



ADA GUIDELINES

IND 6255 - GRADUATE DESIGN STUDIO 1

WHAT IS IT & WHO IS PROTECTED?



Americans with Disabilities Act of 1990

The ADA is a federal law that outlaws discrimination in employment, public services, transportation, communications, technology, and public accommodations (hotels, restaurants, stores, museums, etc.).

Those protected includes but is *not limited* to persons with:

- Learning Disabilities
- Attention Deficit Disorders
- Mobility/Orthopedic Disabilities
- Deaf/Hearing Impairments
- Blind/Visual Impairments
- Head Trauma
- Psychological Disabilities
- Chronic Health Issues

GUIDELINE APPLICATIONS

ADA has stringent requirements for employment (Title I), public services (Title II), **public accommodations** (Title III), and telecommunications (Title IV) among other classifications. As interior designers, we are directly affected by Title III, public accommodations.

The public settings affected are:

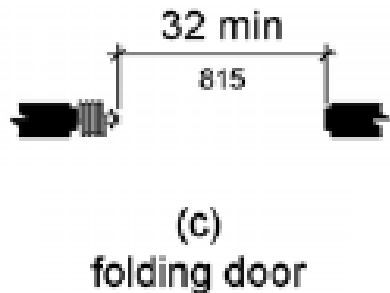
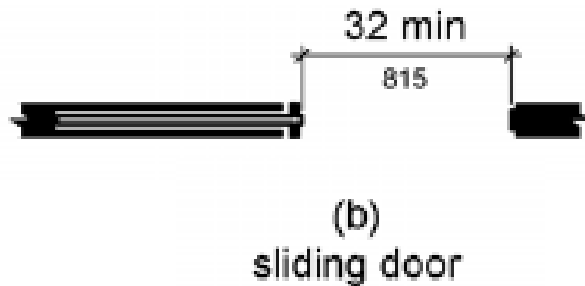
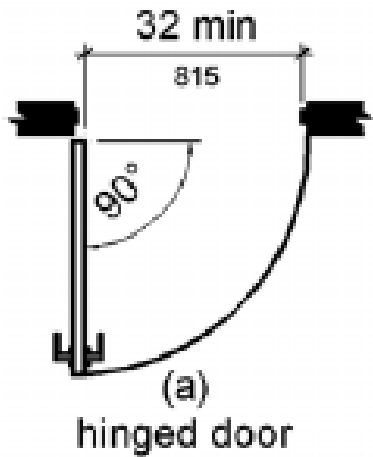
- Hotels and Motels
- Theaters and Museums
- Hospitals and Professional Offices
- Nurseries and Private Schools
- Gyms and Health Clubs
- Bars and Restaurants
- Stores and Shopping Centers
- Amusement Parks and Zoos
- Day Care Centers and Homeless Shelters

The areas that we will be covering for this project include:

1. Doors
2. Stairs/Ramps/Railings
3. Restrooms/Bathrooms
4. Corridors
5. Horizontal & Vertical (Protrusions) Surfaces
6. Elevators
7. Bar/Kitchen Clearances



DOORS



32" minimum measured with door open

90 degrees face of door to stop on strike jamb (a)

18-12 Rule – 18" on the pull side and 12" on the push side of clear floor space

Thresholds

1/2" high maximum (3/4" for exterior sliding doors)

Door Hardware

Shape of operating devices must be easy to grasp with one hand

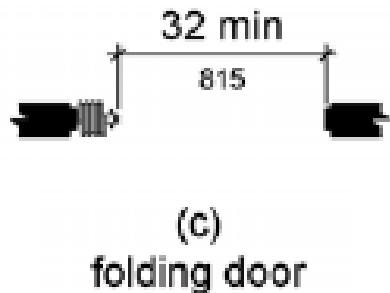
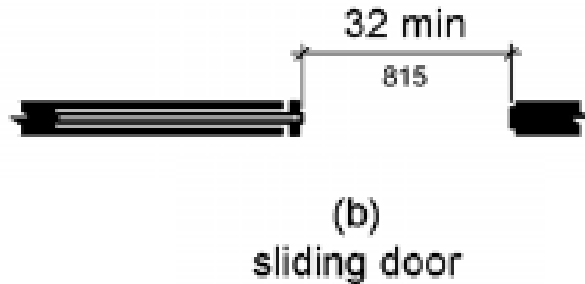
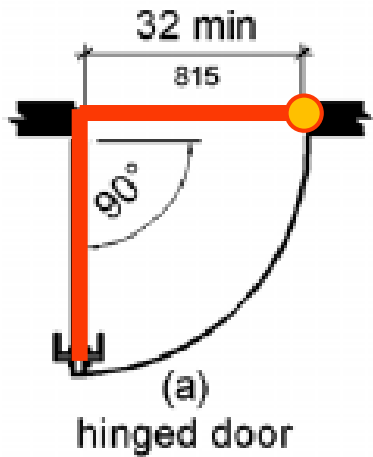
No tight grasping, tight pinching, or twisting of the wrist to operate

Levers and u-shaped handles are acceptable

No higher than 48" above finished floor



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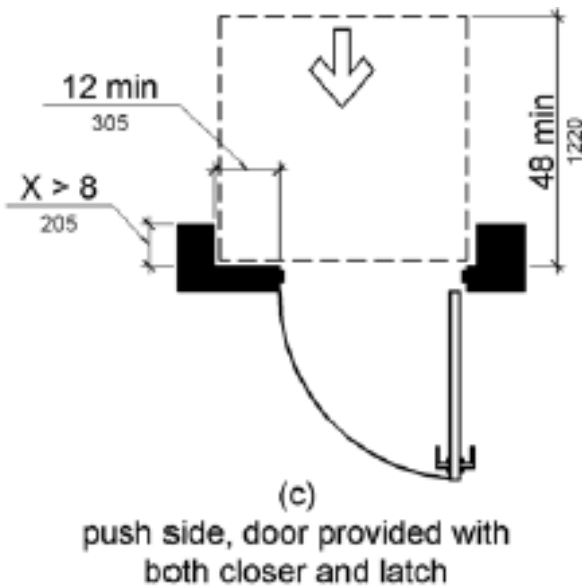
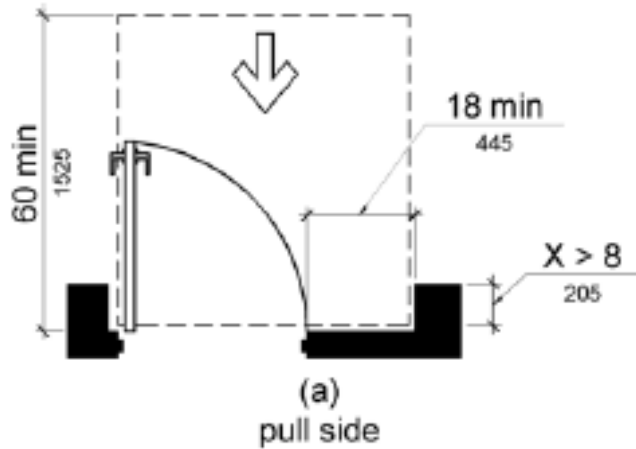
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DOORS

Diagram 1: Saddle



Diagram 2: Thermal Barrier

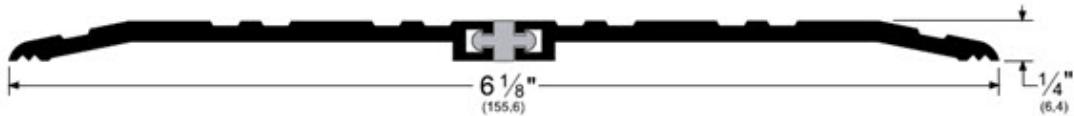
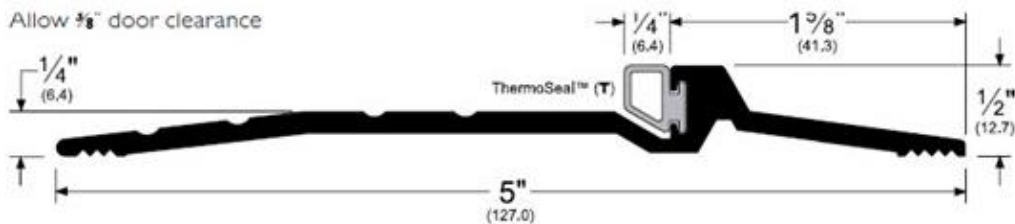


Diagram 3: Bumper



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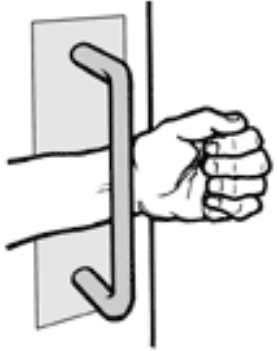
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1

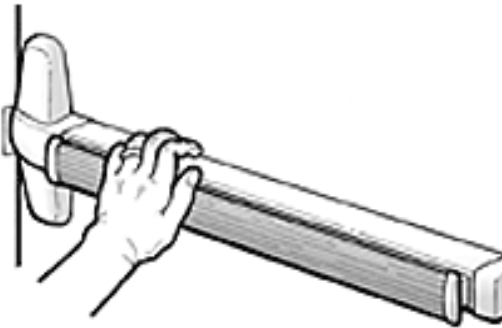
DOORS



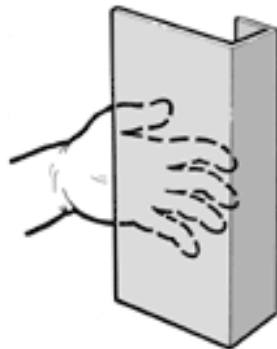
PUSH



LEVER



BAR



PULL

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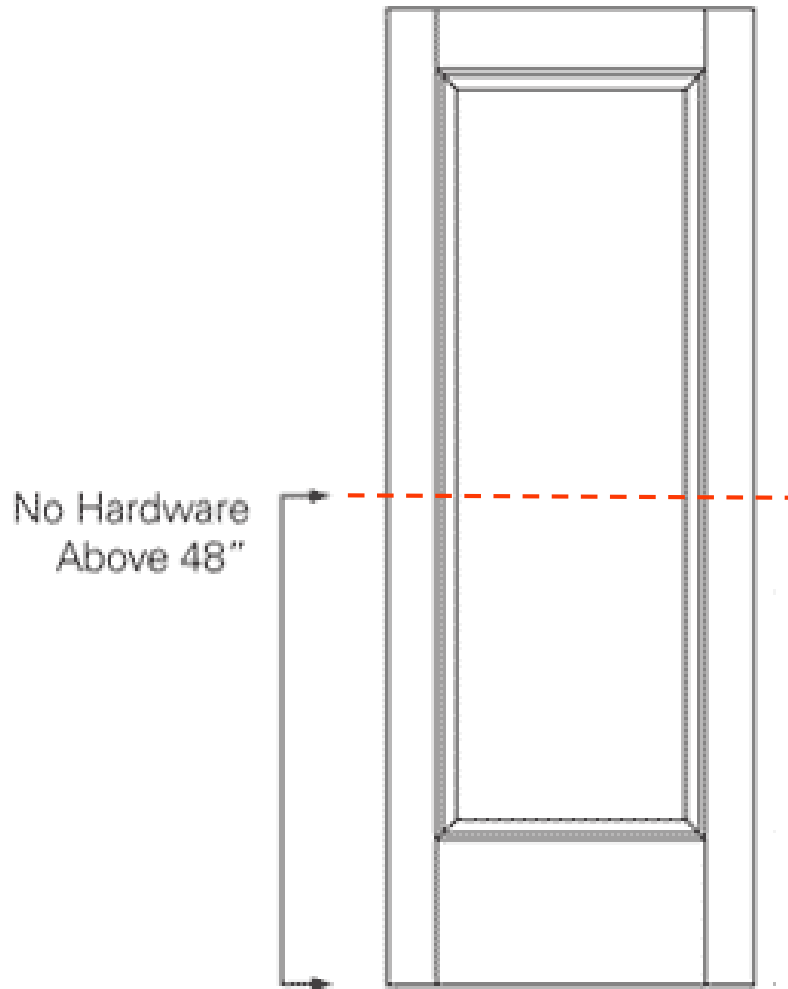
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2

STAIRS, RAMPS, & RAILINGS

Egress Stairs

All steps must have uniform tread widths (run) and riser heights (rise)

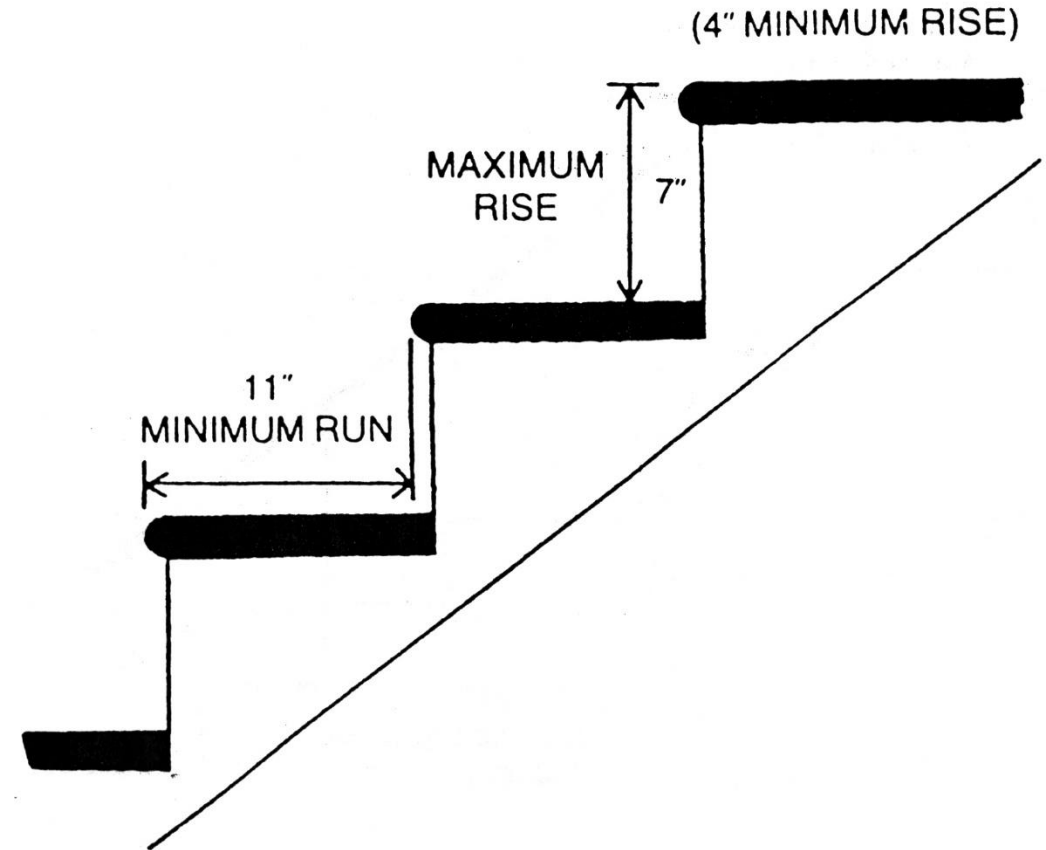
Treads should be no less than 11" wide (measured from riser to riser) and risers cannot be open and are a minimum of 4" and maximum 7"

Ramps

The least possible slope shall be used for any ramp. The maximum slope of a ramp in new construction shall be 1:12.

The maximum rise for any run shall be 30".

If the slope of a ramp is between 1:12 and 1:16, the maximum rise shall be 30 inches and the maximum horizontal run shall be 30 feet.



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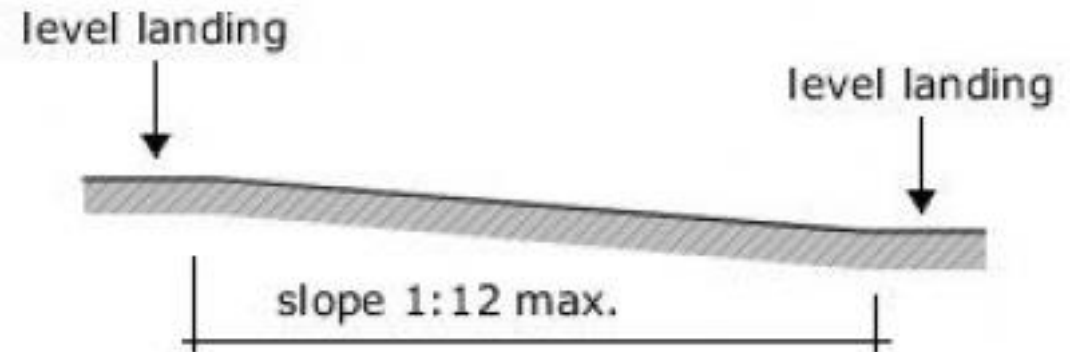
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Handrails

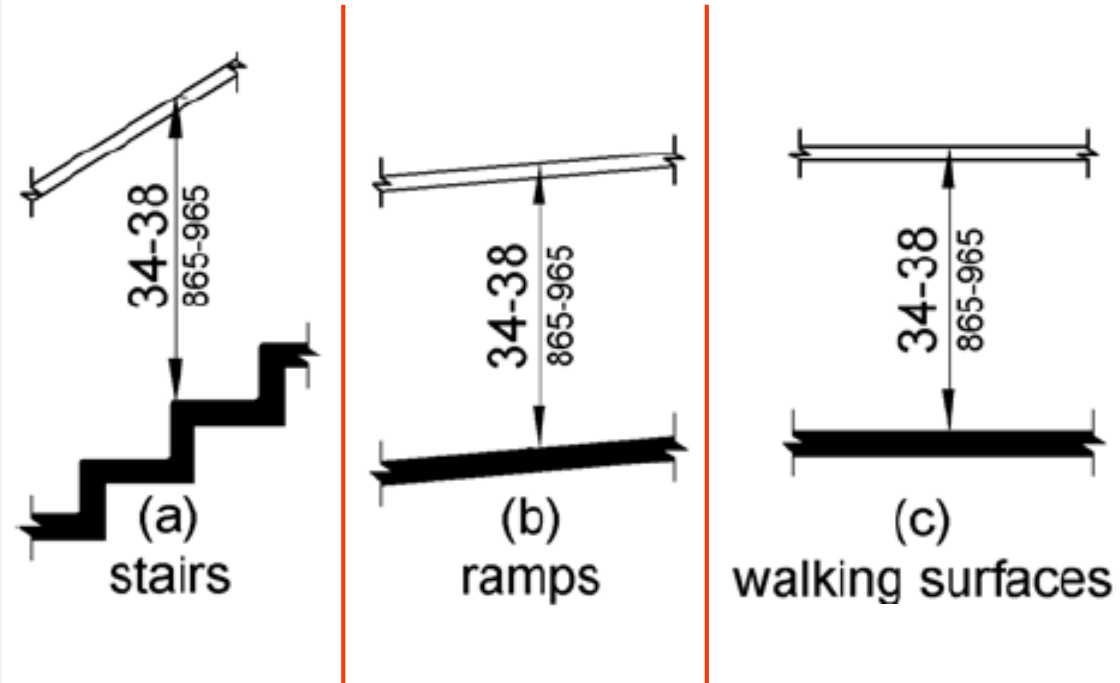
Stairways should have handrails on both sides

Top of handrail gripping surface shall be mounted between 34" and 38" above stair, ramp, or flat walking surface

Handrails shall be continuous along both sides of stairs. If handrails are not continuous, they shall extend at least 12" beyond the top riser and at least 12" plus the width of one tread beyond the bottom riser

Ends of handrails shall be either rounded or returned smoothly to floor, wall or post

The clear space between handrails & wall shall be 1 ½"



2

STAIRS, RAMPS, & RAILINGS

Handrails

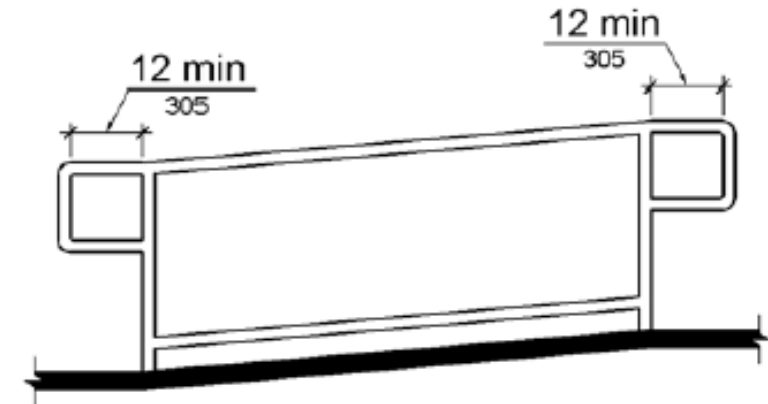
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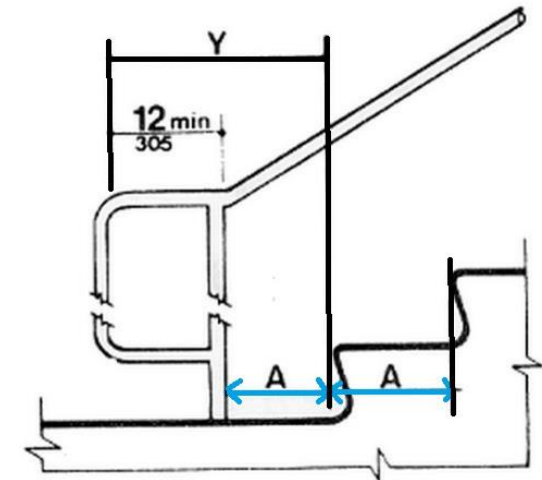
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HANDRAIL EXTENSION FOR RAMP



HANDRAIL EXTENSION FOR BOTTOM OF STAIR

2

STAIRS, RAMPS, & RAILINGS

Handrails

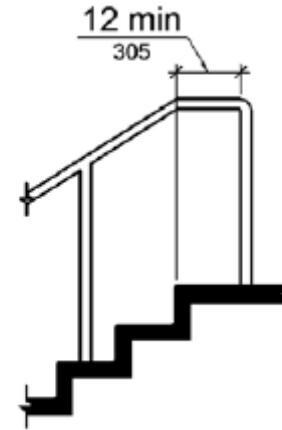
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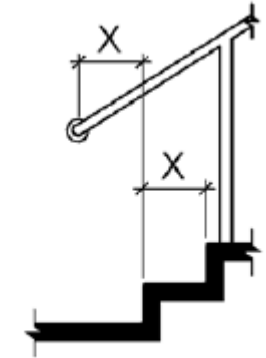
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The clear space between handrails & wall shall be 1 1/2"

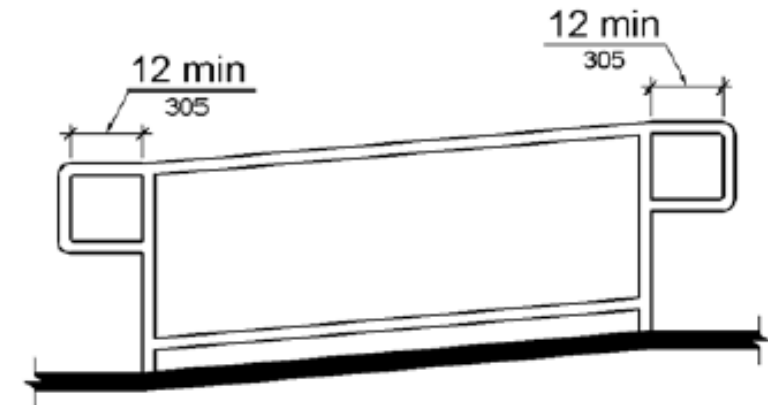


**HANDRAIL
TO FLOOR**



Note: X = tread depth

**HANDRAIL
TO WALL**



HANDRAIL TO POST

2

STAIRS, RAMPS, & RAILINGS

Handrails

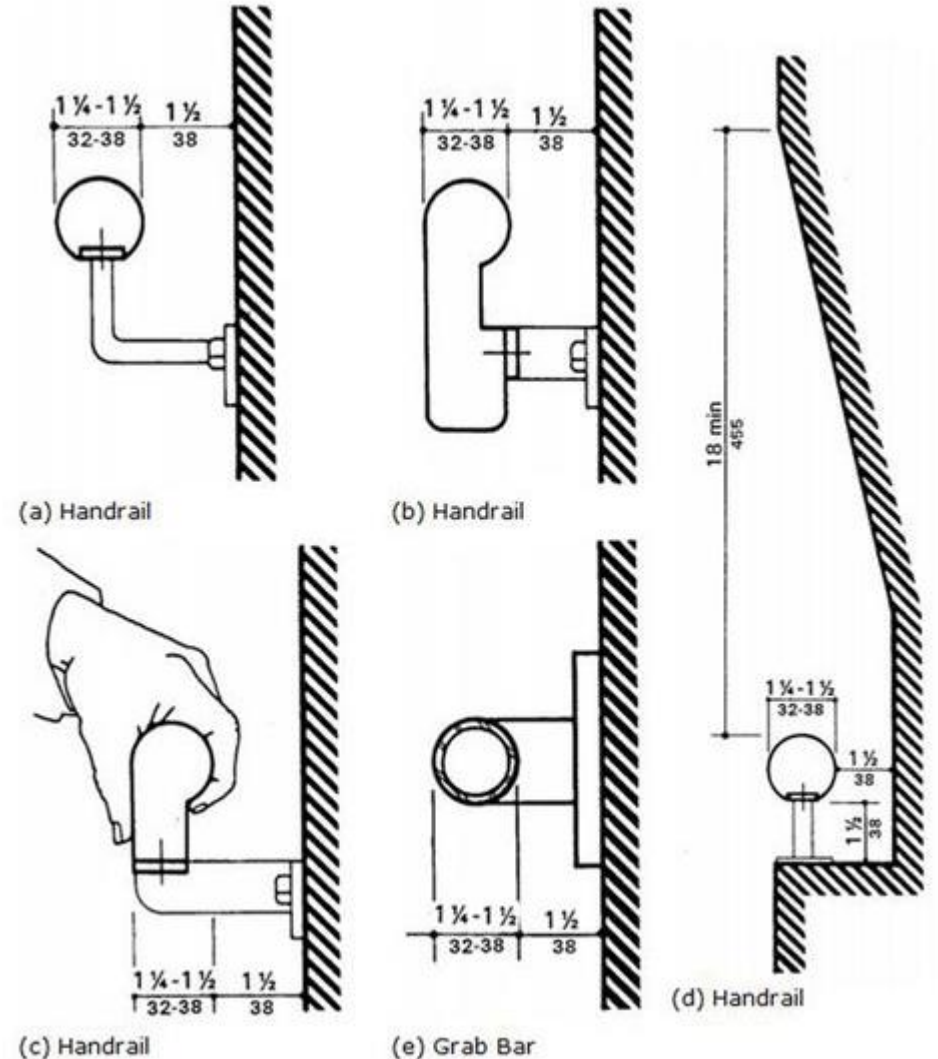
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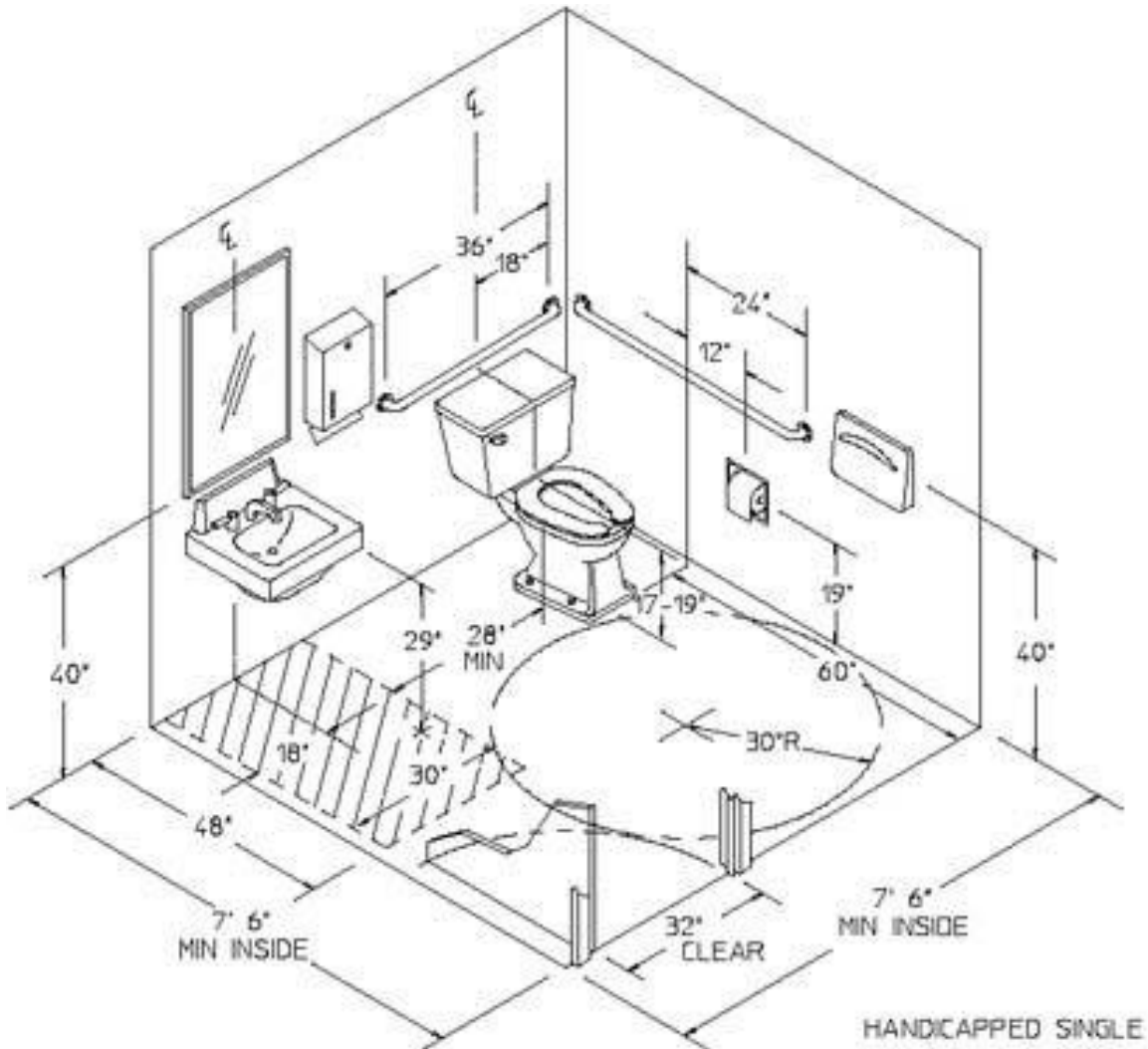
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3

RESTROOMS/BATHROOMS



Doorways should be at least 32" wide

Wheelchairs should be able to do a 180 degree turn within a 5' diameter circle or a t-shaped area unobstructed

Grab Bars

Horizontal *side* bar 42" minimum length, placed 12" max from the back wall.

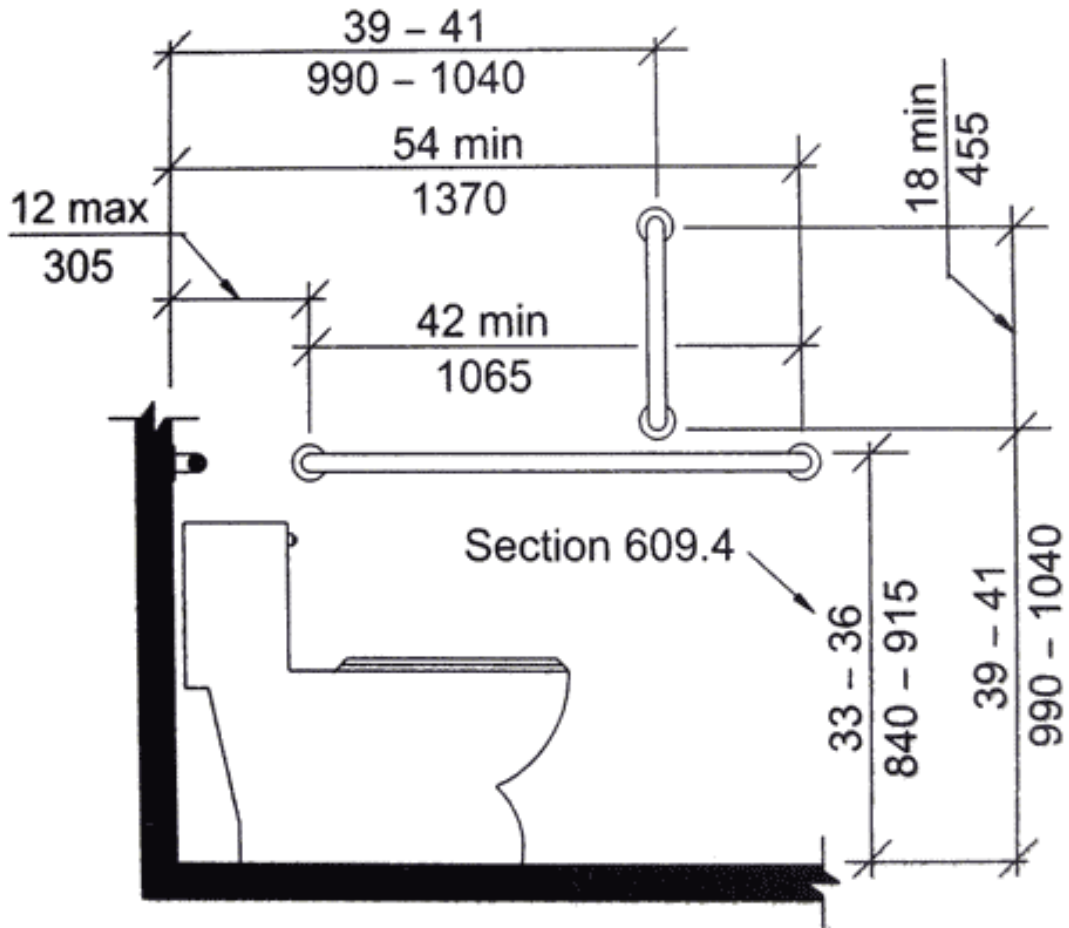
Horizontal *back* bar 36" minimum length, placed 12" minimum from center line of toilet.

Both horizontal bars should be placed at a height between 33"- 36"

Vertical grab bar 18" minimum length, placed between 39"- 41" from back wall at a height between 39"- 41"

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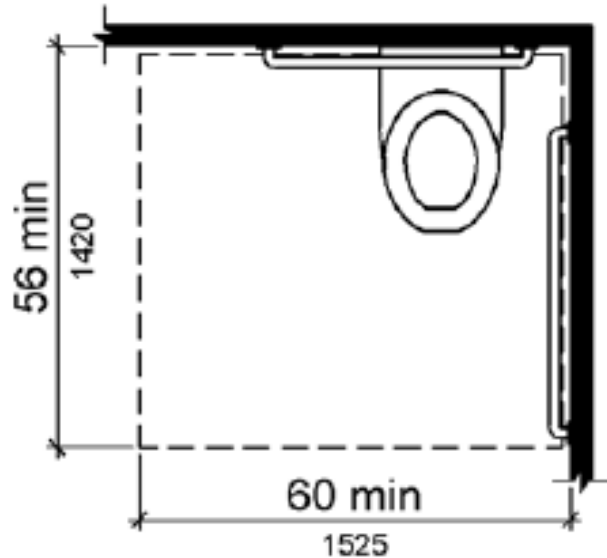
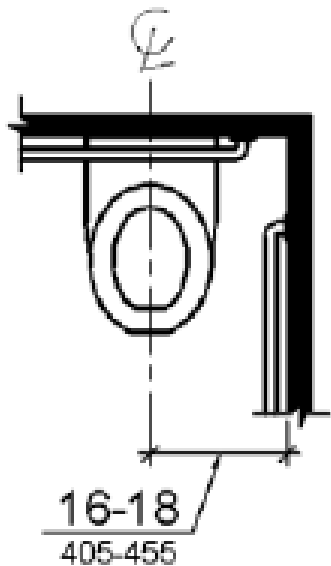
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Vertical grab bar 18" minimum length, placed between 39" - 41" from back wall at a height between 39" - 41"

3

RESTROOMS/BATHROOMS



Toilets

The centerline of the toilet should be 16" minimum to 18" maximum from the side wall or partition

Clearance around a water closet shall be 60" minimum measured perpendicular from the side wall and 56" minimum measured perpendicular from the rear wall

Sinks

17" minimum extension from wall

Should be 6 ½" in depth

Sink should not exceed a maximum height of 34"

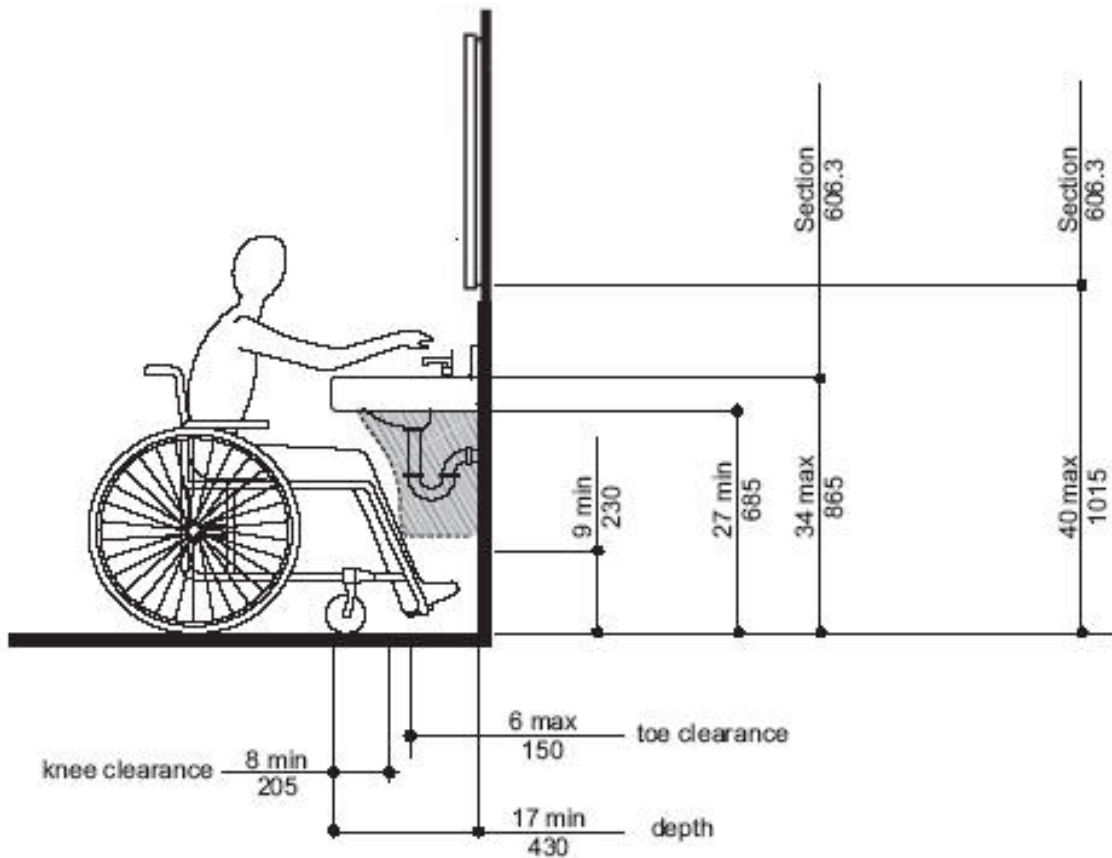
P-Traps need to be covered when it possess a danger

Mirror

Mirrors located above lavatories or countertops should be installed with the bottom edge of the reflecting surface 40 inches maximum above the finish floor

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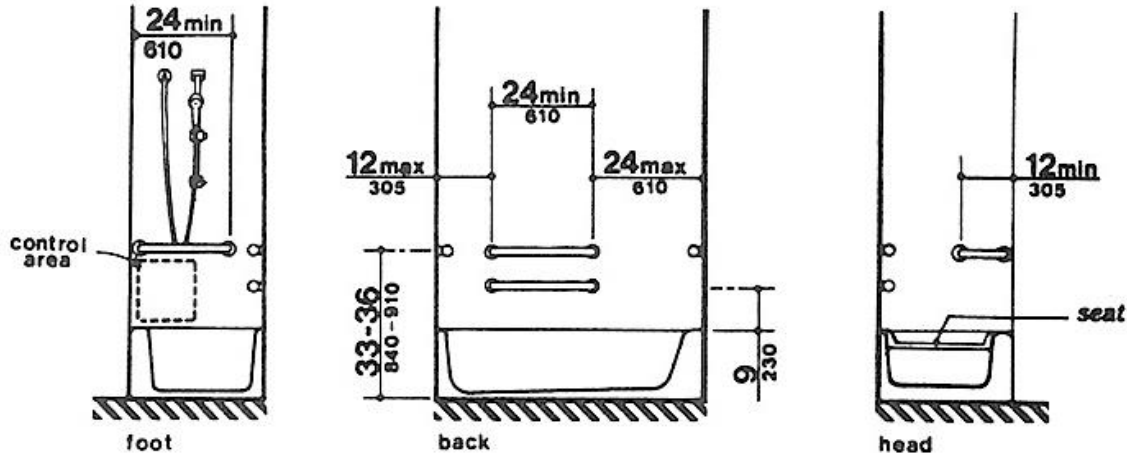
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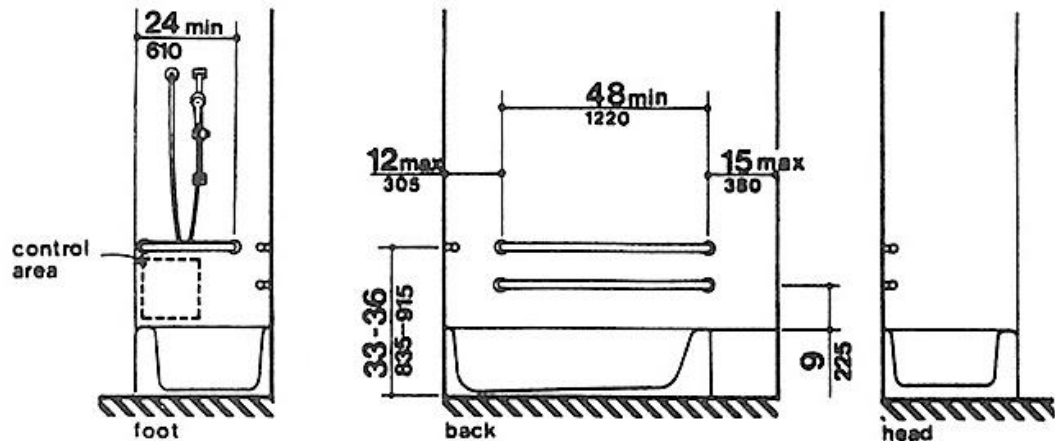
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3

RESTROOMS/BATHROOMS



(a)
With Seat In Tub



Bathtubs

Grab bar 33"-36" above floor, at least 24" long on back wall and 24" on side wall

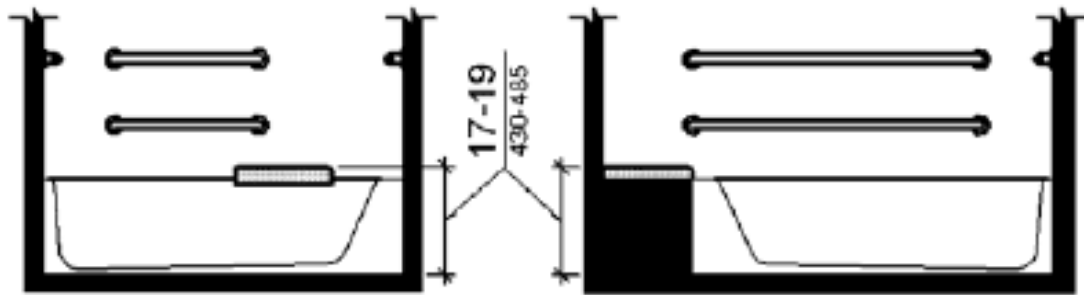
Grab bar diameter 1 1/2" maximum and 1 1/2" space between wall and grab bar

Rim of tub should be 17"-19" above finish floor

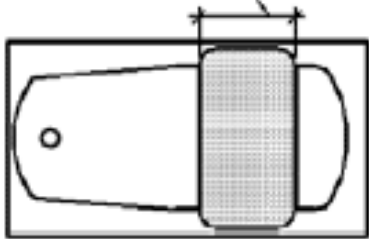
Some tubs also have shower seats though this is not required in many cases – 15-16" wide if the seat is removable and at least 15" wide if fixed

3

RESTROOMS/BATHROOMS

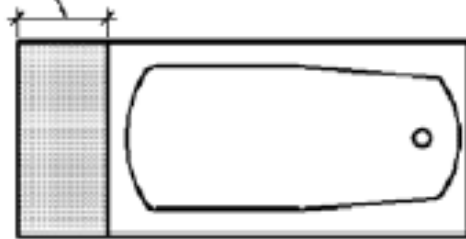


15-16
380-405



(a)
Removable
In-Tub Seat

15 min
380



(b)
Permanent Seat

Bathtubs

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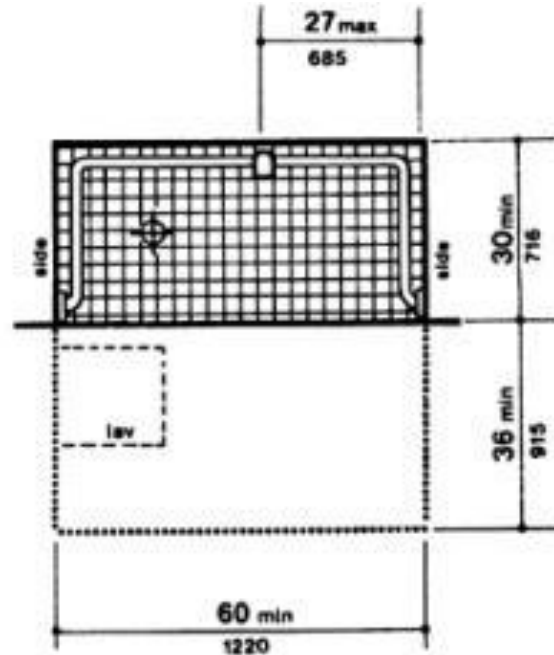
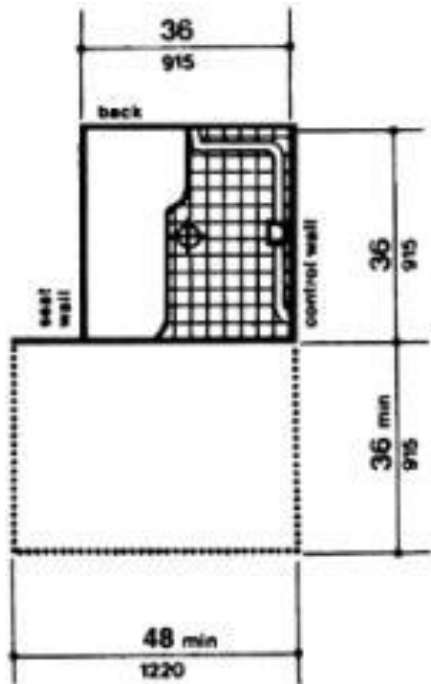
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3

RESTROOMS/BATHROOMS



Showers

Grab bars 33"-36" above floor on all three walls of roll-in type showers

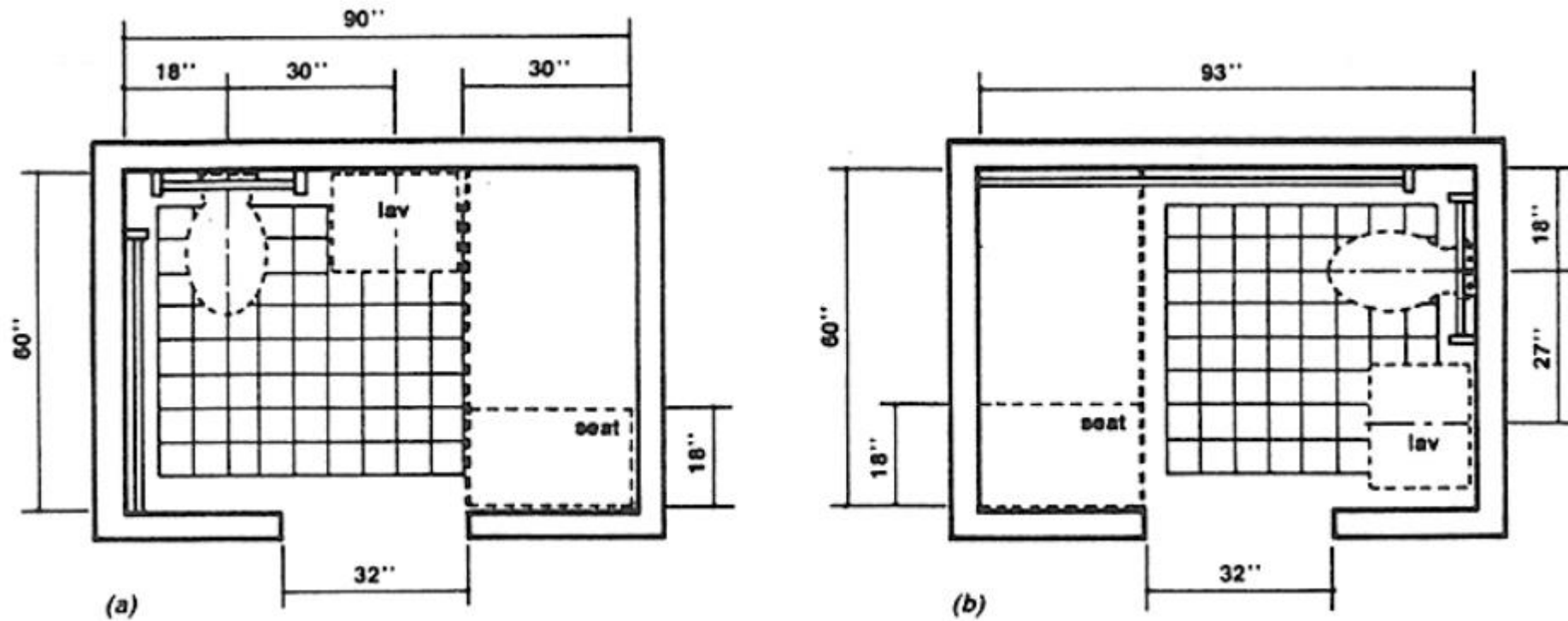
1/2" maximum threshold with a slope no steeper than 1:2

36" by 36" minimum inside dimensions for transfer-type shower stalls

30" by 60" minimum inside dimensions for roll-in showers

3

RESTROOMS/BATHROOMS



DIMENSIONS FOR ROLL-IN SHOWER

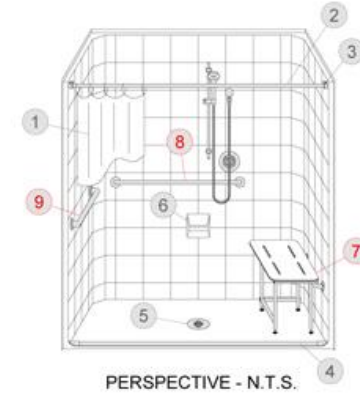
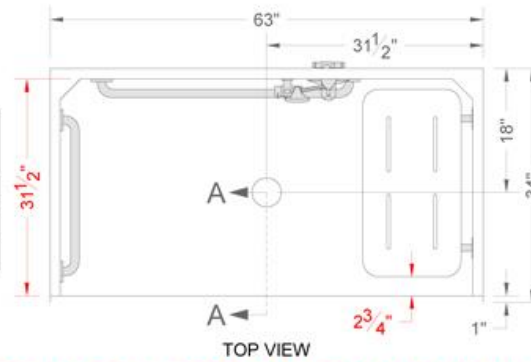
3

RESTROOMS/BATHROOMS

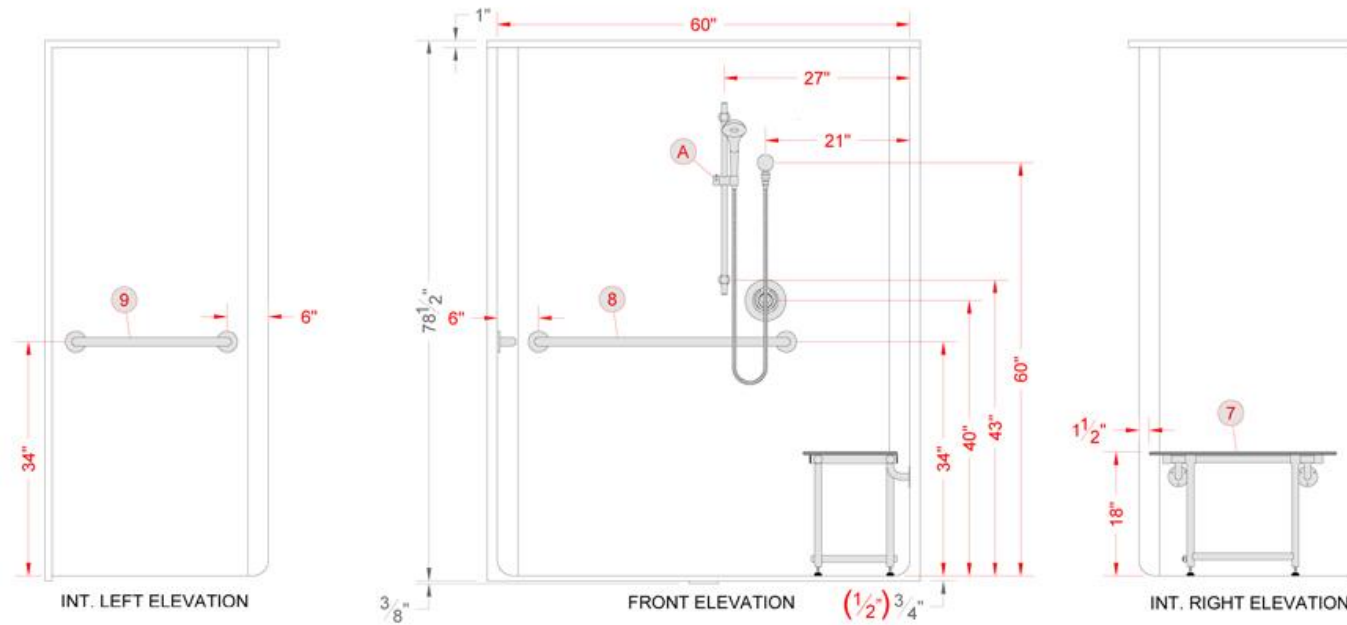
CRITICAL ACCESSORIES

A	1	STANDARD VALVE PACKAGE - SYMMONS VALVE #15-1-X-FG WITH 28" GLIDE BAR, PUSH BUTTON HANDHELD SHOWER, 60" HOSE, SUPPLY ELBOW & VACUUM BREAKER *
9	1	22" x 1- $\frac{1}{4}$ " GRAB BAR *
8	1	36" x 1- $\frac{1}{4}$ " GRAB BAR *
7	1	27" x 16" FOLD DOWN SEAT WITH SWING DOWN LEGS, PHENOLIC *

* REQUIRED OR EQUIVALENT



CRITICAL DIMENSIONS IN RED



CRITICAL DIMENSIONS FOR SHOWER

4

CORRIDORS

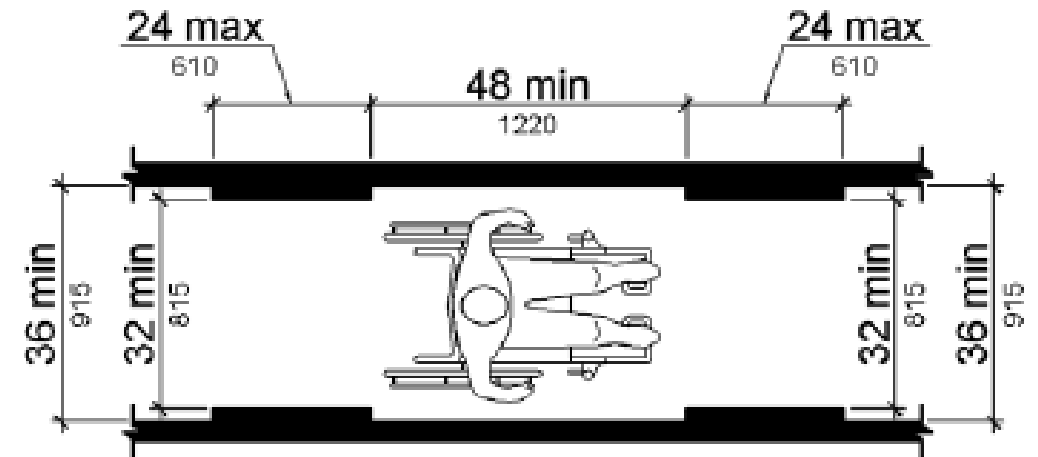
Corridors should be no less than 36" in width; 48" or more is a good width to have circulation moving in both ways efficiently

Protrusions in the hallway should be 24" maximum in width if they reduce the width of the corridor beyond 36"

Provide a 5' diameter space for rotating wheelchair or you can use the T-shaped dimensions as seen to the right at areas that permit a change of direction

In corridors that serves as a means of egress, doors must not swing into room, not the corridor

Avoid dead-end corridors! General rule is that if it's more than 20' in length, it's a dead-end corridor



4

CORRIDORS

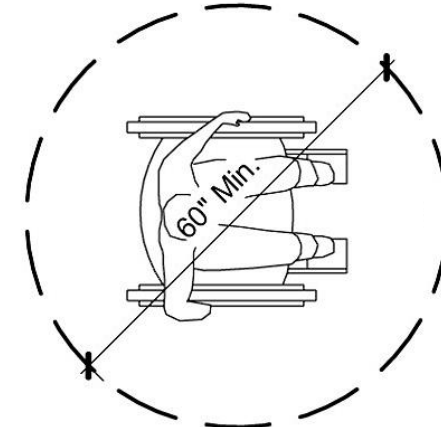
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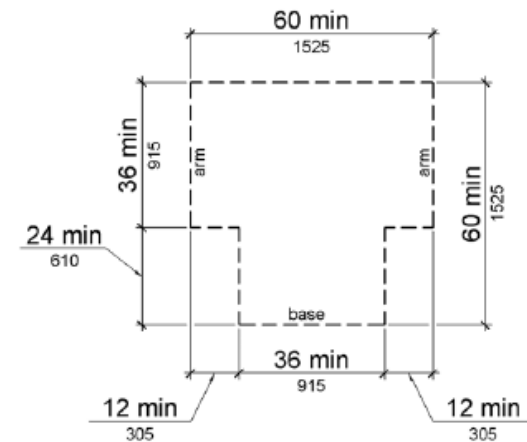
Provide a 5' turning radius for rotating wheelchair or you can use the T-shaped dimensions as seen to the right at areas that permit a change of direction

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TURNING RADIUS



T-SHAPE SPACE

4

CORRIDORS

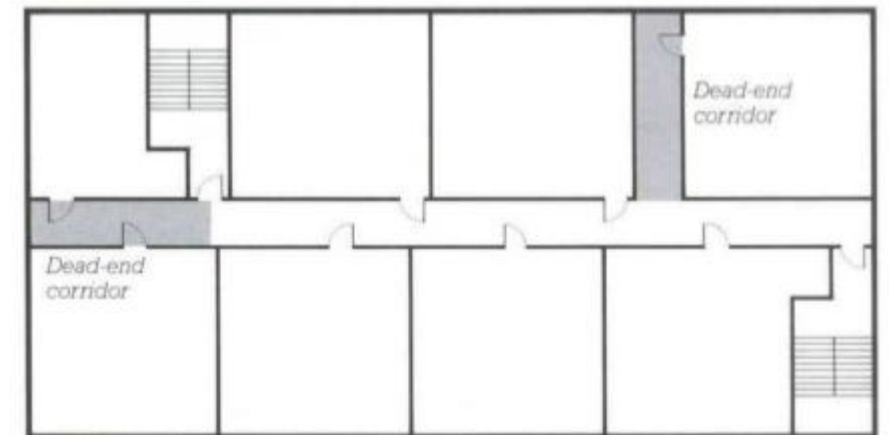
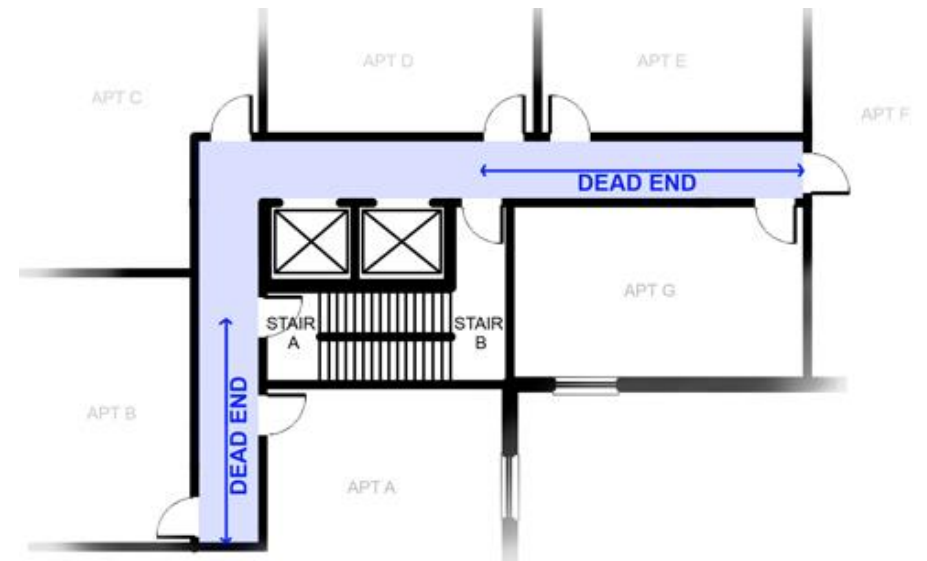
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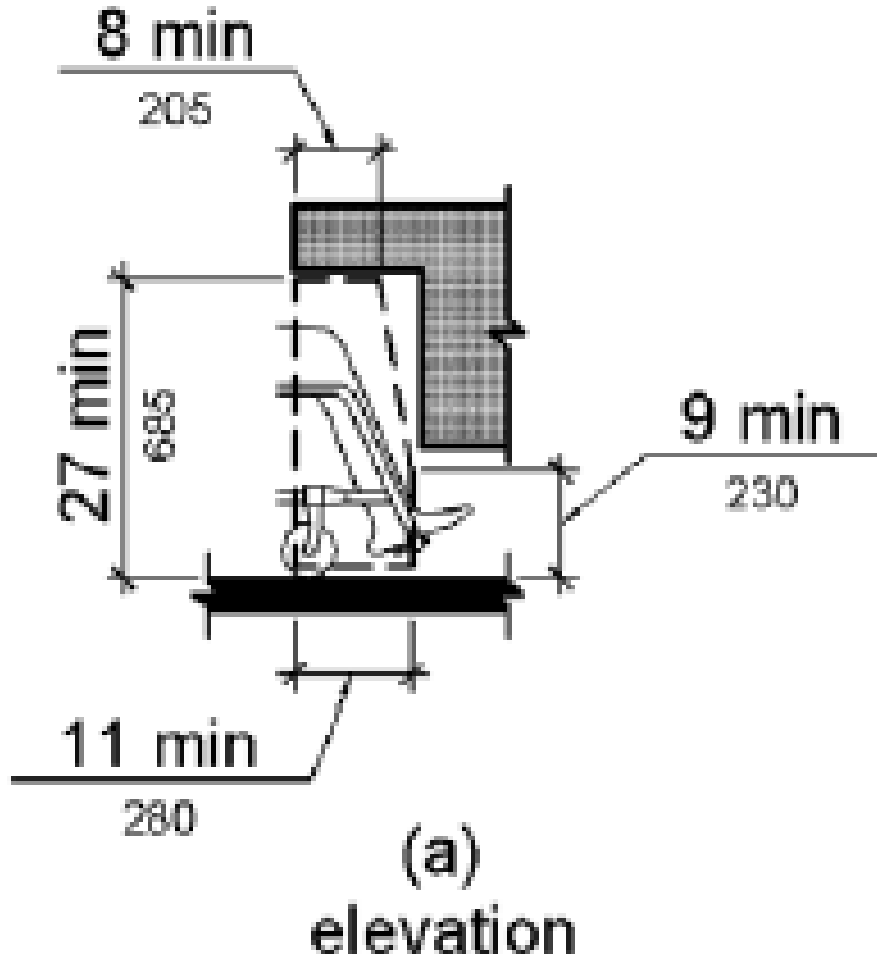
In corridors that serves as a means of egress, doors must not swing into room, not the corridor (follow top right, not bottom right)

Avoid dead-end corridors! General rule is that if it's more than 20' in length, it's a dead-end corridor



5

HORIZONTAL & VERTICAL SURFACES



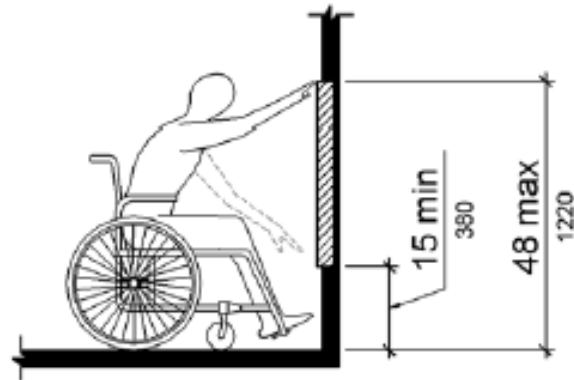
The appropriate ADA compliant work surface be 27" from the floor to the bottom of the surface and 34" is the max height of the top of the surface. This includes bars, reception desks and other transaction counters

Space under surface to the nearest vertical surface should not be less than 8" at the top and 11" at the bottom; this space is considered knee clearance

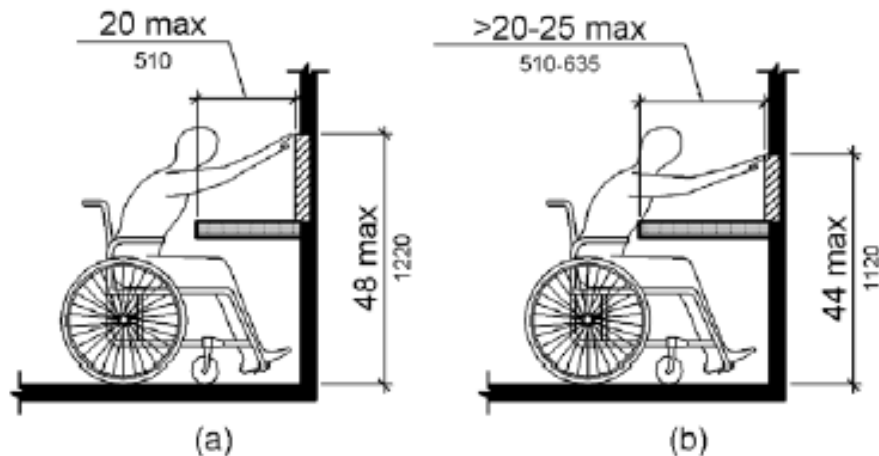
Space under an element between the finish floor and 9" above the finish floor should be considered toe clearance and is purposed for wheelchair access

5

HORIZONTAL & VERTICAL SURFACES



FORWARD REACH



OBSTRUCTED HIGH FORWARD REACHES

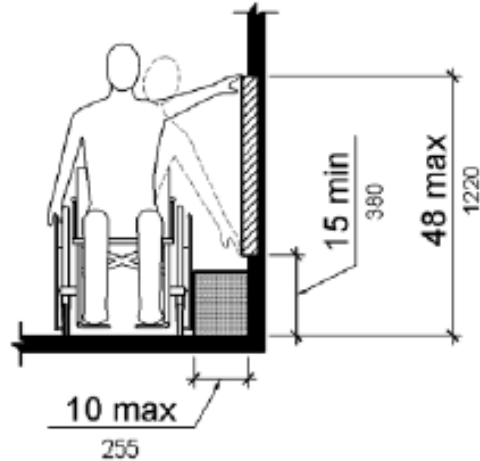
Reach Ranges – High Forward Reaches

Where a forward reach is unobstructed, the high forward reach should be 48" maximum and the low forward reach shall be 15" minimum above the finish floor

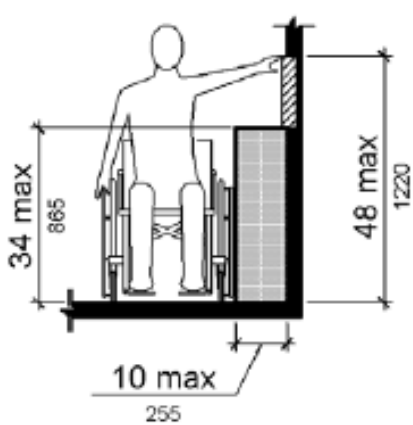
For obstructed reaches, the high forward reach should be 48" maximum where the reach depth is 20" maximum. Where the reach depth exceeds 20", the high forward reach should be 44" maximum and the reach depth should be 25" max.

5

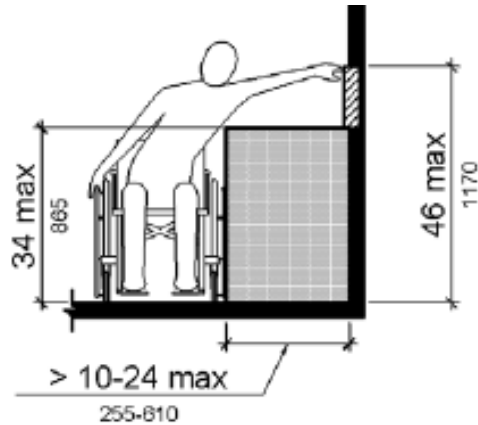
HORIZONTAL & VERTICAL SURFACES



HIGH SIDE REACH



(a)



(b)

OBSTRUCTED HIGH SIDE REACHES

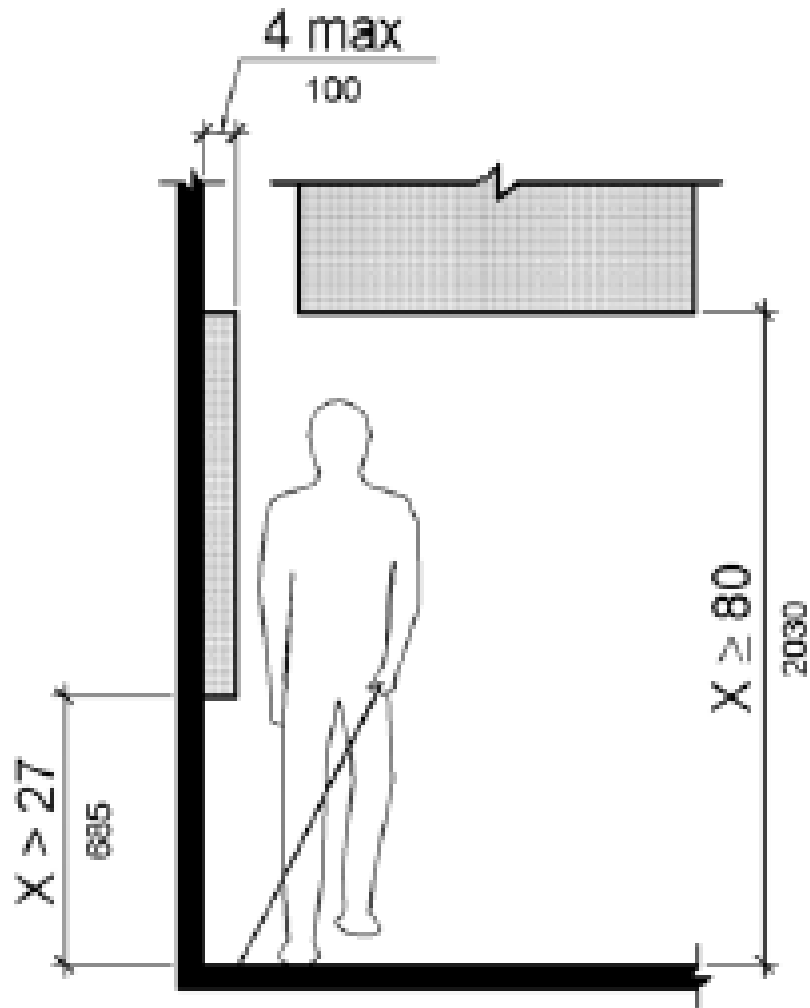
Reach Ranges – Side Reaches

The high side reach should be 48" maximum and the low side reach should be 15" maximum above the finish floor

For obstructed side reaches, the height of the obstruction should be no more than 34" and the depth of the obstruction should be no more than 24". The high side reach shall be 48" max for a reach depth of 10" max. Where the reach depth exceeds 10 inches, the high side reach should be no more than 46" for a reach depth of 24" max.

5

HORIZONTAL & VERTICAL SURFACES



Objects with edges more than 27" high and not more than 80" above the finish floor can not protrude more 4" maximum horizontally into the circulation path

Vertical clearance should be 80" high minimum

Guardrails or other barriers should be provided where the vertical clearance is less than 80" high. The leading edge of such guardrail or barrier should be located 27" maximum above the finish floor

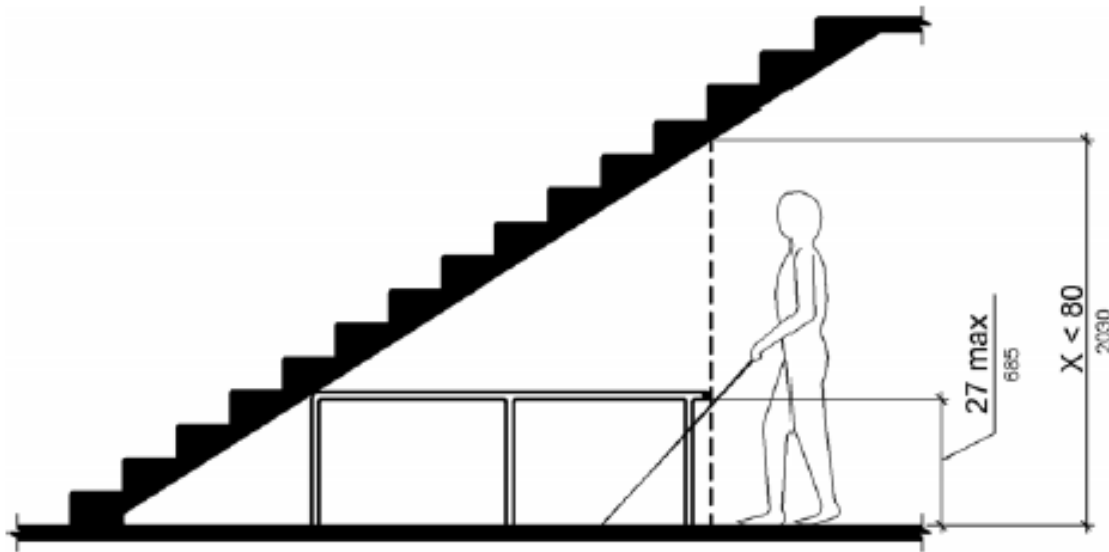
5

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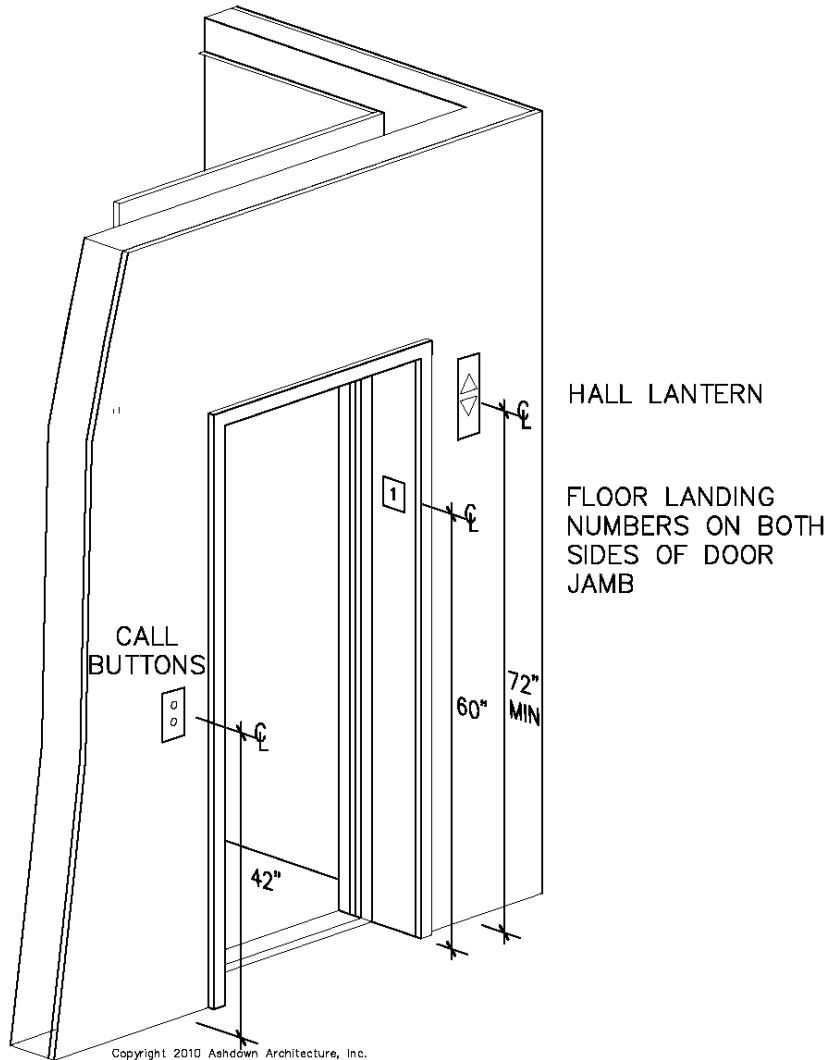
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ELEVATORS



Accessible elevators shall be on an accessible route

Hall lantern should be at least 72" above floor finish

Call buttons for elevator should be at 42" from floor

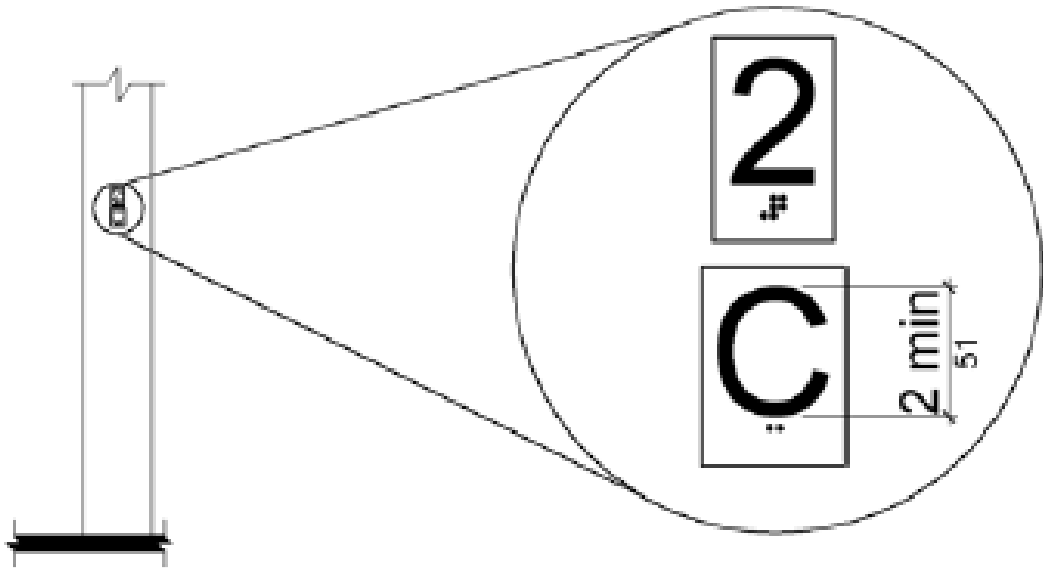
Elevators should be equipped with Braille on call and level (inside elevator) buttons as well as on signage on elevator door jamb

The elevator should provide enough space for a wheelchair to enter and maneuver around comfortably

Wheelchair lifts are an option when elevators are not practical or feasible

6

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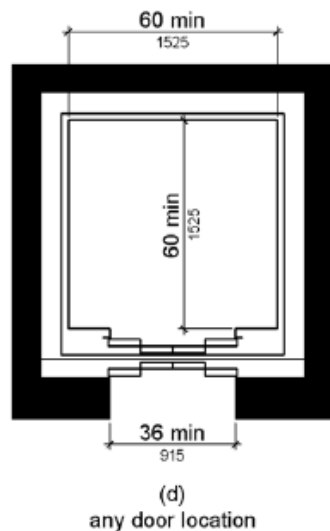
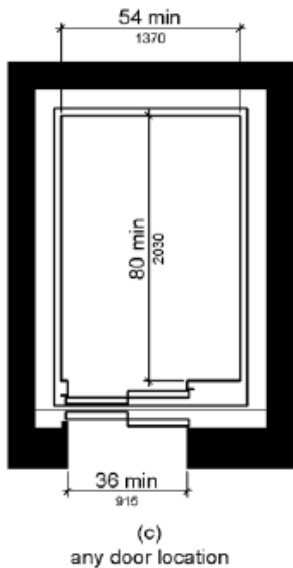
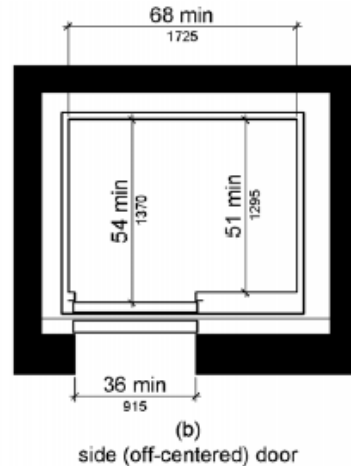
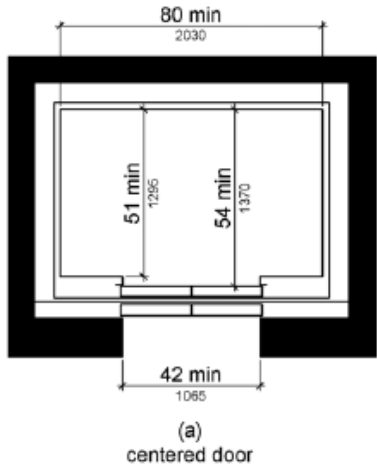
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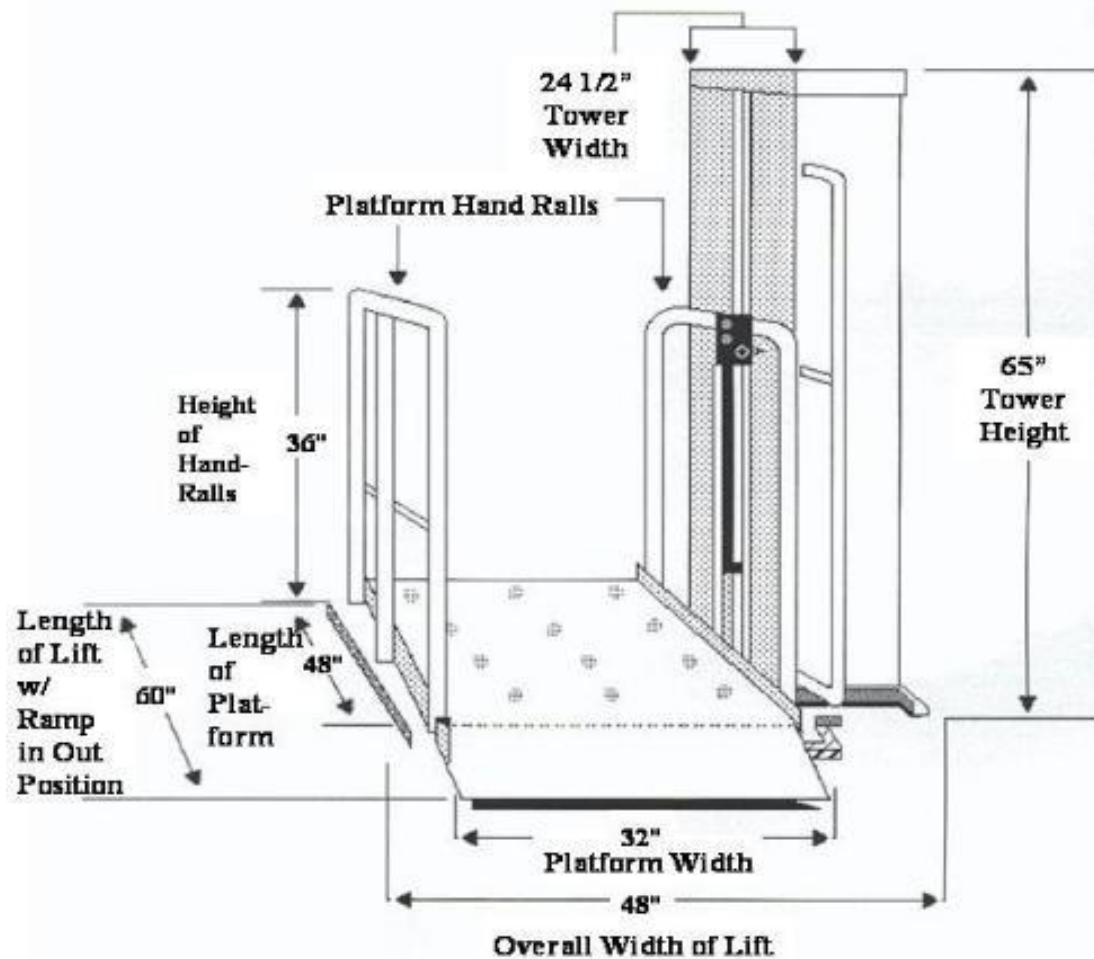
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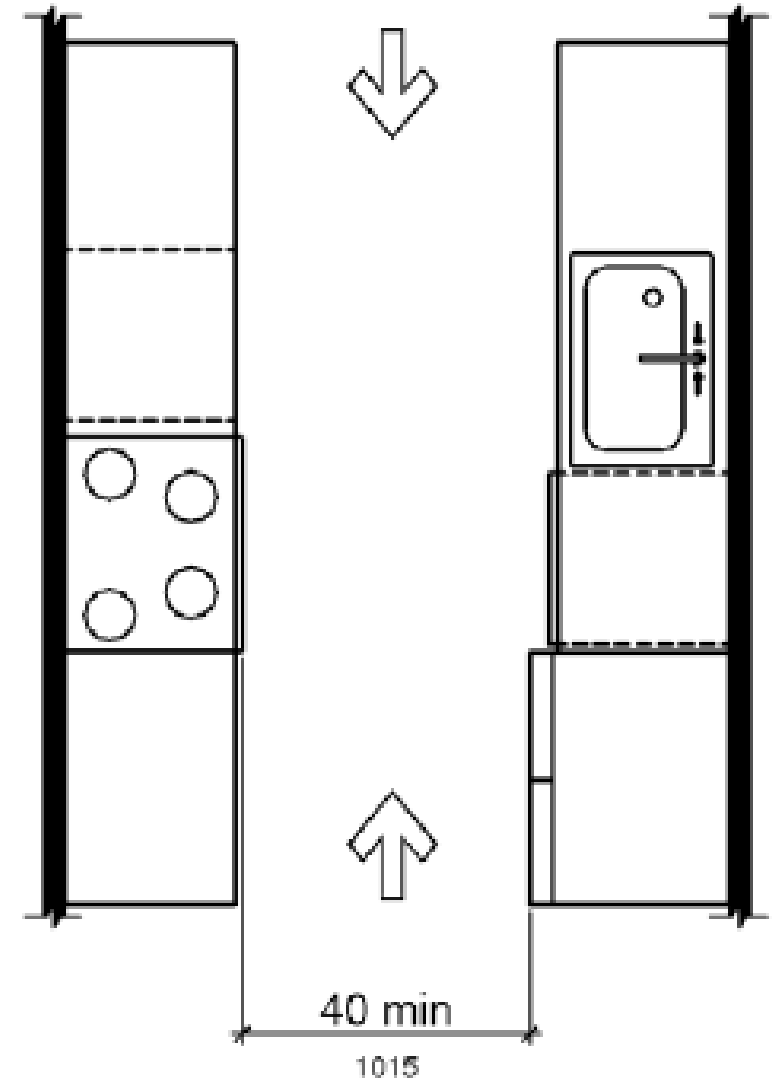
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7

BAR/KITCHEN CLEARANCES

In pass through kitchens where counters, appliances or cabinets are on two opposing sides, or where counters, appliances or cabinets are opposite a parallel wall, clearance between all opposing base cabinets, counter tops, appliances, or walls within kitchen work areas should be 40" minimum

In U-shaped kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, counter tops, appliances, or walls within kitchen work areas should be 60" minimum



7

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