

Accessible Toilet Stalls



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Section 11-4.17 Toilet Stalls

- Florida standard stall (11-4.17.3.1) In new construction the standard accessible stall shall contain an accessible lavatory within it, the size of such lavatory to be not less than 19 inches wide by 17 inches deep, nominal size, and wall mounted. The lavatory shall be mounted so as not to overlap the clear floor space areas required by section 11-4.17

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Discuss the Florida Stall guidelines and how they differ from ADAAG. Review and thoroughly discuss figure 30e.

In new construction a lavatory shall be provided within the accessible toilet stall. See Figure 30a for the required clear floor space for the water closet. The water closet shall be located in the corner diagonal to the door. The toilet stall door shall not swing into the required clear floor space for any fixture. Flush control shall comply with Section 11-4.16.5

Note distinction between new construction and alteration requirements.

Please note, that accessible stall designs may vary in size and dimension – the key is that the configuration and application meets each of the requirements within FBC.

Exercise – What is the minimum clear space between the WC wall and the inside edge of the lavatory?

Answer (60 inches minimum, see figure 30e & 11-4.17.3.1)

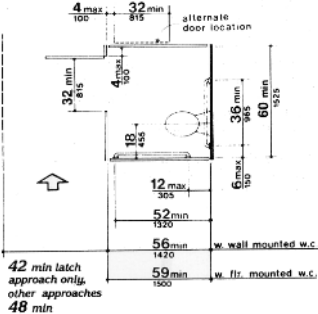
Time: 10-15 min.



Section 11-4.17 Toilet Stalls

- The doors shall be self closing and the doors shall not swing into the clear floor space of any fixture (11-4.17.5)

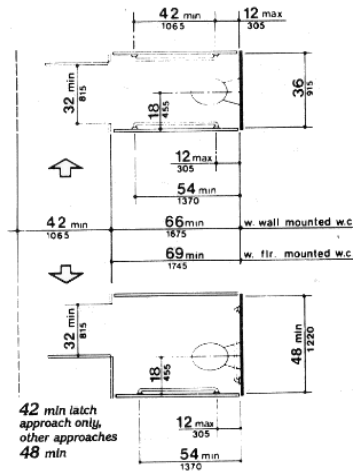
Figure 30a



Section 11-4.1.6(3)(e) Toilet Stalls - Alterations

11-4.1.6(3)(e)(ii)

Figure 30b




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Toilet stall compliant with Florida accessible stall requirements. From the water closet wall to the inside edge of lavatory there is at least 60 inches of clear floor space. Mirror reflecting surface is a maximum of 40 inches above finished floor, insulated pipes and trap and water closet seat is within guidelines of 17 – 19 inches from top of seat to finished floor.



Section 11-4.18 Accessible Urinals

- Accessible urinals shall be stall-type or wall-hung with an elongated rim at a maximum of 17 inches above finished floor (11-4.18.2)
- A clear floor space of 30 inches by 48 inches shall be provided in front of the urinal (11-4.18.3)
- Flush controls shall be hand operated or automatic and mounted no more than 44 inches above finished floor (11-4.18.4)

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Common error in urinal installation is installing all urinals to regular height. At least one shall not exceed 17 inches.


Exercise – Can the rim of the urinal be lower than 17 inches? T or F

Answer: (T)

Time: 3 min.



The urinal on the right is the accessible unit meeting the guidelines in 11-4.18. The rim is a maximum of 17 inches from the finished floor.



Section 11-4.19 Lavatories & Mirrors

- Lavatories shall be mounted with the rim or counter surface no higher than 34 inches above the finished floor. Provide a clearance of at least 29 inches above the finished floor to the bottom of the apron. (11-4.19.2, Figure 31)
- Clear floor space 30 inches by 48 inches shall be provided in front of lavatory (11-4.19.3)

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When designing the lavatory, especially if it is a vanity, have the contractors coordinate the finished product. If the counter and base cabinet are designed to be 34 inches high and the bowl used (rimmed lavatory) is a ½ inch high then the unit will be off by ½ inch. Have the plumber speak with the cabinet people or have the architect design the shop drawings to account for a drop in bowl when it is used. The lavatory height will impact the apron height. Have the class look at the differences in sinks and lavatories. What is one of the major differences (apron height)?

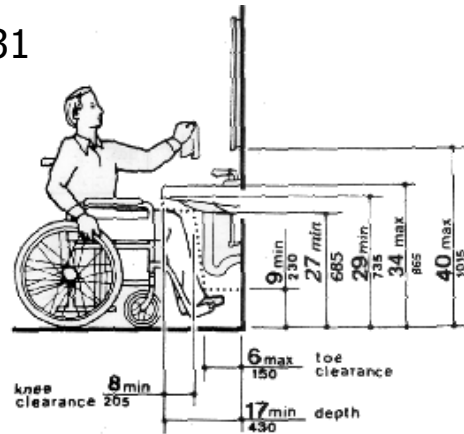
Exercise – Compare lavatories to sinks (4.24) and look specifically at apron height

Time: 5 min.



Section 11-4.19 Lavatories & Mirrors

Figure 31



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Section 11-4.19 Lavatories & Mirrors

- Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact (11-4.19.4)



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Note: Many people with disabilities lack feeling in their lower extremities, and insulation protects them against potential cuts or burns.

Section 11-4.19 Lavatories & Mirrors

- Mirrors – bottom edge of reflective surface no higher than 40 inches (11-4.19.6)
- Faucets shall comply with 11-4.27.4 and shall require no more than 5 lbf. to operate



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Accessible toilet room with compliant lavatory and mirror. The lavatory meets the leg clearance guidelines.

Angled mirror is not a code requirement.

Section 11-4.20 Bathtubs



- Clear floor space in front of bathtubs
- Seat – An in-tub seat or a seat at the head end of the tub shall be provided, Figure 33
- Grab bars complying with 11-4.26 shall be provided, Figure 33
- Controls – faucets and other controls complying with 11-4.27.4 shall be located as shown in Figure 34

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Review handrails and clear floor space.

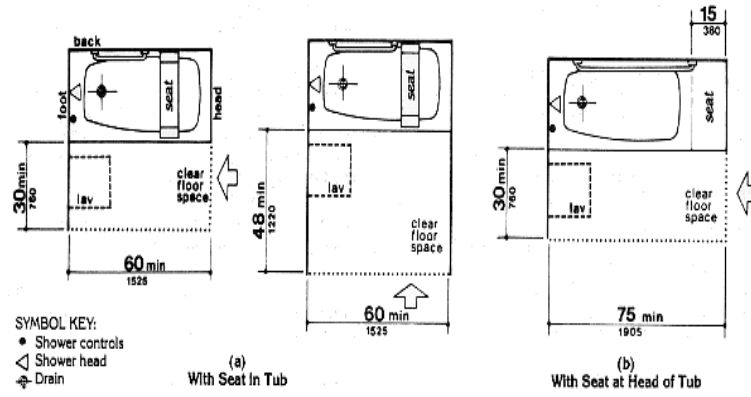
For example, a common omission is failure to install grab bars at both ends of the tub.

Time: 0



Section 11-4.20 Bathtubs

Figure 33

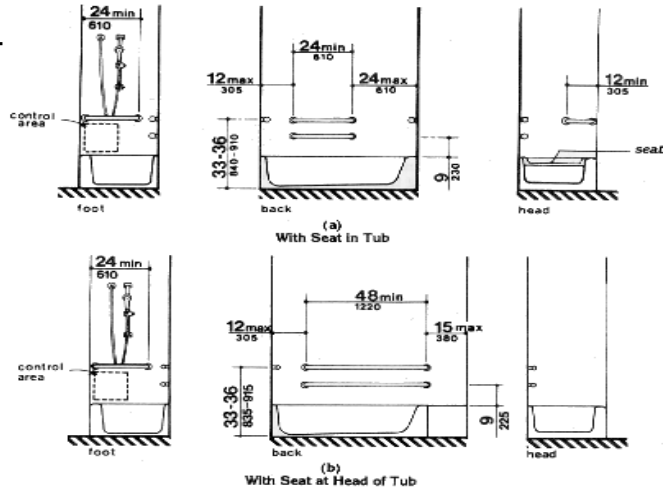


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Section 11-4.20 Bathtubs

Figure 34



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Section 11-4.20 Bathtubs

- A shower spray unit with a hose at least 60 inches (1,525 mm) long that can be used both as a fixed shower head and as a hand-held shower shall be provided



Section 11-4.21 Shower Stalls

- 36 inches x 36 inches shower shall have controls on wall opposite seat
- Seats are required within a 36 inch by 36 inch shower, Figure 35a

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Compare the differences in the 30 x 60 inch stalls (with and without seat) and the 36 by 36 inch stalls. Have the class address control location and seats.

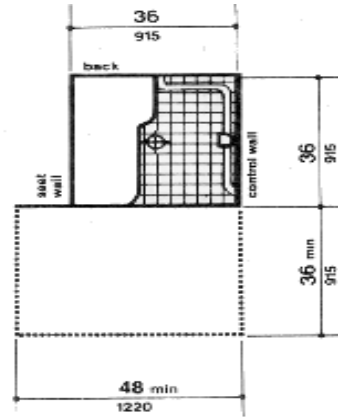
A common retrofit error for the 30 x 60 inch stall is the water stop device. It frequently creates accessibility issues.

Time: 5 min.



Section 11-4.21 Shower Stalls

Figure 35a



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Shower - 1



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Shower - 2



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Shower - 3



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Section 11-4.21 Shower Stalls

- If provided, curbs in shower stalls 36 inches by 36 inches (915 mm by 915 mm) shall be no higher than ½ inch (13 mm)
- Shower stalls that are 30 inches by 60 inches (760 mm by 1,525 mm) minimum shall not have curbs

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Section 11-4.21 Shower Stalls

- 30 inch x 60 inch stall with a seat shall have the controls on the adjacent wall
- Seats are not a requirement within the larger shower (except within hotel rooms) Figures 35b and 57a&b

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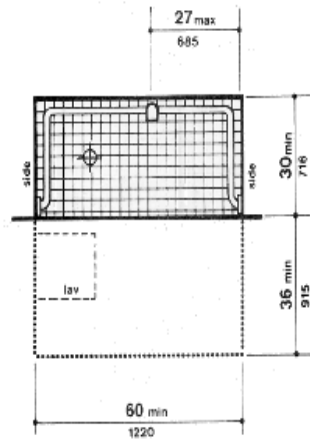
Roll-In Shower, Hotel



Note: Seat should be located within reach range, so the user can reach the controls.
Discuss Figure 57, Control Location.

Section 11-4.21 Shower Stalls

Figure 35b

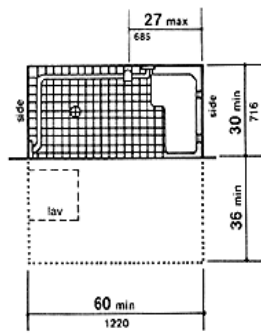


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Section 11-4.21 Shower Stalls

Figure 57a

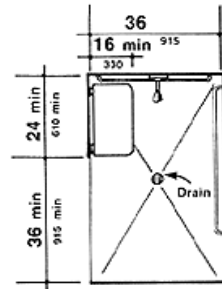


(a)

Fig. 57
Roll-in Shower with Folding Seat

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Figure 57b



(b)

Fig. 57
Roll-in Shower with Folding Seat

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Note: Discuss relationship between seat and controls.



Section 11-4.22 Toilet Rooms

- An unobstructed turning space complying with 11-4.2.3 shall be provided within the accessible toilet room (11-4.22.3)
- Doors shall not swing into the clear floor space required for any fixture (11-4.22.2.1)

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Have class review toilet rooms and toilet stalls and discuss major differences (overlapping clear floor space).

Exercise – Compare toilet stalls and toilet rooms. What are the primary differences?

Answer – the toilet room requires an unobstructed turning space of 60 inches & clear floor space can overlap.

Time: 5 min.



Section 11-4.22 Toilet Rooms

- The clear floor space at fixtures and controls, the accessible route, and the turning space may overlap (11-4.22.3)
- Doors shall not swing into the clear floor space required for any fixture (11-4.22.2.1)

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Section 11-4.22 Toilet Rooms

- Where 6 or more stalls are provided, in addition to the stall complying with 11-4.17, at least one stall 36 inches wide with an outward swinging, self-closing door and parallel grab bars complying with Figure 30d

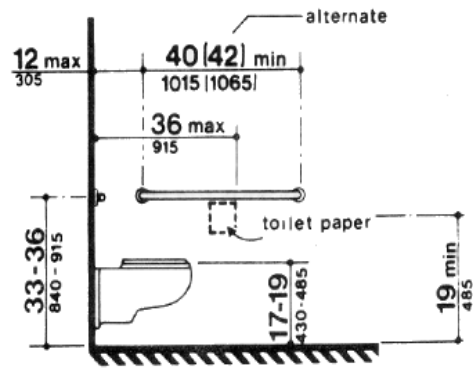
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Note: These stalls are difficult to use for people that use wheelchairs, although they are much easier to use for ambulatory with other physical disabilities.

Section 11-4.22 Toilet Rooms

Figure 30d



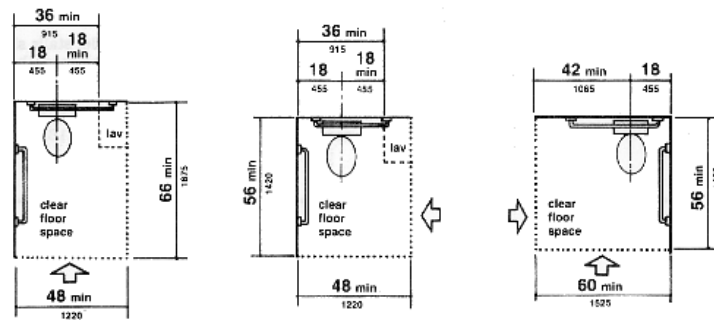
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Section 11-4.22 Toilet Rooms

- Water closets shall comply with 11-4.16

Figure 28



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Section 11-4.23 Bath Rooms, Bathing Facilities & Shower Rooms

- An unobstructed turning space complying with 11-4.2.3 shall be provided within the accessible toilet room (11-4.22.3)
- The clear floor space at fixtures and controls, the accessible route, and the turning space may overlap (11-4.22.3)

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Exercise – What is the size of the unobstructed turning space referred to in 11-4.2.3?

Answer (60 inches) The footprint of a wheelchair requires this much room.

Turning space is needed for persons requiring different types of transfers and for opening and closing the door.

Time: 1 min.



Section 11-4.23 Bath Rooms, Bathing Facilities & Shower Rooms

- Doors shall not swing into the clear floor space required for any fixture (11-4.23.2)

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Note: Person in a wheelchair could potentially be trapped inside a bathroom where the door swing is incorrect.



Section 11-4.24 Sinks

- Sinks shall be mounted with the counter or rim no higher than 34 inches above the finished floor
- Knee clearance that is at least 27 inches high shall be provided underneath sinks (11-4.24.3), and space shall be provided to allow for forward approach (11-4.24.5)

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When designing a kitchen in a public accommodation, what kind of approach would be required to the counter and sink (see 11-4.24.5)? How high should the counter be (34 inches max)?

Note: Countertop clearance is necessary to facilitate the use of the counter by people in wheelchairs.

Exercise – Compare the leg clearances at sinks and lavatories (11-4.24.3 and 11-4.19.2)

Time: 2 min.



Section 11-4.24 Sinks

- Hot water and drain pipes exposed under sinks shall be insulated or otherwise configured so as to protect against contact (11-4.24.6)
- Faucets shall comply with 11-4.27.4 and shall require no more than 5lbf. to operate

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Note: Accessible controls are necessary for operation by people with upper extremity limitations.

Sink Pipes Wrapped/Insulated





Section 11-4.26 Handrails, Grab Bars & Tub and Shower Seats

- Size and spacing of grab bars and handrails
 - Gripping surfaces of handrails and grab bars shall be 1 ¼ inches to 1 ½ inches
 - The space between the wall and grab bar shall be 1 ½ inches

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Have class review and discuss the different handrail installations at restrooms, stairs and ramps. What are the common features and the differences (look at height, over hangs, continuous, strength, outside dimension of pipes).

Note: Correct spacing requirements are necessary to prevent injury to forearms slipping through the opening between the wall and grab bar.

Exercise – Compare differences in rails at stairs, ramps, and restrooms.

Comments (Stairs 34 inches to 38 inches; ramps 34 inches to 38 inches; restrooms 33 inches to 36 inches see figures 29 & 30)

Time: 5-10 min.

Section 11-4.26 Handrails, Grab Bars & Tub and Shower Seats

Figure 29a

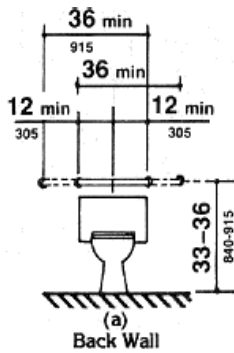
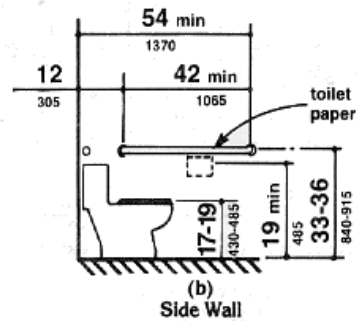


Figure 29b



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Section 11-4.26 Handrails, Grab Bars & Tub and Shower Seats

Figure 30c

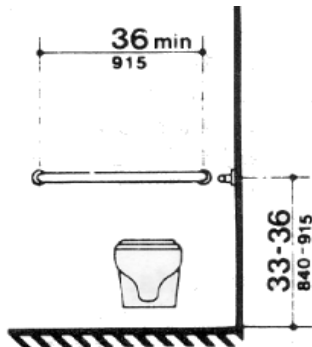
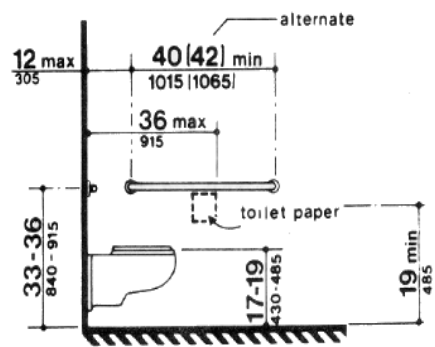


Figure 30d

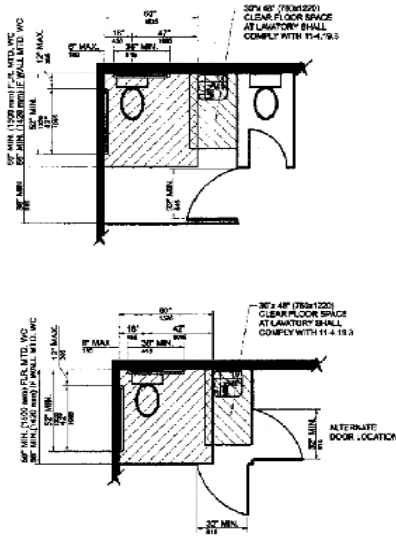


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Section 11-4.26 Handrails, Grab Bars & Tub and Shower Seats

Figure 30e



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Section 11-4.26 Handrails, Grab Bars & Tub and Shower Seats

Figure 39a

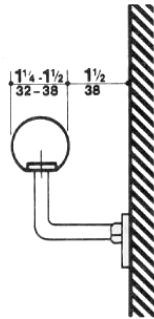


Figure 39b

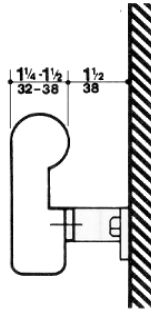
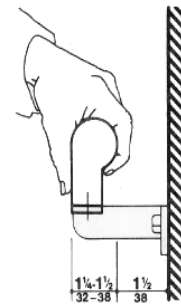


Figure 39c



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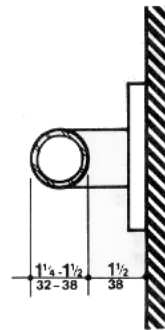
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Section 11-4.26 Handrails, Grab Bars & Tub and Shower Seats

Figure 39d



Figure 39e



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Section 11-4.27 Controls & Mechanisms

- Clear floor space shall comply with 11-4.2.4 that allows for forward or parallel approach.
- The highest operable part of controls shall be placed within one of the reach ranges specified in 11-4.2.5 & 11-4.2.6

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The control guideline is very specific! Controls and mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. Discuss degree of difficulty using various controls and how they operate (door handles, card swipes, paper and toilet paper dispensers, etc.)

Exercise – Give examples of compliant and noncompliant controls.

Responses (round door knobs vs. lever handles; toilet paper dispensers that restrict continuous paper supply vs. free flowing dispensers)

Time: 4 min.

Section 11-4.27 Controls & Mechanisms

- Controls and mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist (11-4.27.4)
- The force to activate controls shall be no greater than 5lbf



Controls and Mechanisms



This unit requires tight grasping of the paper and does not meet the requirements within 11-4.27.4

Note: A common problem is failure to mount within required reach ranges.



Section 11-4.28 Alarms

- At a minimum, visual signal appliances, when provided, are required in buildings and facilities in each of the following areas: restrooms and any other general usage areas (e.g., meeting rooms, hallways, lobbies, and any other area for common use (11-4.28.1)
- Emergency warning systems in medical care facilities may be modified to suit standard health care alarm design practice

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Make sure that general usage areas are defined more clearly than as stated in 11-4.28. Review the minimum visual appliances requirement.

Exercise – Discuss the following requirement (The appliance shall be placed 80 inches above the highest floor level within the space, 11-4.28.3.6)

Point – at what point is the 80 inches measured from? Bottom, top or middle? Interpreted to be 80 inches to bottom of device.

Time: 4 min.



Section 11-4.29 Detectable Warnings

- The ADAAG requirement for detectable warnings are truncated domes
- FACBC requirement for detectable warnings is either applied strips or mats or exposed aggregate concrete
- Grooves may be used indoors only 11-4.29.2(2)

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Discuss the pros and cons of detectable warning systems. Why are they necessary?
Answer: To alert people with visual disabilities to potential hazards.

As of January 1, 2003, Florida Department of Transportation has adopted truncated domes as their standard for detectable warnings.

Address “Scoping requirements” from Accessibility Code 11-4.29.5, 11-4.29.6 and 11-4.7.7

Scoping Requirements: If a walk crosses or adjoins a vehicular way, and the walking surfaces are not separated by curbs, railings, or other elements between the pedestrian areas and vehicular areas, the boundary between the areas shall be defined by a continuous detectable warning, which is 36 inches (915 mm) wide, complying with 11-4.29.2.

The edges of reflecting pools shall be protected by railings, walls, curbs, or detectable warnings complying with 11-4.29.2.

A curb ramp shall have a detectable warning complying with 11-4.29.2. The detectable warning shall extend the full-width and depth of the curb ramp.

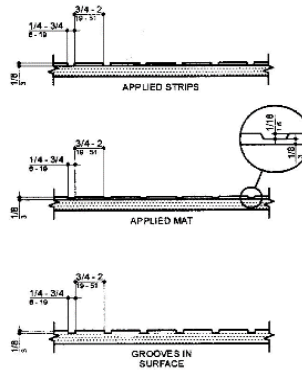
Legal Opinions:

Approval of truncated domes for warning surfaces has no effect on the validity of Section 11-4.29.2 of the FACBC.

Use of standard in Section 11-4.29.2 will not affect certification.

Section 11-4.29 Detectable Warnings

Figure 40b



NOTE: Grooves may be used only indoors
(b) Sections of Detectable Warning Surfaces

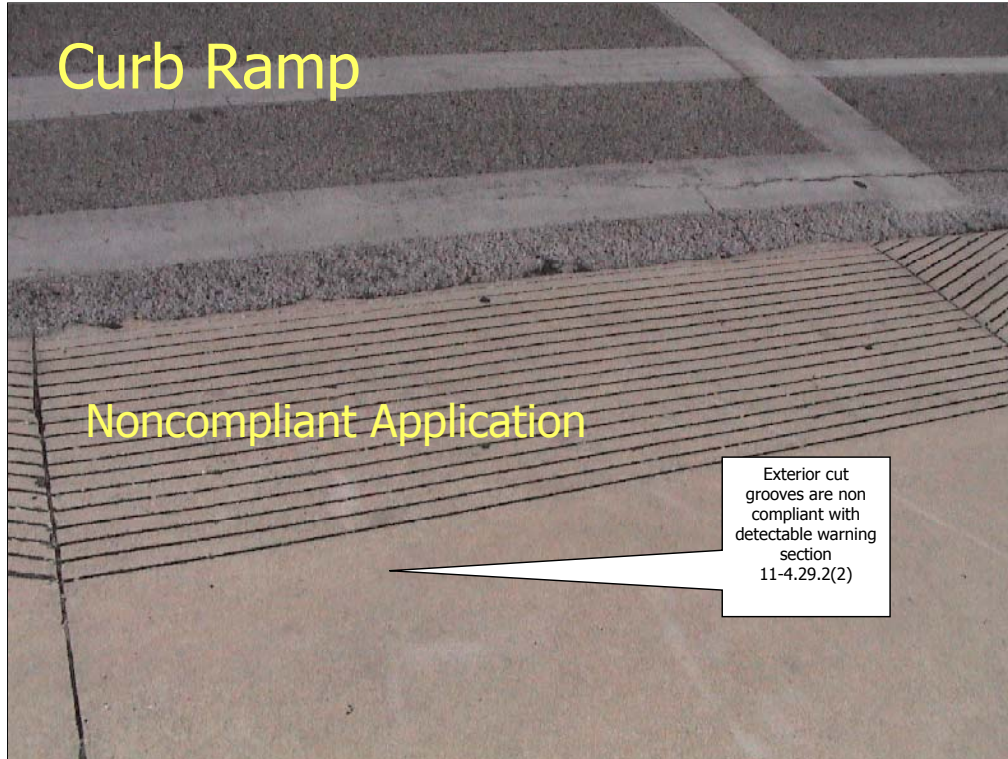
FIGURE 40 (B)
STRIPS AND GROOVES USED AS DETECTABLE WARNINGS ON WALKING SURFACES



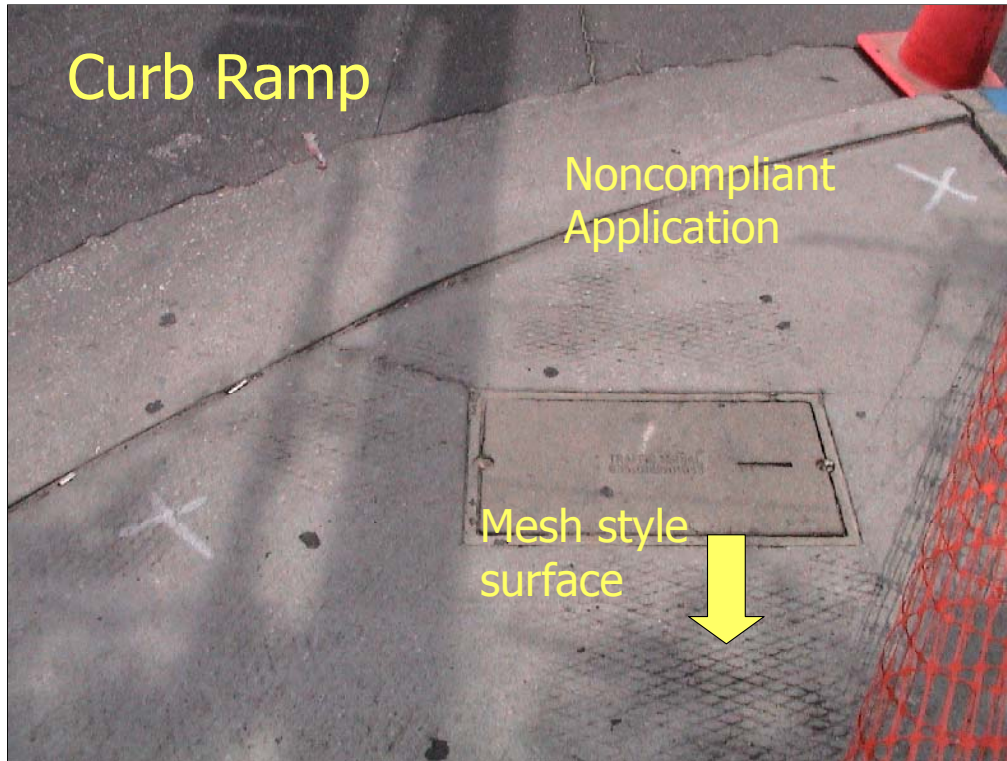
This is a photo of truncated domes



This is a photo of truncated domes



Curb ramp application using cut grooves. Specifically to Florida code this type of application is not an approved detectable warning surface (refer to 11-4.29.2.2)



Curb ramp with noncompliant detectable warning application. In addition, the application was poorly completed so it is basically useless.



Curb ramp with no detectable warnings of any sort.

Section 11-4.30 Signage

- The following signs are required to be accessible by 11-4.1.3(16) and shall comply with the provisions in 11-4.30



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Discuss permanent vs. non-permanent signs also directional signs. Which ones are required to be Braille and tactile?

Note: People who have visual impairments include not only those who are blind, but numerous disabilities that result in low vision. Without directional signage navigation becomes very difficult, and in some cases impossible, even for the sighted. Exercise – review the section and based on information provided in section 11-4.30 which signs are required to be accessible?

Answer: (cannot determine answer from 11-4.30, need to go to 11-4.1.3.16.a & b; signs within (a) are to be raised and Braille and (b) shall be easily read)

Time: 4 min.

Signage



Sign showing raised letters and characters and Braille

Note: Many people who are blind do not read Braille but rely on raised lettering instead.



Section 11-4.31 Accessible Telephones

- Telephones are required to be accessible and shall comply with 11-4.31
- Scoping requirements for telephones shall comply with 11-4.1.3(17).

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Exercise – Explain what the term highest operable part of the telephone refers to.
Answer (whatever control is the highest is the point the measurement is made – typically the coin insertion)

Time: 5 min.

Section 11-4.31 Accessible Telephones

- Text telephones
- TDD used with pay telephones shall be permanently affixed within, adjacent to, the telephone enclosure.



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Equivalent facilitation examples – a portable text telephone may be made available in a hotel at the registration desk if it is available on a 24 hour basis for use with nearby public pay telephones.

Note: The majority of people who are considered disabled have hearing impairments, including deafness.

Recommendation: A TDD (Telecommunication Devices for Deaf persons), TT (Text Telephone), TTY (Teletype Technology) are different names for the same device.

If possible, avoid connecting the machine with the TDD to the telephone with the volume control. It is difficult to operate a text telephone installed at a lower height.



End of Session 2

Break Time!

