4.2 SPACE ALLOWANCES AND REACH RANGES

TAS SECTIONS 4.2.1 – WHEELCHAIR PASSAGE WIDTH

A. The minimum clear width for single wheelchair passage shall be 32" at a point and 36" continuously

TAS SECTIONS 4.2.2 – WIDTH FOR WHEELCHAIR PASSING

A. The minimum clear width for two wheelchairs to pass is 60"

TAS SECTIONS 4.2.4.1 – SIZE AND APPROACH

A. Minimum clear floor space for a wheelchair and occupant shall be 30" wide x 48" long. Clear floor space shall be centered on the element it serves.

4.3 ACCESSIBLE ROUTE

TAS SECTIONS 4.3.2 – LOCATION

A. At least one accessible route shall be provided from public transportation stops, accessible parking and loading zones, and public streets or sidewalks to the accessible building entrance.

TAS SECTIONS 4.3.3 – WIDTH

A. The minimum clear width of an accessible route shall be 36" except at doors.

TAS SECTIONS 4.3.4 – PASSING SPACE

A. If an accessible route is less than 60" in width, then passing spaces of at least 60"x60" shall be provided at 200' max. spacing.

TAS SECTONS 4.3.5 – HEAD ROOM

A. Accessible routes shall have 80" min. clear head room.

TAS SECTIONS 4.3.7 – SLOPE

A. Running slope shall not exceed 1:20. (If slope exceeds 1:20, refer to section 4.8)

B. Cross slope shall not exceed 1:50

4.4 PROTRUDING OBJECTS (REF. DET. 5.2 & 5.3)

TAS SECTIONS 4.4.1 – GENERAL

A. Objects projecting from walls (for example, telephones) with their leading edges between 27"-80" above the finished floor shall protrude no more than 4" into walks, halls, corridors, passageways, or aisles. Objects mounted with their leading edges at or below 27" above the finished floor may protrude any amount. Free-standing objects mounted on posts or pylons may overhang 12" maximum from 27"-80" above the ground or finished floor. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space.

4.5 GROUND AND FLOOR SURFACES (REF. DET. 5.1)

TAS SECTIONS 4.5.2 – CHANGES IN LEVEL

A. Changes in level up to 1/4" may be verticle and without edge treatment

B. Changes in level between 1/4" and 1/2" shall be beveled with a slope no greater than 1:2.

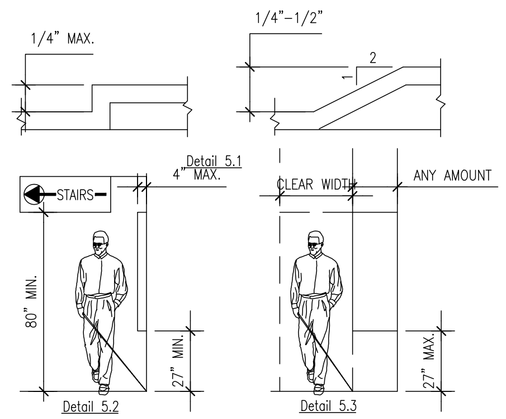
TAS SECTIONS 4.5.3 – CARPET

A. Carpet provided on a floor surface shall be securely attached; have a firm pad or backing, or no pad; and have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. Maximum pile thickness shall be 1/2". Exposed edges of carpet shall be fastened to floor surfaces and have trim along the exposed edges.

TAS SECTIONS 4.5.4 – GRATINGS

A. If gratings are located in walking surfaces or along accessible routes, then they shall have spaces no greater than 1/2" wide in one direction.

B. If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.



4.6 PARKING AND PASSENGER LOADING ZONES

TAS SECTIONS 4.6.3 – PARKING SPACES

A. Accessible parking shall be at least 96" wide.

B. Parking access aisles shall be 60" wide. Van accessible access aisles shal be 96" wide.

C. Surface slope shall not exceed 1:50 in all directions

TAS SECTIONS 4.6.4 – SIGNAGE

A. Characters and symbols on such signs shall be located 60" minimum above the ground.

B. Signage located within an accessible route shall be located 80" min. above the walking surface.

TAS SECTIONS 4.6.5 – VERTICAL CLEARANCE

A. Provide minimum verticle clearance of 114" at accessible passenger loading zones and along at least one vehicle access route from site entrances and exits.

TAS SECTIONS 4.6.6 – PASSENGER LOADING ZONE

A. Passenger loading zones shall provide an access aisle at least 60" wide and 20 ft long adjacent and parallel to the vehicle pull-up space. If there are curbs between the access aisle and the vehicle pull-up space, then a curb ramp complying with 4.7 shall be provided. Vehicle standing spaces and access aisles shall be level with surface slopes not exceeding 1:50 in all directions.

4.7 CURB RAMPS

TAS SECTIONS 4.7.2 – SLOPE (REFERENCE DETAIL 3.1)

A. Slopes of curb ramps shall comply with 4.8.2.

B. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.

TAS SECTIONS 4.7.3 – WIDTH (REFERENCE DETAIL 3.1)

A. The minimum width of a curb ramp shall be 36", exclusive of flared sides.

TAS SECTIONS 4.7.5 – SIDES OF CURB RAMPS (REFERENCE DETAIL 3.1)

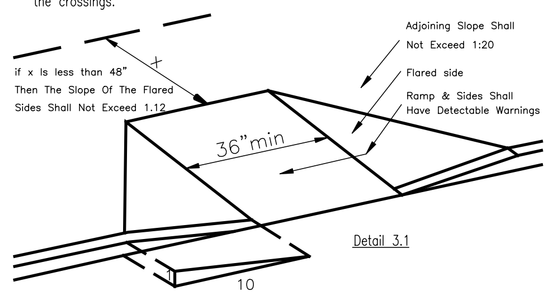
A. If a curb ramp is located where pedestrians must walk across the ramp or where it is not protected by handrails or guardrails, it shall have flared sides; the maximum slope of the flare shall be 1:10

TAS SECTIONS 4.7.10 – DIAGONAL CURB RAMPS

A. If diagonal curb ramps have returned curbs or other well-defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have 48" minimum clear space. If diagonal curb ramps are provided at marked crossings, the 48" clear space shall be within the markings. If diagonal curb ramps have flared sides, they shall also have at least a 24" long segment of straight curb located on each side of the curb ramp and within the marked crossing.

TAS SECTIONS 4.7.11 – ISLANDS

A. Any raised islands in crossings shall be cut through level with the street or curb ramps at both sides and a level area at least 48" long between the curb ramps in the part of the island intersected by the crossings.



4.8 RAMPS

TAS SECTIONS 4.8.1 – GENERAL

A. Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8

TAS SECTIONS 4.8.2 – SLOPE AND RISE

A. 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".

TAS SECTIONS 4.8.3 – CLEAR WIDTH

A. The minimum clear width of a ramp 30 ft or less in length shall be 36". Ramps more than 30 ft. in length shall have a minimum clear width of 44".

TAS SECTION 4.8.4 – LANDINGS

A. Level landings required at top and bottom of each run, with the following features:

1. Minimum Width: Equal to width of ramp
2. Length: Minumum 60" clear

TAS SECTIONS 4.8.5 – HANDRAILS

A. Height: 34–38" above ramp surface

B. The clear space between the handrail and the wall shall be 1–1/2".

TAS SECTIONS 4.8.7 – EDGE PROTECTION

A. Ramps and landings with drop offs shall have curbs, walls, railings, or projecting surfaces that prevent slipping off the ramp. Curbs shall be a minimum of 2" high.

4.9 STAIRS

TAS SECTIONS 4.9.2 – TREADS AND RISERS

A. All steps on a flight of stairs shall have uniform riser heights and tread widths

1. Minimum tread depth shall be 11", measured from riser to riser (not including nosing)
2. Open risers are not permitted

TAS SECTION 4.9.4 – HANDRAILS

A. Non-continuous handrails shall extend 12" beyond the top riser and 12" plus the width of one tread beyond the bottom riser. At the top, the extension shall be parallel to the floor. At the bottom, the handrail shall continue to slope for a distance of one tread width (11"); the remaining extension shall be horizontal.

B. Height: 34" – 38", measured from the stair nosing.

4.10 ELEVATORS

TAS SECTIONS 4.10.3 – HALL CALL BUTTONS

A. Shall be centered 42" above floor

TAS SECTIONS 4.10.4 – HALL LANTERNS

A. Visible signals shall have the following features:

1. Fixtures shall be mounted with centerline at least 72" above the lobby floor
2. Visual elements shall be at least 2–1/2" in the smallest dimension

TAS SECTIONS 4.10.5 – RAISED AND BRAILLE CHARACTERS ON HOISTWAY ENTRANCES

A. All elevator hoistway entrances shall have raised and Braille floor no. designations provided on both jambs. Centerline of the characters shall be 60" above the floor. Characters shall be 2" high.

TAS SECTIONS 4.10.6 – DOOR PROTECTIVE AND REOPENING DEVICE

A. Elevator doors shall open and close automatically. They shall be provided with a reopening device that will stop and reopen a car door and hoistway door automatically if the door becomes obstructed by an object or person.

TAS SECTIONS 4.10.12 – CAR CONTROLS

A. All floor buttons shall be:

1. All control buttons shall be at least 3/4" in their smallest dim. They shall be flush or raised.
2. All control buttons shall be designated by Braille and by raised standard alphabet characters for letters, arabic characters for numerals. The call button for the main entry floor shall be designated by a raised star at the left of the floor designation.
3. Maximum 54" above floor where side approach is provided
4. Maximum 48" where forward approach is provided

B. Emergency Controls:

1. Shall have centerlines 35" minimum above floor
2. Shall be grouped at bottom of panel

4.11 PLATFORM LIFTS

TAS SECTIONS 4.11.2, 4.27.3 – OTHER REQUIREMENTS CONTROLS AND OPERATING SYSTEMS

A. Heights permitted:

Controls and operating mechanisms shall be located for either a forward or side approach from any direction of travel. They shall be located 26" min. and 48" maximum above the floor. They shall be operable with one hand. There shall be at least one handrail complying with 4.26. Wheelstops and quardrails shall be provided where necessary.

4.13 DOORS

TAS SECTION 4.13.4 – DOUBLE – LEAF DOORWAYS

A. Doorways with two independently operated leaves shall have at least one leaf that meets the requirements in 4.13.5 and 4.13.6.

TAS SECTION 4.13.5 – CLEAR WIDTH

A. Doorways shall provide a clear opening of 32" minimum, with the door open 90°.

1. Clear opening shall be measured between the face of the door and stop.

2. Openings more than 24" in depth shall provide a clear opening of 36" minimum.

Exception: Doors not requiring full user passage, such as shallow closets, shall have a clear opening of 20" minimum.

TAS SECTION 4.13.6 – MANEUVERING CLEARANCES AT DOORS

A. Provide level and clear maueuvering area at doors as follows:
Front approach pull side – 18" min. beside strike edge
Front approach push side – 0" beside strike edge
12" if door has both a closer and a latch
Hinge side approach pull side – 60" min. width; 36" min. beside strike edge
Hinge side approach push side – 42" min. width
48" min. width if door has both a closer and latch
Latch side approach pull side – 48" min. width and 24" min. beside strike edge
54" min. width if door has closer
Latch side approach push side – 42" min. width and 24" min. beside strike edge
48" min. width if door has closer

TAS SECTION 4.13.8 – THRESHOLDS AT DOORWAYS

A. Maximum threshold height: 1/2" (3/4" at exterior sliding doors). Raised thresholds and floor level changes shall be beveled with a slope no greater than 1:2.

TAS SECTION 4.13.9 – DOOR HARDWARE

A. Handles, pulls, latches, locks, and other operating devices shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate.

1. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.

2. When sliding doors are fully open, operating hardware shall be exposed and usable from both sides.

3. Hardware required for passage shall be mounted no higher than 48" above finished floor.

TAS SECTION 4.13.10 – DOOR CLOSERS

A. If a door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70°, the door will take at least 3 seconds to move to a point 3" from the latch, measured to the leading edge of the door.

TAS SECTION 4.13.11 – DOOR OPENING FORCE

A. The maximum force for pushing or pulling open a door shall be as follows:

1. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority.

2. Other doors

a. Exterior hinged doors: no requirement.

b. Interior hinged doors: 5.0 lbf.

c. Sliding or folding doors: 5.0 lbf.

These forces do not apply to the force required to retract latch bolts or disengage othe devices that may hold the door in a closed position.

4.15 DRINKING FOUNTAINS

TAS SECTION 4.15.2 – SPOUT HEIGHT (REFERENCE DETAIL 11.1)

A. Spouts shall be no higher than 36", measured from the floor or ground surface to the spout outlet.

TAS SECTION 4.15.3 – SPOUT LOCATION

A. Spouts shall be located at the front of the unit and shall direct the water flow in a trajectory that is parallel or nearly parallel to the front of the unit.

1. The spout shall provide a flow of water at least 4" high.
2. If the fountain has a round or oval bowl, the spout must be positioned so the flow of water is within 3" of the front edge of the fountain.

TAS SECTION 4.15.4 – CONTROLS

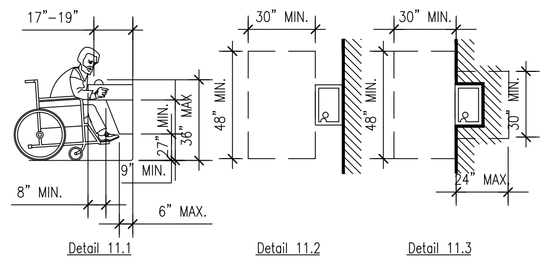
A. Unit controls shall be front mounted or side mounted near the front edge.

TAS SECTION 4.15.5 – CLEARANCES (REFERENCE DETAIL 11.1)

A. Wall and post mounted cantilever fountains shall have clear knee space as follows:

1. Minimum 27" high (from apron bottom to floor) minimum 30" wide, and 17" – 19" deep.
2. A minimum 30" by 48" clear floor space allowing a forward approach to the unit shall be provided.

B. Free standing or built-in units not having a clear knee space shall have a minimum 30" by 48" clear floor space allowing a parallel approach to the unit.



4.16 WATER CLOSETS

TAS SECTION 4.16.2 – CLEAR FLOOR SPACE

A. Clear floor space for water closets not in stalls shall be provided as follows:
Front approach – 48" min. wide x 66" min. long
Side approach – 56" min. to front of toilet x 48" min. wide
Both approach – 60" min. wide x 56" min. long

TAS SECTION 4.16.3 – HEIGHT (REFERENCE DETAIL 12.1.1)

A. The height to the top of the toilet seat shall be 17" – 19" above floor.

1. Seats shall not be sprung to return to a lifted position.

TAS SECTIONS 4.16.4, 4.26 – GRAB BARS (REFERENCE DETAILS 12.1.1 AND 12.1.2)

A. For water closets not located in toilet stalls, the following grab bars shall be provided, 33" – 36" above the finish floor:

1. Side wall: 42" long minimum, 12" from back wall.
2. Back wall: 36" long minimum, 12" minimum each side of water closet centerline.

Refer to 4.26 Grab Bars for size and structural elements.

TAS SECTIONS 4.16.5, 4.27.4 – FLUSH CONTROLS (REFERENCE DETAIL 12.1.2)

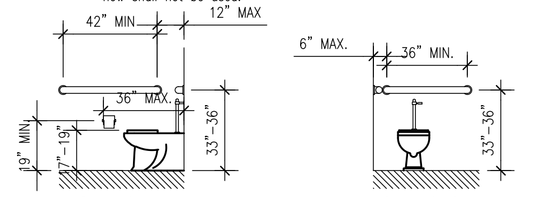
A. Controls shall be 44" maximum above the finish floor.

1. Controls for flush valves shall be mounted on the wide side of toilet areas.
2. Controls shall be hand operated or automatic.
3. Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
4. The force required to activate controls shall be no greater than 5lbf.

TAS SECTION 4.16.6 – DISPENSERS (REFERENCE DETAIL 12.1.1)

A. Toilet paper dispensers shall be installed on the side wall, a minimum 19" above the floor, and a maximum 36" from the rear wall.

1. Dispensers that control delivery or do not permit continuous paper flow shall not be used.



4.17 TOILET STALLS

TAS SECTION 4.22.4 – WHERE APPLICABLE

A. If toilet stalls are provided in a toilet room or bathroom, then at least one shall be a "standard" accessible toilet stall (for wheelchair users) complying with this section.

B. If 6 or more toilet stalls are provided in a toilet room or bathroom in addition to the 'standard' accessible stall required; an additional 'alternate A' accessible stall 36" wide (for ambulatory persons with disabilities) complying with this section shall be provided.

C. Alterations/Existing Conditions: In alteration work, where provision of a 'standard' accessible stall is technically infeasible, or where plumbing code requirements prevent combining existing stalls to provide space, either 'alternate' stall (A or B) complying with this section may be provided in lieu of the standard stall.

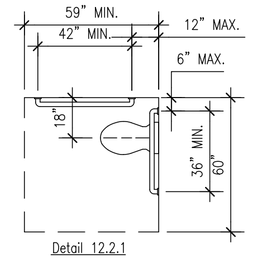
TAS SECTION 4.17.3 – SIZE AND ARRANGEMENT (REFERENCE DETAIL 12.2.1)

A. Toilet stalls may be arranged to provide either a left or a right handed approach. Accessible toilet stalls shall have the following dimensions:

1. 'Standard' Accessible Stall
60" minimum width.
59" minimum depth, with floor mounted water closet
56" minimum depth, with wall mounted water closet
Door: outward swinging (if door swings into stall, depth shall be increased by 36"

2. 'Alternate A' Accessible Stall (required when more than 6 stalls provided, permitted in lieu of standard stall in certain alterations)
36" minimum width.
69" minimum depth, with floor mounted water closet.
66" minimum depth with wall mounted water closet
Door: outward swinging.

3. 'Alternate B' Accessible Stall (permitted in lieu of stasndard stall only in certain alterations)
48" minimum width.
54" minimum depth.
Door : outward swinging.



TAS SECTION 4.17.4 – TOE CLEARANCES

A. In 'Standard' accessible stalls, the front partition and at least one side partition shall provide a toe clearance of at least 9" above the floor.

B. If the depth of the stall is greater than 60", the toe clearance is not required.

TAS SECTION 4.17.5 – DOORS

A. Toilet stall doors, including hardware, shall comply with ELEMENT 10: DOORS

B. If toilet stall approach is from the latch side of the stall door, clearance between the door side of the stall and any obstruction shall be 42" minimum. (This is an exception from typical door maneuvering clearances)

TAS SECTION 4.17.6 – GRAB BARS (REFERENCE DETAILS 12.1.1, 12.1.2, AND 12.2.1)

A. Grab Bars mounted 33" – 36" above the floor, shall be provided as follows:

1. 'Standard' Accessible Stall: One 40" side wall grab bar (on near wall) and one rear wall grab bar.

2. 'Alternate A" Accessible Stall: 42" side wall grab bar each side.

3. 'Alternate B" Accessible stall: One 42" side wall grab bar (on near wall), one rear wall grab bar.

4. Side Wall Grab Bar: Minimum length as indicated, mounted 12" maximum off rear wall.

5. Rear Wall Grab Bar: Minimum length 36", 12" minimum each side of water closet centerline.

Refer to 4.26 Grab Bars for size and structural requirements.

4.18 URINALS

TAS SECTION 4.18.2 – HEIGHT (REFERENCE DETAIL 12.3.1)

A. Urinals shall be stall-type or wallhung with a tapered, elongated rim at 17" maximum above the finished floor.
The rim shall extend a minimum of 14" from the wall.

TAS SECTION 4.18.3 – CLEAR FLOOR SPACE (REFERENCE DETAIL 12.3.2)

A. A clear floor space 30" wide by 48" deep minimum shall be provided in front of urinal to allow frontal approach.

1. This space shall adjoin or overlap an accessible route.

2. Urinal shield that do not extend beyond the front edge of the urinal rim may be provided with 29" clearence between them.

3. Urinals installed in alcoves deeper than 24" require a maneuvering area of at least 36" minimum wide.

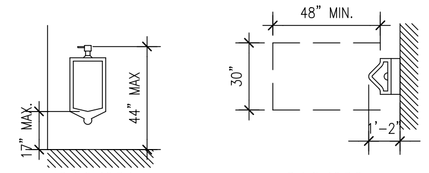
TAS SECTION 4.18.4 – FLUSH CONTROLS (REFERENCE DETAIL 12.3.1)

A. Controls shall be 44" maximum above the finished floor.

1. Controls shall be hand operated or automatic.

2. Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

3. The force required to activate controls shall be no greater than 5 lfb.



4.19 LAVATORIES & MIRRORS

TAS SECTION 4.19.2 – HEIGHT & CLEARANCES (REFERENCE DETAIL 12.5.1 AND 12.5.2)

A. Lavatories shall be mounted with the rim or counter surface no higher than 34" above the finished floor.

1. Lavatories shall extend 17" minimum from the wall.

2. Clearance of 29" minimum shall be provided from the finished floor to bottom of apron.

3. Knee clearance of 27" minimum shall extend 8" minimum under the edge of the lavatory.

4. Toe clearance of 9" minimum shall be provided for the full depth of the lavatory.

TAS SECTION 4.19.4 – EXPOSED PIPES AND SURFACES

A. Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact.

B. There shall be no sharp or abrasive surfaces under lavatories.

TAS SECTIONS 4.19.5, 4.27.4 – FAUCETS

A. Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

B. The force required to activate controls shall be no greater than 5 lbf.

C. Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs.

D. If self-closing valves are used the faucet shall remain open for at least 10 seconds.

TAS SECTION 4.19.6 – MIRRORS (REFERENCE DETAIL 12.5.1)

A. Mirrors shall be mounted with the bottom edge of the reflecting surface 40" maximum above the finished floor.

No.	Date	Revision Description

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ACCESSIBILITY STANDARDS

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Date: Sept. 4, 2008 **Checked by:** GKD
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