2018 IBC Type A and B Dwelling Units

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- Module 2: General Scoping
- Module 3: Building Accessibility
- Module 4: Technical Criteria for Type A and B Units
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Goal

- To determine the minimum requirements for accessibility at multi-family facilities based on:
- This presentation is limited to the residential occupancies containing dwelling units – places where people live and sleep.
Objectives

- Upon completion of this seminar, you will be better able to:
  - Identify scoping requirements for accessibility in multi-family occupancies.
  - Determine the extent to which accessibility code provisions apply.
  - Identify technical requirements for Type A and Type B dwelling units.
  - Determine accessibility requirements for common-use and public-use areas, including recreational facilities.

Seminar Scope

- Scope of this seminar is limited to multi-family residential facilities classified as Group R-2 occupancies, including:
  - Type A and Type B dwelling units
  - Related common-use and public-use areas
- Only dwelling units (not sleeping units) are addressed based on Group R-2 classification.
- Dwelling units and sleeping units are also regulated in other types of facilities, however this presentation does not specifically address the following occupancies:
  - Institutional: Groups I-1, I-2 and I-3.
  - Residential: Groups R-1, R-2 (other than multi-family nontemporary uses), R-3 and R-4.
  - Townhouses and congregate residences from IRC: Referenced as Group R-3.
Introduction to Accessibility

- Coordination with Federal Documents.
- Basis for Technical Criteria.

2018 IBC - Philosophy 101

Everything must be accessible, and then allow for a degree of inaccessibility that is logical and reasonable.

Requirements

- Scoping Requirements:
  - “What, Where and How Many”
  - (2018 IBC and IEBC)
- Technical Requirements:
  - “How”
  - (ICC A117.1-2009)
Fair Housing Act

- Fair Housing Act regulates residential non-transient uses.
- Covers all housing built for first occupancy after March 13, 1991.
- Scoping and technical requirements found in the Fair Housing Accessibilities Guidelines (FHAG).

“Safe Harbor” means...

- that requirements in the document have been reviewed by HUD and meet or exceed the building construction requirements of the FHAG.
- 2009, 2012, 2015 and 2018 IBC and 2009 ICC A117.1 are currently under review by HUD.
2018 IBC Type A and B Dwelling Units

Role of the Code Official

Basis for Technical Requirements

Dimensions of Adult-Sized Wheelchair
Type C (Visitable) Units – 1005

- Type C units were first addressed in ICC A117.1 in the 2009 edition.
- Technical provisions established in Section 1005.
- However, no scoping provisions have ever been established in the IBC or IRC
- Intended for potential adoption by jurisdictions through visitability ordinances

General Scoping

- Types of accessible units
- Key terms
- General exceptions
- Group R-2 scoping requirements
- Dwelling unit exceptions
Categories of Residential and Institutional Accessibility

- Dwelling units and sleeping units in residential and institutional occupancies regulated by the IBC are assigned and regulated in one of three categories:
  - Accessible units
  - Type A units
  - Type B units

Accessible Units

- Accessible units:
  - Constructed wheelchair accessible.
  - ICC A117.1 Section 1002.
  - Accessible units are not mandated in Group R-2 apartment buildings.

- Such units are selectively required in the following occupancies:
  - Group I-1, Conditions 1 and 2 facilities
  - Group I-2 nursing homes, hospitals and rehabilitation facilities
  - Group I-3 sleeping units and holding cells
  - Group R-1 hotels and motels
  - Group R-2 congregate living facilities and timeshare properties
  - Group R-4 Condition 1 and 2 facilities
**Type A Units**

- **Type A units:**
  - Constructed wheelchair adaptable.
  - ICC A117.1 Section 1003.
- **Type A units are only required by the IBC in Group R-2 apartment houses.**
- **Accessibility provisions of FHAG do not require Type A units under any conditions.**

**Type B Units**

- **Type B units:**
  - Consistent with Fair Housing Accessibility Guidelines.
  - Primarily addresses mobility-impaired persons
  - ICC A117.1 Section 1004.
- **Type B units provide some limited degree of access and adaptability.**
- **Applicable to both dwelling units and sleeping units.**

**Key Terms**

Related to Housing Accessibility
Key Terms

- DWELLING UNIT.
  - Independent living facilities including provisions for living, sleeping, eating, cooking and sanitation.

- SLEEPING UNIT.
  - Single unit where people sleep which may include living and eating and either cooking or sanitation.

Key Terms

- DWELLING UNIT OR SLEEPING UNIT, MULTI-STORY.
  - 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.

Key Terms

- TRANSIENT.
  - Occupancy of a dwelling unit or sleeping unit for not more than 30 days.

- STRUCTURE.
  - That which is built or constructed.

- BUILDING.
  - Any structure utilized or intended for supporting or sheltering any occupancy.
Key Terms

- **FACILITY**
  - All or any portion of buildings, structures, site improvements, elements and pedestrian or vehicular routes located on a site.

- **SITE**
  - A parcel of land bounded by a lot line or a designated portion of a public right of way.

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Key Terms

- **CONDOMINIUM, RESIDENTIAL.**
  - Not specifically defined in IBC.
  - Considered as Group R-2 occupancy where:
    - More than two dwelling units
    - Occupants are primarily permanent in nature
  - Regulated for accessibility in same manner as Group R-2 apartment building.

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Key Terms

- **TOWNHOUSE**
  - Single-family dwelling unit constructed in group of 3 or more attached units.
  - Only addressed in *International Residential Code*, which references IBC for accessibility purposes.
  - Where four or more dwelling units located in a single structure, townhouse to comply with accessibility provisions for IBC Group R-3 occupancy.
  - Every dwelling unit in a Group R-3 occupancy with four or more units to be a Type B dwelling unit.
  - Number of Type B units permitted to be reduced per Section 1107.7.
Where Accessibility Required
Section 1103.1

- As a base requirement, sites, buildings, structures, facilities and spaces to be accessible to individuals with disabilities.
  - Applicable to both permanent and temporary conditions.
  - General exceptions established in Section 1103.2 to exempt provisions of Chapter 11 to the extent specified.

General Exceptions
Section 1103.2

- Various exceptions applicable to Group R-2 multi-family apartment buildings and associated uses:
  - Specific requirements
  - Detached dwellings
  - Utility buildings
  - Construction sites
  - Limited access spaces
  - Equipment spaces
  - Day-care facilities

- To the extent specified, provisions of Chapter 11 do not apply to these sites, buildings, facilities and spaces.
Specific Requirements
Section 1103.2.1
- Accessibility not required in buildings and facilities, or portions thereof, to extent permitted by Sections 1104 through 1111.
- Recognizes specific provisions and exceptions where full accessibility not required.
- Examples include:
  - Buildings containing dwelling units or sleeping units
  - Vertical accessible routes
  - Accessible parking spaces
  - Toilet and bathing facilities

Detached Dwellings
Section 1103.2.3
- The following residential applications are not required to comply with the provisions of Chapter 11:
  - Detached one- and two-family dwellings
  - Related accessory structures
  - Associated sites and facilities

Construction Sites
Section 1103.2.5
- Structures, sites and equipment directly associated with actual processes of construction not required to comply with Chapter 11.
- Examples include:
  - Scaffolding
  - Materials storage
  - Construction trailers
Limited Access Spaces
Section 1103.2.7
- Chapter 11 does not apply to those areas of building accessed solely by:
  - Ladders
  - Catwalks
  - Crawl spaces
  - Freight elevators
  - Very narrow passageways

Equipment Spaces
Section 1103.2.9
- Spaces accessed only by service personnel are not required to meet the provisions of Chapter 11 where such access provided to equipment for:
  - Maintenance
  - Repair
  - Occasional monitoring

Day Care Facilities
Section 1103.2.13
- Where areas of a dwelling unit are used for a day care facility, only that portion of the unit utilized for day care purposes required to comply with Chapter 11.
Group R-2 Apartment House Scoping Requirements

Section 1107.6.2.2.1

- In Group R-2 apartment houses containing more than 20 dwelling units, a minimum of 2%, but not less than one, to be a Type A unit.
- Required number of Type A units permitted to be reduced per Section 1107.7.5 (exception based on design flood elevation).

All Group R-2 units on a site to be considered to determine total number of units and required number of Type A units.
- Existing structures on a site do not contribute to the total number of units on a site.
Group R-2 Apartment Houses
Section 1107.6.2.2.1
- Type A units to be dispersed among the various classes of units.
  - Increase in number of Type A units not required in order to satisfy that all classes of units represented.

Group R-2 Apartment Houses
Section 1107.6.2.2
- Where four or more dwelling units are located in a single structure, every unit to be a Type B dwelling unit.

Group R-2 Apartment Houses
Section 1107.6.2.2, Exception
- Required number of Type B units permitted to be reduced per Section 1107.7 in nonelevator buildings:
  - One story w/Type B units required: Section 1107.7.1.1
  - Additional stories w/Type B units: Section 1107.7.1.2
  - Multistory units: Section 1107.7.2
  - Site impracticality: Section 1107.7.4
  - Design flood elevation: Section 1107.7.5
Group R-2 Apartment Houses
Section 1107.6.2.2.2
- Required number of Type B units permitted to be reduced per Section 1107.7 in partial elevator buildings:
  - MultISTORY units [Section 1107.7.2]
  - Elevator service to lowest story w/units [Section 1107.7.3]

Discussion #1
- How is an occupied roof of a Group R-2 apartment building addressed for accessibility scoping purposes where:
  - Intended for common-use purposes?
  - Limited to use by a single dwelling unit?

Application Example #1
- Does the presence of a fire wall affect the scoping requirements for Type A and B units?
Use of Fire Walls to Create Separate Buildings

- Fire walls do not create separate buildings for the purpose of determining the number of Type A units and Type B units per building.

Application Example #2

- Do the accessibility provisions regarding Type A and B units differ between a Group R-2 apartment building regulated under the IBC and a townhouse building regulated under the IRC?

IRC Townhouses

IRC Section 320.1

IBC Section 1107.6.3

- Where four or more units in single structure, provisions of IBC Chapter 11 for Group R-3 to apply.
- Per IBC Chapter 11, where four or more units in single structure, every dwelling unit to be a Type B unit.
  - Number of Type B units required may be reduced under allowances of Section 1107.7.
  - Type A units not required in buildings classified or regulated as Group R-3 occupancies.
Reduction in Type A and B Units
Section 1107.7

- Where specifically permitted, the required number of Type A units and Type B units may be reduced per Sections 1107.7.1 through 1107.7.5 as permitted by:
  - Type A: Section 1107.6.2.2.1, Exception 1
  - Type B: Section 1107.6.2.2.2, Exception

Reduction in Type A and B Units
Section 1107.7.1 – 1107.7.5

- Permitted reductions in Type B units only:
  - Structures without elevator service
  - Multistory dwelling units
  - Elevator service to the lowest story having dwelling units
  - Site impracticality

- Permitted reductions in Type A and B units:
  - Design flood elevation
Exceptions Not Applicable Type A and B Units

- No exception for elevator buildings.
- Allowance for partial elevator service where:
  - Elevator provides accessible route only to lowest story contain dwelling units, or
  - Multistory unit provided with external elevator service to only one floor.

One Story w/Type B Required Section 1107.7.1.1

- Applicable only where elevator service not provided in building.
- At least one story containing dwelling units to be provided with accessible entrance.
- All units on such story to be Type B units.
Additional Stories of Type B  
Section 1107.7.1.2

- Applicable only where elevator service not provided in building.
- Where stories have entrances not addressed by accessible entrance compliance of Sec. 1107.1.1, and entrances are adjacent to arrival points intended to serve units on such stories, all units served by that entrance on that story to be Type B.
- Two conditions established to determine if arrival points are considered as adjacent:
  - Based on undisturbed site conditions, or
  - Based on planned finish grade conditions.

Additional Stories of Type B  
Section 1107.7.1.2, Condition 1

- Slopes of undisturbed site do not exceed 10%, as measured between planned entrance and all vehicular or pedestrian arrival points within 50’ of planned entrance.

Additional Stories of Type B  
Section 1107.7.1.2, Condition 2

- Slopes of planned finished grade do not exceed 10%, as measured between planned entrance and all vehicular or pedestrian arrival points within 50’ of planned entrance.
Additional Stories of Type B
Section 1107.7.1.2

Multistory Dwelling Units
Section 1107.7.2

- Where elevator service not provided in multistory unit, such unit not required to be Type B.
- Where multistory unit provided with external elevator service to only one floor, such floor to:
  - Be primary entrance to the unit, and
  - Be in compliance as a Type B unit, and
  - Include living area, kitchen and toilet facility if such areas are provided.
Where elevator service provides an accessible route only to the lowest story containing dwelling units, only the units on that story are required to be Type B units.
**Elevator to Lowest Story w/Units**

Section 1107.7.3

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**Site Impracticality**

Section 1107.7.4

- Where multiple non-elevator buildings on a site, number of required Type B units permitted to be reduced to percentage equal to percentage of entire site having grades, prior to development, that are less than 10%, provided four conditions are met.
Site Impracticality
Section 1107.7.4

Required conditions include:

- Minimum of 20% of units to be Type B units, and
- Where slope between building entrance serving required units on story and pedestrian or vehicular arrival point no more than 8.33%, such units to be Type B, and
- Where elevated walkway planned, slope between building entrance serving required units on story and pedestrian or vehicular arrival point no more than 10%, such units to be Type B, and
- Units served by an elevator are Type B units.

Design Flood Elevation
Section 1107.7.5

- Required number of Type A and B units in nonelevator building does not apply to site where required elevation of lowest floor or horizontal structural building members are at or above design flood elevation, resulting in two conditions:
Resulting conditions include:

- More than 30" elevation difference between minimum required floor elevation at primary entrances and vehicular/pedestrian arrival points within 50 feet, and
- Slope exceeding 10% between minimum required floor elevation at primary entrances and vehicular/pedestrian arrival points within 50 feet.
- Where arrival points not within 50 feet of primary entrances, closest arrival points to be used.
Building Accessibility

- Accessible routes
- Accessible entrances
- Accessible means of egress
- Elevators and platform lifts
- Visible alarms

Site Arrival Points
Section 1104.1

- At least one accessible route within site to connect site arrival points to accessible building entrance served.
  - Other than buildings containing or serving Type B dwelling units, accessible route not required if only means of access is vehicular way not providing for pedestrian access.

Access Within a Site
Section 1104.2

- At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements and accessible spaces on the same site.
  - Accessible route not required if only means of access is vehicular way not providing for pedestrian access.
  - Accessible route to recreational facilities required to extent set forth in Section 1110.
Multistory Buildings
Section 1104.4

- At least one accessible route to connect each accessible story, mezzanine and occupied roof in multilevel buildings and facilities.
  - Stories, mezzanines or occupied roofs that do not contain accessible elements or others spaces as determined by Section 1107 ( Dwelling Units and Sleeping Units) are not required to be served by an accessible route from an accessible level.

Location
Section 1104.5

- Accessible routes to coincide with or be located in same area as general circulation path.
- Where circulation path is interior, accessible route to be interior.
  - Accessible routes from parking garages contained within and serving Type B units not required to be interior.

Location
Section 1104.5

- Where only one accessible route provided, route shall not pass through kitchens, storage rooms, restrooms, closets or similar spaces.
  - Single accessible route permitted to pass through kitchen or storage room in a Type A or Type B dwelling unit.
Accessible Means of Egress
Section 1009
- General provisions for accessible means of egress applicable to Group R-2 occupancies, with following exceptions:
  - Areas of refuge not required at stairways in Group R-2 occupancies.
  - Two-way communication systems not required at the landing serving a private residence elevator.

Otherwise, all applicable provisions of Section 1009 to apply, including:
- Number and continuity
- Elevators required
- Areas of refuge
- Exterior areas for assisted rescue
- Two-way communication
- Signage and instructions

Elevators
- ASME A17.1.
- ICC A117.1.
- Permitted to serve as part of the accessible route anywhere.
- 5 story buildings or higher, standby power for accessible MOE.
- 4 stories or higher, one sized for a stretcher.
**LULAs**

Limited Use/Limited Application Elevators

- Considered a type of passenger elevator
- ASME A17.1.
- ICC A117.1.
- Application limited by product:
  - Limited capacity.
  - 25' max. travel.
  - Slow speed.

**Private Residence Elevator**

- ASME A17.1.
- ICC A117.1.
- Application limited:
  - Limited capacity.
  - Serve or within an individual dwelling unit.
  - Slow speed.

**Platform Lifts**

- ASME A18.1.
- ICC A117.1.
- Permitted to be a portion of accessible route in Type A and Type B dwelling units.
Visible Alarms
Section 907.5.2.3.3
- Where fire alarm system required in Group R-2 occupancies, system to initiate occupant notification upon activation, including:
  - Audible alarm notification appliances, and
  - Visible alarm notification appliances.
- Each story containing dwelling units to be provided with capability to support visible alarm notification appliances per Chapter 11 of ICC A117.1.
- Such capability to accommodate wired or wireless equipment.

Visible Alarms
Section 907.5.2.3.3
- Each story containing dwelling units to be provided with capability to support visible alarm notification appliances per Chapter 10 of ICC A117.1.
- Such capability to accommodate wired or wireless equipment.
- Future capability to include one of the following:
  - Interconnection of building fire alarm with unit smoke alarms, or
  - Replacement of audible appliances with combination audible/visible appliances, or
  - Future extension of existing wiring from unit smoke alarm locations to required locations for visible appliances.
Visible Notification Appliances – 1006.4

- In addition, visible notification appliances, where provided, to be activated by smoke detection.
- All appliances within unit to be activated upon activation of building fire alarm in portion of building containing unit.
- Appliances permitted to provide notification of unit smoke detection and building fire alarm activation.
- Visible notification appliances used to indicate unit smoke detection or building fire alarm activation not to be used for any other purpose within unit.

Two-way Communication Systems
Section E105.6

- Where two-way communication systems are provided to gain admittance to a building, the system to be accessible.
**Level of Accessibility**

- **Type A units:**
  - Constructed wheelchair adaptable.
  - ICC A117.1 Section 1003.

- **Type B units:**
  - Matches Fair Housing Accessibility Guidelines.
  - Geared towards mobility impaired persons
  - ICC A117.1 Section 1004.

**Technical Criteria**

100*.1 Type of unit; 100*.2 Primary entrance; 100*.3 Accessible route; 100*.4 Walking surfaces; 100*.5 Doors and doorways; 100*.6 Ramps; 100*.7 Elevators; 100*.8 Platform lifts; 100*.9 Operable parts; 100*.10 Laundry equipment; 100*.11 Bathing rooms; 100*.12 Kitchens; 100*.13 Windows; and 100*.14 Storage facilities.

**Primary Entrance – 1003.2, 1004.2**

- The accessible primary entrance to be on an accessible route from public and common areas.
- The primary entrance shall not directly enter a bedroom unless it is the only entrance.
- The primary entrance door to the unit regulated as accessible door per Section 404.
**Accessible Route Location – 1003.3.1, 1004.3.1**

- At least one accessible route to connect all spaces and elements within the unit.
- Accessible route to coincide with or be located in same area as general circulations route.
- Accessible route not required to unfinished attic and/or basement that are a part of the unit. (Exception 1)

**Accessible Route Location – 1004.3.1, Exception 2**

- One of the following areas is not required to be located on an accessible route:
  - Raised floor area in a portion of a living, dining, or sleeping room; or
  - Sunken floor area in a portion of a living, dining or sleeping room; or
  - Mezzanine that does not have:
    - Plumbing fixtures, or
    - Enclosed habitable space.

**Accessible Routes – 1004.3.1**
Accessible Routes – 1004.3.1

Accessible Route Turning Space – 1003.3.2

- All rooms served by accessible route to provide a complying turning space per Section 304, except for:
  - Non-accessible bathrooms (those bathrooms not required to comply with Section 1003.11.2)
  - Closets and pantries no more than 48" in depth

Accessible Route Components – 1003.3.3, 1004.3.2

- Accessible routes to consist of one or more of the following elements:
  - Walking surfaces with a slope not steeper than 1:20 Section 403
  - Doors and doorways Section 404
  - Ramps Section 405
  - Elevators Sections 407, 408 and 409
  - Platform lifts Section 410
Walking Surfaces – 1003.4, 1004.4

- Walking surfaces that are part of an accessible route to comply with Section 403.
  - 36” clear width
  - ½” maximum change in elevation
  - Maximum 4” step down to balcony from adjacent interior space of unit.

Doors and Doorways – 1003.5

- Primary entrance door to unit and all other doorways intended for user passage to comply with Section 404
- Multiple exceptions modify or eliminate specific requirements at such doorways

Doors and Doorways – 1003.5, Exceptions 1-4, 6

- Thresholds at exterior sliding doors permitted to be ¾” maximum height if beveled with a maximum slope of 1:2.
- In bathrooms not required to comply with Section 1003.11.2 (accessible features), maneuvering clearances not required on bathroom side of the door.
- Turning space between doors in a series not required.
- Storm and screen doors not required to comply as doors in a series.
- At balcony doors other than at primary entrance, exterior side maneuvering clearance not required.
Primary Entrance Door – 1004.5.1

- Primary entrance door to comply with Section 404.
- Storm and screen doors not required to comply with provisions for doors in a series.

User Passage Doorways – 1004.5.2

- Doorways intended for user passage to have:
  - Clear opening of 31¾” minimum.
  - Where operable parts on inactive leaf of a double leaf doorway are located between 15” and 48” above floor, active leaf to provide required clearance.
  - Thresholds that comply with Section 303.
  - At exterior sliding doors, thresholds permitted to be ½” maximum in height if beveled at maximum slope of 1:2.

Vertical Access – 1003.6 - 1003.8, 1004.6 – 1004.8

- Vertical access equipment to comply with the appropriate provisions of ICC A117.1:
  - Ramps
  - Passenger elevators
  - Limited Access/Limited Use elevators
  - Private residence elevators
  - Platform lifts
  - Not chair lifts
Operable Parts – 1003.9, 1004.9

- Operable parts to meet:
  - Clear floor space, and
  - Reach ranges
- In addition to clear floor space and reach range requirements, operable parts to meet force/grasping provisions.

Operable Parts – 1003.9, 1004.9

Operable parts that are required to be accessible.

<table>
<thead>
<tr>
<th>Accessible &amp; Type A</th>
<th>Type B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting controls</td>
<td>Lighting controls</td>
</tr>
<tr>
<td>Electrical switches</td>
<td>Electrical switches</td>
</tr>
<tr>
<td>Receptacle outlets</td>
<td>Receptacle outlets</td>
</tr>
<tr>
<td>Environmental controls</td>
<td>Environmental controls</td>
</tr>
<tr>
<td>Appliance controls</td>
<td>Appliance controls</td>
</tr>
<tr>
<td>Operating hardware for operable windows</td>
<td>Operating hardware for operable windows</td>
</tr>
<tr>
<td>Plumbing fixture controls</td>
<td>Plumbing fixture controls</td>
</tr>
<tr>
<td>User controls for security or intercom systems</td>
<td>User controls for security or intercom systems</td>
</tr>
</tbody>
</table>

Operable parts that are exempted from accessibility.

<table>
<thead>
<tr>
<th>Type A</th>
<th>Type B</th>
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</thead>
<tbody>
<tr>
<td>Dedicated receptacles</td>
<td>Dedicated receptacles</td>
</tr>
<tr>
<td>Redundant receptacles at kitchen counter</td>
<td>Redundant receptacles at kitchen counter</td>
</tr>
<tr>
<td>Floor receptacles</td>
<td>Floor receptacles</td>
</tr>
<tr>
<td>HVAC diffusers</td>
<td>HVAC diffusers</td>
</tr>
<tr>
<td>Controls on ceiling fans</td>
<td>Controls on ceiling fans</td>
</tr>
<tr>
<td>Controls/switches mounted on appliances</td>
<td>Controls/switches mounted on appliances</td>
</tr>
<tr>
<td>Plumbing fixture controls</td>
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</tr>
</tbody>
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### Operable Parts – 1003.9, 1004.9

Operable parts that are exempted from accessibility.

<table>
<thead>
<tr>
<th>Type A</th>
<th>Type B</th>
</tr>
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<tbody>
<tr>
<td>Reset buttons and shut-offs serving appliances, piping and plumbing fixtures</td>
<td>Reset buttons and shut-offs serving appliances, piping and plumbing fixtures</td>
</tr>
<tr>
<td>Redundant controls, other than switches, for a single element (one control exempted)</td>
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</tr>
<tr>
<td>Lighting controls, electrical switches and receptacle outlets over cabinets with countertops in kitchens and bathrooms (max. 36&quot; in height, 25½&quot; in depth)</td>
<td>Electrical panelboards exempted from tight-grasping/twisting</td>
</tr>
</tbody>
</table>

#### Electrical Panelboards

- Electrical panelboards must have a clear floor space in front and be within reach ranges.
- Electrical panelboards are not required to meet the force/grasping requirements.
- All other reset buttons and shut-offs are exempted.

#### Over-counter Reach

- Type B units allow for reaching light switches and outlets over standard height counters.
Laundry Equipment – 1003.10

- Washing machines and clothes dryers to comply with Section 611:
  - Clear floor space
  - Operable parts
  - Height

- Top loading machines to have door to laundry compartment no more than 36” above floor.
- Front loading machines to have bottom of opening to laundry compartment between 15” and 36” above floor.

Laundry Equipment – 1004.10

- Washing machines and clothes dryers to comply with Section 305.3 for clear floor space.
- Front-loading machine:
  - Forward, or Parallel approach permitted.
- Top-loading machine:
  - Parallel approach required.
Acceptable?

- Is the use of a stackable washer and dryer permitted in a Type A or Type B unit?

Type A Unit Bathrooms – 1003.11.1

- All toilet and bathing facilities to comply with Section 1003.11.1 regarding grab bar and shower seat reinforcement.

  - Reinforcement to be provided for future installations of:
    - Grab bars at water closets (Section 604.5)
    - Grab bars at bathtubs (Section 607.4)
    - Grab bars and shower seats at shower compartments (Sections 608.3, 608.2.1.3, 608.2.2.3, and 608.2.3.2)

Type A Unit Bathrooms – 1003.11.1, Exceptions

- At fixtures not required to comply with Section 1003.11.2 (accessible bathroom), reinforcement permitted as for Type B unit bathrooms.

  - Reinforcement not required where only lavatory and water closet provided, if not the only lavatory or water closet on the accessible level.

  - Reinforcement not required for vertical grab bar on water closet side wall.

  - Where lavatory allowed to overlap the water closet clearance, reinforcement at water closet rear wall required for minimum 24" grab centered on water closet.
Type B Unit Bathrooms – 1004.11.1

- All toilet and bathing facilities to be provided with grab bar and shower seat reinforcement where walls are located to permit their installation.
- Reinforcement to be provided for future installations of:
  - Grab bars at water closets Section 604.5
  - Grab bars at bathtubs Section 604.5
  - Grab bars and shower seats at shower compartments Sections 604.5, 608.2.1.3, 608.2.2.3, and 608.2.3.2

Type B Unit Bathrooms – 1004.11.1, Exceptions 1-4

- Reinforcement not required where only lavatory and water closet provided, if not the only lavatory or water closet on the accessible level.
- Reinforcement not required for vertical grab bar on water closet side wall.
- Where wall space not available for complying grab bar on rear wall at water closet, reinforcement at water closet rear wall required for minimum 24" grab centered on water closet.
- Where side wall not available for complying 42" grab bar, reinforcement for minimum 24" long sidewall grab to be provided 12" maximum from rear wall.

Type B Unit Bathrooms – 1004.11.1, Exceptions 5 and 6

- Where side wall not available for complying 42" grab bar, reinforcement for complying swing-up grab bar is permitted.
- Where side wall not available for complying 42" grab bar, reinforcement for two complying swing-up grab bars is permitted in lieu of reinforcement for rear wall and sidewall grab bars.
- In shower compartments larger than 36" in width and 36" in depth, reinforcement not required for a shower seat.
Details of swing-up grab bar installation in Section 1004.11.1.1

Although all bathrooms required to have reinforcement in walls around toilet and tub or shower, only one bathroom required to meet “accessible” provisions of Section 1003.11.2.

Within the “accessible” bathroom, at least one lavatory, water closet, and bathtub or shower to comply with Section 1003.11.2.

Required “accessible” toilet and bathing fixtures to be in single toilet/bathing area such that travel between fixtures does not require travel through other parts of the unit.
Type A Unit Bathrooms – 1003.11.2.1

- Doors shall not swing into the clear floor space or clearance for any fixture.
- Swing into clear floor space permitted where a minimum 48" by 30" clear floor space provided within the room beyond the arc of the door swing.

Type A Unit Bathrooms

- Lavatories to comply with general conditions of Section 606, including provisions for clear floor space positioned for forward approach, with complying knee and toe clearance provided.
- Cabinetry permitted under lavatory, provided following criteria is met:
  - Cabinetry can be removed without removal or replacement of lavatory, and
  - Floor finish extends under the cabinetry, and
  - Walls behind and surrounding cabinetry are finished.
- Mirrors above accessible lavatories to have bottom edge of reflecting surface no more than 40" above the floor.
Type A Unit Bathrooms – 1003.11.2.4

- Water closet to be positioned with walls to rear and one side, between 16” and 18” from sidewall.
- Clearance around water closet to be minimum 60” by 56”.
  - Required clearance permitted to overlap water closet, grab bars, paper dispensers, clear floor space required at other fixtures, and wheelchair turning space.
  - No other fixtures or obstructions to be located within required water closet clearance.
  - Lavatory with maximum 24” depth permitted on rear wall.
- Top of water closet seat to be minimum of 15”, maximum of 19”, above floor.
- Hand-operated flush controls to be located on open side of water closet.

Type A Unit Bathrooms – 1003.11.2.5

- Accessible bathing fixture to be a complying bathtub or shower.
- Bathtubs to comply with Section 607.
  - Removable in-tub seat not required.
  - Countertops and cabinetry permitted at one end of clearance, provided they can be removed, floor finish is extended and wall is finished.
- Showers to comply with Section 608.
  - Removable in-tub seat not required.
  - Countertops and cabinetry permitted at one end of clearance, provided they can be removed, floor finish is extended and wall is finished.
Clear floor spaces that are required in Option A or Option B toilet and bathing areas to comply as follows:

- Doors shall not swing into clear floor space or clearance for any fixture.
- Swing into clear floor space permitted where a minimum 48" by 30" clear floor space, excluding knee and toe clearances under elements, provided within the room beyond the arc of the door swing.
- Clear floor space at fixtures is permitted to include knee and toe clearances.
- Clear floor space to be minimum of 48" by 30" in size.
Type B Unit Bathrooms – 1004.11.3
- In Type B dwelling units, two options are available for compliance as “accessible” toilet and bathing areas.
- Option A: All toilet and bathing areas to comply with Section 1004.11.3.1, or
- Option B: One toilet and bathing area to comply with Section 1004.11.3.2.

Type B Unit Option A Bathrooms – 1004.11.3.1
- Each of the following fixtures in an Option A toilet and bathing area shall comply as follows:
  - Lavatory
    - Where multiple lavatories are provided in a single area such that travel between fixtures does not require travel to other parts of the unit, not more than one lavatory is required to comply.
  - Water closet
  - Bathing fixtures
- Where a room contains only a lavatory and a water closet, compliance is not required provided the room does not contain the only lavatory or water closet on the accessible level of the unit.

Type B Unit Option A Bathrooms – 1004.11.3.1.1
- A complying clear floor space to be provided at the lavatory.
  - Position for front approach, and
  - Centered on the lavatory.
- Cabinetry permitted under lavatory, provided following criteria is met:
  - Cabinetry can be removed without removal or replacement of lavatory, and
  - Floor finish extends under the cabinetry, and
  - Walls behind and surrounding cabinetry are finished.
Type B Unit Option A Bathrooms –
1004.11.3.1.1

- Centerline of water closet to be 16” to 18” from one side of required clearance.
- Clearance around water closet to be:
  - 48” in width
  - 56” in depth
  - 66” in depth where forward approach is provided
  - Overlapped by vanity maximum of 24” in depth, provided remaining width of clearance at water closet is 33”.

Type B Unit Option A Bathrooms –
1004.11.3.1.2

- Centerline of water closet to be 16” to 18” from one side of required clearance.
- Clearance around water closet to be:
  - 48” in width
  - 56” in depth
  - 66” in depth where forward approach is provided
  - Overlapped by vanity maximum of 24” in depth, provided remaining width of clearance at water closet is 33”.

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Type B Unit Option A Bathrooms – 1004.11.3.1.2

- Parallel approach to bathtub:
  - Minimum 60” by 30” clearance in front of bathtub.
  - Complying lavatory at one end of bathtub if minimum 48” by 30” clearance provided in front of bathtub.

- Forward approach to bathtub:
  - Minimum 60” by 48” clearance in front of bathtub.
  - Water closet and lavatory permitted in clearance at one end of bathtub.

- Where shower is only bathing facility:
  - Minimum 36” by 36” shower compartment.
  - Minimum clearance of 48” by 30” to be provided.
  - Reinforcing for shower seat not required where compartment larger than 36” by 36”.

Type B Unit Option A Bathrooms – 1004.11.3.1.3

Type B Unit Option A Bathrooms – 1004.11.3.1.3

- Parallel approach to bathtub:
  - Minimum 60” by 30” clearance in front of bathtub.
  - Complying lavatory at one end of bathtub if minimum 48” by 30” clearance provided in front of bathtub.

- Forward approach to bathtub:
  - Minimum 60” by 48” clearance in front of bathtub.
  - Water closet and lavatory permitted in clearance at one end of bathtub.

- Where shower is only bathing facility:
  - Minimum 36” by 36” shower compartment.
  - Minimum clearance of 48” by 30” to be provided.
  - Reinforcing for shower seat not required where compartment larger than 36” by 36”.

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Type B Unit Option A Bathrooms – 1004.11.3.1.3

- All bathrooms within the Type B unit provide clearances and blocking.
Type B Unit Option B Bathrooms – 1004.11.3.1

- Accessible fixtures in an Option B toilet and bathing area to be located such that travel between fixtures does not required travel through other parts of dwelling unit.
- Lavatory to be provided with:
  - Complying clear floor space positioned for a parallel approach.
  - Removable cabinetry where cabinet installed.
  - Front of lavatory at 34” maximum above floor.
- Water closet to comply in same manner as for Option A.
- Bathtub, where provided, to be provided with minimum 48” by 30” clearance in front.
- Shower compartment to comply as for Option A.
Type B Units Option B Bathroom

- One bathroom within the Type B unit meets the clearances.
- All bathrooms with reinforcement where there are walls.

Type A Unit Kitchens – 1003.12

- Kitchens and kitchenettes in Type A dwelling units regulated for accessibility as follows:
  - Clearances
  - Clear floor space
  - Work surfaces
  - Sinks
  - Appliances

Type B Unit Kitchens – 1004.12

- Kitchens and kitchenettes in Type B dwelling units regulated for accessibility as follows:
  - Clearances
  - Clear floor space
  - Sinks
  - Appliances
Type A and B Unit Kitchens – 1003.12.1, 1004.12.1
- Minimum of 40” in clearance required between all opposing base cabinets, countertops, appliances or walls to be provided in kitchen work areas.
- In U-shaped kitchens where counters, appliances or cabinets are located on 3 contiguous sides, clearance to be at least 60”.

Type A and Type B Kitchens – 1003.12 and 1004.12

Discussion:
- What are the clearance requirements in kitchens with islands?
Discussion:

- What are the clearance requirements in U-shaped kitchens where there are no cabinets, appliances or countertops on the end wall?

Type A Unit Kitchens – 1003.12.2

- Clear floor spaces at work surfaces, sinks and appliances to be minimum of 48” in length and 30” in width.
- Changes in elevation within clear floor spaces not permitted, other than slopes a maximum of 1:48.
- Unless otherwise specified, clear floor space permitted to include complying knee and toe clearance.
- One full, unobstructed side of clear floor space to adjoin or overlap an accessible route, or adjoin another clear floor space.
- Unless otherwise specified, clear floor space to be positioned for either parallel or forward approach.
- Additional maneuvering clearances required for alcoves.

Type B Unit Kitchens – 1004.12.2

- Clear floor spaces at sinks and appliances to be minimum of 48” in length and 30” in width.
- Required clear floor space to be positioned for parallel approach to sink and centered on sink bowl.
- Forward approach permitted when in compliance as for Type A dwelling units.
- Clear floor space, positioned for parallel or forward approach, to be provided at dishwasher.
- Dishwasher door in the open position shall not obstruct the clear floor space for the dishwasher.
Type B Unit Kitchens – 1004.12.2

- Cooktops to be provided with complying clear floor space.
- Where positioned for a forward approach:
  - Complying knee and toe clearance to be provided.
  - Underside of cooktop to be insulated or otherwise configured to protect from burns, abrasions, or electrical shock.
- Where positioned for a parallel approach:
  - Clear floor space to be centered on the appliance.

- Oven: Clear floor space, positioned for parallel or forward approach, to be provided.
  - Oven door in open position shall not obstruct clear floor space for oven.
- Refrigerator/Freezer: Clear floor space, positioned for parallel approach, to be provided
  - Centerline of clear floor space cannot be offset by more than 24” from the centerline of the appliance.
- Trash Compactor: Clear floor space, positioned for parallel or forward approach, to be provided.

Type A Unit Kitchens – 1003.12.3

- At least one section of countertop to provided a work surface a minimum of 30” in length.
- Access to work surface to be by forward approach, with complying knee and toe clearance provided.
  - Cabinetry permitted under work surface provided it can be removed, floor finish extends under cabinetry, and walls behind and surrounding cabinetry are finished.
- Clear floor space to be centered on work surface.
- Work surface to be maximum 34” above floor.
  - Adjustable or relocatable counter permitted at heights of 29” to 36” above the floor.
- No sharp or abrasive surfaces under exposed portions of work surface counters.
Type A Unit Kitchens – 1003.12.3

Access to sink to be by forward approach, with complying knee and toe clearance provided.

- Knee and toe clearance not required for more than one bowl in a multi-bowl sink.
- Cabinetry permitted under work surface provided it can be removed, floor finish extends under cabinetry, and walls behind and surrounding cabinetry are finished.
- Front of sink to be maximum 34" above floor.
- Adjustable or relocatable counter permitted at heights of 29" to 36" above the floor.
- Faucets to comply with provisions for operable parts.
- Piping under sinks to be insulated or otherwise protected against contact.

Type A Unit Kitchens – 1003.12.4
Where provided, the following kitchen appliances are regulated when located in Type A dwelling units:

- Dishwasher
- Cooktop
- Oven
- Refrigerator/Freezer

All appliance controls to comply with Section 1003.9 addressing operable parts, except:

- Appliance doors and door latching devices need not comply with limits on operation.
- Bottom-hinged appliance doors, when in open position, need not comply with reach range provisions.

A clear floor space, positioned for either parallel or forward approach, to be provided at each appliance.

A clear floor space to be provided adjacent to the dishwasher door.

Dishwasher door in open position shall not obstruct clear floor space for the dishwasher or an adjacent sink.

A clear floor space to be provided and positioned for a parallel or forward approach.

Where positioned for a forward approach:
- Complying knee and toe clearance to be provided.
- Underside of cooktop to be insulated or otherwise configured to protect from burns, abrasions, or electrical shock.

Where positioned for a parallel approach:
- Clear floor space to be centered on the appliance.
- Location of controls shall not require reaching across burners.
Type A Unit Oven – 1003.12.5.5

- Ovens to have controls on front panels, on either side of oven door.
- A clear floor space to be provided and positioned such that in the open position the door will not obstruct the clear floor space for the oven.
- Side-hinged door ovens to have a countertop positioned adjacent to latch side of the oven door.
- Bottom-hinged door ovens to have a countertop positioned adjacent to one side of the oven door.
- Location of controls shall not require reaching across burners.

Type A Unit Refrigerator/Freezer – 1003.12.5.5

- Clear floor space positioned for a parallel approach to the refrigerator/freezer to be provided.
- Centerline of clear floor space to be offset no more than 24” from centerline of refrigerator/freezer.
- Combination refrigerator/freezer to provide at least 50% of freezer compartment shelves, including bottom of freezer, 54” maximum above floor.
- Determination to be made with shelves installed at the maximum heights possible in the compartment.

Windows – 1003.13.1

- Where operable windows are required for natural ventilation purposes in Type A units, such windows to comply with following provisions for operable parts:
  - Section 309.2 Clear floor space as set forth in Section 305
  - Section 309.3 Reach ranges as specified in Section 308
Windows – 1003.13.2

- Where operable windows are required to serve as emergency escape and rescue openings in Type A units, such windows to comply with following provisions for operable parts:
  - Section 309.2 Clear floor space as set forth in Section 305

Storage Facilities – 1003.14

- Where storage facilities provided in Type A units, at least one of each type to comply with Section 905.
  - Kitchen cabinets are not required to be within reach ranges
  - Section 905 addresses:
    - Clear floor space
    - Reach ranges
    - Operable parts
Common-use and Public-use Spaces

- Group R-2 apartment buildings have multiple common-use and/or public use spaces.
- Such buildings and spaces to be regulated for accessibility under the general requirements and allowances for the individual occupancy assigned.
- Such buildings and spaces include:
  - Parking garages and parking lots
  - Recreational facilities
  - Activity assembly areas
  - Storage areas
  - Mailboxes

Accessible Parking Spaces

Section 1106.1

- Based on number of parking spaces provided.
- Number of parking spaces required per zoning ordinances.
- For Group R-2 occupancies, accessible parking spaces to be provided in accordance with Section 1106.2.
Accessible Parking Spaces
Section 1106.2

- In Group R-2 occupancies required to have Type A or Type B dwelling units, at least 2%, but not less than one, of each type of parking space provided to be accessible.
- Where at least one parking space is provided for each dwelling unit, at least one accessible space to be provided for each Type A unit.
- Accessible route from parking garages contained within and serving Type B units not required to be interior.

General Site Access
Section 1104.2

As a general requirement, at least one accessible route is required to all recreational facilities on a site.

- Not required between accessible buildings, facilities, elements and spaces that have, as the only means of access between them, a vehicular way not providing for pedestrian access.
- An accessible route to recreational facilities is only required as set forth in Section 1110.

Scoping for Recreational Facilities
Section 1110.2.2

Where recreational facilities serve a single building containing Type A or Type B units:

- 25%, but at least one, of the recreational facilities shall be accessible, and
- Total number of accessible facilities to be determined based on every recreational facility of each type on the site.
Scoping for Recreational Facilities
Section 1110.2.3
On a single site, where recreational facilities serve multiple buildings containing Type A or Type B units:
- 25%, but at least one, of the recreational facilities shall be accessible, and
- Total number of accessible facilities to be determined based on every recreational facility of each type serving each building on the site.

Access to Recreational Facilities
Section 1110.4
Recreational facilities are to be accessible and provided with an accessible route to the extent established in Section 1110.4.

Areas of Sports Activity
Section 1110.4.1
- Defined term – “That portion of a room or space where the play or practice of a sport occurs.”
- Each area of a sports activity to be on an accessible route, to extent referenced in Section 1110.2, however the areas are not required to be accessible except as set forth in Sections 1110.4.2 through 1110.4.15.
Court Sports
Section 1110.4.4
- In court sports, at least one accessible route shall **directly** connect both sides of the court.

Animal Containment Areas
Section 1110.4.7
- Where animal containment areas are located within public-use areas, such areas are required to be accessible and located on an accessible route.

Exercise Machines and Equipment
Section 1110.4.10
- At least one of each type of exercise machine or equipment to be on an accessible route.
- Not intended to change machines – no requirements for transfer or operable parts.
Play Areas
Section 1110.4.13

- Play areas containing play components designed and constructed for children to be located on an accessible route.

Swimming Pools
Section 1110.4.14

- Unless exempted, the following water elements shall be accessible and located on an accessible route:
  - Swimming pools
  - Wading pools
  - Hot tubs
  - Spas
Swimming Pools  
Section 1110.4.14
- Swimming pools, wading pools, hot tub and spas required to be accessible by Sections 1110.2.2 and 1110.2.3 (facilities serving Type A and Type B units, in Group R-2 building) not required to provide accessible means of entry into the water.

Swimming Pools  
Section 1110.4.14
- Following elements not required to be accessible or to be on an accessible route:
  - Raised diving boards
  - Diving platforms
  - Water slides

Dining Areas  
Section 1108.2.9
- All dining areas to be accessible and be located on an accessible route.
- Accessible route not required where aggregate floor area:
  - Not more than 3,000 sf and located above and/or below accessible levels, or
  - Mezzanines with less than 25% of the total seating, provided same décor and services provided in accessible area.
Seating at Tables
Section 1109.1

- Where seating or standing space provided at fixed or build-in tables, counters or work surfaces, at least 5% of the seating and standing spaces, but not less than one, must be accessible.
- Accessible seating to be distributed throughout the facility and located on a level accessed by an accessible route.

Self-service Storage
Section 1108.3

- Self-service storage facilities, where provided, to have accessible individual spaces as follows:
  
<table>
<thead>
<tr>
<th>TABLE 1108.3</th>
<th>ACCESSIBLE SELF-SERVICE STORAGE FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL SPACES</td>
<td>MINIMUM NUMBER OF REQUIRED ACCESSIBLE SPACES</td>
</tr>
<tr>
<td>IN FACILITY</td>
<td></td>
</tr>
<tr>
<td>1 to 200</td>
<td>5%, but not less than 1</td>
</tr>
<tr>
<td>Over 200</td>
<td>10, plus 2% of total number of units over 200</td>
</tr>
</tbody>
</table>

- Dispersed by type.
- Not required to be dispersed by location.

Mailboxes
Appendix Section 105.4

- Where mailboxes provided in an interior location, at least 5% but not less than one to be accessible.