2017 ICC/A117.1 Update

Presenter: Kim Paarlberg

Tuesday, September 12, 2017

9:45 AM – 11:15 AM
Significant Changes to the ICC/A117.1 2017

Requirements

Scoping:
- “What, Where and How Many”
- 2015 IBC and IEBC

Technical:
- “How”
- ICC/ANSI A117.1-2009
### ICC A117.1 Accessible and Usable Buildings and Facilities

- Standard & Commentaries.
- History, reasoning and examples.
- Technical assistance via phone, email or letter.

### Role of the Code Official

- Enforce the locally adopted building code and any local or state laws.
- Does **not** enforce ADA or FHA.
Human Factor Considerations

- Body Size
- Functional abilities

Basis for A117.1 - Dimensions of Adult-Sized Wheelchair
2017 ICC A117.1

- Revisions
  - Study on Anthropometry of Wheeled Mobility
  - Sponsored by the US Access Board
  - Including persons using manual wheelchairs, motorized wheelchairs & scooters
  - [http://www.udeworld.com/anthropometrics.html](http://www.udeworld.com/anthropometrics.html)

Human Factor Anthropometrics

[Diagram of human body dimensions for different mobility types]
Existing building and facilities

- New sizes **will not** apply to existing buildings or facilities
- **Will** apply to new construction and additions
- **Definition:**
  - **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.

Building Blocks

- Clear floor space
- Turning space
- Operable parts
Wheelchair space

Existing – 48”

New – 52”

Turning space

Existing – 60”

New – 67”
Turning space

Existing

New

Turning space overlap

Existing

New
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Turn comparison

Existing

New

Operable parts

Kitchen Outlet Exception:

- Over counter top in a corner between appliances
- Counter top area does not exceed 9 square feet maximum.
Accessible Routes

- 90 degree turn
- 180 degree turn
- Turning space
- Doors
- Exterior routes
- Platform lifts

90 degree turn

Existing

New
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Turn around obstruction

Existing

New

(b) 180 Degree Turn (Exception)

Option 1

Option 2

Option 3
Passing space

Existing

New

Impact - Turns in a small store
Impact - Multi-stall layout

Impact - Dining room layout
Doors:
404.2.3 Obstructions to the Maneuvering Clearance

- Removed from 2015 A117.1
- Prohibits the use of knee and toe clearances (i.e., under sinks or counters) when overlapping maneuvering space at a door.
- The intent is that users do not need to reach over an obstruction to operate the hardware.

Door maneuvering size

Existing – 48”

*If both closer and latch are provided

(c) Front Approach, Push Side – Existing Buildings
Footnote 4

New – 52”

*If both closer and latch are provided

(b) Front Approach, Push Side – New Buildings
**Significant Changes to the ICC/A117.1 2017**

### Vestibules

**Existing**

![Existing Vestibule Diagram](image1)

**New**

![New Vestibule Diagram](image2)

### Exterior route

**Existing**

![Existing Exterior Route Diagram](image3)

**New**

![New Exterior Route Diagram](image4)
Curb Ramps

Perpendicular

Parallel

Blended Transitions
Platform Lifts

- Change in size for vertical platform lift for new clear floor space size – 36” x 52”
- Incline platform lift with barriers permitted to use 36” x 48”

General Site and Building Elements

- Parking
- Meters
- Electrical Charging Stations
- Route across parking lot
- Windows
Angled street parking

Parallel street parking
Parking meters and pay stations

- Clear floor space
- Reach range
- Operable parts
- Displays

Electric vehicle charging stations

- Clear floor space
- Reach ranges
- Operable parts
- Route not obstructed by cord or barriers
Routes across parking lots

- Protected accessible route across parking lots

Windows

- One window per room except kitchens and bathrooms
  - emergency escape and rescue
  - natural ventilation
- Four forces on a window – locking, unlocking, opening and closing
- Locking/unlocking are operable parts
- Opening/closing - AAMA 513
Plumbing Elements and Facilities

- Water bottle filler
- Toilet stalls

Bottle filling stations
Stall options

- End or row stall or new alternative stall

Partition

Diagram showing stall and partition options.
Communication Elements and Features

Visual relay service booth

- Seating
- Privacy enclosure
- Two-way video communication system
- Background
Special Rooms and Spaces

- Assembly seating
- Sign language interpreter station
- Kitchens
- Classroom acoustics

Assembly Areas: Definitions

- **wheelchair space**: A space for a single wheelchair and its occupant.

- **wheelchair space locations**: A space for a minimum of a single wheelchair and the associated companion seating. Wheelchair space locations can contain multiple wheelchair spaces and associated companion seating.
Wheelchair space in assembly spaces

Existing

New

Wheelchair space in assembly spaces

(b) Front or Rear Access Existing Building

(a) Front or Rear Access New Buildings

Assembly Areas

4" max overlap of the required aisle width permitted in new buildings

Required aisle width

36" min accessible route

Shoulder alignment

Aisle accessway

33" x 48" Wheelchair space – Existing buildings

33" x 52" Wheelchair space – New buildings

(a) REAR APPROACH
Dinner Theaters & Lecture Halls

- Dispersion based on assembly seating to view an event
- Not work surface or dining room dispersion throughout

Sign language interpreters stations

- Area to stand
- Viewing angle for audience
- Illumination
- Backdrop
Kitchen Island

- Requires 40 inch minimum clearance between cabinets, appliance and any walls at kitchenettes.
- Pass thru not required for kitchenette.
- Work surface not required in kitchenette.
- Parallel approach at sink.
- Turning space where within an Accessible or Type A unit.

Kitchenettes
Classroom acoustics
Classrooms <20,000 cubic feet

Classroom Acoustics Requirements

<table>
<thead>
<tr>
<th>Learning Space</th>
<th>Greatest one hour average sound level of exterior source background noise</th>
<th>Greatest one hour average sound level of interior source background noise</th>
<th>Maximum reverberation times for sound pressure levels in octave bands with frequencies of 500, 1000 and 2000 Hz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classrooms with an enclosed volume of &lt;= 10,000 cubic feet</td>
<td>35 dBA/55 dBC</td>
<td>35 dBA/55 dBC</td>
<td>0.8 seconds</td>
</tr>
<tr>
<td>Classrooms with an enclosed volume of &gt; 10,000 cubic feet and &lt;= 20,000 cubic feet</td>
<td>35 dBA/55 dBC</td>
<td>35 dBA/55 dBC</td>
<td>0.7 seconds</td>
</tr>
</tbody>
</table>

Furnishings and Equipment

- Service windows
- Gaming machines and tables
Service window

- Applicable to public side (not employee side)
- Side or front approach
- Equal customer counter
- Maximum barrier height to allow for face-to-face contact between employee and customer
- Allowance for security windows
Gaming machines and tables

- Clear floor space next to gaming table or machine

Recreational Facilities

- Shooting facilities
Elevated Shooting Platform

- Exception:
  - 500 sq.ft. maximum
  - Elevated over 12 feet

Dwelling Units and Sleeping Units

- Accessible units
- Type B units
Charging stations; Mattress height

- Charging Station:
  - Charge a motorized wheelchair
  - Option at assembly wheelchair space
  - Same space as transfer space next to bed in Accessible hotel or dorm rooms
- Mattress height

Type B units

- Keep old size
- Match FHA
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Process for Change

- International Codes
- ICC A117.1

International Codes – Code Change Process Logistics

- I-Code published every 3 years.
- 15 codes split into two groups: A, B.
- Single cycle for each group
  - Code Development
  - Final Action Hearings
- Repeat
A117.1 Standard: Change Process Logistics

- 5 year development cycle.
- One cycle of development between editions
  - Years 1 and 2: study groups
  - Years 3, 4 and 5: processing changes and publication.
- Repeat
- 2017 A117.1 available in fall of 2017

Questions?