the counter surface at pass-through or hand-off elements of a counter is less than 36 inches (915 mm) in length, the entire pass-through or hand-off element of the counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor</u>

904.3.3 Forward Approach. A portion of the public <u>use</u> side of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

Reason: The committee clarified the proposal by adding 'use' so that the phrasing was 'public use side of the counter', therefore making the application of the section clear. Through the discussion, the Committee realized that middle third of Section 904.3.2 was essentially an exception; and, therefore voted to amend the proposal to pull it out of the paragraph and make it an overt exception.

9-10-12 PC3

Kim Paarlberg, representing ICC

Further revise as follow:

904.3 Sales and Service Counters. Sales and service counters and windows shall comply with Sections 904.3.1 and either 904.3.2 or Section 904.3.3. Where a counter is provided, the accessible portion of the countertop shall extend the same depth as the sales and service countertop provided for standing customers.

904.3.1 Vertical separation. At service windows or service counters, any vertical separation shall be at a height of 43 inches (1090 mm) maximum above the floor.

> **Exception:** Transparent security glazing is permitted above the 43 inches (1090 mm) maximum height.

904.3.2 Parallel Approach. A portion of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. Where the counter surface is less than 36 inches (915 mm) in length, the entire counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible counter, shall be provided. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

904.3.3 Forward Approach. A portion of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

Reason: Clarification to show that the counters have to allow for visual interaction between the customer and employee over the counter, but can do either a parallel or forward approach.

The following is the combined section:
904 Sales and Service Counters

904.3 Sales and Service Counters and Windows. Sales and service counters and windows shall comply with Sections 904.3.1 and either 904.3.2 or Section 904.3.3. . Where counters are provided, the accessible portion of the countertop shall extend the same depth as the public portion of the sales and service countertop provided for standing customers. (9-7-12) (9-9-12)(9-10-12)

> **EXCEPTION:** In *alterations*, when the provision of a counter complying with Section 904.4 would result in a reduction of the number of existing counters at work stations or a reduction of the number of existing *mail boxes*, the counter shall be permitted to have a portion which is 24 inches (610 mm) long minimum complying with Section 904.4.1 provided that the required clear floor *space* is centered on the *accessible* length of the counter. (9-6-12)

904.3.1 Vertical separation. **At service windows or service counters, any vertical separation shall be at a height of 43 inches (1090 mm) maximum above the floor. (9-10-12)**

> **Exception:** Transparent security glazing is permitted above the 43 inches (1090 mm) maximum height. (9-10-12)

904.3.2 Parallel Approach. A portion of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. Where the counter surface is less than 36 inches (915 mm) in length, the entire counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible. The

space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum. (9-10-12)

904.3.3 Forward Approach. A portion of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum. (9-10-12)

Committee action on 9-10-12 PC3

Approve Public Comments 9-10-12 PC3.

Reason: The addition of the word 'either' clarifies the application of the 3 sections listed in the provision.

Chapter 10

10-2– 12

(This represents the language approved by the committee for the First Public Review Draft)

Add new text as follows:

1001.2 Mail Receptacles. Where provided, mail receptacles shall be accessible in accordance with Section 1001.2.1 or 1001.2.2.

1001.2.1 Dwelling Units and Sleeping Units. Where mail receptacles are provided for Accessible, Type A or Type B dwelling and sleeping units, accessible mail receptacles shall be provided in accordance with Section 1001.2.1.1 or 1001.2.1.2.

1001.2.1.1 Centralized Mail Receptacles. Where each individual mail compartment of a centralized mail receptacle is assigned to a specific dwelling unit or sleeping unit, the individual mail compartments shall comply with Section 1001.2.1.1.1 or 1001.2.1.1.2.

1001.2.1.1.1 Buildings Without an Elevator. In a structure without an elevator, all individual mail compartments assigned to Accessible units, Type A units and Type B units in each location shall be accessible.

1001.2.1.1.2 Buildings with an Elevator. In a structure with an elevator, fifty percent of all individual mail compartments in each location shall be accessible. Individual mail compartments assigned to Accessible and Type A units shall be included in the accessible mailboxes. In addition to the individual mail compartments assigned to dwelling or sleeping units, an additional number of individual mail compartments that is equal to ten percent of the total number of dwelling units and sleeping units, but not less than one, at each location shall be accessible.

1001.2.1.1.3 Parcel Lockers. All parcel lockers of centralized mail receptacles shall be accessible.

1001.2.1.2 Individual House-mounted and Curbside Mail Receptacles. Where an individual house-mounted or curbside mail receptacle serves a dwelling unit or sleeping unit that is required to be an Accessible unit, Type A unit or Type B unit, the mail receptacle shall be accessible.

10-2-12 PC3

Larry Perry, representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: This proposal is almost entirely scoping and is inappropriate for inclusion in the standard. This language should be submitted to building codes for adoption with the other scoping provisions for A117.1.

The proposed text for centralized mail receptacles applies only where mailboxes are assigned to specific units; USPS recommends that mailboxes be numbered sequentially, and not be tied to specific unit numbers; this is for security purposes. As written, there would be no requirements for these configurations.

The proposed 50% accessible, plus 10% 'spare' accessible mailboxes, is not warranted. Adding a technical exception that would allow mailboxes at up to 54" high with an unobstructed side reach would allow a higher percentage of mailboxes to be deemed 'accessible' without impacting space requirements severely.

Outgoing mail slots are not addressed by the proposed text.

Centralized mailbox installations are subject to USPS 4C standard if they are to be used by USPS for mail delivery. Proposals to address these installations, already subject to the USPS standard, should be developed in concert with the USPS. The standard establishes minimum heights above the minimums allowed by A117.1, thereby reducing the space available for accessible boxes. Standard configurations without parcel lockers (which can be eliminated where there is another approved means for USPS to deliver packages, such as a concierge) typically provide more than 50% of mailboxes at 54" or less.

Committee action on 10-2-12 PC3 and PC4

These two public comments requested disapproval of the 10-2-12 change. The committee took one action which addressed both comments.

Approve Public Comments 10- 2-12 PC3 and PC4.

Reason: The Committee approved these 2 public comments which results in disapproval of the 10-2-12 change and returns the standard to the current text. The text contains much which could be considered scoping, which doesn't belong in this portion of the standard. There is not agreement with the US Postal Service that this is the best approach.

10-2-12 PC4

Larry Eberly, representing Pennsylvania Builders Association

Disapprove the change. Return the text to that found in existing standard.

Reason: Mail receptacles, Mailboxes and Mail Facilities should be mandated by USPS standards subject by law under the Architectural Barriers Act (ABA) and should not be complicated by standards which only target residential uses within ANSI A117.1. In addition, Type B dwelling units should not have the same requirements as Type A and Accessible Units. Type B dwelling Units are more prevalent, have less accessibility and rely on adaptability for persons with disabilities; they typically will not be adapted even in the instance of someone with a handicap or mobility device attributable to the individual's preferences, their mobility device's design and their individual abilities. For the vast majority of people living in Type B dwelling units without a mobility device especially taller people, lower postal boxes may create a strain. Most homes in a multifamily community are required to be Type B with minimal users requiring lower; All units in an elevator serviced building (other than those to required to be Type A or accessible units) and all ground floor units in a building without elevator service. The term "accessible mail receptacle" is also not clearly defined nor referenced.

Pennsylvania Builders Association opposes any change to the ANSI 117.1 accessibility requirements which affect residential communities and dwelling units. Requirements for Mailboxes, Mail Facilities and mail receptacles for residential uses are regulated by USPS standards and should not be mandated in the ANSI A117.1 standard. Any change or new requirement will conflict with USPS standards, USPS manufactured approved mailbox design and installation and creates excessive space for mailboxes in residential communities. The STANDARD-4C (or STD-4C) is the current USPS regulation for any centralized, wall-mounted mailboxes, whether located inside an office high-rise or within a new single-family subdivision as an outdoor centralized mailbox kiosk.

The USPS Accessibility Guidelines published by the United States Access Board include scoping chapters related to enforcement of the ADA for accessibility requirements although as a matter of law, the Postal Service is subject to the Architectural Barriers Act (ABA), rather than the ADA. Accessibility requirements targeting only mail facilities for dwelling units in the ANSI Standard further complicates coordination of all the requirements and create further conflicts and unforeseen consequences.

Pennsylvania adopts the accessibility provisions of the newest triennial revisions to the ICC Family of Codes that have been adopted in PA, which includes the IBC, IRC, IMC, IPC and IEBC., without modification. This includes the references to ICC/ANSI A117.1. Mandatory adoption in Pennsylvania, without modification, has unforeseen consequences to the building industry, both commercial and residential communities.

See Committee action on 10-2-12 PC3

10-8– 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided ~~in a kitchen~~ above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall ~~not~~ be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top is 7 square feet (0.65 m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1003.9 Operable Parts. Lighting controls, electrical panel boards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided ~~in a kitchen~~ above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall ~~not~~ be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top is 7 square feet (0.65 m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Section 309.2 and 309.3.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided ~~in a kitchen~~ above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall ~~not~~ be required to comply with Sections 309.2 and 309.3.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Sections 309.2 and 309.3 provided that the counter top is 7 square feet (0.65 m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

10-8-12 PC2

Larry Eberly, representing Pennsylvania Builders Association

Further revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner ~~between appliances~~, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top ~~is 7~~ area does not exceed 9 square feet (~~0.65~~ m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1003.9 Operable Parts. Lighting controls, electrical panel boards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Section 309.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner ~~between appliances~~, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top ~~is 7~~ area does not exceed 9 square feet (~~0.65~~ m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with ~~Section 309.2~~ Sections 1004.3.3 and 309.3.

EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.

2. In a kitchen, where two or more receptacle outlets are provided above a length of counter top that is uninterrupted by a sink or appliance, only one receptacle outlet shall be required to comply with Sections ~~309.2~~ 1004.3.3 and 309.3.

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner ~~between appliances~~, receptacle outlets over the counter top shall not be required to comply with Sections ~~309.2~~ 1004.3.3 and 309.3 provided that the counter top ~~is 7~~ area does not exceed 9 square feet (~~0.65~~ m^2) maximum.

(Remaining exceptions are renumbered by unchanged)

Reason: Electric outlet locations within dwelling unit kitchens with countertops typically 25" or 25 1/2" in depth particularly in corner conditions and with various appliances with different design and manufacturer's specifications definitely need to be addressed. Every kitchen is designed uniquely with different accessibility challenges. This change acknowledges and clarifies a condition which occurs frequently with no feasible solution, a corner cabinet situation which often times is a lazy susan 36" x 36". This condition also does not always occur in between two appliances. PBA would suggests the size of the corner countertop area maximum be increased to 9 s.f. accordingly to more accurately reflect countertop depth and corner cabinets' dimensions in both directions (larger than 7 s.f) This may have to be increased even more (13 sf.) if it is to occur at the centerline of the clear floor space.

Committee action on 10-8-12 PC2

Approve with additional modifications - Public Comment 10-8-12 PC2.

Modification:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top area does not exceed 9 square feet (0.84 m^2) maximum.

(Remaining exceptions unchanged)

1003.9 Operable Parts. Lighting controls, electrical panel boards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

EXCEPTIONS:

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Section 309 provided that the counter top area does not exceed 9 square feet (0.84 m^2) maximum.

(Remaining exceptions unchanged)

1004.9 Operable Parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Sections 1004.3.3 and 309.3.

EXCEPTIONS:

3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a counter top in a corner between appliances, receptacle outlets over the counter top shall not be required to comply with Sections 1004.3.3 and 309.3 provided that the counter top area does not exceed 9 square feet (0.84 m^2) maximum.

(Remaining exceptions unchanged)

Reason: The Committee agreed with Mr. Eberly's comments that 7 square feet was inadequate spacing. However, they felt the phrase 'between appliances' was key to this new exception and should be retained in each location.

10-10– 12

(This represents the language approved by the committee for the First Public Review Draft)

Add new text as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Sections 1002.9 and 309.

EXCEPTIONS: *(remain unchanged)*

1002.9.1 Wheelchair Charging Area. A wheelchair charging area shall be adjacent to one bed. A clear floor space complying with Section 305 shall be located between the bedside and a parallel wall. The parallel wall shall be 36 inches (915 mm) minimum to 48 inches (1220 mm) maximum from the bed and provide a 110V duplex receptacle outlet located 24 inches (610 mm) minimum and 48 inches (1220 mm) maximum from the head wall of the bed and complying with Section 1002.9.

Exception: Where there is no parallel wall within 36 inches (915 mm) minimum to 48 inches (1220 mm) maximum of the bedside, a clear floor space complying with Section 305 shall be along the wall at the head of one bed. A 110V duplex receptacle outlet complying with Section 1002.9 shall be located along the wall at the bed head and within 24 inches (610 mm) minimum and 48 inches (1220 mm) maximum of the bedside.

106 Definitions

wheelchair charging area: A clear floor area where people with disabilities can recharge their wheelchair batteries.

10-10-12 PC1

Kimberly Paarlberg, – representing International Code Council

Further revise as follows:

1002.9 Operable Parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Sections 1002.9 and 309.

EXCEPTIONS: *(remain unchanged)*

1002.9.1 Wheelchair Charging Area. A wheelchair charging area shall be located adjacent to one bed. A clear floor space complying with Section 305 shall be ~~located between the bedside and a parallel wall~~. ~~The parallel wall shall be 36 inches (915 mm) minimum to 48 inches (1220 mm) maximum from the bed and provide a 110V duplex receptacle outlet located 24 inches (610 mm) minimum and 48 inches (1220 mm) maximum from the head wall of the bed and complying with Section 1002.9~~ positioned for parallel approach to the side of the bed.

~~**Exception:** Where there is no parallel wall within 36 inches (915 mm) minimum to 48 inches (1220 mm) maximum of the bedside, a clear floor space complying with Section 305 shall be along the wall at the head of one bed. A 110V duplex receptacle outlet complying with Section 1002.9 shall be located along the wall at the bed head and within 24 inches (610 mm) minimum and 48 inches (1220 mm) maximum of the bedside.~~

106 Definitions

wheelchair charging area: A clear floor area where people with disabilities can recharge their wheelchair batteries.

Reason: I understand the reasoning for the charging station in Accessible rooms. However, I think the wording could be a little cleaner and use the building blocks for sizes and heights.

Committee action on 10-10-12 PC1

Approved Public Comment 10-10-12 PC1.

Reason: The public comment simplifies the proposal and the Committee concluded that it provided a better set of provisions. The Committee hopes a further comment on the next Public Review Draft will address the reach range to the outlet.

10-13– 12

(This represents the language approved by the committee for the First Public Review Draft)

Add new text as follows:

1002.15.3 Bed Height. At least one bed shall measure 17 to 23 inches (430 to 585 mm) high from the floor to the top of the mattress, whether or not the mattress is compressed.

10-13-12 PC1

Kimberly Paarlberg, – representing International Code Council

Further revise as follows:

1002.15.3 Bed Height. At least one bed shall measure 17 to 23 inches (430 to 585 mm) high from the floor to the top of the mattress~~, whether or not the mattress is compressed~~.

Reason: If the mattress complies when not compressed, then the language is not needed. What happens if the mattresses compresses to less than 17 inches? The amount of compressions depends on the weight of the person lying down. How would you measure that consistently?

Committee action on 10-13-12 PC1

Approve with additional modifications - Public Comment 10-13-12 PC1.

Modification:

1002.15.3 Bed Height. At least one bed shall measure 17 to 23 inches (430 to 585 mm) high from the floor to the top of the uncompressed mattress.

Reason: This new provision has received considerable debate in Committee meetings. The committee amended the proposal to clarify that the required height is to be measure with nothing compressing the mattress. The previously approved text was seen has having too much variability to allow for consistent enforcement and compliance. Additional attempts to provide exceptions and to address the requirement for space under one bed to accommodate a lift were not successful.

10-16 – 12

(This represents the language approved by the committee for the First Public Review Draft)

Revise as follows:

1003.5 Doors and Doorways. The primary entrance door to the unit, and all other doorways intended for user passage, shall comply with Section 404.

EXCEPTIONS:

~~1. Thresholds at exterior sliding doors shall be permitted to be 3/4 inch (19 mm) maximum in height, provided they are beveled with a slope not greater than 1:2.~~

~~2.~~ 1. In toilet rooms and bathrooms not required to comply with Section 1003.11.2, maneuvering clearances required by Section 404.2.3 are not required on the toilet room or bathroom side of the door.

~~3.~~ 2. A turning space between doors in a series as required by Section 404.2.5 is not required.
~~4.~~ 3. Storm and screen doors are not required to comply with Section 404.2.5.

~~5.~~ 4. Communicating doors between individual sleeping units are not required to comply with Section 404.2.5.

~~6.~~ 5. At other than the primary entrance door, where exterior space dimensions of balconies are less than the required maneuvering clearance, door maneuvering clearance is not required on the exterior side of the door.

10-16-12 PC1

Larry Perry, – representing self

Disapprove the change. Return the text to that found in existing standard.

Reason: Inadequate substantiation has been provided for the deletion of this exception, which has been in the A117.1 Standard since 1986. The proposal stated that this exception is not permitted by ADA; while that is accurate, the A117.1 Type A unit is not, and never was, intended to be an ADA compliant unit. The residential dwelling unit provisions in the new ADA standards are a new type of unit, falling somewhere between an A117.1 'Accessible' and 'Type A' unit. The vast, vast majority of projects that will require 'Type A' units will be multi-family residential projects where the ADA standards are not applicable; therefore, there is no conflict.
The exception should be put back into the standard.

Committee action on 10-16-12 PC1

Approve Public Comment 10-16-12 PC1.

Reason: The Committee approved this public comment which acts to disapprove the original change. Based on Mr. Perry's reason statement, this exception applicable to Type A units (and not those required to comply with ADA) should be retained in the standard.

10-19– 12

Kim Paarlberg, proponent, asked for further consideration of Proposal 10-19-12.

Split the question to address public showers and each type of unit separately.

Question 1:

607.7 Bathtub Enclosures. ~~Enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the bathtub~~. Fixed panels, sliding panels and swinging panel assemblies for tub enclosure shall not be permitted on the access side of the bath tub.

608.7 Shower Enclosures. Fixed panels, sliding panels and swinging panel assemblies for shower enclosure shall not be permitted on the access side of the shower.

Exception: Panels for Shower compartment enclosures ~~for~~ shall be permitted where all of the following are met:

1. Panels ~~shower compartments~~ shall not obstruct controls or obstruct transfer from wheelchairs onto shower seats.
2. At least one sliding or swinging panel shall provide a minimum clear width of 32"

Question 2:

1003.11.2.5.1 Bathtub. Bathtubs shall comply with Section 607.

EXCEPTIONS:

1. The removable in-tub seat required by Section 607.3 is not required.
2. Counter tops and cabinetry shall be permitted at one end of the clearance, provided the following criteria are met:
   a) The countertop and cabinetry can be removed;
   b) The floor finish extends under the countertop and cabinetry; and
   c) The walls behind and surrounding the countertop and cabinetry are finished.
3. A panel assembly for tub enclosure shall be permitted at the bathtub entry where the panel assembly can be removed without removal or replacement of the surrounding walls and tub edge to which it is affixed.

1003.11.2.5.2 Shower. Showers shall comply with Section 608.

EXCEPTIONS:

1. At standard roll-in shower compartments complying with Section 608.2.2, lavatories, counter tops and cabinetry shall be permitted at one end of the clearance, provided the following criteria are met:
   a) The countertop and cabinetry can be removed;
   b) The floor finish extends under the countertop and cabinetry; and
   c) The walls behind and surrounding the countertop and cabinetry are finished.
2. A panel assembly for shower enclosure shall be permitted at the shower entry where the panel assembly can be removed without removal or replacement of the surrounding walls and floor to which it is affixed.

Question 3:

1004.11.3.1.3 Bathing Fixtures. Where provided, a bathtub shall comply with Section 1004.11.3.1.3.1 or 1004.11.3.1.3.2 and a shower compartment shall comply with Section 1004.11.3.1.3.3. . A panel assembly for tub enclosure shall be permitted at the bathtub entry.

1004.11.3.1.3.3 Shower Compartment. If a shower compartment is the only bathing facility, the shower compartment shall have dimensions of 36 inches (915 mm) minimum in width and 36 inches (915 mm) minimum in depth. A clearance of 48 inches (1220 mm) minimum in length, measured perpendicular from the shower head wall, and 30 inches (760 mm) minimum in depth, measured from the face of the shower compartment, shall be provided. Reinforcing for a shower seat is not required in shower compartments larger than 36 inches (915 mm) in width and 36 inches (915 mm) in depth. A panel assembly for shower enclosure shall be permitted at the shower entry.

Reason: While enclosures are addressed for bathtubs and showers in the current text, the enclosures are not the same as the door to the shower. The enclosure can be all four walls. A shower stall enclosure on the approach side is not the same as a door addressed in Section 404 – therefore, this section should not be referenced for requirements. The desired requirements for access to a shower and tub needs to be clearly expressed in the standard.

I do not see how a sliding or swinging door on the front of a minimum size shower or a standard tub could meet the current limitations for not obstructing access to the controls or to transfer.

The two types of doors are swinging and sliding. The following is the best information I was able to find on a computer search. Better answers may come from the plumbing industry representatives.

Sliding move in two directions, so it can be shifted to either side to allow access to the controls or access to the seat . Can I assume that meets the current enclosure requirements? With a sliding door, the maximum overall width is 60" wide. Door width on a 36" stall is 16" maximum. Door width on a 60" stall size is 28" maximum.

Swinging shower doors still need space for hinges. In a 36" stall, the door width is 30" with the standard frame. The doors can come 22" to 36" wide with side panels for a 60" shower.

For public showers and Accessible units – With roll-in showers required to have a seat, the controls have moved to the back. With a minimum size stall, can a swinging door of 32" clear at the seat end provide adequate clearance? Would any sliding door work? I don't see how the minimum size shower would ever meet the enclosure requirements, so we might as well start out saying they are prohibited. If someone wants to provide a larger shower with a door, then they can use the exception, which includes the current text requiring access to controls and the seat.

For Type A dwelling units – a common complaint is the water from the shower going onto the floor of the bathroom. The ½" threshold is not adequate to hold the water in the pan. That is being addressed with the new style trench drains, but should we prohibit Type A units from having tub or shower enclosures? Since a Type A units is expected to have some features 'adaptable' the exception would allow for someone that did not need the full entry opening to have a shower door as long as it was removable. This would be consistent with the allowance for removable cabinetry in Type A units.

For Type B dwelling units – FHA allows for shower doors on their showers with no limitations. This should be permitted for consistency. Also, for showers, many renters and owners prefer a door to a shower curtain.

Committee action on 10-19-12 Unresolved Issue

Approve as modified 10-19-12

Modification:

The modification is a complete substitution. It replaces all parts of the original proposal as follows:

1004.11.3.1.3.3 Shower Compartment. If a shower compartment is the only bathing facility, the shower compartment shall have dimensions of 36 inches (915 mm) minimum in width and 36 inches (915 mm) minimum in depth. A clearance of 48 inches (1220 mm) minimum in length, measured perpendicular from the shower head wall, and 30 inches (760 mm) minimum in depth, measured from the face of the shower compartment, shall be provided. Reinforcing for a shower seat is not required in shower compartments larger than 36 inches (915 mm) in width and 36 inches (915 mm) in depth

Exception: A shower door assembly shall be permitted where the assembly can be removed without removal or replacement of the surrounding walls and floor to which it is affixed.

Reason: The Committee felt the issue of the installation of shower door assemblies needs to be addressed. Consensus has been difficult to achieve. The Committee approved this exception for Type B units, but not for Type A.

Chapter 11

No further changes based on public comments to Chapter 11 proposals were approved. There are chapter 11 changes which are part of public comments approved to other chapters.