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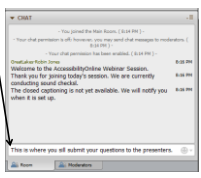
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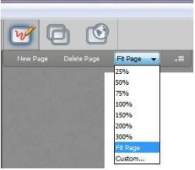
6




Customize Your View




- Resize the Whiteboard where the Presentation slides are shown to make it smaller or larger by choosing from the drop down menu located above and to the left of the whiteboard. The default is “fit page”




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Customize Your View *continued*



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"Building Blocks": A Refresher (ADA & ABA Standards)

Presenters



Bill Botten



Dave Yanchulis

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Session Agenda

- Operable Parts
- Clear Floor/ Knee & Toe Space
- Turning Space
- Floor & Ground Surfaces
- Protruding Objects

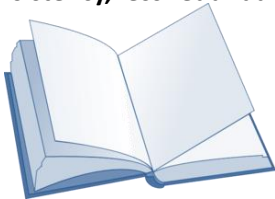


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Chapter 3: Building Blocks

Basic specifications widely referenced throughout standards

Organized in one chapter for greater consistency, less redundancy



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Chapter 3: Building Blocks

Example: clear floor space references



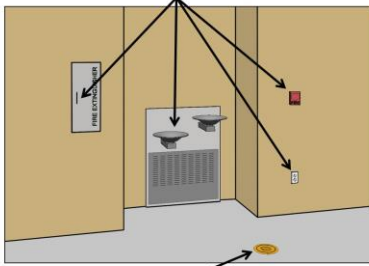
15

Operable Parts

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Operable Parts (§205/ §F205)

Examples



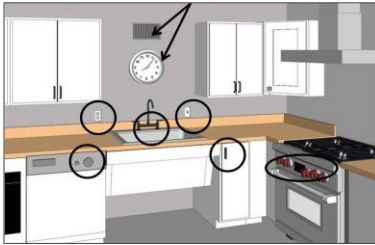
Exempt: floor receptacles & operable parts used only by service or maintenance personnel

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Operable Parts

Examples in Kitchens

Exempt: HVAC diffusers & dedicated electrical/ comm. receptacles



Appliance controls, handles to accessible storage, electrical outlets, switches, and faucet controls

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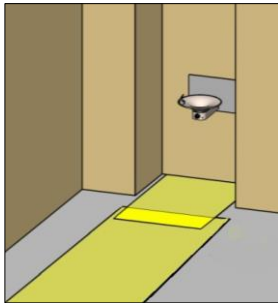
Operable Parts (§309)

- Accessible route
- Clear floor space
- Reach range
- Operability



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Connecting Accessible Route



AR must adjoin one full unobstructed side of the space

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Connecting Accessible Route

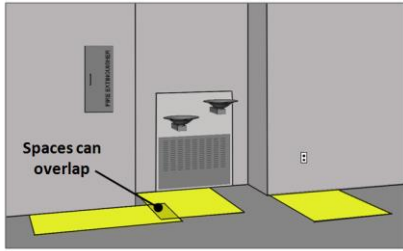


Alterations - connecting AR to altered elements required:

- if circulation path to element also altered or
- as part of accessible path of travel to altered primary function area (§202.3/ §F202.3, Ex. 1)

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Clear Floor/ Ground Space (§305)



Clear floor space required at operable parts and other accessible elements (e.g., drinking fountains, lavatories and sinks, counters, dining/ work surfaces, etc.)

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Clear Floor/ Ground Space



Forward Approach:

Required at dining/ work surfaces, DFs, lavatories, most sinks, urinals

Either approach allowed at other elements



Side Approach:

Specified/ usually provided at sales & service counters, beds, and most appliances

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Size/ Centering



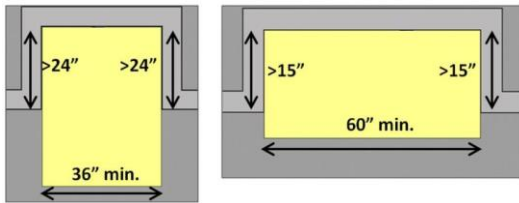
Minimum size:
30" x 48"
(unconfined)



Centering = required at only certain elements:
DFs, kitchen work surfaces, washers & dryers

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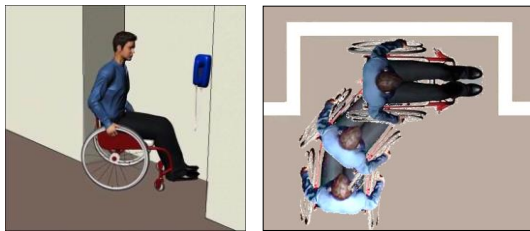
Size (Confined)



Additional clearance where space confined on 3 sides
(and more than half of space depth confined)

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Side Approach

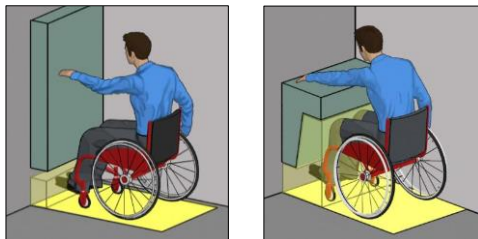


Parallel approach to element in alcove

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Knee & Toe Space (§306)

Elements providing knee/ toe clearance can overlap space;
can help reduce reach to operable parts



Toe Space

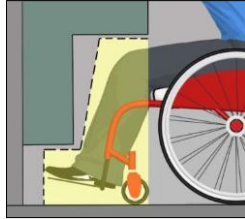
Knee & Toe Space

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Knee & Toe Space

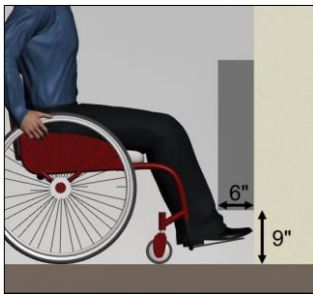
Required at :

- drinking fountains
- lavatories & most sinks
- dining/ work surfaces
- sales & service counters providing forward approach



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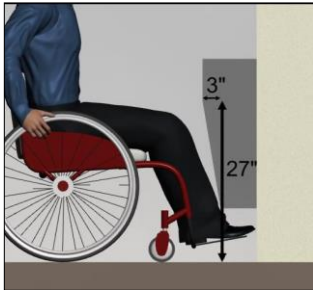
Knee & Toe Space



Toe space

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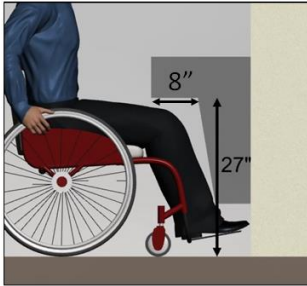
Knee & Toe Space



Beyond toe space, clearance increases from 9" to 27" min. high over 3" span (6:1 slope)

30

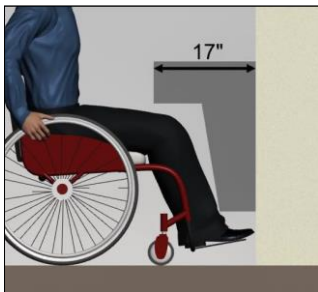
Knee & Toe Space



Knee Space (8" deep min. where knee space required)

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Knee & Toe Space



Required knee & toe space must be at least 17" deep

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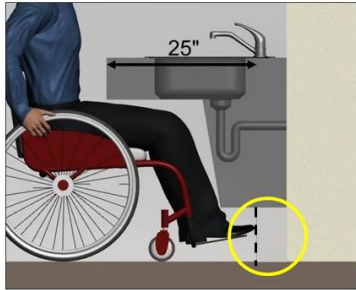
Knee & Toe Space



Additional depth must provide 27" min. clearance for knees (max. total depth 25")

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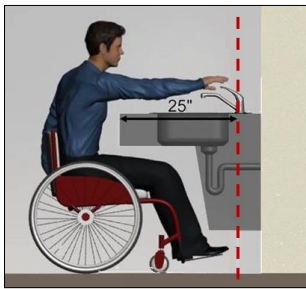
Knee & Toe Space



Space beyond 25" depth is not usable

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Knee & Toe Space

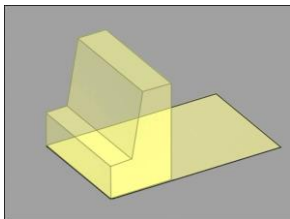


Obstructed reach cannot exceed depth of usable knee & toe space – also limited to 25" max

35

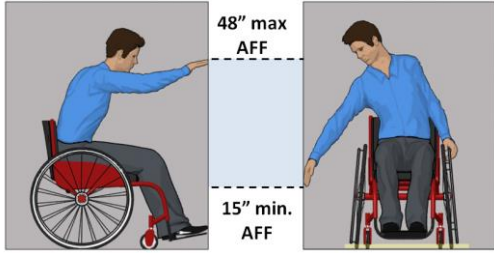
Knee & Toe Space

No protrusions allowed into minimum knee & toe space (other than dip of overflow at sinks)



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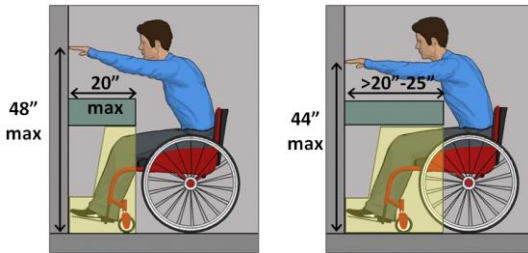
Reach Ranges (§308)



Unobstructed forward and side reaches

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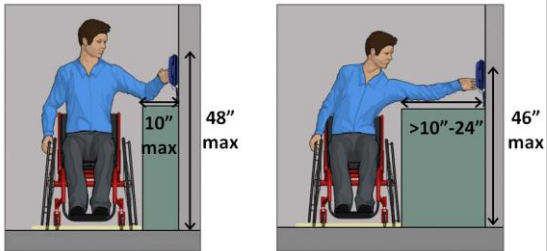
Forward Reach (Obstructed)



Obstructed reach: 44" max. if reach depth exceeds 20"

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Side Reach (Obstructed)

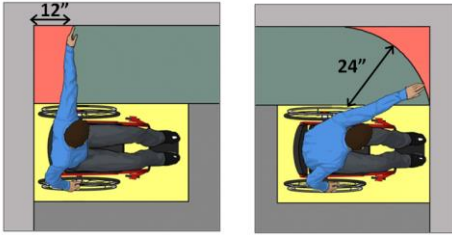


Obstructed reach: 46" max. if reach depth exceeds 10"
(height of obstruction 34" max)

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Side Reach (Obstructed)

Recommendation: consider standard reach radius in locating operable parts accessed from side approach

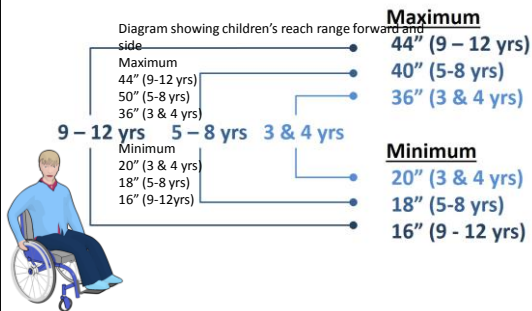


Elements in corners can be hard to reach from side approach

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Children's Reach Ranges

Advisory (non-mandatory): Forward & Side

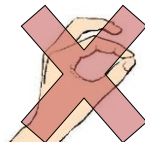


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Operability



- 1 hand operation
- no tight grasping, pinching, or twisting of wrist
- 5 lbf max.



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Operability

Closed fist operation = good, but not mandatory
Many other types comply (e.g., U-shaped pulls)



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Operability

Recommended:

- buttons - raised/flush (not recessed)
- no simultaneous action/ movement
- operable without hand or finger dexterity, fine motor movement



Not required to comply: non-fixed portions
(e.g., keys, access cards)



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Turning Space

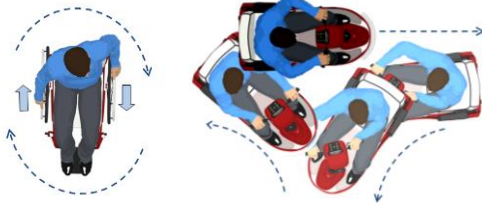
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Turning Space (§304)



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Turning Space



Circular turn

3-point turn

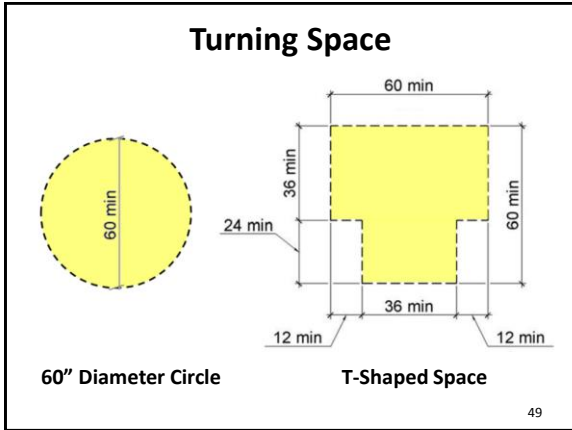
47

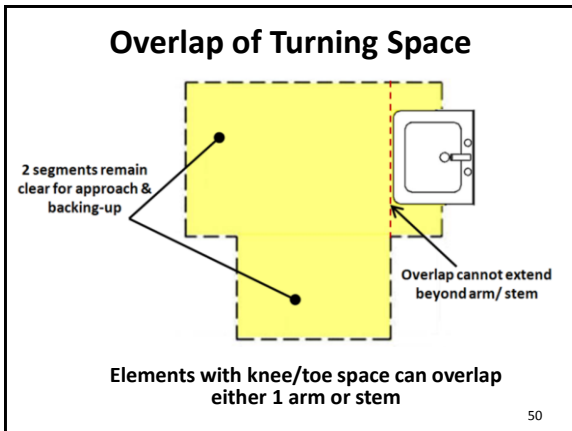
Turning Space

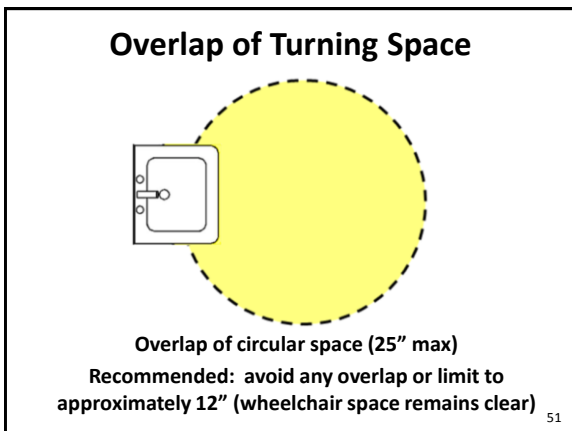
T-shaped space

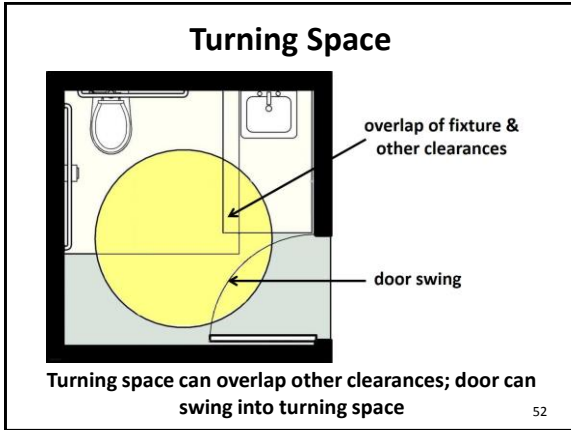


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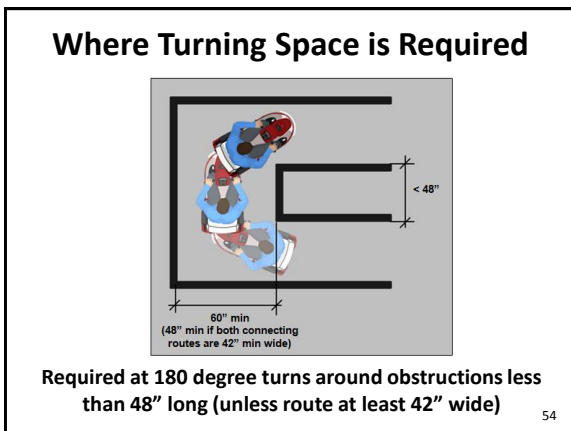








- ### Where Turning Space is Required
- toilet/ bathing facilities
 - dressing/ fitting/ locker rooms
 - transient lodging guest rooms
 - dwelling units (all rooms on accessible routes)
 - patient bedrooms
 - holding and housing cells
 - saunas and steam rooms
 - courtrooms (raised stations served by ramps)
 - certain recreation spaces
-
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Floor or Ground Surfaces

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Ground/ Floor Surfaces (§302)



Firm, stable, and "slip resistant"

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Ground/ Floor Surfaces



Loose surface materials:

- most do not comply unless properly treated (e.g., binders, consolidants, compaction, and grid forms)
- repeated maintenance often required

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Ground/ Floor Surfaces

Board sponsored longitudinal studies by
National Center on Accessibility (NCA):

- Playground Surfaces (October 2013)
- Natural Trail Surface Materials (March 2014)

Reports available at
www.ncaonline.org



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Slip Resistance

Slip resistance – minimum level
("coefficient of friction") not
specified



- Standard practices for minimizing slipperiness often suffice
- Specify according to likely conditions (e.g. exposure to moisture)

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Surface Smoothness



Surface smoothness – changes in level
Recommendation: Avoid rough surfaces
composed of cobblestones, Belgian blocks,
etc. = difficult/ painful to traverse

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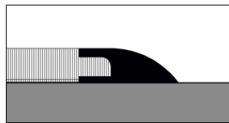
Carpet

- 1/2" max. pile height (measured to the backing, cushion, or pad)
- texture: level or textured loop, level cut pile, or level cut/uncut pile
- firm backing, cushions, pads (avoid cushions/ pads for greater firmness)
- firm securement, edging

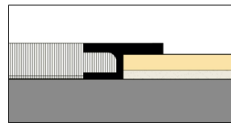
61

Carpet

Trim required along exposed edges – must be fastened to the floor to prevent curling and meet changes in level specifications.



1/2" max height,
1:2 max beveled edge



1/4" max high - vertical
edge permitted

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Carpet



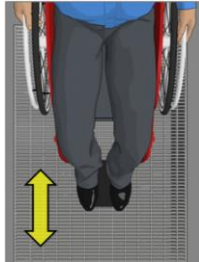
Securement/ attachment to prevent rolling or buckling (which makes maneuvering difficult)

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Openings

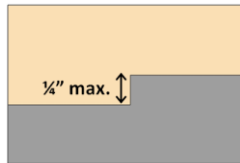
½" max. in one dimension

Long dimension =
perpendicular to travel
direction

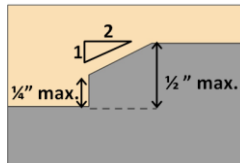


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Changes in Level (§303)



¼" max. ↓



¼" max. ↓

2

1

½" max. ↓

¼" max. – no treatment

½" max. – 1:2 max. bevel

> ½" – treatment as ramp/ other means
of vertical access

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Changes in Level



Apply to all level changes along accessible
routes, including thresholds

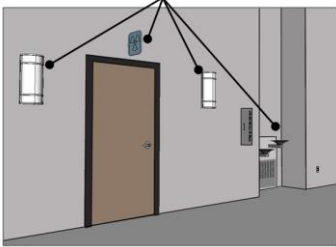
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Protruding Objects

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Protruding Objects (§307)

Examples of protruding objects

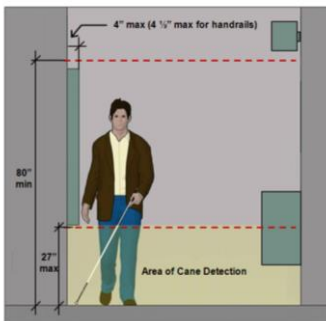


Protrusion limits apply to all areas of circulation
– not limited to accessible routes

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Protruding Objects

Apply to ALL circulation paths, not just ARs



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Protruding Objects

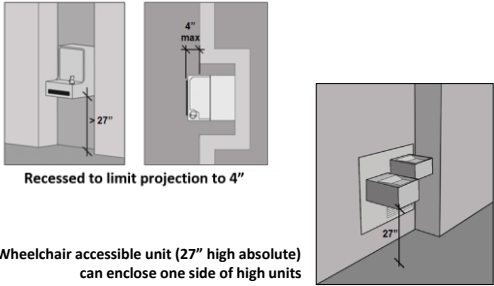
Drinking Fountains



Elements often recessed to comply (e.g., drinking fountains at standard heights)

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Protruding Objects



Recessed to limit projection to 4"

Wheelchair accessible unit (27" high absolute) can enclose one side of high units

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Protruding Objects

- Cannot reduce min. clear with required for accessible routes
- Cannot protrude into door maneuvering clearance



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Door Maneuvering Clearance

Wall thickness, elements can offset maneuvering clearance up to 8" from face of door



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Door Maneuvering Clearance

If recess > 8": maneuvering clearance for forward approach must be provided 8" max. from face of door



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Protruding Objects

Post-mounted objects

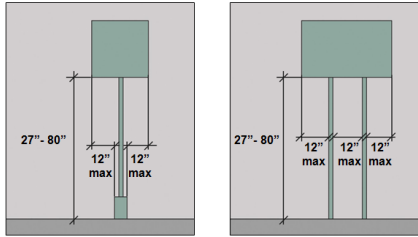


Protrusion limits also apply to objects mounted on posts

75

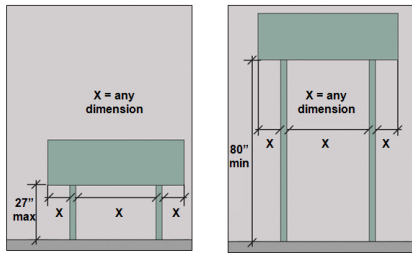
Protruding Objects

Objects with leading edges 27"- 80" high on posts/ pylons:
12" max. protrusion into circulation paths.



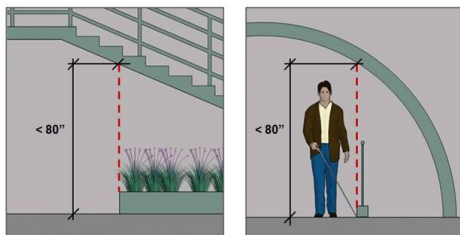
Protruding Objects

Post-mounted objects with leading edges 27" max or
above 80" can protrude any amount



Vertical Clearance

80" min. vertical clearance – guardrails or other barriers required
where clearance < 80" (leading edge 27" high max.)



Reduced Clearance
Below Stairway

Clearance Reduced at
Curved (or Sloped Walls)

Technical Guides on the Standards

Available on the Board's website



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Questions?

You May Type and Submit questions in the Chat Area Text Box or press Control-M and enter text in the Chat Area

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"Advancing Full Access and Inclusion for All"

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Continuing Education

AIA Provider Number: I017
LA CES Provider Name: Great Lakes ADA Center
AICP Provider Name: Great Lakes ADA Center

Course Title: Building Blocks: A Refresher (ADA & ABA Standards)
Course Number: GL20141002
Date: October 2, 2014

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Questions will be addressed at the conclusion of this presentation.

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