Overview of 2021 I Codes & 2017 ICC A117.1 Accessibility Updates



Disclaimer

This listing of codes, standards or any other regulations within this presentation is for informational purposes only. They do no constitute the full scope of provisions that may be applicable to your project and cannot be relied upon as evidence of compliance or enforcement.

Any accessibility related code provision not mentioned in this presentation does not alleviate the person responsible for the design (owner, designer, etc.) from full compliance with necessary codes and standards nor does it diminish the importance of any specific accessible feature or element.

This presentation does not apply to compliance with Americans with Disabilities Act (ADA) or the Fair Housing Act (FHA).

Agenda

- Authority to use new I Codes / ICC A117.1
- Accessibility changes to the 2021 IBC
- Accessibility changes to the 2021 IEBC
- Changes to the 2017 ICC A117.1

Authority to use new I Codes / ICC A117.1

PA Construction Code Act Section 304(a)(3)

Accessibility provisions are adopted by December 31st of the year of publication of the new ICC Code's "accessibility provisions"

- Section 304. Revised or successor codes.
 - (a) Duties of department
 - (3) The department shall promulgate regulations updating accessibility standards under Chapter 3 by adopting by December 31 of the year of issuance of the accessibility provisions of the most recently published edition of the ICC codes and any other accessibility requirements which shall be specified in the regulations, or contained in or referenced by the Uniform Construction Code relating to persons with disabilities.

Authority to use new I Codes / ICC A117.1

PA UCC Regulations and L&I Bulletin B-2101

L&I Bulletin, issued 12/24/2021, identifies the PA UCC confirmed "accessibility provisions" subject to the new 2021 I Code provisions and referenced 2017 ICC A117.1 Standard

- Effective January 1, 2022 the following shall be considered "accessibility provisions" of the I Codes
 - 2021 IBC Section 1009 Accessible Means of Egress
 - 2021 IBC Chapter 11 Accessibility
 - 2021 IBC Appendix E Supplementary Accessibility Requirements
 - 2017 ICC A117.1-2017 Standard and Commentary
 - 2021 IPC Section 403.4 Signage
 - 2021 IPC Section 403.5 Drinking Fountain Locations
 - 2021 IPC Section 404 Accessible Plumbing Facilities
 - 2021 IPC Section 405.3.1 Water Closets, Urinals, Lavatories and Bidets
 - 2021 IEBC Section 306 Accessibility
 - 2021 IEBC Section 1101.2 Creation or Extension of Nonconformity
 - 2021 IEBC Section 1508 Accessibility
 - 2021 IEBC Appendix B Supplementary Accessibility for Existing Buildings & Facilities

Authority to use new I Codes / ICC A117.1

Important dates and time frames for compliance

As is typical with code changes, a "grace period" exists for new accessibility provisions

- **January 1, 2022** the new accessibility provisions go into effect
- January 1 June 30, 2022 designs can use either the 2018 or 2021 I Codes for accessibility
 - If no selection between the two is clearly shown on the construction documents, the
 Department will enforce 2021 I Codes provisions for accessibility
- July 1, 2021 the new accessibility provisions are mandatory for compliance
 - No other selection on the construction documents will be accepted
 - Department will enforce 2021 I Codes for accessibility

Significant changes to the 2021 IBC accessibility provisions for discussion purposes

In the following slides we'll go over specific changes deemed significant based on the Department's experience with accessibility compliance

- If items require any interpretation, they will be offered as needed. Some items require further review by the Department before final interpretation, if needed, can be offered
- The 2021 IBC can be accessed, for free, from the ICC's website at:
 - o 2021 International Building Code (IBC) | ICC Digital Codes (iccsafe.org)

2021 IBC Section 1009.2.1 Elevators required.

An "accessible occupied roof" is considered a story for accessible means of egress purposes and an elevator to this roof is required for an accessible means of egress.

1009.2.1 Elevators required. P CDP

In buildings where a required accessible floor or occupied roof is four or more stories above or below a *level of exit discharge*, not less than one required accessible means of egress shall be an elevator complying with Section 1009.4.

Exceptions:

- 1. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a *horizontal exit* and located at or above the *levels of exit discharge*.
- 2. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a *ramp* conforming to the provisions of Section 1012.
- For example an occupied roof above the third story of a building is effectively "four" stories above.
 An accessible space requires elevator egress due to the prohibitive height above a level of exit discharge. If such accessible space is in a "story" or "occupied roof" no longer makes a difference
- All other provisions of 2018 IBC Chapter 10 still apply and "occupied roofs", while not a story, are treated as such for means of egress purposes.

2021 IBC Section 1009.2.1 Elevators required - continued

IBC: 1009.2.1. (IFC[BE] 1009.2.1)

Proposed Change as Submitted

2018 International Building Code

Revise as follows

1009.2.1 Elevators required. In buildings where a required accessible floor or occupied roof is four or more stories above or below a level of exit discharge, not less than one required accessible means of egress shall be an elevator complying with Section 1009.4.

Exceptions:

- In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 90.3.3.1.1 or 90.3.3.1.2, the elevator shall not be required on floors provided with a horizontal exit and located at or above the levels of exit discharge.
- In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a ramp conforming to the provisions of Section 1012.

Reason: The code recognizes that there are practical limits to complete reliance on assisted evacuation of building occupants by fire personnel because of the limited availability of trained personnel or special devices. As a result, current ICC language requires an elevator be part of the accessible means of egress starting with the 4th story above the level of exit discharge (See 1009.2.1). Occupied roofs at the same level do not currently have this same requirement. The vertical travel distance encountered by a fire fighter performing an assisted rescue is the same whether the occupants are on an occupied roof on the 4th floor above the level of exit discharge or whether they are on the floor of the 4th story above the level of exit discharge within the building. As occupied roofs become more popular this becomes more of an issue for building departments around the country.

Occupied roofs at four or more stories above the level of exit discharge should be treated like occupied floors at the same level in the building. The occupant loads and hazards are similar between occupied roofs and occupied floors, the benefits to occupants and fire personnel from an elevator with emergency back-up power are similar, and a similar approach has been taken in other sections of the building code (see IBC Chapter 10 1006.3.2, and 1006.3.3). The 2018 IBC 1104.4 also requires at least one accessible route to each accessible story, mezzanine and occupied roof in multilevel buildings and facilities. If the requirements for an accessible route to the accessible level treat the occupied roof and accessible floor in the same manner, it is logical to conclude that the same level of protection for the accessible means of egress from an occupied roof should be required.

2021 IBC Section 1104.4 Multistory buildings and facilities, Exception

Removed the "small building exception" applicability from structures with four or more dwelling units.

1104.4 Multistory buildings and facilities. P CDP

At least one accessible route shall connect each accessible story, mezzanine and occupied roofs in multilevel buildings and facilities.

Exceptions:

- 1. An *accessible* route is not required to *stories, mezzanines* and occupied roofs that have an aggregate area of not more than 3,000 square feet (278.7 m²) and are located above and below accessible levels. This exception shall not apply to:
- 1.1. Multiple tenant facilities of Group M occupancies containing five or more tenant spaces used for the sales or rental of goods and where at least one such tenant space is located on a floor level above or below the accessible levels.
- 1.2. Stories or mezzanines containing offices of health care providers (Group B or I).
- 1.3. Passenger transportation facilities and airports (Group A-3 or B).
- 1.4. Government buildings.
- 1.5. Structures with four or more dwelling units.
- 2. Stories, mezzanines or occupied roofs that do not contain accessible elements or other spaces as determined by Section 1108 or 1109 are not required to be served by an accessible route from an accessible level.
- Exception 1 applicable previously only to smaller buildings with dwelling units that were not already exempted per Exception 2. This was effectively a loop-hole.

2021 IBC Section 1104.4 Multistory buildings and facilities, Exception – continued

- Closes off loophole where "lowest story containing dwelling units" is above first story above grade
 plane and no elevator access to such upper "lowest story" is provided due to lower floor area
- FHA Guidelines have always maintained intent that dwelling units placed above commercial or non-dwelling spaces is a design choice, and does not exclude such single-story units from FHA compliance. 2021 IBC Section 1104.4 Exception corrected as shown previously to comply with this FHA intent

an accessible route via a ramp or elevator must be provided to the first floor of dwelling units placing shops or garages under multifamily housing is a design choice and is not dictated by extremes of terrain



2021 IBC Section 1105.1.1 Automatic doors

Mandates automatic doors at all public entrances for Group A-1, A-2, A-3, A-4, B, M and R-1 occupancies.

1105.1.1 Automatic doors. P CDP

In facilities with the occupancies and building occupant loads indicated in Table 1105.1.1, public entrances that are required to be accessible shall have one door be either a full power-operated door or a low-energy power-operated door. Where the public entrance includes a vestibule, at least one door into and one door out of the vestibule shall meet the requirements of this section.

TABLE 1105.1.1 PUBLIC ENTRANCE WITH POWER-OPERATED DOOR^a

OCCUPANCY	BUILDING OCCUPANT LOAD GREATER THAN	
A-1, A-2, A-3, A-4	300	
B, M, R-1	500	

- a. In mixed-use facilities where the total sum of the building occupant load is greater than those listed, the most restrictive building occupant load shall apply.
- High levels of compliance already existed at "main" entrance doors. This requirement, however, applies to all "public entrances" which includes more than just the main entrance door.

2021 IBC Section 1108.7.5 (previously 1107.7.5) Flood hazard areas

Clarifies the exceptions to Type A and Type B units for properties within the flood hazard area and subject to elevation requirements of the lowest floor or supported member

1108.7.5 Flood hazard areas. [2]

Type A units and Type B units shall not be required for buildings without elevator service that are located in flood hazard areas as established in Section 1612.3, where the minimum required elevation of the lowest floor or lowest supporting horizontal structural member, as applicable, results in all of the following:

- 1. A difference in elevation between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm) exceeding 30 inches (762 mm).
- 2. A slope exceeding 10 percent between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm).

Where such arrival points are not within 50 feet (15 240 mm) of the primary entrances, the closest arrival points shall be used.

 This is only applicable to non elevator buildings and both of the conditions described above must be applicable to the site for the exception to apply

NEW 2021 IBC Section 1110.2.2/2.3 Water closets and showers for assisted used

Allows for reduction in Group I-2 "Nursing homes" and "Rehab Facilities" water closet and bathing room accessibility if certain percentage is designed per "assisted" use requirements

1110.2.2 Water closets designed for assisted toileting. CDP

Water closets designed for assisted toileting shall comply with Sections 1110.2.2.1 through 1110.2.2.6.

Subsections 1110.2.2.1 through 1110.2.2.6 omitted for clarity

1110.2.3 Standard roll-in-type shower compartment designed for assisted bathing. CDP

Standard roll-in-type shower compartments designed for assisted bathing shall comply with Sections 1110.2.3.1 through 1110.2.3.9. *Subsections 1110.2.2.1 through 1110.2.2.6 omitted for clarity*

- Unique as these types of facilities are provided with both scoping (i.e. "when") and design (i.e. "how") requirements directly within the 2021 IBC
- Effectively allows for a reduction in the total number of these spaces required to be "accessible" if enough "assisted" facilities are provided but applicability limited to Nursing Homes and like facilities

NEW 2021 IBC Section 1110.6 Bottle-filling stations

Stipulates bottle-filling station requirements. Most important are the the reach range dimensions

1110.6 Bottle-filling stations.

Where bottle-filling stations are provided, they shall be accessible.

Exception: Bottle-filling stations over drinking fountains for standing persons are not required to be *accessible*, provided that bottle-filling stations are also located over the drinking fountains for persons using wheelchairs.

Significant changes to the 2021 IEBC accessibility provisions for discussion purposes

2021 IEBC Accessibility provisions are centralized within 2021 IEBC Section 306 and apply regardless of the "compliance method" chosen for the given project

- If items require any interpretation, they will be offered as needed. Some items require further review by the Department before final interpretation, if needed, can be offered
- The 2021 IEBC can be accessed, for free, from the ICC's website at:
 - o 2021 International Existing Building Code (IEBC) | ICC Digital Codes (iccsafe.org)

2021 IEBC Section 306.3 (formerly 305.2) Maintenance and repair

Expands the scoping of accessibility to "repairs." Additionally, clarifies that existing buildings must retain their accessible features even if not required for new construction

306.3 Maintenance and repair.

A facility that is constructed or altered to be accessibleshall be maintained accessibleduring occupancy. Required accessible means of egress shall be maintained during construction, demolition, remodeling or alterations and additions to any occupied building.

Exception: Existing means of egress need not be maintained where *approved* temporary means of egress and accessible means of egress systems and *facilities* are provided.

306.3.1 Prohibited reduction in accessibility.

An *alteration* that decreases or has the effect of decreasing accessibility of a building, *facility* or element, thereof, below the requirements for new construction at the time of the *alteration* is prohibited. The number of accessible elements need not exceed that required for new construction at the time of *alteration*.

- Maintenance of above-code accessible features is consistent with previous editions of the I Codes.
 However, the subsection is more direct in prohibiting the reduction of any existing accessible features
- Maintains consistency between I-Code accessibility provisions and ADA Tiles II and III

2021 IEBC Section 306.5 (formerly 305.4) Change of occupancy

Code no longer requires certain minimum accessible features for a complete change of occupancy when no alterations are being performed. See next slide for text removed.

306.5 Change of occupancy. P

Existing buildings that undergo a change of group or occupancy shall comply with Section 306.7.

Exception: Type B dwelling or sleeping units required by Section 1108 of the *International Building Code* are not required to be provided in *existing buildings* and *facilities* undergoing a *change of occupancy* in conjunction with *alterations* where the *work area* is 50 percent or less of the aggregate area of the building.

- Significant change as provisions applicable to existing buildings since 2009 IEBC no longer apply
- Even if alterations are proposed, the previous provisions contained no exceptions based on cost of work – previously, the only exceptions for providing a fully accessible entrance to a building undergoing a complete change of occupancy was PA AAB variance for "technical infeasibility"
- Projects undergoing a complete change of occupancy without extensive alterations are rare
- Creates consistency within I Codes and between I Codes and ADA alterations are now subject to the same accessibility requirements regardless of the building's occupancy or any change thereof.

2021 IEBC Section 306.5 (formerly 305.4) Change of occupancy – continued

306.5 Change of occupancy. [2]

Existing buildings that undergo a change of group or occupancy shall comply with Section 306.7.

Exception: Type B dwelling or sleeping units required by Section 1108 of the *International Building Code* are not required to be provided in *existing buildings* and *facilities* undergoing a *change of occupancy* in conjunction with *alterations* where the *work area* is 50 percent or less of the aggregate area of the building.

305.1.1 Partial change of occupancy.

Where a portion of the building is changed to a new occupancy classification, any alterations shall comply with Sections 305.6, 305.7 and 305.9

305.4.2 Complete change of occupancy.

Where an entire building undergoes a charge of occupancy, it shall comply with Section 305.4.1 and shall have all of the following accessible features:

- 1. Not fewer than one accessible building entrance
- 2. Not fewer than one accessible route from an accessible building entrance to primary function areas.
- 3. Signage complying with Section 1111 of the International Building 3.3.
- 4. Accessible parking, where parking is being provided
- 5. Not fewer than one accessible passenger bading zone, where loading zones are provided.
- 6. Not fewer than one accessible oute connecting accessible parking and accessible passenger loading zones to an accessible entrance.

Where it is *technically infrasible* to comply with the new construction standards for any of these requirements for a change of group or occupancy, Items 1 through 6 chair conform to the requirements to the maximum extent technically feasible.

Exception: The accessible features listed in Items 1 through 6 are not required for an accessible route to Type B units.

NEW 2021 IEBC Section 306.7.6 Accessible route

Site alterations that create private sidewalks or the like now require accessible clear width

306.7.6 Accessible route. [2]

Exterior accessible routes, including curb ramps, shall be not less than 36 inches (914 mm) minimum in width.

- Effectively only applicable to new private sidewalks or other trails or pedestrians paths created as part of an alterations project
- Public right-of-ways undergoing alterations can obviously not be widened without prior approval from Department of Streets and other regulatory agencies.

NEW 2021 IEBC Section 306.7.10 Determination of number of units

Existing provisions reorganized to clarify that scoping only applies as part of an alterations project. Additionally, the words "altered" and "added" applied more consistently

306.7.10 Determination of number of units.

Where Chapter 11 of the *International Building Code* requires Accessible, Type A or Type B units and where such units are being altered or added, the number of Accessible, Type A and Type B units shall be determined in accordance with Sections 306.7.10.1 through 306.7.10.3.

See next slide for Subsections 306.7.10.1 through 306.7.10.3

- Accessible and Type A Units are scoped based on the number of units being "altered or added."
 Whereas, Type B Units are scoped based on the number of units being "added," with "altered" units only being counted if the building undergoes significant renovations (i.e. gut and rehab)
- Type B Units are intended to comply with FHA requirements. As such, the "added" scoping makes
 the ICC IEBC in line with the FHA scoping for units.
- Important note is that "added" is based on the quantity of units present. A building being renovated where 5 units are split into 10 units is 5 units being "added"

NEW 2021 IEBC Section 306.7.10 Determination of number of units - continued

306.7.10 Determination of number of units.

Where Chapter 11 of the *International Building Code* requires Accessible, Type A or Type B units and where such units are being altered or added, the number of Accessible, Type A and Type B units shall be determined in accordance with Sections 306.7.10.1 through 306.7.10.3.

306.7.10.1 Accessible dwelling or sleeping units.

Where Group I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being altered or added, the requirements of Section 1108 of the *International Building Code* for Accessible units apply only to the quantity of spaces being altered or added.

306.7.10.2 Type A dwelling or sleeping units.

Where more than 20 Group R-2 dwelling or sleeping units are being altered or added, the requirements of Section 1108 of the *International Building Code* for Type A units apply only to the quantity of the spaces being altered or added.

306.7.10.3 Type B dwelling or sleeping units.

Where four or more Group I-1, I-2, R-1, R-2, R-3 or R-4 dwelling or sleeping units are being added, the requirements of Section 1108 of the *International Building Code* for Type B units apply only to the quantity of the spaces being added. Where Group I-1, I-2, R-1, R-2, R-3 or R-4 dwelling or sleeping units are being altered and where the *work area* is greater than 50 percent of the aggregate area of the building, the requirements of Section 1108 of the *International Building Code* for Type B units apply only to the quantity of the spaces being altered.

Significant changes for discussion purposes

Standard heavily amended to separate provisions between "existing" and "new" buildings primarily to accommodate dimensional requirements of powered wheelchairs and other similar devices.

- If items require any interpretation, they will be offered as needed. Some items require further review by the Department before final interpretation, if needed, can be offered
- The 2017 ICC A117.1 can be accessed, for free, from the ICC's website at:
 - o 2017 ICC A117.1 Accessible and Usable Buildings and Facilities | ICC Digital Codes

2017 ICC A117.1 Section 107 Definitions

New definitions added to clarify the new scoping requirements. Most important is distinction between existing buildings and new construction

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.

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.

circulation path: An exterior or interior way of passage provided for pedestrian travel, including but not limited to, walks, hallways, courtyards, elevators, platform lifts, ramps, stairways and landings.

common use: Interior or exterior circulation paths, rooms, spaces or elements that are not for public use and are made available for the shared use of two or more people.

curb ramp: A short ramp cutting through a curb or built up to it.

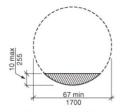
employee work area: All or any portion of a space used only by employees and used only for work. Corridors, toilet rooms, kitchenettes and break rooms are not employee work areas.

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.

existing facility: A facility completed prior to the date of adoption of this standard, or one for which a legal permit has been issued.

2017 ICC A117.1 Section 304 Turning space

Circular and t-shaped turning space sizes increased with new vs existing requirements



Overlap of knee and toe clearance

FIGURE 304.3.1.1CIRCULAR TURNING SPACE
- NEW BUILDINGS SIZE AND OVERLAP

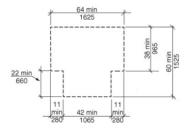
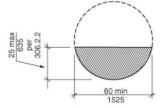


FIGURE 304.3.2.1(B)T-SHAPED TURNING SPACE NEW BUILDINGS - OPTION 2



Overlap of knee and toe clearance

FIGURE 304.3.1.2CIRCULAR TURNING SPACE
- EXISTING BUILDINGS - SIZE AND OVERLAP

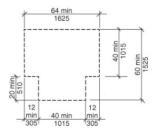


FIGURE 304.3.2.1(C)T-SHAPED TURNING SPACE NEW BUILDINGS - OPTION 3

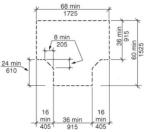


FIGURE 304.3.2.1(A)T-SHAPED TURNING SPACE
NEW BUILDINGS - OPTION 1

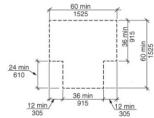


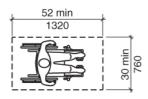
FIGURE 304.3.2.2T-SHAPED TURNING SPACE EXISTING BUILDINGS - SIZE

2017 ICC A117.1 Section 304 Turning space – continued

- Circular turning space for new buildings increased from 60 inches to 67 inches diameter
- T-shaped turning spaces for new buildings increased from 60 inches to 64 68 inches in width
- Knee and toe clearance overlap areas of turnings spaces significantly reduced for circular turnings spaces

2017 ICC A117.1 Section 305.3 Clear floor space

Clear floor space size increase with difference between new and existing buildings



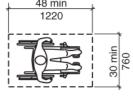


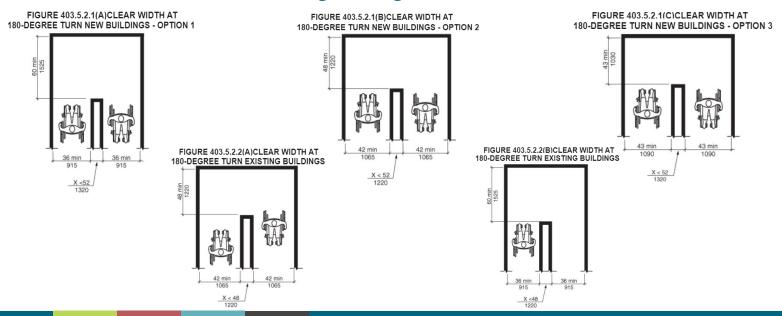
FIGURE 305.3.1SIZE OF CLEAR FLOOR SPACE - NEW BUILDINGS

FIGURE 305.3.2SIZE OF CLEAR FLOOR SPACE - EXISTING BUILDINGS

• Increase in size for clear floor space in new buildings. Most important is downstream effects of this change including minimum size of toilet and bathing rooms, door approach clearances, etc.

2017 ICC A117.1 Section 403.5.2 180-degree turns

Turnings spaces increased to accommodate larger turning and clear floor spaces with distinction between new and existing buildings

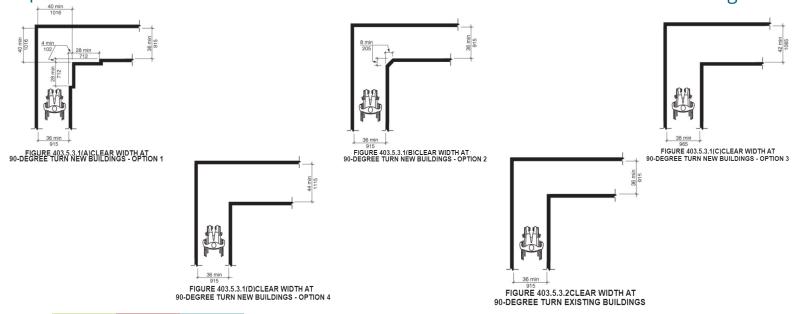


2017 ICC A117.1 Section 403.5.2 180-degree turns – continued

• Increases in size for typical 60-inch approach distance is the same as before (i.e. compare Figures 403.5.2.1(A) and 403.5.2.2(B)) but the applicability of this 60-inch approach distance now applies to turns less than 52-inches in separation, rather than the previous 48-inch dimension

2017 ICC A117.1 Section 403.5.3 90-degree turns

Turning clearance requirements added to standard for 90-degree turns including chamfer requirements at 36-inch clear widths. Includes distinction between new and existing.



2017 ICC A117.1 Section 403.5.3 90-degree turns – continued

- New requirement at 90-degree turns added to standard. Significant change as typical 36-inch corridors now require chamfered corners or offsets at turns
- Existing buildings allowed to remain without chamfer or offsets

2017 ICC A117.1 Table 404.2.3.2 Maneuvering clearance at manual doors

Push side clearance "from front" increased to 52 inches with 48 inches permitted for existing buildings.

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 (1320 mm) ⁵	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) 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)	

¹Add 6 inches (150 mm) if closer and latch provided.

 Pay attention to table note 5 as there is no other clear distinction between new and existing buildings for this specific requirement

²Add 6 inches (150 mm) if closer provided.

³Add 12 inches (305 mm) beyond latch if closer and latch provided.

⁴Beyond hinge sid

⁵In existing buildings and facilities, the dimension perpendicular to the door or gate for the front direction on the push side shall be 48 inches (1220 mm) minimum.

2017 ICC A117.1 Section 404.2.6 Door and gate hardware

Turnings spaces increased to accommodate larger turning and clear floor spaces with distinction between new and existing buildings

404.2.6 Door and gate hardware

Handles, pulls, latches, locks and other operable parts on 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. The operational force to retract latches or disengage devices that hold the door or gate 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.

404.2.6.1 Hardware height

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.

Separates out "hardware" force and door "opening" force to be more consistent.

2017 ICC A117.1 Section 404.3 Automatic and power-assisted doors and gates

Several details added to support 2021 IBC requirement for automatic doors are public entrances of higher occupancy Group A, B, M and R-1 occupancies

404.3 Automatic and power-assisted doors and gates

Automatic doors and gates shall comply with Section 404.3. Full powered automatic doors and gates shall comply with ANSI/BHMA A156.10 listed in Section 106.2.7. Power-assist doors and gates and low-energy automatic doors and gates shall comply with ANSI/BHMA A156.19 listed in Section 106.2.6.

404.3.1 Public entrances

Where an automatic door or gate is required at a building or facility public entrance, it shall be a full powered automatic or a low-energy automatic door or gate.

404.3.2 Vestibules

Where an entrance includes a vestibule, at least one exterior door or gate and one interior door or gate in the vestibule shall have the same type of automatic door or gate opener.

404.3.3 Clear width

Doorways shall have a clear opening width of 32 inches (815 mm) in power-on and power-off mode. The minimum clear opening width for automatic door systems shall be based on the clear opening width provided with all leafs in the open position.

2017 ICC A117.1 Section 404.3 Automatic doors and gates - continued

404.3.4 Maneuvering clearances

Maneuvering clearances at power-assisted doors and gates 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 and full power automatic doors and gates that serve as part of an accessible means of egress.

Exceptions:

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

404.3.5 Thresholds

Thresholds and changes in level at doorways shall comply with Section 404.2.4.

404.3.6 Two doors or gates in series

Doors or gates in series shall comply with Section 404.2.5.

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

 If automatic doors in series makeup vestibule then no turning space required between doors. 48inch minimum clearance still required between doors

2017 ICC A117.1 Section 406 Curb ramps and blended transitions

Significant change for curb ramps including introduction of parallel curb ramps as an accessible route element and clearance between ramps and landings and obstructions

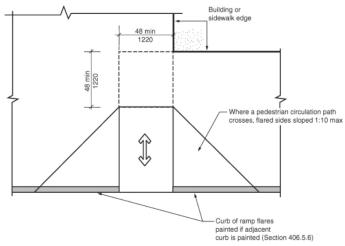


FIGURE 406.2(A)PERPENDICULAR CURB RAMP

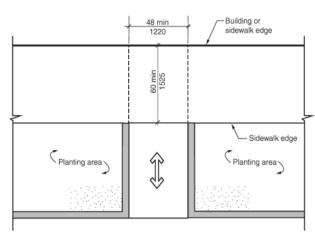


FIGURE 406.2(B)PERPENDICULAR CURB RAMP

2017 ICC A117.1 Section 406 Curb ramps and blended transitions - continued

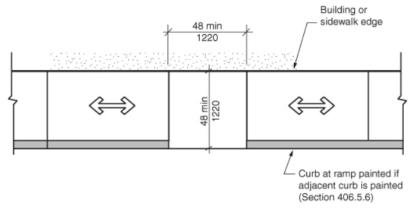


FIGURE 406.3(A)PARALLEL CURB RAMP

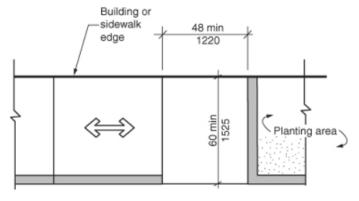


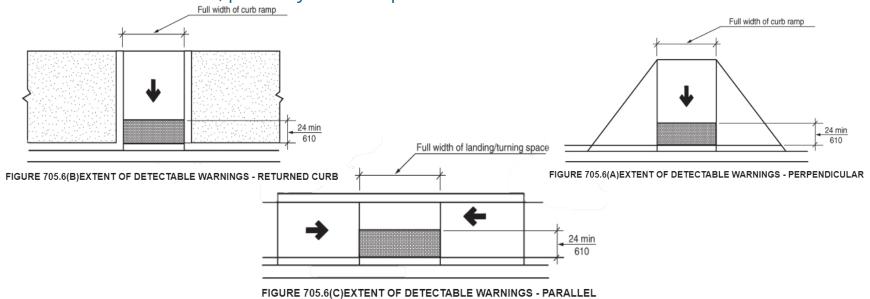
FIGURE 406.3(B)PARALLEL CURB RAMP

2017 ICC A117.1 Section 406 Curb ramps and blended transitions - continued

- Brings consistency between ICC A117.1 and ADA "Best Practices Toolkit for State and Local Governments" and US Access Board's "Public Right-of Way Accessibility Guidelines (PROWAG)"
- May not apply to public right-of-ways as PA DOT and Dept of Streets Guidelines may not allow for such changes
 - Private right-of-ways and routes will now be required to comply with updated standards regardless of PA DOT or Dept of Street's position
 - Makes private roads meet Federal PROWAG Guidelines.
- Curb ramp landings require greater depth if restricted by any planting area or building wall
- Detectable warning requirements also revised with scoping under Section 406 and design requirements under heavily revised Section 705

2017 ICC A117.1 Section 705 Detectable warning surfaces

Revised both scoping (when) and details (how) provision to match accessible route updates elsewhere in the code, primarily curb ramps and blended transitions



2017 ICC A117.1 Section 705 Detectable warning surfaces – continued

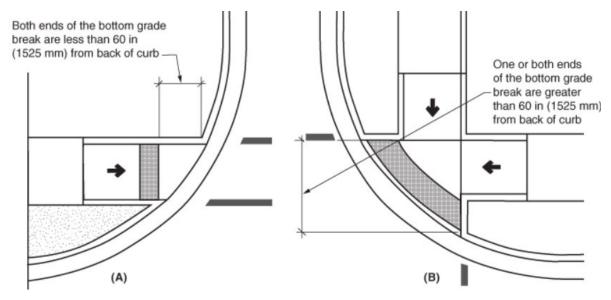


FIGURE 705.7.1PERPENDICULAR CURB RAMPS

2017 ICC A117.1 Section 410.5 Platform lift clear floor space

Increase in platform lift depth dimensions due to increase in clear floor space dimensions with distinction between new and existing buildings

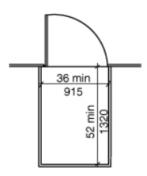


FIGURE 410.5.1.1PLATFORM LIFTS
- SIZE WITH SINGLE DOOR
OR DOORS ON OPPOSITE ENDS
- NEW BUILDINGS

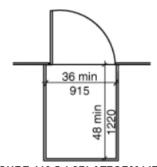


FIGURE 410.5.1.2PLATFORM LIFTS
- SIZE WITH SINGLE DOOR OR DOORS
ON OPPOSITE ENDS
- EXISTING BUILDINGS

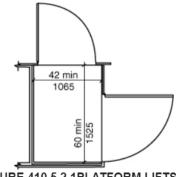


FIGURE 410.5.2.1PLATFORM LIFTS
- SIZE WITH DOORS ON ADJACENT
SIDES NEW BUILDINGS

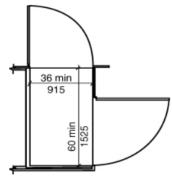
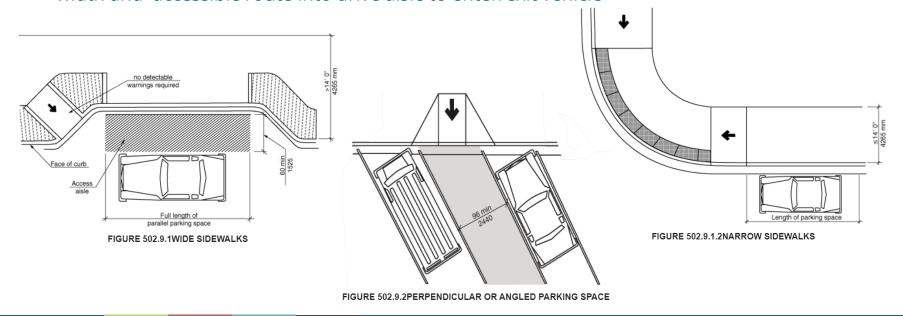


FIGURE 410.5.2.2PLATFORM LIFTS
- SIZE WITH DOORS ON ADJACENT
SIDES EXISTING BUILDINGS

2017 ICC A117.1 Section 502.9 Parallel and angled parking spaces

NEW requirements for on-street accessible parking spaces based on adjacent sidewalk clear width and accessible route into drive aisle to enter/exit vehicle



2017 ICC A117.1 Section 502.9 Parallel and angled parking spaces – continued

- If sidewalk adjacent to parallel parking space is at least 14 feet in width access aisle adjacent to parking space is required. Access aisle is required to be "at street level" to allow for easy entry/exit into vehicle.
 - This effectively promotes offsets in sidewalk to accommodate parallel parking spaces if sidewalk widths exceed 14 feet
- Generally added to make private roads comply with Federal PROWAG Guidelines.
- As with curb ramps may not comply with PA DOT or Dept of Streets requirements for ADA compliance

2017 ICC A117.1 Section 503.3 Passenger loading zones

Enlarged passenger loading zone access aisle increased to 67 inches for new buildings to accommodate larger mobility devices with 60 inches allowed for existing buildings

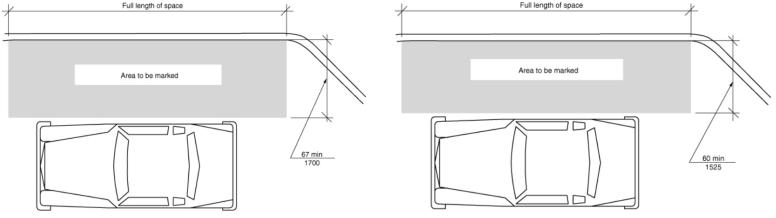


FIGURE 503.3(A)PASSENGER LOADING ZONE ACCESS AISLE - NEW BUILDINGS

FIGURE 503.3(B)PASSENGER LOADING ZONE ACCESS AISLE - EXISTING BUILDINGS

Length also reduced from 20 feet to full length of vehicle pull-up stations / parking space

2017 ICC A117.1 Section 506 Windows

Significant changes to windows required to be accessible including operating force maximum limits. Separates requirements for latches from that for window operation

SECTION 506 WINDOWS

506.1 General

Where operable windows are provided in an accessible room or space, at least one shall comply with Section 506. Where operable windows are required to provide natural ventilation or operable windows are required to provide an emergency escape and rescue opening, that window shall be the operable window that complies with Section 506.

Exceptions:

- 1. Operable windows that are operated only by employees shall not be required to comply with this section.
- 2. Operable windows in Type A units that comply with Section 1103.13.
- 3. Operable skylights shall not be required to comply with this section.

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 listed in Section 106.2.11. Operable parts for locking or latching and unlocking or unlatching shall comply with Section 309. The operating force for opening and closing operable windows shall be as follows:

- 1. 8.5 pounds (37.7 N) maximum for vertical or horizontal sliding windows.
- 2. 5 pounds (22.2N) maximum for all other types of operating windows.

NEW 2017 ICC A117.1 Section 507 Accessible route through parking

New "physically separated" condition requirement added between accessible routes and vehicular traffic areas of parking facilities.

SECTION 507 ACCESSIBLE ROUTES THROUGH PARKING

507.1 General

Where accessible routes pass through parking facilities, they shall be physically separated from vehicular traffic.

Exceptions:

- 1. Accessible routes crossing drive aisles shall not be required to comply with this section.
- 2. Accessible routes only from parking spaces complying with Section 502 and passenger loading zones complying with Section 503 to accessible entrances shall not be required to comply with this section.
- Exception 1 applies to crosswalks crossing a drive aisle
- Physical separation details are not stipulated in the Standard. Could be accomplished with bollards or curbs. No specific examples provided within Standard but must be more than simply painting the pathway.

2017 ICC A117.1 Section 602 Drinking fountains and bottle filling stations

Heavily amended to separate out fountains for standing and wheelchair use including children. Additional requirement for bottle filling stations added to Standard

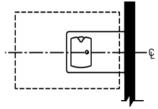


FIGURE 602.2.1(A)CLEAR FLOOR SPACE AT WHEELCHAIR DRINKING FOUNTAINS

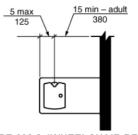


FIGURE 602.2.4WHEELCHAIR DRINKING FOUNTAIN SPOUT LOCATION

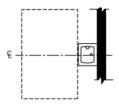


FIGURE 602.2.1(B)CLEAR FLOOR SPACE AT WHEELCHAIR DRINKING FOUNTAINS - PRIMARILY FOR CHILDREN'S USE EXCEPTION

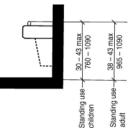


FIGURE 602.3.2STANDING USE DRINKING FOUNTAIN SPOUT HEIGHT AND LOCATION

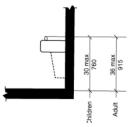


FIGURE 602.2.3WHEELCHAIR DRINKING FOUNTAIN SPOUT HEIGHT AND LOCATION

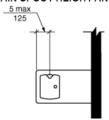


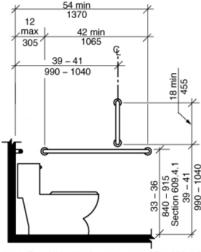
FIGURE 602.3.3STANDING USE DRINKING FOUNTAIN SPOUT LOCATION

2017 ICC A117.1 Section 602 Drinking fountains and bottle filling stations - continued

- Wheelchair drinking fountain spout height limited to 36 inches while Standing drinking fountain spout height limited to between 38 – 43 inches.
- Bottle filling station requirements practically limited to ensure a forward or side approach clear floor space and operable part reach ranges complying with the Standard

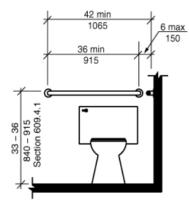
2017 ICC A117.1 Section 604.5 Grab bars

Editorial changes that will affect industry wide typical details and baseline measurements



Note: For children's dimensions see Fig. 609.4.2

FIGURE 604.5.1SIDE-WALL GRAB BAR FOR WATER CLOSET



Note: For children's dimensions see Fig. 609.4.2

FIGURE 604.5.2REAR-WALL GRAB BAR FOR WATER CLOSET

NEW 2017 ICC A117.1 Section 604.9.2.3 Alternate wheelchair toilet compartment

"Alternate" water closet compartment with deeper dimensions added

604.9.2.3 Alternate wheelchair accessible toilet compartments

Where an alternate wheelchair accessible toilet compartment is provided, the minimum area of the compartment shall be 60 inches (1525 mm) minimum in width, measured perpendicular to the side wall, and 84 inches (2135 mm) minimum in depth, measured perpendicular to the rear wall.

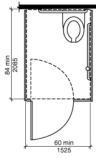


FIGURE 604.9.2.3WHEELCHAIR TOILET COMPARTMENTS ALTERNATE WHEELCHAIR TOILET COMPARTMENT

- Deeper toilet compartment provides situation where door swing can now be located within the toilet compartment
- Additional change per 604.9.3 to exempt toilet compartments doors from maneuvering clearance requirements at water closet side of doors

2017 ICC A117.1 Section 606.2, Exceptions, Lavatories and sinks

Remove requirement that parallel approaches to lavatories be centered on lavatory fixture

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 clear floor space providing a parallel approach shall be permitted at a kitchen sink in a space where a cook top or conventional range is not provided.
- 2. The requirement for knee and toe clearance shall not apply to a lavatory in a toilet or bathing facility for a single occupant, accessed only through a private office and not for common use or public use.
- 3. A knee clearance of 24 inches (610 mm) minimum above the floor shall be permitted at lavatories and sinks used primarily by children ages 6 through 12 where the higher of the rim or counter surface is 31 inches (785 mm) maximum above the floor.
- 4. A clear floor space providing a parallel approach shall be permitted at lavatories and sinks used primarily by children ages 5 and younger.
- 5. The requirement for knee and toe clearance shall not apply to more than one bowl of a multibowl sink.
- 6. A clear floor space providing a parallel approach shall be permitted at wet bars.
- Minimum clearances for lavatories from any sidewall is identified under 2018 IPC Section 405.3.1

2017 ICC A117.1 Section 608.2.1.2 Transfer type shower clearance

Increased in clearance requirements with distinction between new and existing buildings

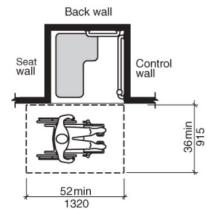


FIGURE 608.2.1.2(A)TRANSFER-TYPE SHOWER COMPARTMENT CLEARANCES NEW BUILDINGS - OPTION 1

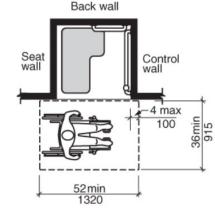


FIGURE 608.2.1.2(B)TRANSFER-TYPE : SHOWER COMPARTMENT CLEARANCES NEW BUILDINGS - OPTION 2

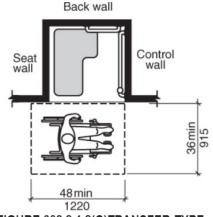


FIGURE 608.2.1.2(C)TRANSFER-TYPE SHOWER COMPARTMENT CLEARANCES EXISTING BUILDINGS

2017 ICC A117.1 Section 802.4 Assembly area wheelchair spaces

Depths revised to account for larger clear floor space with distinction between new and existing buildings

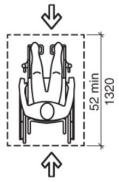


FIGURE 802.4(A)DEPTH OF WHEELCHAIR SPACE IN ASSEMBLY AREA FRONT OR REAR ACCESS - NEW BUILDINGS

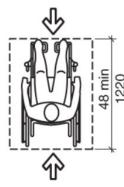


FIGURE 802 4/B)DEPTH OF WHEELCHAIR SPACE IN ASSEMBLY AREA FRONT OR REAR ACCESS - EXISTING BUILDINGS

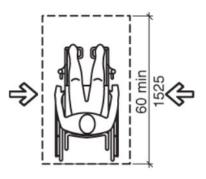
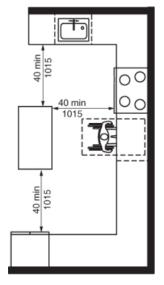


FIGURE 802.4(C)DEPTH OF WHEELCHAIR SPACE IN ASSEMBLY AREA SIDE ACCESS NEW AND EXISTING BUILDINGS

2017 ICC A117.1 Section 804.2 Kitchen spaces without cook tops or ranges

Amended to clarify the existing exception for fixture clearances for areas without cooking devices or conventional ranges



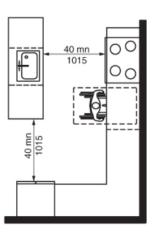


FIGURE 804.2.2(C)U-SHAPED KITCHEN CLEARANCE - EXCEPTION

2017 ICC A117.1 Section 903 Benches and clear floor space

Amended to allow only clear floor spaces at end of bench seating area. Removed allowance for clear floor space in front of bench seating

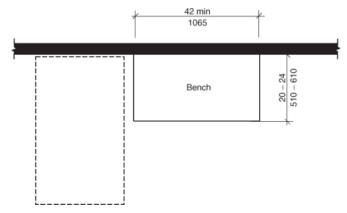


FIGURE 903(A)BENCHES - BENCH SIZE AND CLEAR FLOOR SPACE

 Allows people to transition into seating area directly without having elements within clear floor space (walker, wheelchair, etc.) obstructing use of bench seating

2017 ICC A117.1 Section 904.3 Sales and service counter

Vertical barrier requirements added to ensure reach ranges above counter remain within

certain limits

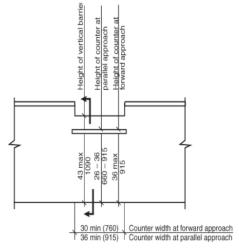


FIGURE 904.3(B)SALES AND SERVICE COUNTERS - ELEVATION

 To ensure reach ranges comply, the vertical barrier height limits are different based on forward or parallel approach

NEW 2017 ICC A117.1 Section 906 Charging stations

New section stipulating power, clearance and reach range requirements for wheelchair charging stations

SECTION 906 CHARGING STATIONS

906.1 General

A charging station shall consist of a grounded duplex outlet.

906.2 Clear floor space

A clear floor space shall be provided at the charging station.

906.3 Height

Charging stations shall comply with at least one of the reach ranges specified in Section 308.

 Applicable primarily to Accessible Units and Type A Units. Scoping for these elements occur within ICC A117.1 and not the I Codes.

2017 ICC A117.1 Section 1102.13 Accessible Unit windows

Scoping changes such that at least one operable window within every room that has operable windows within Accessible Units must meet operable requirements of standard

1102.13 Windows

Operable windows shall comply with Section 506.1.

Exceptions:

- 1. Windows in kitchens shall not be required to comply with Section 1102.13.
- 2. Windows in bathrooms shall not be required to comply with Section 1102.13.
- Applies regardless of whether or not the window is related to natural ventilation or emergency escape
- However, if a window within a space is for natural ventilation or emergency escape, then at least such window must meet the operable force requirements set forth in ICC A117.1 Section 506

NEW 2017 ICC A117.1 Section 1102.15.4 Accessible Unit wheelchair charging area

Accessible Units require a wheelchair charging area at one of the clear floor spaces provided on the sides of beds

1102.15.4 Wheelchair charging area

The clear floor space required by Section 1102.15.1 shall also serve as a wheelchair charging area complying with Section 906.

Will affect placement of outlets in proximity to beds

2017 ICC A117.1 Section 1103.12.4 Type A Unit sink clear floor space Exceptions

New exceptions added to allow for parallel approach for kitchen sinks and wet bars in rooms where no cooking occurs

1103.12.4 Sink

Sinks shall comply with Section 1103.12.4.

1103.12.4.1 Clear floor space

A clear floor space, positioned for a forward approach to the sink, shall be provided. Knee and toe clearance complying with Section 306 shall be provided.

Exceptions:

- 1. The requirement for knee and toe clearance shall not apply to more than one bowl of a multi-bowl sink.
- 2. Cabinetry shall be permitted to be added under the sink, provided the following criteria are met:
- 2.1 The cabinetry can be removed without removal or replacement of the sink, 2.2 The floor finish extends under the cabinetry, and
- 2.3 The walls behind and surrounding the cabinetry are finished.
- 3. A clear floor space providing a parallel approach and centered on the sink shall be permitted at a kitchen sink in a space where a cook top or conventional range is not provided.
- 4. A clear floor space providing a parallel approach and centered on the sink shall be permitted at wet bars.

2017 ICC A117.1 Section 1103.13 Type A Unit windows

Scoping changes such that at least one operable window within every room that has operable windows within Type A Units must meet operable requirements of standard

1103.13 Windows

Operable windows shall comply with Section 1103.13.

Exceptions:

- 1. Windows in kitchens shall not be required to comply with Section 1103.13.
- 2. Windows in bathrooms shall not be required to comply with Section 1103.13.
- Same provisions as those for Accessible Units

NEW 2017 ICC A117.1 Section 1104.1.1 Type B Unit clear floor space

Reduced clear floor space dimensions consistent with previous editions of ICC A117.1 Standard applies to Type B Units regardless of if "new" or "existing"

1104.1.1 Clear floor space

For Type B units, clear floor spaces shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.

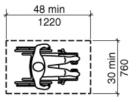


FIGURE 1104.1.1CLEAR FLOOR SPACE FOR TYPE B UNITS

 Type B dwelling units are allowed to maintain sizing based on the 2009 ICC A117.1 Standard's clear floor space

2017 ICC A117.1 Section 1104.4.1 Type B Unit clear width Exceptions

Multiple exceptions added to maintain 2009 ICC A117.1 clear width requirements at turns, passing spaces and reduced width segments within Type B Units

1104.4.1 Clear width

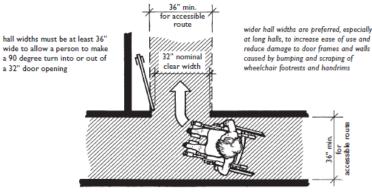
The clear width of an accessible route shall comply with Section 403.5.

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. 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.
- 3. 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 provided the clear width during the turn is 60 inches (1525 mm) minimum.
- 4. 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
- 5. 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 304.3.2.2, provided the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection.

2017 ICC A117.1 Section 1104.4.1 Type B Unit clear width Exceptions – continued

- Effectively maintains 2009 ICC A117.1 clear widths for Type B Units, maintaining consistency between ICC A117.1 and Fair Housing Act (FHA) Design Guidelines
- Exceptions to clear width do not explicitly identify exception to widening or chamfered corners as depicted in 2017 ICC A117.1 Section 403.5.3 but the intent is that such widening or chamfering is indeed not required for accessible routes within Type B Units



Minimum Width of Accessible Route

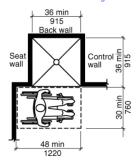
2017 ICC A117.1 Section 1104.11.3.1.3.3 Type B Unit Shower compartment option

Exceptions for reduced size transfer type shows added for Type B Units within bathing rooms meeting Option A requirements

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 control wall, and 30 inches (760 mm) minimum in depth, measured from the face of the shower compartment, shall be provided.

Exceptions:

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



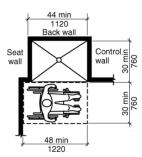


FIGURE 1104.11.3.1.3.3(A)TRANSFER-TYPE SHOWER COMPARTMENT IN TYPE B UNITS

FIGURE 1104.11.3.1.3.3(B)TRANSFER-TYPE SHOWER COMPARTMENT IN TYPE B UNITS EXCEPTION

Questions?



Thank You

