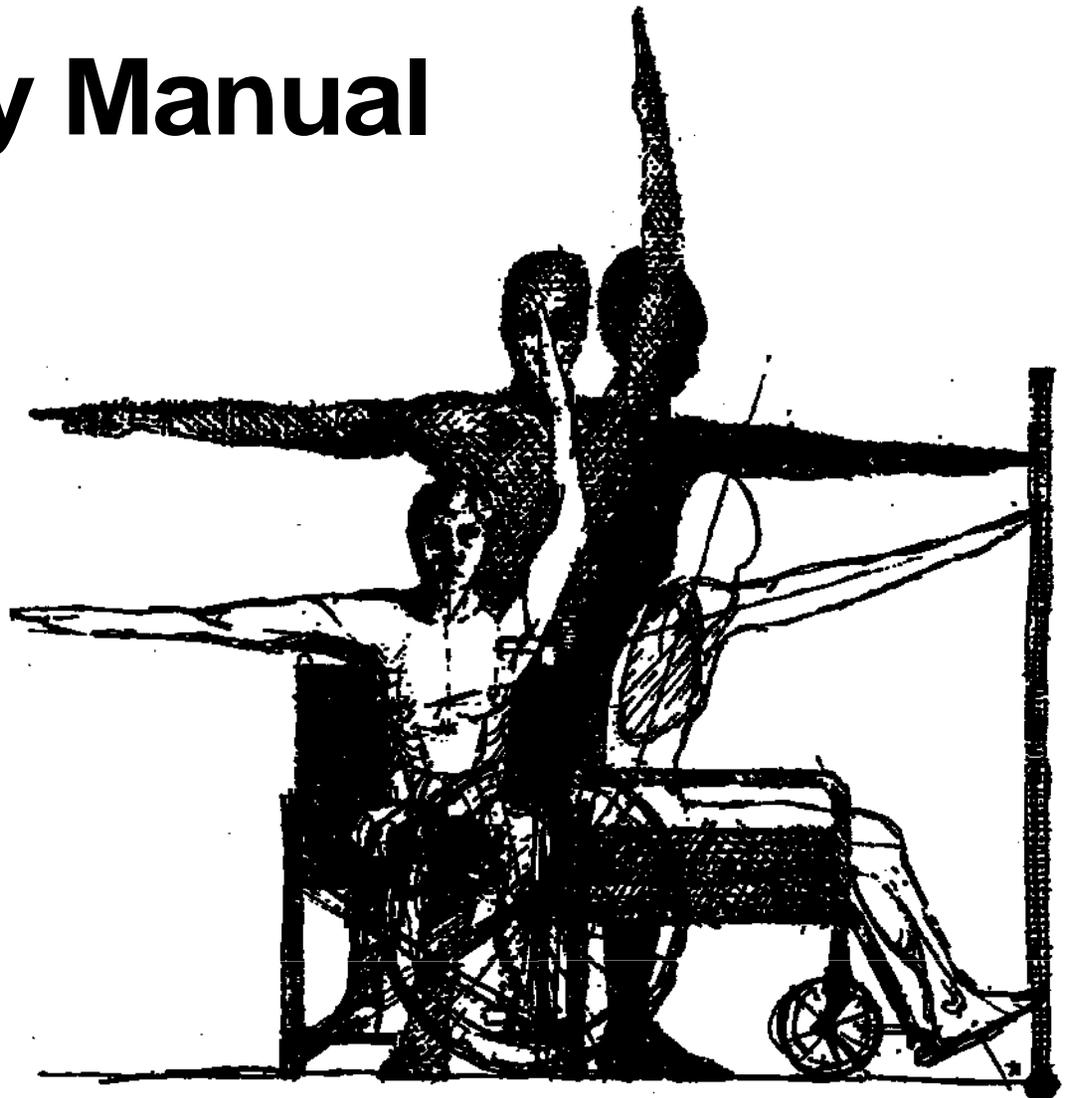


Accessibility Manual

Prepared by:
Disability Access Office
Department of Public Works
City of San Antonio

Revised March 2012



The Accessibility Manual has been developed by the City of San Antonio, Disability Access Office, Public Works Department, as a guide and reference on new construction and remodeling jobs requiring accessible facilities.

Many small jobs, such as electrical outlets, stair work, and door changes will continue to be done without formal design. Maintenance crews will need to be aware of accessibility requirements in order to carry out these typical jobs. It should be remembered that these guidelines are the bare essentials of a barriers elimination program.

The Design Standards presented herein are those related to the American with Disabilities Act (ADA) regulations referring to the elimination of architectural barriers. The primary reference for this text is the U.S. Department of Justice 2010 ADA Standards (September 15, 2010). The preparation of this manual was financed in part through the U.S. Department of Housing and Urban Development, Community Development Block Grant program.

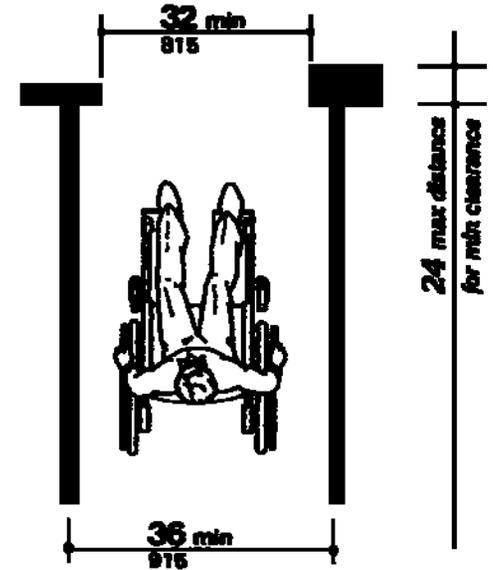
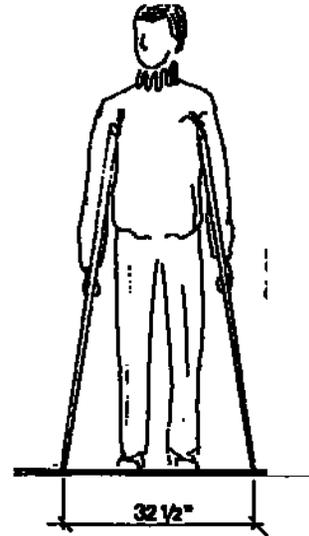
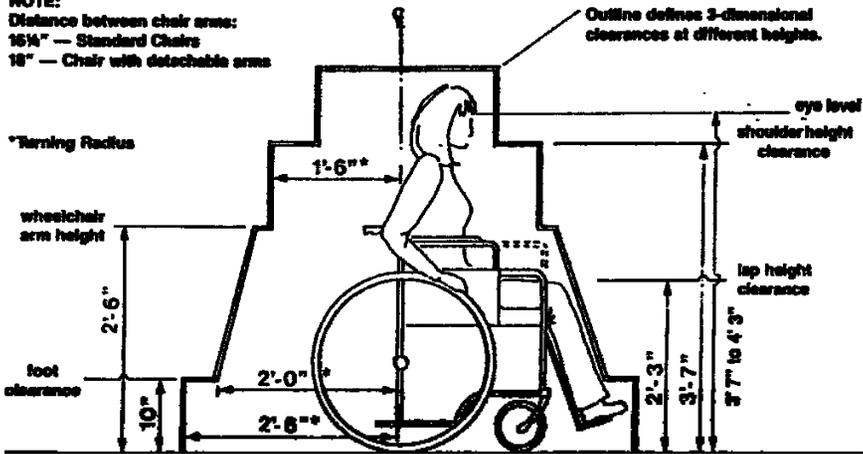
This manual can be found on the Disability Access Office website at:

<http://www.sanantonio.gov/ada/AccessManual.asp>

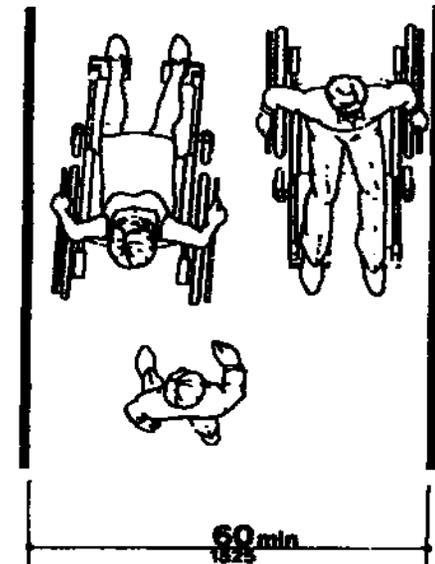
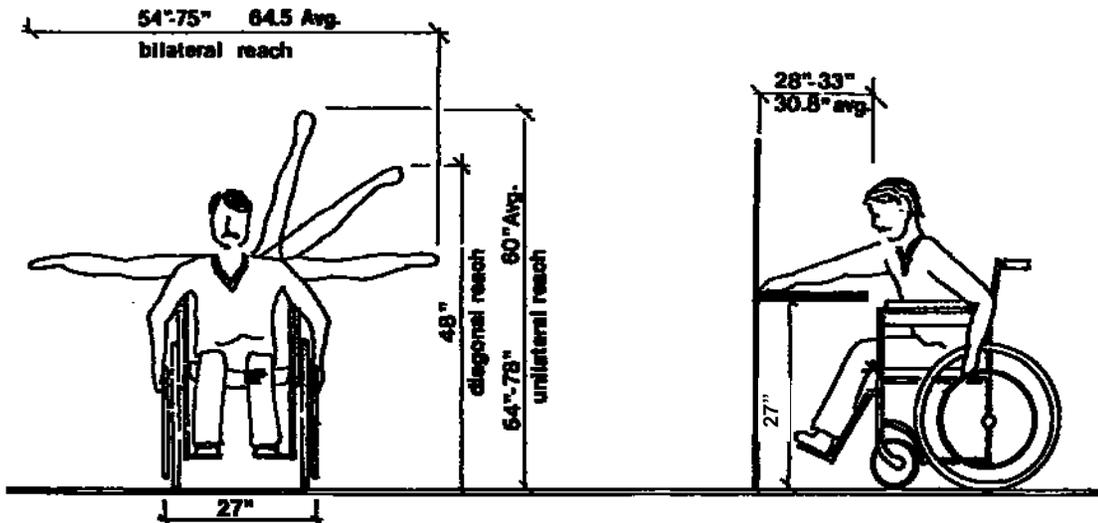
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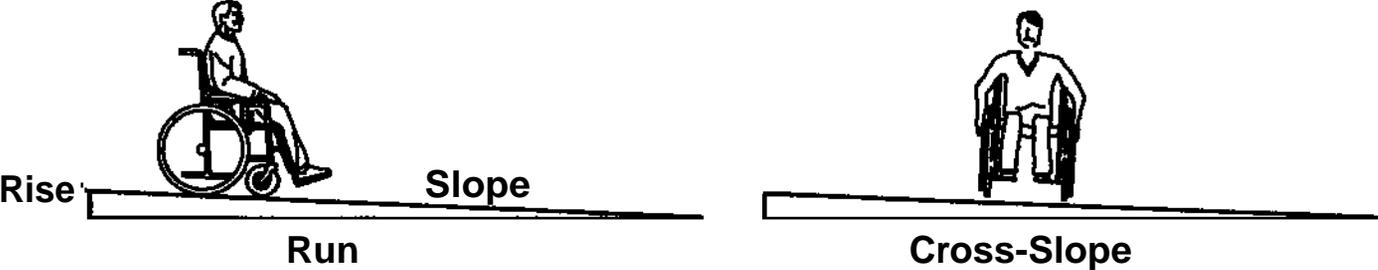
NOTE:
 Distance between chair arms:
 16 1/4" — Standard Chairs
 18" — Chair with detachable arms



**Minimum Clear Width
 for Single Wheelchair**



**Minimum Clear Width
 for Two Wheelchairs**

ITEM	REQUIREMENT
ACCESSIBLE ROUTE	<p>A continuous unobstructed path of travel that connects all accessible elements and spaces in a building or facility. An accessible route within the boundary of a site shall be provided from public transportation stops, accessible parking, passenger loading zones, and public streets or sidewalks to the accessible building entrance served. Vertical clearance shall be 80 inches high minimum.</p>
SLOPE & CROSS-SLOPE	<p>An accessible route with a running slope greater than 5% shall be considered a ramp. A slope of 5% has 1 inch of rise in elevation for any 20 inches of run, or length. A cross slope of 2% maximum is allowed for drainage.</p>
	 <p>The diagram consists of two parts. On the left, a person in a wheelchair is shown on a ramp. A vertical line on the left is labeled 'Rise' and a horizontal line below the ramp is labeled 'Run'. The word 'Slope' is written above the ramp. On the right, a person in a wheelchair is shown on a flat surface with a slight side slope. The word 'Cross-Slope' is written below the surface.</p>
SURFACES	<p>An accessible route must consist of a firm, stable material with a non-slip textured surface. Adhesive must be applied to underside of carpet edges or seams. Cobblestone, flagstone, crushed granite and other irregular surfaces present a hazard and are not recommended.</p>
SIDEWALKS	<p>Preferred minimum unobstructed width 60 inches. When crossing driveways, the cross-slope must not exceed 2%.</p>
GRATES	<p>Elongated grate openings must be perpendicular to path of travel and openings must not exceed 1/2 inch in width.</p>
PASSING SPACE	<p>If an accessible route has less than 60 inches clear width, then passing spaces at least 60 inches by 60 inches shall be located at reasonable intervals not to exceed 200 feet. A "T" intersection of two corridors or walks is also an acceptable passing space.</p>

ITEM

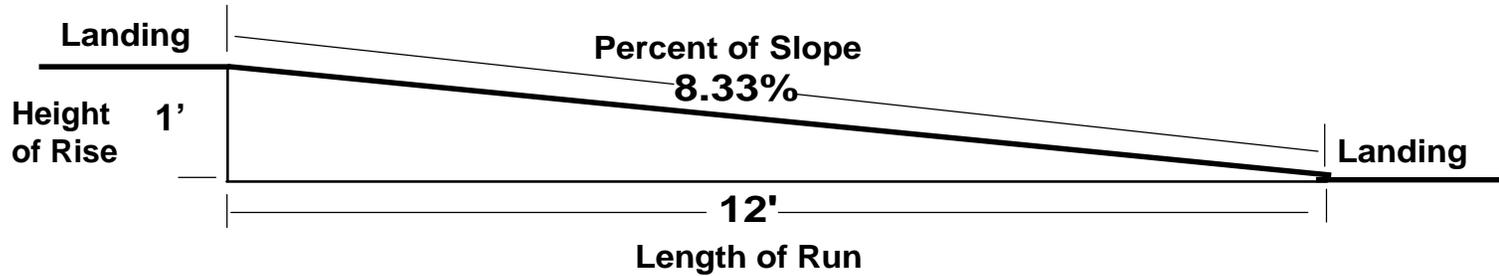
REQUIREMENT

RAMPS

Any part of an accessible route with a slope greater than 5% (1:20) shall be considered a ramp. The least possible slope shall be used for any ramp.

RAMP SLOPE

The maximum slope of a ramp in new construction shall be 8.33% (1:12).



Ramps constructed on existing sites may have slopes in excess of 1 to 12 if space is limited.

The following chart applies:

Maximum Rise	Allowable Slope	Allowable Run
6 inches	Between 1:10 (10%) and 1:12 (8.33%)	60 to 72 inches
3 inches	Between 1:8 (12.5%) and 1:10 (10%)	24 to 30 inches

NOTE: Slopes greater than 1:8 (12.5%) are not allowed

WIDTH

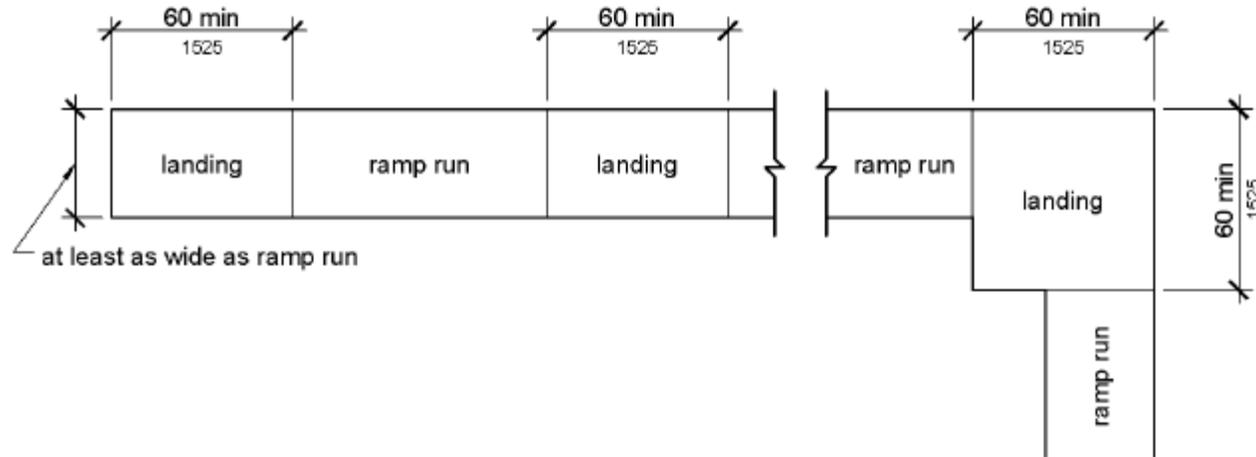
Clear width of 36 inches between the handrails.

ITEM

REQUIREMENT

LANDINGS

Ramps shall have level landings at the top and bottom of each run. If ramps change direction at landings, the minimum landing size shall be 60" X 60". The rise for any ramp run shall be 30 inches maximum.



HANDRAILS

Any ramp with a run greater than 72 inches shall have continuous 1¼ to 2 inch outside diameter handrails on both sides, mounted at between 34 and 38 inches above the ramp surface. Handrails shall extend 12 inches beyond the top and bottom of ramps, parallel to the landing surface with rounded or returned ends. A 1½ inch space is the minimum space allowed between the rail and the wall if wall mounted.

EDGE PROTECTION

Ramps also require edge protection to prevent wheelchairs, crutches, canes or strollers from passing underneath the handrail. Two options for edge protection are illustrated below.



ITEM**REQUIREMENT**

STAIRS

Uniformity of riser heights and tread depths provide safety for visually and mobility impaired persons.

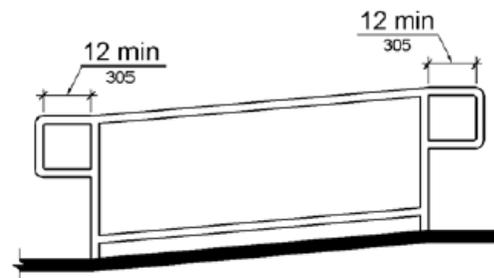
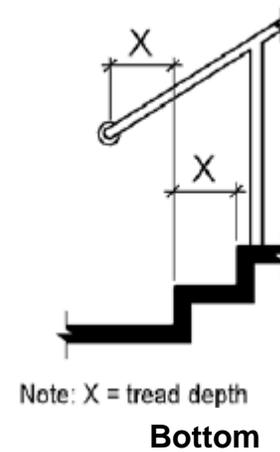
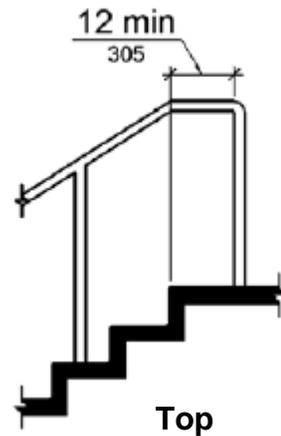
Risers shall be 4 inches high minimum and 7 inches high maximum.

Open risers are prohibited.

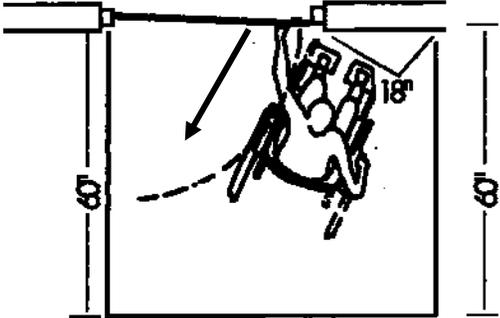
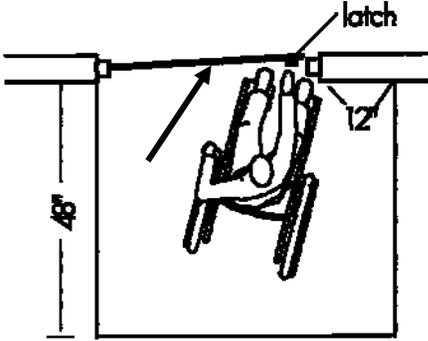
Treads must be 11 inches deep minimum.

Nosings shall be curved, not abrupt, with a 30 degree maximum if angled.

Handrails must meet the minimum requirements for extensions as illustrated below:



Top and bottom Handrail Extension at Ramps

ITEM	REQUIREMENT
ENTRY DOORS	<p>A level platform for maneuvering is required for the both sides of doorways. Eighteen inches of this level area must be extending past the handle-side of the door. If the door has both a latch and a closer, at least 12 inches of level area must be extending past the handle-side of the door on the push side of doorways. (Also applies to toilet compartment doors.)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pull</p> </div> <div style="text-align: center;">  <p>Push</p> </div> </div>
WIDTH	A 32 inch minimum clear width opening is required for access. This requirement applies to one door, or at least one leaf of double doors.
THRESHOLDS (door sill)	Total level change at doorways shall not exceed ½ inch beveled.
HARDWARE	Door handles shall have a shape that is easy to grasp with one hand. Preferred designs include lever-operated, push-type mechanisms, and U-shaped handles. The force required to operate is 5 pounds or less. Mount hardware no higher than 48 inches.
KICKPLATES	Kickplates are recommended for the push-side of doors to protect the door from damage.
DOOR PRESSURE & WEIGHT	Adjust exterior door closer or otherwise reduce door pressure and weight as much as possible in order to minimize opening force required for persons with upper mobility limitations. Automated or manual assist door openers are recommended. Interior door opening force shall be no more than 5 pounds.

ITEM

REQUIREMENT

NUMBER
REQUIRED

If parking facilities exist, accessible parking spaces must be provided in conformance with the chart below:

Total Parking In Lot:	1-25	26-50	51-75	76-100	101-150	151-200	201-300	301-400	401-500	501-1000	Over 1000
Required Minimum Number of Spaces:	1	2	3	4	5	6	7	8	9	2% of total	20+1 for each 100 over 1000

PARKING SPACE
DESIGN

At least one reserved space must be van accessible. (One of every six reserved parking spaces for larger applications.)

figure one

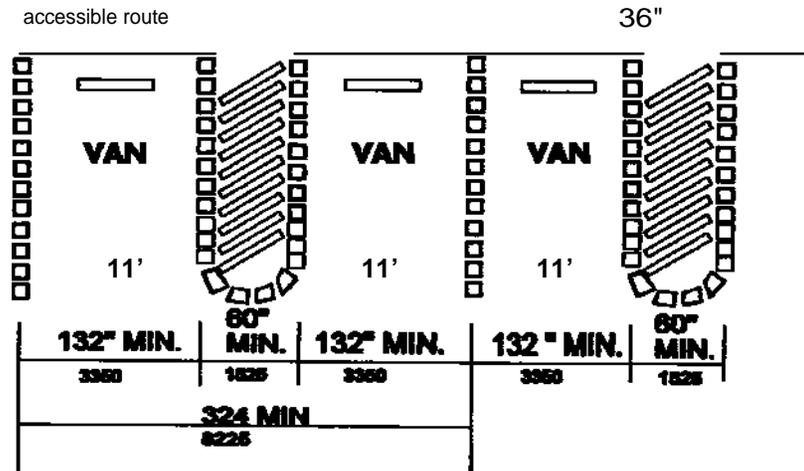
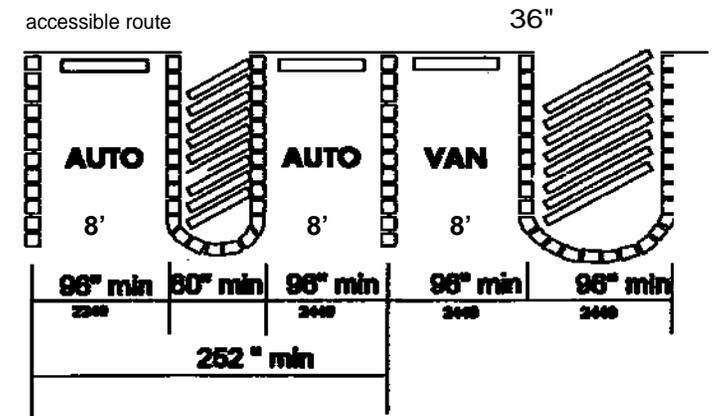


figure two



VERTICAL
CLEARANCE

Provide minimum vertical clearance of 98 inches at van accessible spaces. Parking garage minimum clearance shall be 114 inches.

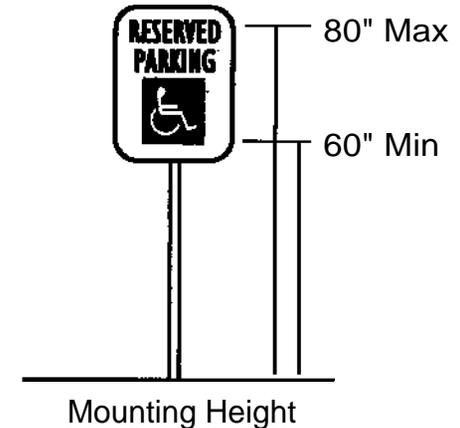
ITEM**REQUIREMENT**

SIGNAGE

For proper use and enforcement of reserved parking for persons with disabilities, each parking space or area must be identified with a sign:



Sample Signs



Parking space signage must;

- 1) be of a size that is readable and clear in stating reserved parking,
- 2) include the International Symbol of Access,
- 3) be permanently mounted in front of the vehicle space, not obstructing use of the curb ramp, and
- 4) be mounted at a height which will not be blocked by parked vehicles.

The van accessible space must be so designated with appropriate signage including the words "Van Accessible." Parallel parking is not recommended for use by persons with disabilities.

Pavement symbol stencils are not required.

ITEM

REQUIREMENT

PASSENGER
LOADING ZONE

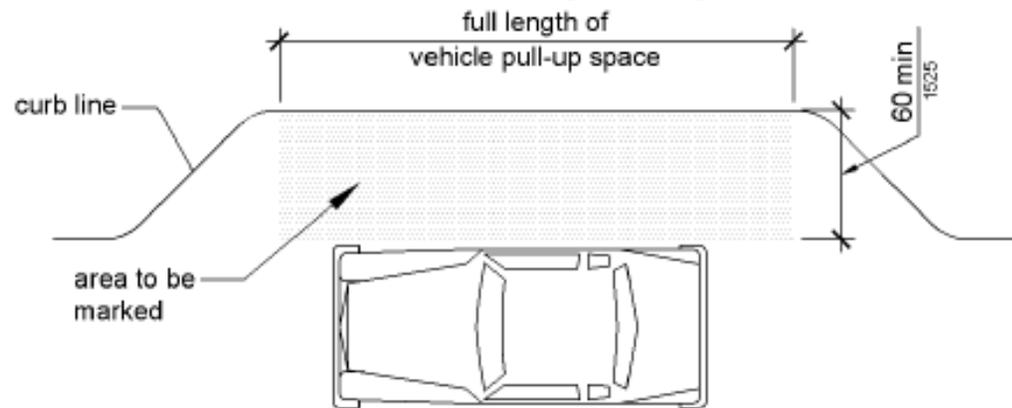
Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 96 inches wide minimum and 20 feet long minimum.

Access Aisle. Passenger loading zones shall provide access aisles adjacent to the vehicle pull-up space. Access aisles shall adjoin an accessible route and shall not overlap the vehicular way.

Width. Access aisles serving vehicle pull-up spaces shall be 60 inches wide minimum.

Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

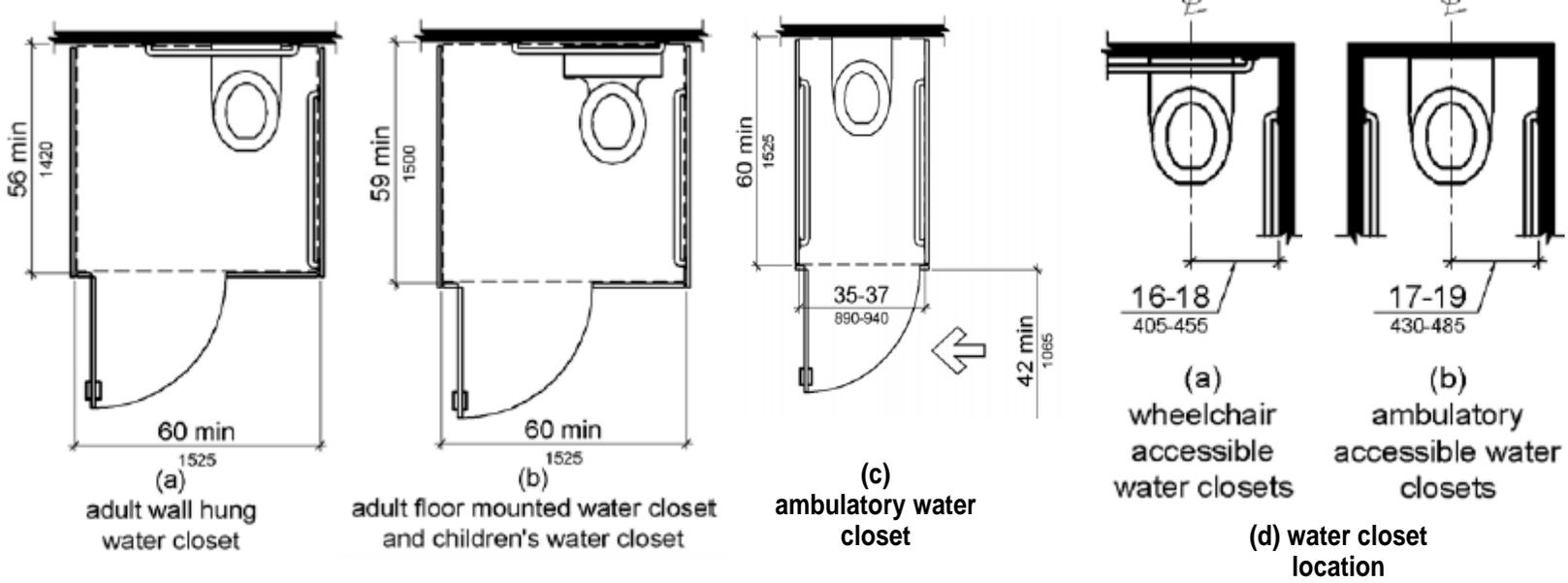
Marking. Access aisles shall be marked so as to discourage parking in them.



Floor and Ground Surfaces. Vehicle pull-up spaces and access aisles shall be firm stable and slip resistant. Access aisles shall be at the same level as the vehicle pull-up space they serve. Changes in level are not permitted.

Cross slope shall not exceed 2%.

Vertical Clearance. 114 inches minimum.

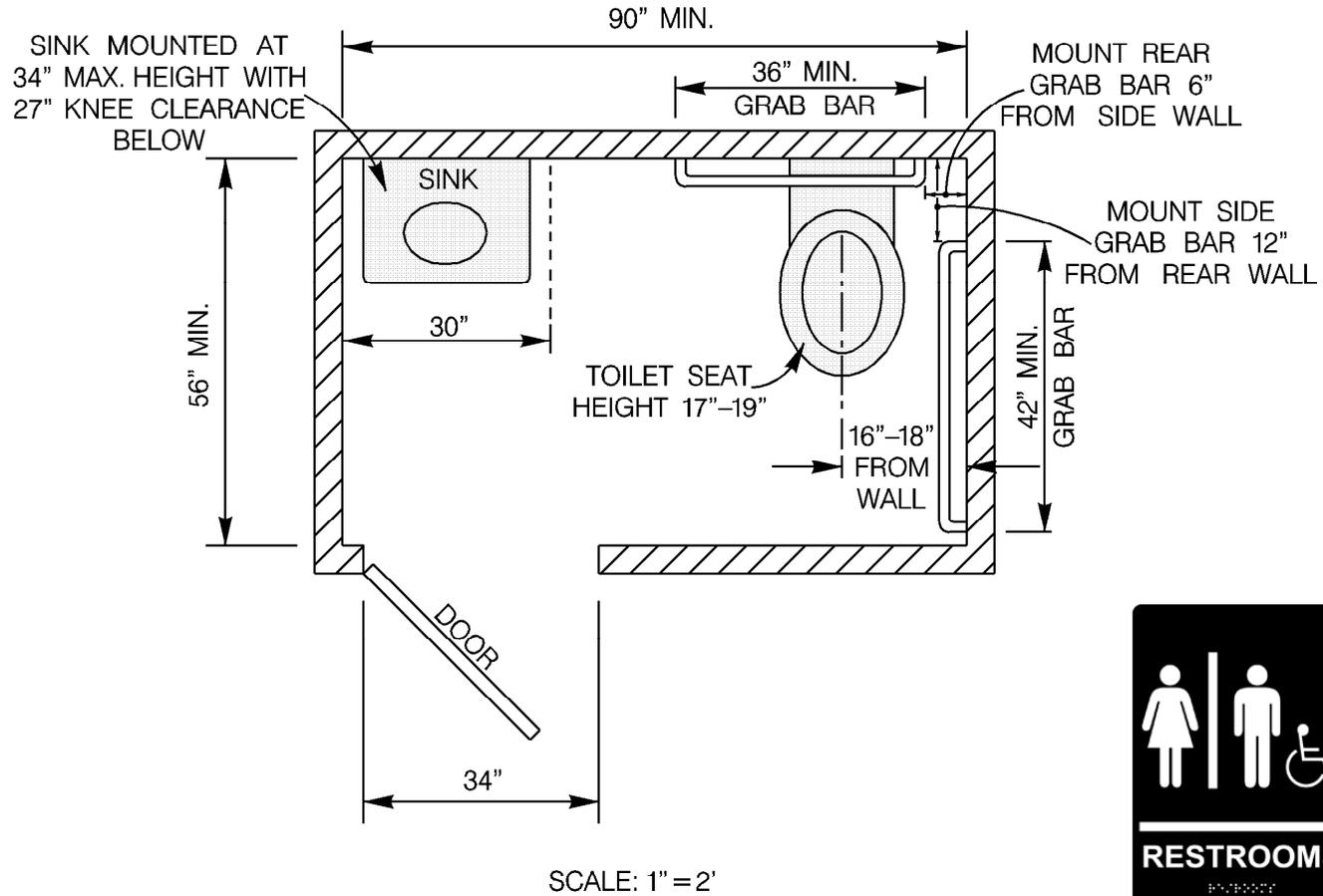
ITEM	REQUIREMENT
NUMBER	Each public and common use toilet facility shall be accessible. A minimum of one accessible water closet per restroom is required.
LOCATION	In multi-storied buildings, at least one restroom per floor shall be accessible. Horizontal distance to an accessible restroom should not exceed 250 feet.
ENTRY DOORS	32 inches clear width opening is required for access.
MANEUVERING SPACE	A 60 inch diameter clear floor space is required for maneuvering a wheelchair in a restroom.
WATER CLOSETS	<p>Water closets shall be arranged for a left-hand or right-hand approach.</p>  <p>(a) adult wall hung water closet</p> <p>(b) adult floor mounted water closet and children's water closet</p> <p>(c) ambulatory water closet</p> <p>(d) water closet location</p> <p>(a) wheelchair accessible water closets</p> <p>(b) ambulatory accessible water closets</p>
TOILET SEAT	17-19 inches high.
URINALS	17 inches high to elongated rim.

ITEM

SINGLE USER
TOILET ROOMS

REQUIREMENT

Guidelines allow the use of accessible single-user toilet rooms.



Sample Sign

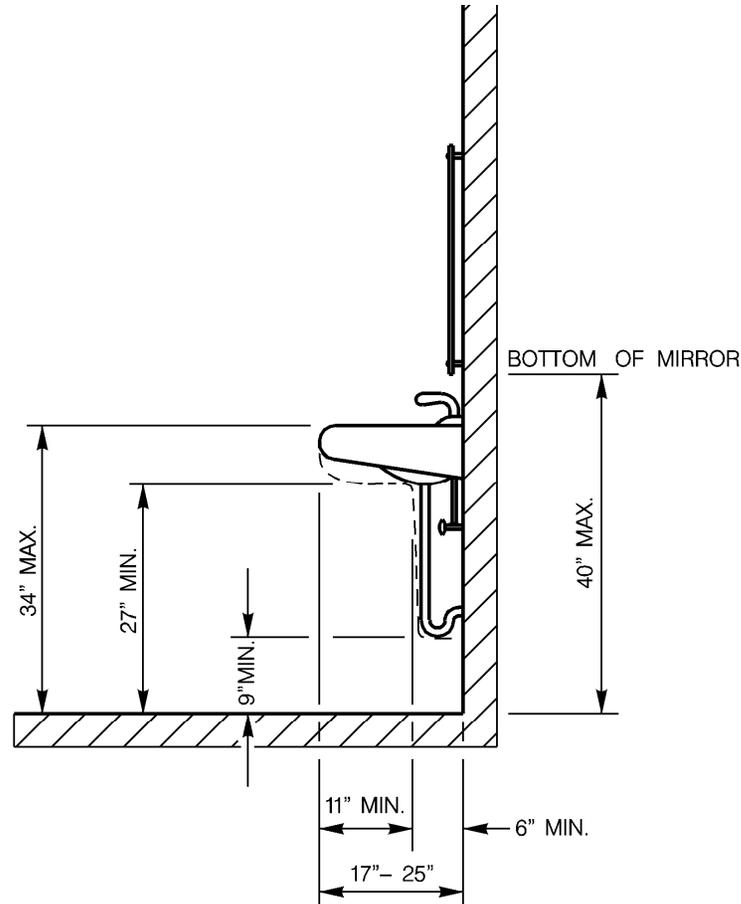
ITEM**REQUIREMENT**

GRAB BARS

Grab bars are required in all accessible toilet rooms and shall be mounted at 33-36 inches above the floor in the lengths and configurations indicated on page 11. Grab bars shall support a minimum 250 lbs., have a 1¼ to 2 inch outside diameter and 1½ inch clearance from wall.

LAVATORIES

27 inch under-sink bowl minimum clearance required. Other clearances as required (see illustration). Lever operated faucet handles preferred. Reach ranges on page 13 apply.



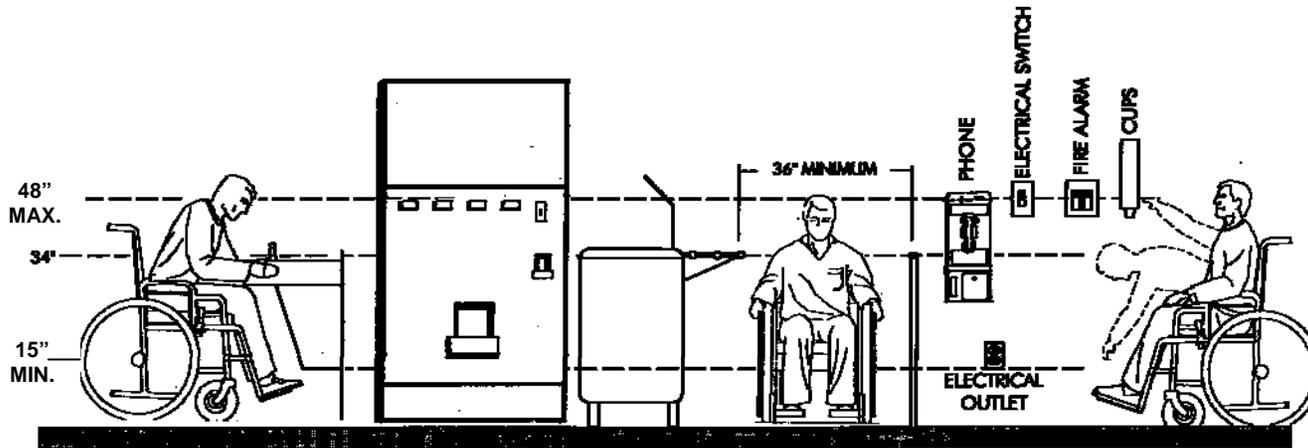
SCALE: 1" = 16"

ITEM

REQUIREMENT

FIXTURES

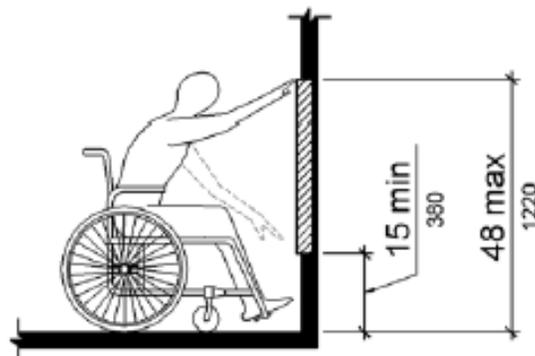
Mount dispensers at 48 inches maximum for frontal approach or side approach.



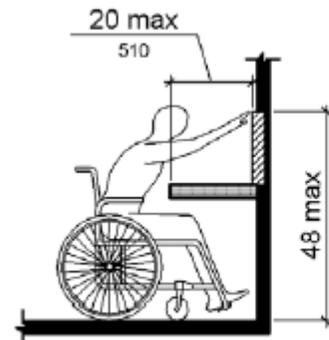
OPERABLE PARTS

Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds maximum.

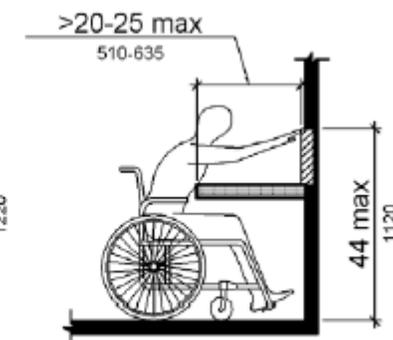
REACH RANGES



Unobstructed Forward

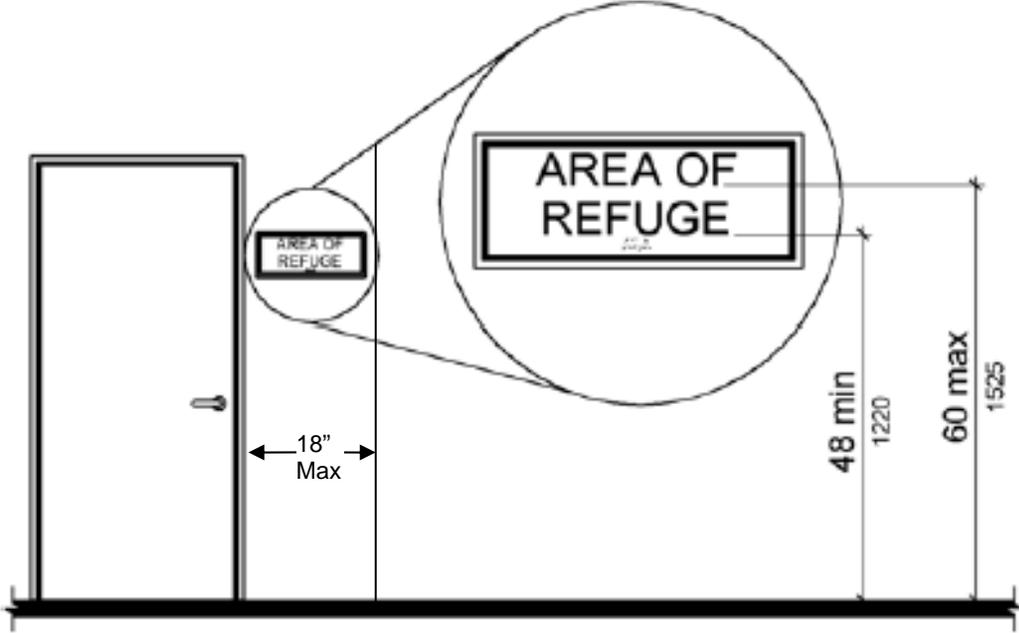


(a)



(b)

Obstructed Forward

ITEM	REQUIREMENT
SIGNAGE	<p>If accessible facilities are identified as such, then the international symbol of accessibility shall be used.</p> <div> <p>International Symbol of Access (Display Conditions)</p>  </div> <div> <p>Symbol for Deaf Access (Assistive Listening Devices)</p>  </div> <div> <p>Telecommunication Device for the Deaf TTY</p>  </div> <div> <p>Symbol for Blind Access</p>  </div> <div> <p>TACTILE CHARACTER SIGNS</p> </div> <div> <p>Where a tactile sign is provided at a door, the sign shall be located alongside the door on the latch side and within 18 inches of the door frame.</p> </div> <div>  </div>

Action Plan Outline For Access Compliance ✓

1. Become Knowledgeable:

Using this manual or another source, prepare a “good faith plan” for immediate barrier removal.

2. Survey Existing Conditions:

Assemble a survey team including people with disabilities to assist in indentifying barriers and developing solutions. You will need site and floor plans for making notes, and a tape measure.

3. Summarize The Results:

List all identified barriers and indicate the actual dimensions/conditions of each.

4. Consider Possible Solutions:

Brainstorm ideas for barrier removal and determine probable costs for options. Decide which solutions best eliminate barriers at a reasonable cost. Consider practical alternatives.

5. Prioritize Barrier Removal:

Priority One: Accessible entrances into the facility and path of travel to reach those entrances

Priority Two: Access to Goods and Services

Priority Three: Access to Restrooms

Priority Four: Any other measures necessary to provide access

6. Remove All Barriers Identified as “Readily Achievable”:

A “Checklist for Readily Achievable Barrier Removal” is available through the Disability Access Office for use in completing a survey of potential architectural and communication barriers.

7. Put a “Good Faith” Action Plan In Place:

It is critical to demonstrate a “good faith” effort which includes documentation of everything you have done and how you plan to address future compliance requirements.

8. Utilize Dynamic Process For Continuing Accessibility:

Review your implementation plan each year to reevaluate whether more improvements have become readily achievable.

