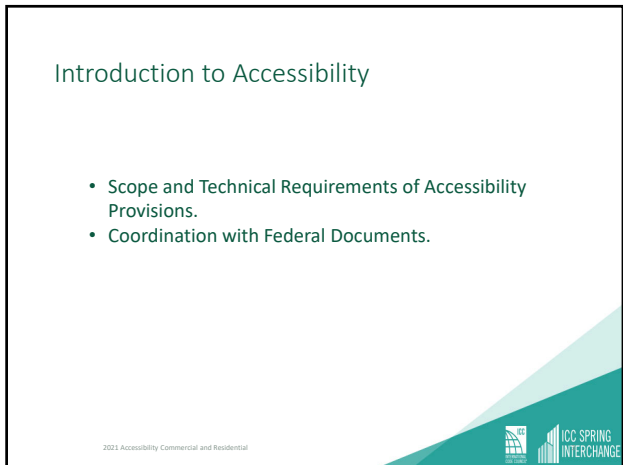


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3

Requirements

- Scoping Requirements:
 - “What, Where and How Many”
 - (2021 IBC, IEBC, IRC)
- Technical Requirements:
 - “How”
 - (ICC/ANSI A117.1-2017)



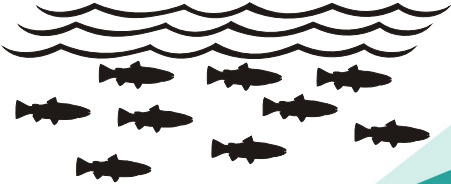
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4

Mainstreaming

Not all accessibility related requirements are in Chapter 11



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5


Limitation of a referenced standards

IBC Section 102.4

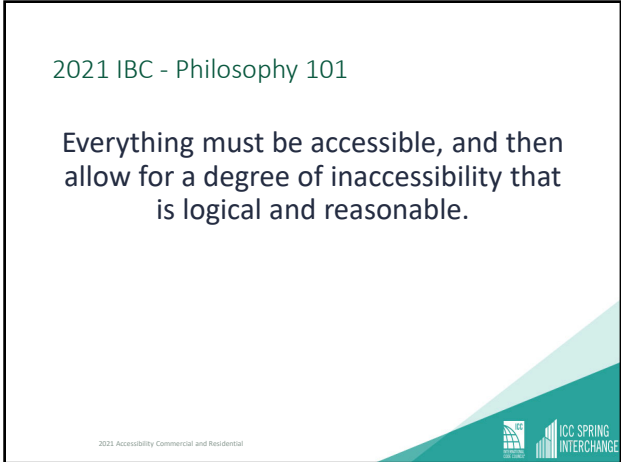
- Considered part of the code to the extent referenced
- Examples in A117.1 that are not referenced – stairways, Type C units, sign language interpreter’s station
- Conflicts – codes rule



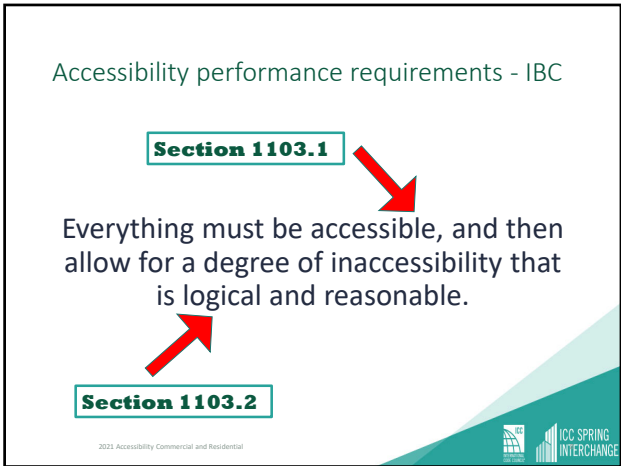
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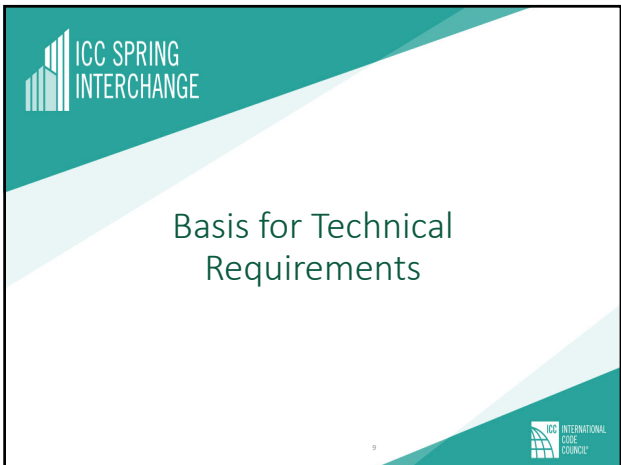
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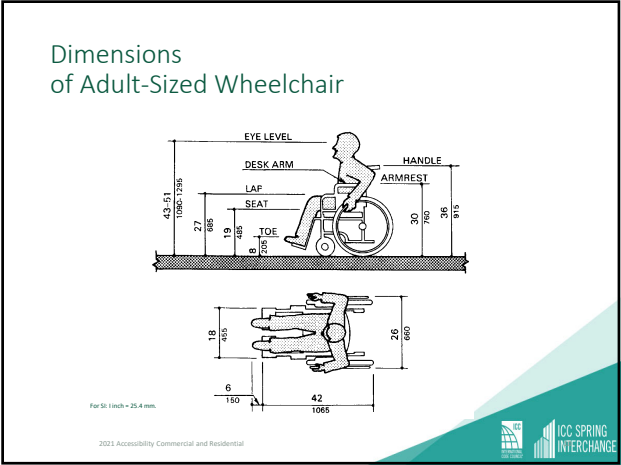
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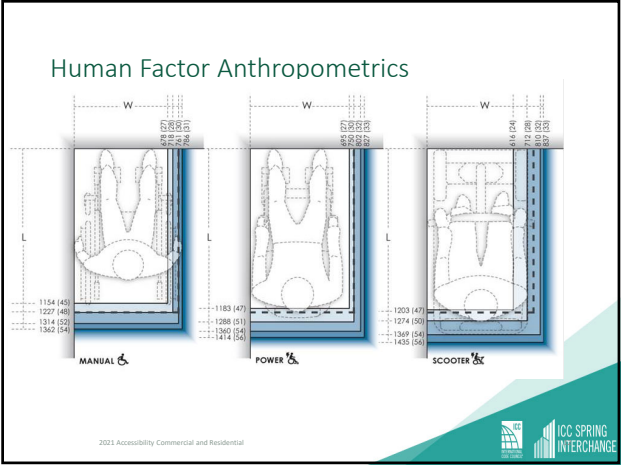
2017 ICC A117.1

- Referenced for the first time in the 2021 IBC
- Revisions based on study on Anthropometry of Wheeled Mobility
 - Sponsored by the US Access Board
 - Including persons using manual wheelchairs, motorized wheelchairs & scooters
- <http://idea.ap.buffalo.edu/projects/anthropometry/>

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2017 ICC A117.1

Revisions include items such as

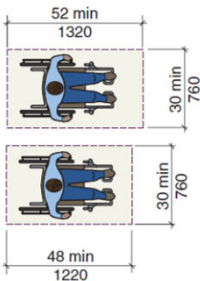
- 30"x52" clear floor space
- 67" turning circle
- 8" chamfered corners on turns for 36" wide aisles and corridors
- Changes to turning spaces allowances to use knee and toe clearances
- Is referenced for the 1st time in the 2021 I-codes

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Clear Floor Space



- Length of space increased to 52" min. for new buildings
- 48" length for existing buildings
- This "building block" requirement impacts many provisions


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Definitions – A117.1 Existing Building

- New definition
- Needed due to desire to lessen impact of 2017 changes
- Defined as "A building erected prior to adoption of 2017 standard, or for which a legal building permit has been issued."



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Existing building and facilities

- New sizes will not apply to any alterations or change of occupancy in existing buildings or facilities, including the improvements to the accessible route
- New sizes will apply to new construction and additions

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Dwelling Units & Sleeping Units

- Module 3
 - Institutional:
 - Groups I-1, I-2 and I-3.
 - Residential:
 - Groups R-1, R-2, R-3 and R-4.
 - Townhouses from IRC

Architects Guide: Accessibility



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Accessibility performance requirements

- Transient and permanent housing should have units that can accommodate persons with mobility impairment's.
- Numbers are based on anticipated need for each type.
- Permanent housing should allow for aging in place, temporary impairments, and visiting.

Architects Guide: Accessibility




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Key Terms

- Dwelling unit:
 - Independent living facilities including provisions for living, sleeping, eating, cooking and sanitation.
- Sleeping unit:
 - Rooms where people sleep which may include living and eating and either cooking or sanitation.

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Key Terms

- Dwelling or sleeping units, multistory.
 - Living space on more than one level.
- Intended to be occupied as a residence.
 - Dwelling units; or
 - Sleeping units; and
 - Occupant's place of abode.

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Shared Spaces

- All public spaces
- All spaces for shared use by residents
- Recreational facilities
- Parking:
 - 2% of parking provided
 - If covered parking provided, at least one accessible space in covered parking






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Level of Accessibility

- Accessible units:
 - Constructed wheelchair accessible.
 - ICC A117.1 Section **1102**.
- Type A units:
 - Constructed wheelchair adaptable.
 - ICC A117.1 Section **1103**.
- Type B units:
 - Type B units:
 - Matches Fair Housing Accessibility Guidelines.
 - Geared towards mobility impaired persons
 - ICC A117.1 Section **1104**.

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Technical Criteria

<ul style="list-style-type: none"> 110*.1 Type of unit; 110*.2 Primary entrance; 110*.3 Accessible route; 110*.4 Walking surfaces; 110*.5 Doors and doorways; 110*.6 Ramps; 110*.7 Elevators; 	<ul style="list-style-type: none"> • 110*.8 Platform lifts; • 110*.9 Operable parts; • 110*.10 Laundry equipment; • 110*.11 Bathing rooms; • 110*.12 Kitchens; • 110*.13 Windows; and • 110*.14 Storage facilities.
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Existing Buildings

- Accessible units and Type A units required based on number being altered.
- Accessible and Type A units required shall not exceed new construction requirements.
- Type B units are required when the alteration is to more than 50% of the building area (i.e., Level 3 alteration).
- When Type B units are added, there are no extra requirements to improve the accessible route.

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Counting Units

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Fire Walls

B

- This is one structure for purposes of accessibility.

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Group R-1

Determine the number of units on the site, and the number of Accessible units required

R-1 Occupancies

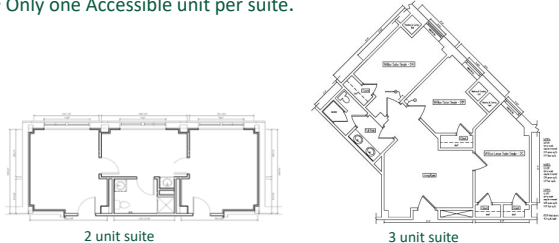
- Where buildings contain more than 50 units:
 - Number of Accessible units determined per individual building
 - Must have Accessible units in each building
- Where buildings contain 50 or fewer units:
 - All units on site considered to determine number of Accessible units
 - Can locate Accessible units in single building or disperse as desired

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Group R-2 congregate residences and dormitories.

- Count the bedrooms in the suite to determine the number of Accessible units required.
- Only one Accessible unit per suite.



2 unit suite 3 unit suite

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Institutional


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Group I-1

-  Condition 1 - 4% Accessible units.
 - ½ can use the assisted option for bathrooms
-  Condition 2 -10% Accessible units
 - ½ can use the assisted option for bathrooms
 - Remainder Type B units if intended to be occupied as a residence.
-  Number of units with visible alarms per Table 907.5.2.3.2.






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Group I-2– Hospitals

-  **10% Accessible unit:**
 - General purpose hospital
 - Psychiatric facilities
 - Detoxification facilities
-  **Remainder Type B units if intended to be occupied as a residence.**






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Group I-2 – Nursing Homes

-  **50% Accessible unit.**
 - 90% of the 50% can use the assisted option for bathrooms
-  **Remainder Type B units if intended to be occupied as a residence.**



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Group I-2 – Rehabilitation Facilities

-  **100% Accessible unit.**
 - 1/2 can use the assisted option for bathrooms



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Assisted toileting and bathing option

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Assisted Toileting and Bathing

- Changes have been made to the provisions for nursing homes and assisted living facilities to allow some units to have toilet and bathing facilities designed for assisted use.
 - These allowances are permitted instead of the independent use facilities generally intended by the ICC A117.1 Accessible unit provisions.
- Both scoping and technical provisions are provided in IBC.
- The assisted use provisions are optional and can be applied when desired by the designer.
 - Units may be modified for toileting, bathing or both

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Assisted Toileting

66" Min Clearance

14" - 16"

24" - 26"

14" - 16"

35" Min Clearance

78" Min Clearance

30" x 48" clear floor space

Swing-up grab bar

Primary technical changes include:

- Increased clearance around water closet of 66" with clearance of 24" to 26" from centerline of fixture
- Increased clearance depth of 78" to allow for additional approach options
- Allowance for swing-up grab bars that are typically only permitted in Type B units
- Toilet paper dispenser to be installed on at least one of the swing-up grab bars

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Assisted Bathing

- Primary technical change is elimination of required folding seat
- Allows for use of rolling chair when necessary
- Sidewall and backwall grab bars now differ, with side-wall bar required on 'seat wall' and both grab bars starting in corners

ASSISTED BATHING ROLL-IN SHOWER - USING EXCEPTIONS EXAMPLE 1

ASSISTED BATHING ROLL-IN SHOWER - USING EXCEPTIONS EXAMPLE 2

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Residential

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Group R-1

- Number of Accessible unit based on Table 1107.6.1.1.
 - New way to add up units on the site.
- Remainder Type B units if intended to be occupied as a residence.
 - Number of units with visible alarms per Table 907.5.2.3.2.


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Group R-2

B **Live/work units**

- All dwellings are Type B units
- The work areas must be accessible.



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Group R-2


Boarding Houses
Dormitories
Fraternity and Sorority Houses

- Number of Accessible unit based on Table 1107.6.1.1.
- Remainder Type B units.

B

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Group R-2 -

Apartments and Condominiums
Convents and Monasteries

- A** 2% Type A units.
 - add up units on the site
 - >20 units in the facility.
- B** Remainder Type B units.



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Group R-3

B All Type B units

- IRC sends townhouse back to the IBC as Group R-3 for accessibility.





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Group R-4


♿ Condition 1 –
One Accessible unit.

♿ Condition 2 –
Two Accessible units


B Remainder Type B units



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Residential Code

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Residential Code – R320


- Townhouses with 4 or more units – back to IBC as Group R-3
- Live/work units
- Bed n Breakfast



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Dwelling and Sleeping Unit Exceptions


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Exceptions – Accessible Units

- No exceptions.



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Exceptions – Type A and B Units A B

- No exception for elevator buildings.

In Buildings with One or More Elevators:
(Elevator Buildings) All Units are Covered

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Exceptions – Type A and B Units A B

- Type A - ≤ 20 units in the site
- Type B - structures with less than 4 units.
- Non-elevator buildings.
- Multi-story units.
- Steep and hilly sites.
- Sites subject to flood regulations.

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Classroom acoustics

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Enhanced Acoustics for Classrooms (New)



- IBC 1207 & A117.1 808
- Provides guidance to improve acoustics by controlling:
 - Reverberation
 - Ambient sound levels
- Currently only for rooms $\leq 20,000 \text{ ft}^3$
- Helps improve hearing and comprehension/learning

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Enhanced Acoustics for Classrooms (New)

Classroom Acoustics Requirements

Learning Space	Greatest one hour average sound level of exterior source background noise	Greatest one hour average sound level of interior source background noise	Maximum reverberation times for sound pressure levels in octave bands with frequencies of 500, 1000 and 2000 Hz.
Classrooms with an enclosed volume of $\leq 10,000$ cubic feet	35 dBA/55 dBC	35 dBA/55 dBC	0.6 seconds
Classrooms with an enclosed volume of $> 10,000$ cubic feet and $\leq 20,000$ cubic feet	35 dBA/55 dBC	35 dBA/55 dBC	0.7 seconds



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Exterior Accessible Route

Module 5

- Exterior Accessible Routes
- Parking Spaces
- Passenger Loading Zones
- Signage.

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Accessibility performance requirements

A person with mobility impairments should be able to arrive at the site, enter the building, and move throughout the building and site independently.



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Public Arrival Points

- Accessible routes start at public arrival points such as:
 - Accessible parking spaces
 - Bus drop offs
 - Public transportation stops
 - Where a building sidewalk connects to the public sidewalk



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Accessible Entrances

- Accessible routes connection public arrival points to accessible entrances



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Other elements on the site

- Accessible routes are required to all facilities offered on the site.
- Exception: Where the only access is by a vehicular route, then the accessible route can also be provided by that vehicular route.



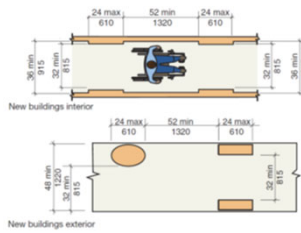
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Walking Surfaces



- Width of new exterior accessible routes increased to 48" min. (A117.1 403.5.1)
- Existing exterior routes can stay at 36" min. (IEBC 306.7.6)

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Curb Ramps and Blended Transitions

- Three option:
 - Perpendicular curb ramps
 - Parallel curb ramps
 - Blended Transitions
- Working to coordinate with proposed federal PROWAG



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Detectable Warnings at Curb Ramps

- Detectable warnings are not required on curb ramps by IBC or A117.1
- If a designer chooses to provide detectable warnings, then technical provisions are provided for area covered, location, pattern and contrast.

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Detectable warning mistakes

Wrong location Too extensive

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Accessible parking and passenger loading zones

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Accessible Parking Spaces

- Based on number of parking spaces provided.
- Number of parking spaces required per zoning ordinances.
- Accessible spaces required:
 - Table 1106.1 for general parking.
 - 2% for Group R-2 and R-3.
 - 10% at hospitals facilities.
 - 20% at mobility treatment centers.
 - 1 of 6 accessible spaces sized for a van

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Dispersion by Type

- Parking lots
- Parking garages
- Carports
- Private garages
- Pay/free
- Employee/visitor only



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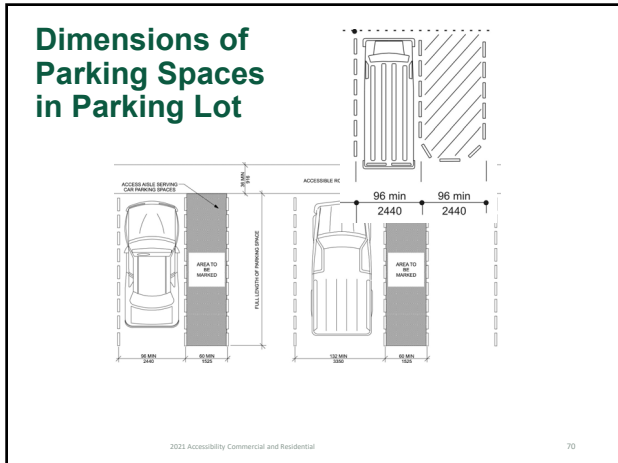
Parking Locations

- Locate on the shortest accessible route to an accessible entrance.
- Multi-entrance building or multi-building sites – disperse spaces
- Exception:
 - Van spaces on ground level of parking garages (vertical clearance of 98 inches)
 - Grouped where better access is provided

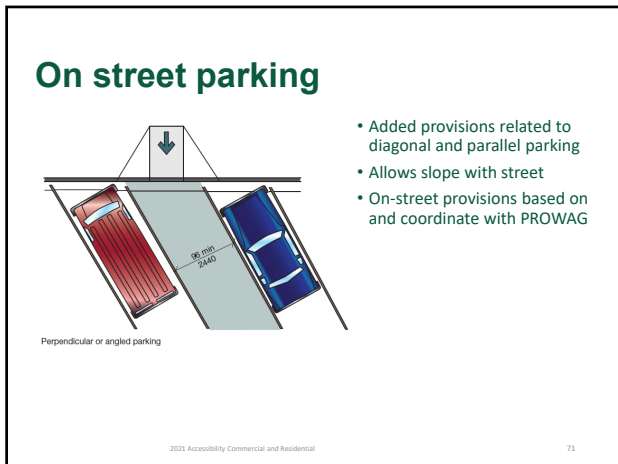


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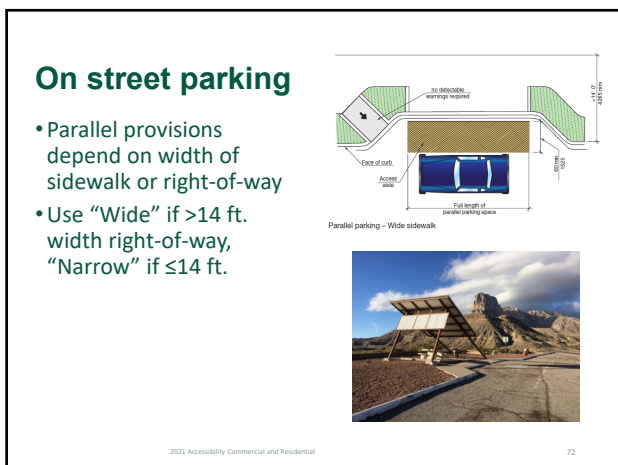
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Parking Meters and Pay Stations




- Stations that serve accessible parking spaces
- Provisions added to address location and access to on-street parking meters and pay stations.
 - Not applicable to parking lots
- Done to coordinate with PROWAG
- Requires: Compliance with operable parts, location at end of stall, visible display at 40" max.

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Electrical Vehicle Charging Station

- Ensures they are accessible and usable
- Regulated "where provided" at parking spaces
- Provisions address operable parts, accessible route, obstructions
- Applies to both parking lots and on-street parking



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Accessible Entry vs. Accessible Exits

Module 6

- Comparison of Requirements.
- Accessible Entrances.
- Accessible Means of Egress.
- Visible and Audible Alarms.

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75

Accessibility performance requirements

- A person with mobility impairments should be able to move throughout the building independently.
- Evacuation may require assistance – so it is important to communicate between emergency responders and persons who need assistance.

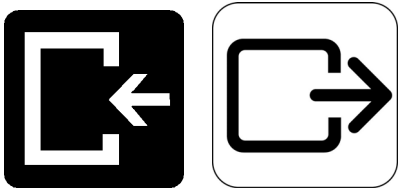
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Entrance/Exit Requirements—Introduction

- Requirements for both entry and egress must be addressed and the most restrictive applied.



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Accessible 

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Accessible Entrance




- Special entrances – at least one:
 - Parking garages
 - Tunnels
 - Elevated walkways
 - Restricted
 - Inmates or detainees
- Public entrances – 60%.
- Individual entrance
 - Tenants
 - Accessible Group I and R dwelling and sleeping units

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Exceptions

- Areas not required to be accessible.
- Doors that serve as means of egress only.
- Service entrances that are not the only entrance to a tenant.

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Automatic Doors at Public Entrances

- In specified occupancies with sizable occupant loads, the accessible public entrances must now be provided with an automatic door.
- Where an automatic door is required by Table 1105.1.1, it shall be either a full power-operated door or a low-energy power-operated door.

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.

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Automatic Doors at Public Entrances

- In mixed-occupancy buildings where total building occupant load exceeds that listed, the most restrictive building occupant load shall apply.
- Where the public entrance includes a vestibule, at least one door into and one door out of the vestibule must comply with the requirements.
- **Very important to understand that doors that require card or key entry will most likely still be considered public entrances.**

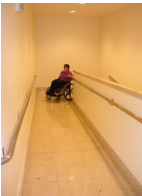
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Interior Routes

- Connect accessible entrances to accessible spaces within the building
- The accessible route must allow for unassisted access


Ramps




Horizontal surfaces



Platform lifts



Elevator



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Additional Routes

- Connections between dwelling and sleeping units and all shared facilities (e.g., dining halls, lobby, laundry, mailrooms).





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Accessible Means

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Accessible MOE

An accessible means of egress is:

- A continuous and unobstructed accessible route of egress travel from any accessible point in a building or facility to a public way.
- The intent – self-evacuation as much as possible – sometimes completed with assistance.

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Accessible MOE Options

- Assisted rescue when necessary
- Defend in place (i.e., hospitals, jails)
- Assisted evacuation at stairways
- Assisted evacuation at elevators with standby power

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Accessible Entry vs. Accessible Exit

TERM	DEFINITION	EXAMPLE	REQUIRED #
Accessible Entry	Consists of: •Exterior accessible route. •Accessible entrances. •Interior accessible route.	Elevator	60% of the entrances
Accessible Exit	Consists of: •Exit access via interior accessible route. •Area of refuge/Exit. •Exit discharge.	Exit Stairway	1 AMOE with 1 MOE 2 AMOE with 2+ MOE

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Planning

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Pre-Planning for Emergencies

- Fire evacuation plans
- Fire safety plans
- Lockdown plans
- Associated drills
- Worked out with the building owner/renter and the fire department
- Updated annually or when necessitated by changes
- Available for review




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Fire Evacuation Plans

- Emergency routes
- Strategy - Evacuation or defend in place
- Critical equipment operation
- **Assisted rescue procedures**
- Verifying full evacuation
- Emergency responders
- Notification of occupants
- Notification of fire department
- Emergency voice/alarm communication system

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Fire Safety Plans

- Reporting emergency
- Evacuation or relocation of **all** occupants
- Site plans – occupancy assembly point, fire hydrants, fire truck route
- Floor plans – exits, routes, **areas of refuge**, fire alarm, extinguishers, fire hoses
- Major fire hazards
- Persons responsible

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Emergency Drills

- Assembly – quarterly
- Business – annually
- Educational – monthly
- Factory – annually
- Institutional – quarterly on each shift
- Hotel - quarterly on each shift
- Apartments/dorms – 4 times annually
- Group homes - quarterly on each shift
- High rise - annually

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Notification & Communication



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Audible and Visible alarms

- Installed in accordance with NFPA 72
- Manual fire alarm pull stations must




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Visible Alarms

- All public spaces.
- All common spaces.
- Group I-1 (assisted living) and R-1 (hotel) units per Table 907.5.2.3.2.
- Future expansion for:
 - Individual employee work areas.
 - Smoke alarms in Group R-2 (apartments) units.



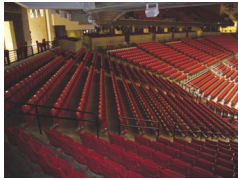
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Notification & Communication

- Mass notification fire alarm signals in stadiums, arenas, and grandstands with more than 15,000 fixed seats now require captioned messages.



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Exit Signs

- Visual exit signs at stairway entrances
- Tactile exit signs at stairway entrances, areas of refuge and exterior area for assisted rescue



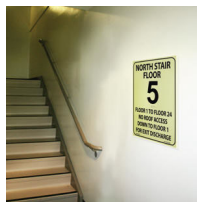
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Stairway Signage

- Visual signage within the stairway
- Tactile signage indicating floor levels
- Tactile signage at the door leading to the exit discharge




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Two-way Communication



- Within areas of refuge
- At elevator lobbies in sprinklered buildings (starting with 2009 IBC including when the elevator is not part of an AMOE)
- Variety of options
- Allow for communication and feedback between emergency responders and people who need assistance




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Accessible Means of Egress Requirements

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AMOE: Minimum Number

- Minimum number of AMOE required:
 - 1 AMOE - where 1 MOE required
 - 2 AMOE - if more than 1 MOE required
- Exceptions:
 - Existing facilities
 - Areas **that are not** accessible
- Must consider both the building and spaces within the building.

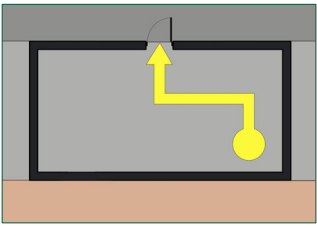
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Example: 1 MOE/AMOE

- 1 MOE & 1 AMOE allowed under these conditions:
 - mercantile occupancy;
 - and
 - 49 or fewer occupants;
 - and
 - 75' max. travel distance from farthest point

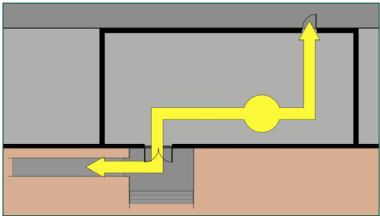


2021 Accessibility Commercial and Residential Drawings courtesy of Access Board 103

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MOE: Minimum Number

- At least 2 MOE required

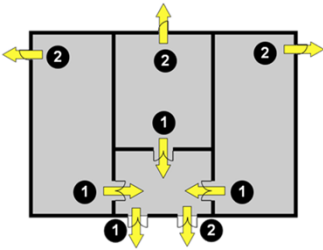


2021 Accessibility Commercial and Residential Drawings courtesy of Access Board 104

104

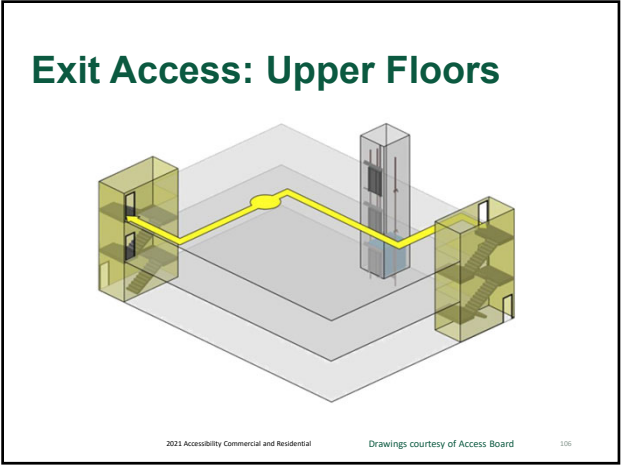
MOE: Minimum Number (cont)

- MOE required from each space and room

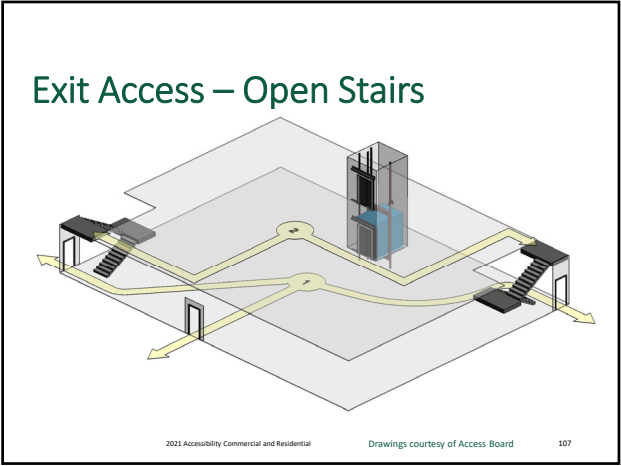


2021 Accessibility Commercial and Residential Drawings courtesy of Access Board 105

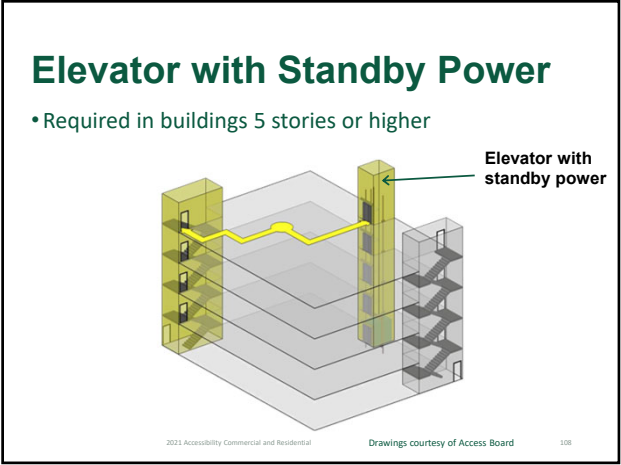
105



106



107



108

Elevator with standby power - Determining stories

- Required in buildings with 4 or more stories above or below the level of exit discharge

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Exit Discharge

- Only at the level of exit discharge
- Accessible route to a public way or
- Interior area of refuge or
- Exterior area for assisted rescue

No exceptions for sprinklered buildings

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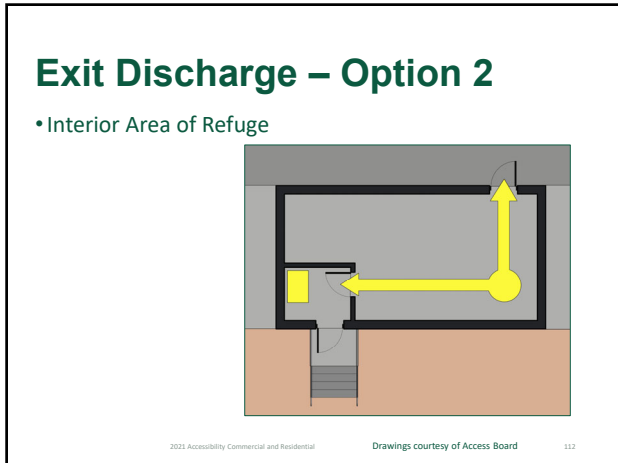
110

Exit Discharge – Option 1

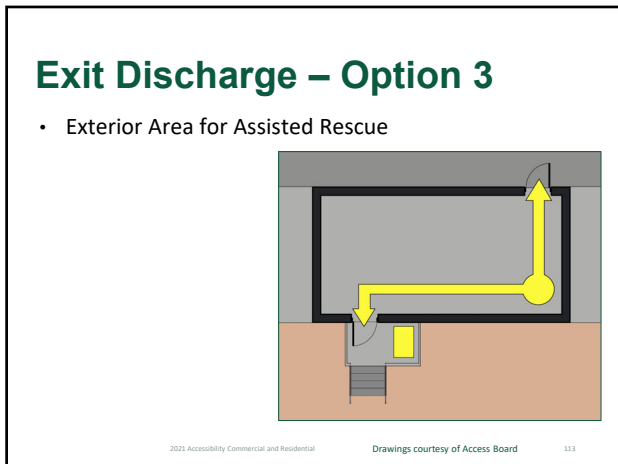
- Accessible route to a public way

2021 Accessibility Commercial and Residential Drawings courtesy of Access Board 111

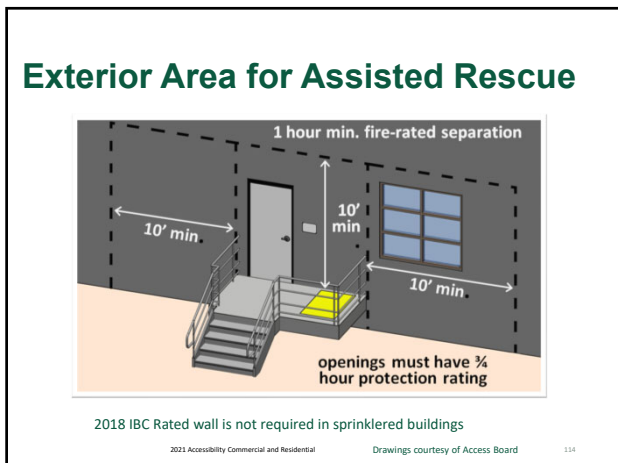
111



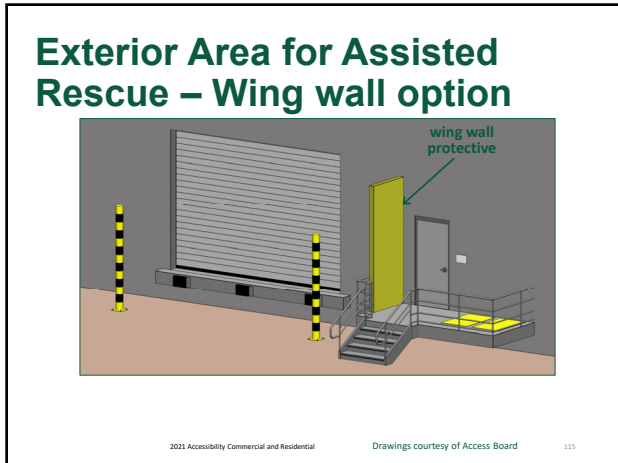
112



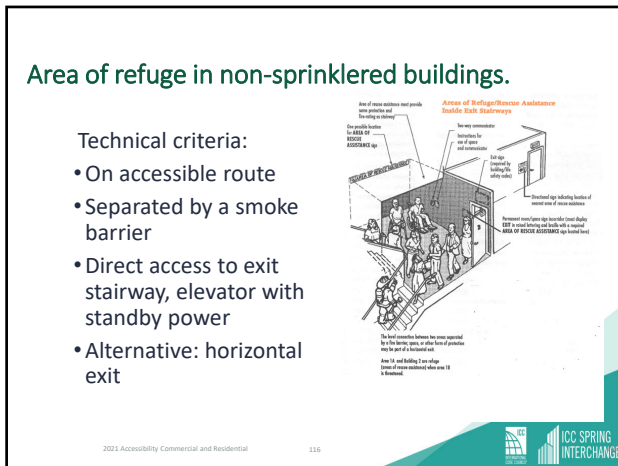
113



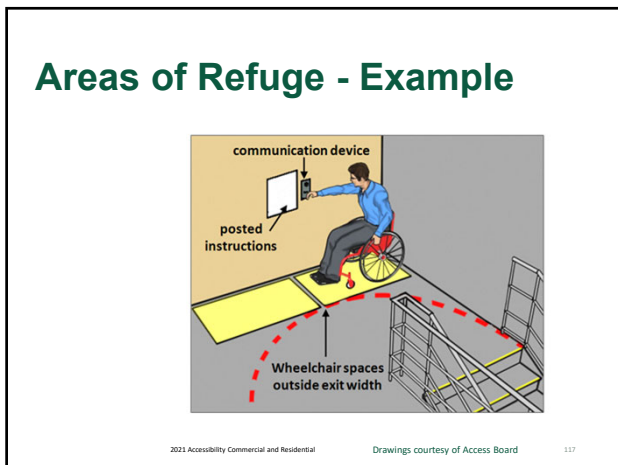
114



115



116



117

Areas of Refuge – Inside stairway

- 48” min. stairway width (between handrails)
- 30” x 48” space (1 for every 200 occupants) located outside general MOE path
- Two-way communication system
- Identification and instructional signage

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Areas of Refuge – adjacent to stairway

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Areas of Refuge - exceptions

Exceptions for areas of refuge:

- buildings fully equipped with an automatic sprinkler system
- open parking garages
- open exit access stairways between stories

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Horizontal exit exception

- A horizontal exit allows for slower evacuation of the building
- Alternative for areas of refuge
- Standby power not required at elevators where this is on all floors but the level of exit discharge

Horizontal Exit

Compliant fire wall or barrier with a 2 hour min. fire-resistance rating

Compliant opening protectives, including self-closing or automatic closing fire doors

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Special consideration

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Open stairways

- Open stairway can be supplemental or part of a required MOE
- Open stairways for required MOE is mostly for two story buildings and with travel distance limitations (there are limited exceptions)
- Open stairways that are part of the required MOE can also serve as AMOE
- No area of refuge, even in non-sprinklered buildings
- Two-way communication at the elevator

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ICC SPRING INTERCHANGE

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Occupied roofs

- Treated the same as a story for an accessible route and means of egress
- Occupied roof same as floor for AMOE
- Specifically indicated in 2021 IBC as a story for requiring elevators with standby power.




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124

Stages, platforms and orchestra pits

- Depending on size of stage – one or two ways off
- If platform lift used for AMOE then it has to have standby power



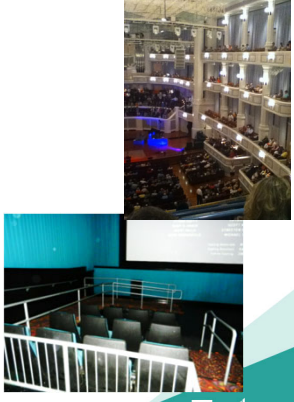
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125

Assembly seating

- Two ways out for every wheelchair space location
- Common path of travel for how far you can go back out the way you came in before you have two ways to go



2021 Accessibility Commercial and Residential 126



126

Interior Accessible Route Elements

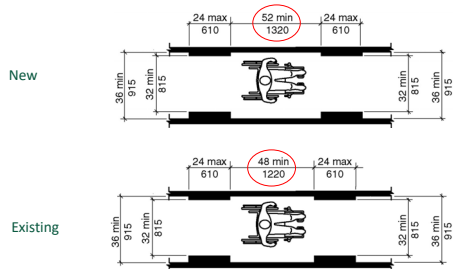
• Module 7

- Technical requirements.
- Doors.
- Elevators and Platform Lifts.
- Stairways and Ramps.



127

Minimum Clear Width for Single Wheelchair

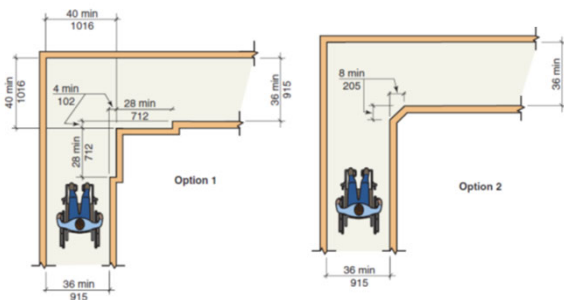


2021 Accessibility Commercial and Residential

128

128

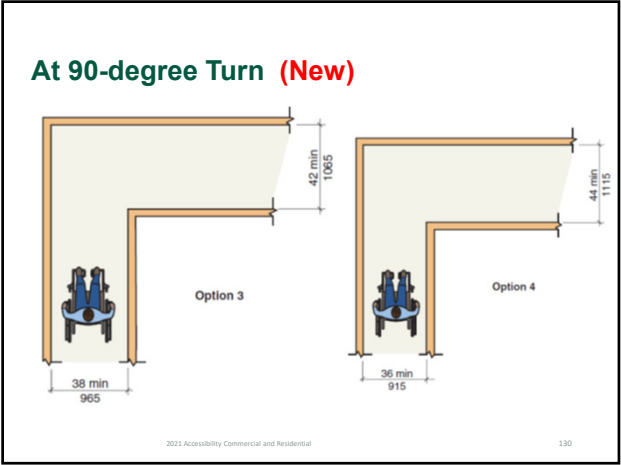
At 90-degree Turn (New)



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130

At 90-degree Turn (New)

- New buildings have four options for making turns on 36" wide accessible routes
- Exceptions exempt turns at doors, elevators, platform lifts
- Does not include turns into clear floor spaces at fixtures, elements or wheelchair spaces.

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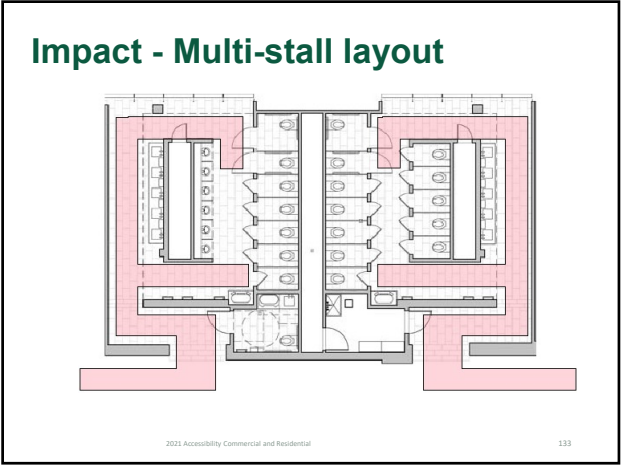
131

At 90-degree Turn (Existing)

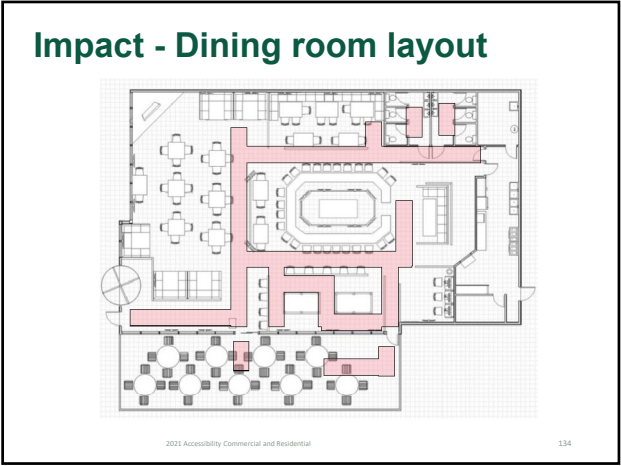
- Existing buildings may continue to use a 36" route at 90-degree turns
- 2009 Standard did not have a section for 90-degree turns but used general route requirements.
- Existing building provision match with ADA

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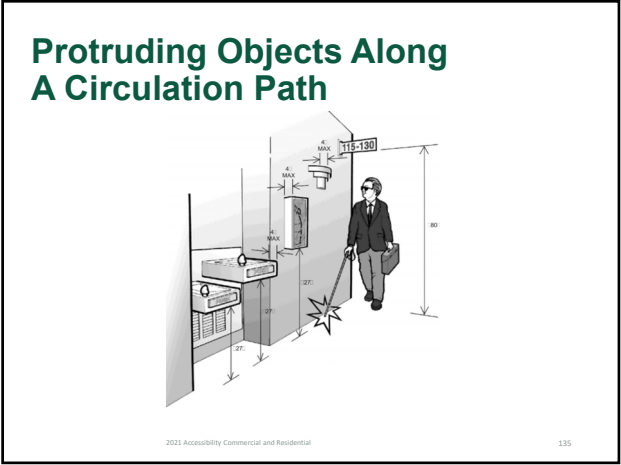
132



133



134



135

Protruding object

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Protruding object

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Overhead Protruding Objects

2021 Accessibility Commercial and Residential 138

138

Overhead protruding object

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Doors

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Doors

Door Size 1010.1.1

Door Swing 1010.1.2

Doors Operation 1010.1.8

Doors in a Series 1010.1.9

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Hardware

- Examples of 'no tight pinching, tight grasping or twisting of the wrist.'
- Hardware height is between 34" and 48"
- 5 lbs. force it to open the door after the latch has been disengaged.

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Manual Doors and Gates Hardware & Opening Force

- Splits provisions for hardware and door forces
- Provides operational force for hardware
 - 15 pound forward pushing or pulling
 - 28 inch-pounds rotational motion

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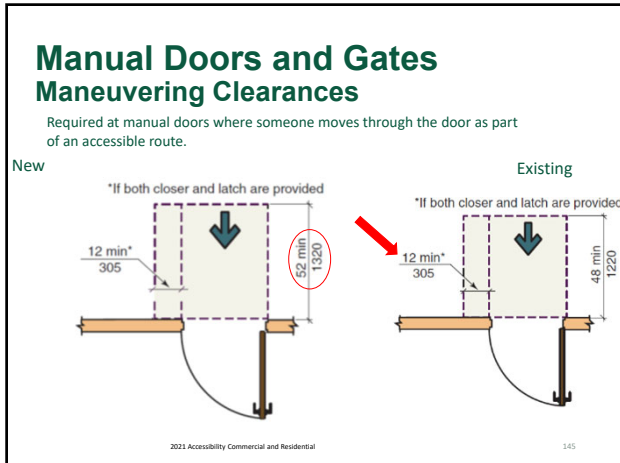
143

Door Surface

- On the push side, the bottom 10" must be clear of obstructions

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145

Maneuvering Clearance – Automatic doors

- Required at power assist doors
- Not required a low-power automatic doors and fully automatic doors unless part of AMOE
- Options for standby-power battery backup, open with power off, or break away

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ICC SPRING INTERCHANGE

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Stairways and Ramps


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Stairways

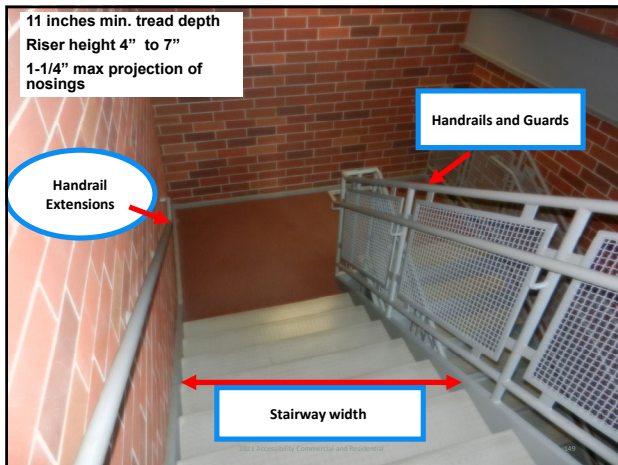
- Not part of the accessible route into building.
- Part of an accessible means of egress out of building with assistance.
- Mainstreamed requirements with no reference to ICC A117.1.
- Safety provisions for persons with mobility and visually impairments addressed in IBC.



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11 inches min. tread depth
Riser height 4" to 7"
1-1/4" max projection of nosings

Handrails and Guards

Handrail Extensions

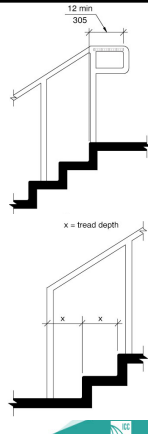
Stairway width

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Handrail Extension


- The handrail extension at the bottom is 1 tread depth minimum and sloped.
- The 2010 ADA has removed the requirement for the additional 12" horizontal extension at the bottom.
- The handrail extension at the top is 12" minimum horizontal.
- The extension must be in the direction of the stairway run



12 min
305

x = tread depth

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Solid tread and risers?

- Treads allow for opening 1/2" or smaller
- Risers should not allow for someone to get their foot caught under the tread.



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Ramp Technical Criteria

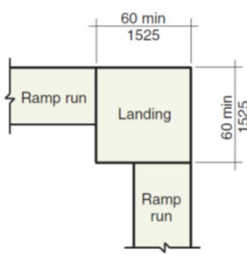
- >1:20 slope.
- 1:12 slope maximum on accessible routes.
- Change in level at start of ramp
- Surfaces – slip resistant
- Cross slope - < 1:48
- Minimum width – 36" between handrails
- Maximum rise – 30" between landings
- Adequate landings

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Ramps



- Requires 60" x 60" landing at change of direction – not "turning space"
- Exception reduces ramp width due to equipment in employee work areas

Significant Changes to the ICC A117.1, Accessibility Standard - 2017 Edition 153



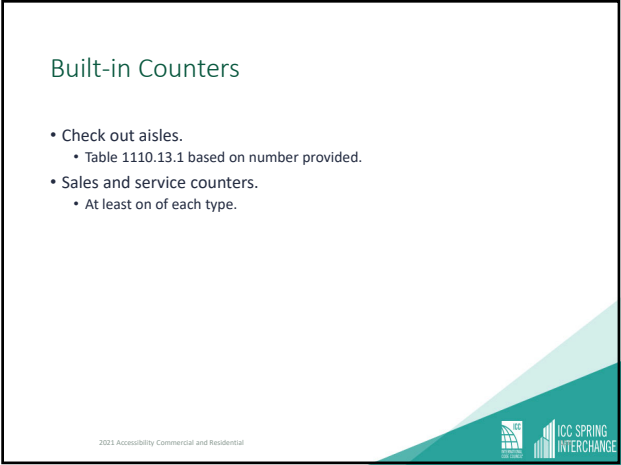
153



154




155




156

Sales/Service Counters & Windows

- “Windows” added into requirements
- Regulates “public portion” “where counters are provided”
- Employee side is not regulated since it is a work area
- Clarifies small (<36” length) parallel counters are OK if that is entire counter length




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Sales/Service Counters & Windows

- 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

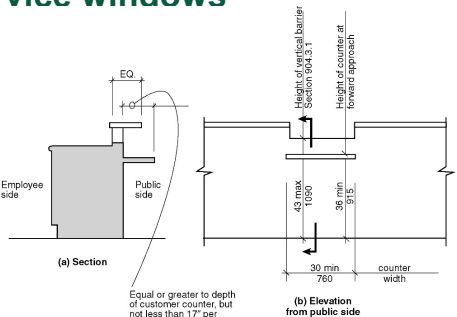


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Service windows



Equal or greater to depth of customer counter, but not less than 17” per Section 306.3.3

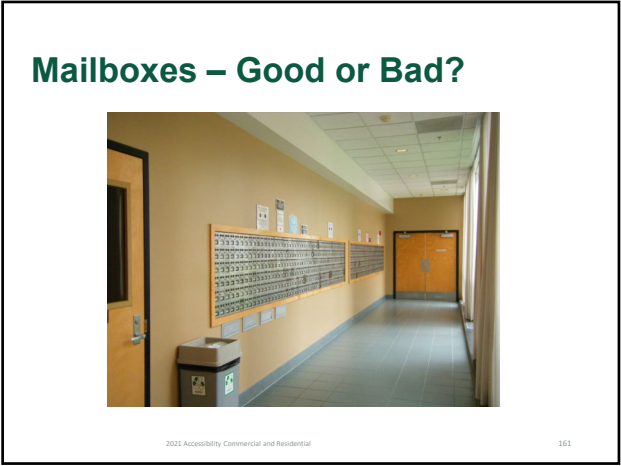
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Drinking Fountains (Scoping)

- 50% of drinking fountains provided on each floor configured for persons using wheelchairs.
- 50% of drinking fountains provided on each floor configured for standing persons.
- Exception for drinking fountains sized for children



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Drinking Fountains (Technical)

- Clear floor space/approach
- Protruding objects
- Operable parts
- Spout location
- Water flow





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Bottle Filling Stations

- Water bottle-filling stations, where provided, are to be accessible.
 - Stations located over drinking fountains for standing persons not required to be accessible, provided such stations are also located over the drinking fountains for persons using wheelchairs.
- Technical requirements found in A117.1 Section 602.4.
 - Clear floor space provided for either a forward or side approach
 - Controls to comply with operable parts requirements

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Toilet rooms

- Required fixtures per IPC.
- Designers choice for how required fixtures are separated:
 - Multi-stall toilet rooms
 - Single occupant toilet rooms
- All toilet rooms must be accessible per Chapter 6 of ICC A117.1.

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Exceptions

- Accessed through a private office.
- Non-accessible dwelling or sleeping units.
- 50% of each type of clustered single occupant toilet rooms.
- When only one urinal is provided in a toilet room, that urinal is not required to be accessible.
- Critical care or Intensive care.
- Allowance to design for children

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Toilet and bathing rooms

- One of each type of fixture provided in each toilet or bathin room:
 - Water closets
 - Lavatories
 - Urinals
 - Bathtubs/Showers
- When 6 or more water closets and/or urinals are provided in a room, an ambulatory stall is required.

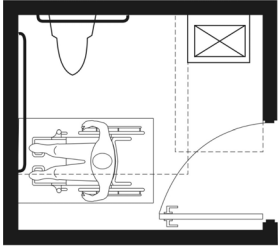
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Single Occupant Toilet Rooms

- 60" turning space required in the room
- A door **can** swing over the space where someone sits to use the lavatory, toilet or urinal **provided** a 30" x 48" space is provided past the swing of the door
- A fixture **cannot** overlap the clear floor space of another fixture




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Impact – Single occupant toilet room design

- Existing
- New




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Impact – Single occupant toilet room design

- Existing
- New



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171

Impact – Single occupant toilet room design

- Existing
- New

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ICC SPRING INTERCHANGE

Other features

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Operable Parts


- All operable parts within accessible spaces and intended for occupant usage.

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Operable Parts


- A117.1 Section 309.1 is now referenced regarding those operable parts exempted from accessibility, allowing for the deletion of like exceptions in IBC.
- Five exceptions deleted from IBC to:
 - Eliminate redundancy and confusion
 - Maintain consistency between ICC A117.1 and IBC
- Exceptions addressed include:
 - One kitchen counter top outlet where two or more provided
 - One control, for other than light switches, where redundant controls are provided
 - Electrical receptacles serving dedicated use
 - Floor electrical receptacles
 - HVAC diffusers



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Operable Parts 309.1, 1102.9, 1103.9



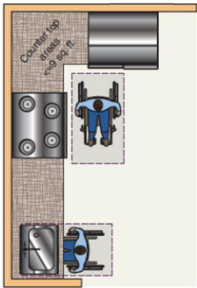
- Exceptions for operable parts moved from Chapter 11 to Section 309
- Allows exceptions to be used for all public areas and not just in the dwelling units
- Eliminates exceptions in Accessible and Type A units
- Primary changes are:
 - New exception 3 and 10

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Operable Parts 309.1, 1102.9, 1103.9

- Exception 3 covers outlets in kitchen. Limits include:
 - Location where parallel approach cannot be provided
 - Outlets are over counter in a corner
 - Excluded area < 9 sq. ft. in area
 - Excluded area is "between appliances"
- Exception 10 is for emergency devices used by emergency personnel, during emergencies




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Windows

- Separate force provisions for latch or operable parts versus window opening force
- Four forces on a required window – locking, unlocking, opening and closing
 - Locking/unlocking are operable parts
 - Opening/closing - AAMA 513



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Windows

Operating force for opening/closing windows:

- 8.5 pounds max. for vertical or horizontal sliding
- 5 pounds max. for all other types

- Type A units only regulate height and clear floor space
- Accessible and Type A units exempt windows in kitchens and bathrooms
- Not required in Type B units

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Existing buildings

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Accessibility performance requirements

- This is not mandatory retrofit
- Existing buildings are improved as you alter, with the idea that they will become as accessible over time as technically feasible.
- Whatever you touch, you fix.
- As long as you are making alterations, this is the best time to make improvements to the accessible route, bathrooms and drinking fountains that serve the area being altered.


Architects Guide: Accessibility




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Existing Buildings

- Maintenance.
- Alteration.
- Change of occupancy.
- Addition.
- Historic buildings.





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Which book to use?

- Chapter 34 was deleted from the 2015 IBC
- The 2021 IEBC has three methods–
 - Prescriptive Compliance Method – Chapter 5
 - Work Area Method – Chapters 6 through 12
 - Performance compliance method – Chapter 13
- Accessibility provisions for all three methods in Section 306

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Maintenance & Repair

A facility that is constructed accessible must be maintained accessible.




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Extent of Application

Alterations are not required to exceed the accessibility that would be required for a new building.



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Additions

- Additions must comply with new construction.
- If the addition relies on the toilet rooms or route through the existing building for access into the space, then the same accessible route provisions for alterations would apply.




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Alterations or COO to Existing Buildings – Part 1

- Change of occupancy and alterations treated the same for improvements for accessibility.
- When altering an existing building, everything that is altered must meet requirements for accessibility.



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General Exceptions

- Accessible means of egress not required to be added.
- Technically infeasible.
- When historical significance is adversely affected.
- Type B units when the alteration is to less than 50% of the area of the building (Level 1 or 2)


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Technically Infeasible

- Removal or *alteration* of a load-bearing member that is an essential part of the structural frame
- Existing physical or site constraints



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Alterations to Existing Buildings – Part 2

- If the area being altered contains a primary function area, the route to that area and any toilet rooms or drinking fountains that serve that area must be evaluated for accessibility.
- If they are not accessible, additional improvements are required.

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Primary Function Area

- A major activity for which the facility is intended.
- Excluding areas such as:
 - Mechanical room or boiler room
 - Supply storage
 - Employee lounge or locker room
 - Janitors closet
 - Entrances
 - Corridors
 - Restrooms

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Accessible Route Exceptions

- The cost of the accessible route exceeds 20% of the cost of the alteration.
- The alteration is limited to items that will not alter the physical configuration or use of the space.
- The alteration is to improve accessibility.
- The route is to Type B units only.

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Technical Assistance

- ICC and A117.1 – ICC, (888)422-7233; www.iccsafe.org.
- ADA – Access Board, 800-872-2253(v), 800-993-2822(TTY), www.access-board.gov or email at ta@access-board.gov
- ADA – ADA Technical Assistance Centers (800)949-4232; www.adata.org
- Fair Housing – Fair Housing Accessibility First, (888)341-7781; www.fairhousingfirst.org.

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