

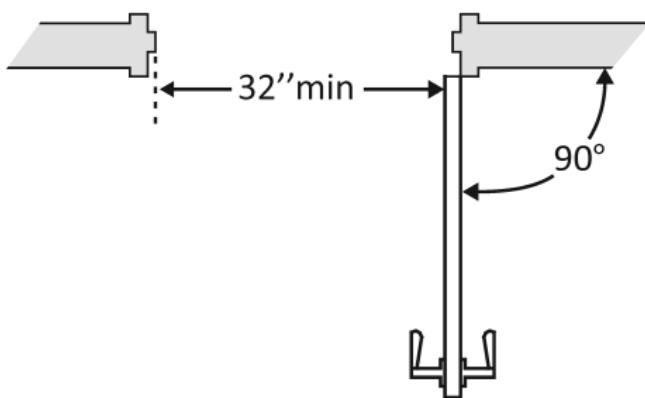
Common Errors Seminar Details

TBR Facilities Meeting April 14, 2015

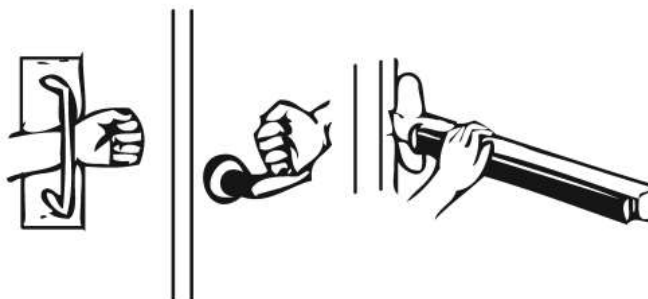
***For Facilities Managers and Installers of accessible elements.**

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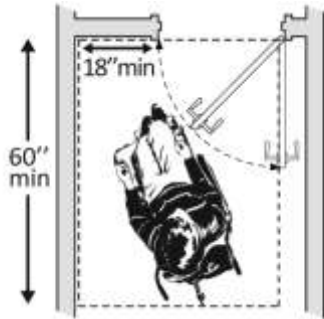
These details will assist with installing accessible elements correctly. Remember all dispensers, coat hooks etc. must be within accessible reach ranges and have a wheelchair CFS to be reached from.



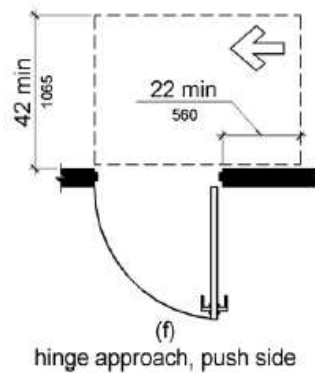
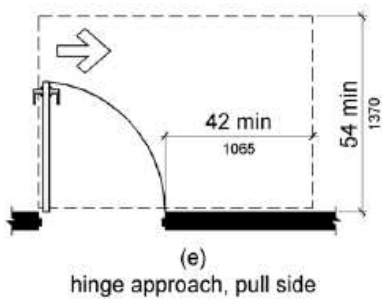
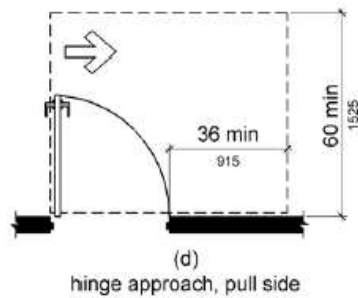
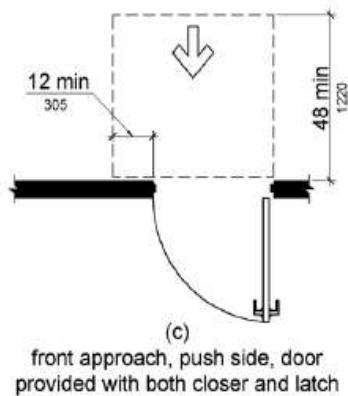
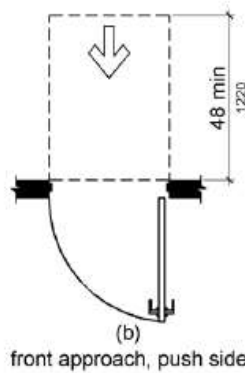
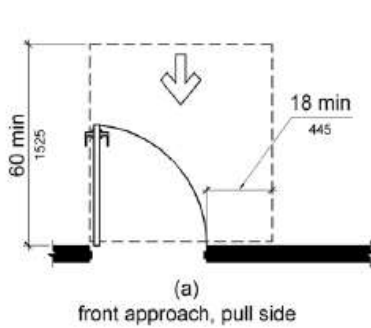
1. Minimum compliant door opening width –with door open at 90 degrees.



2. Examples of Compliant door hardware

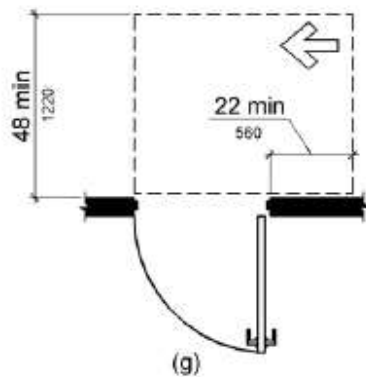


3a. - Forward approach to a door with pull side door maneuver space

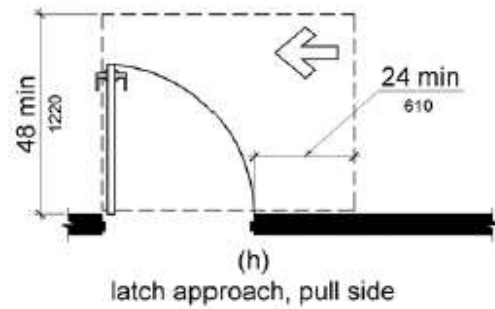


3b. – Examples of allowable door maneuver space. Also continued on next sheet

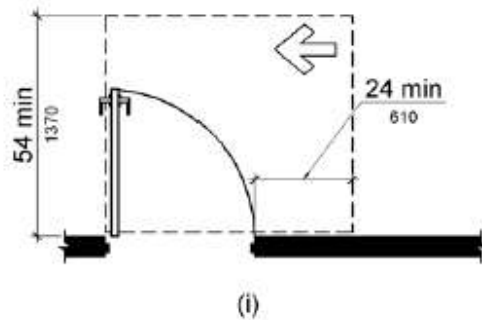
3b. – continued



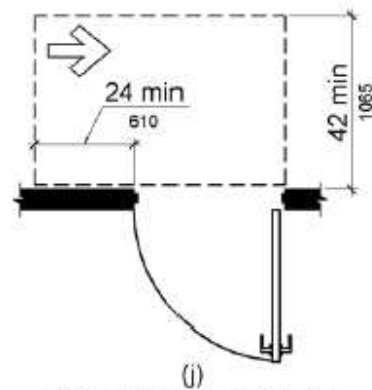
hinge approach, push side, door provided with both closer and latch



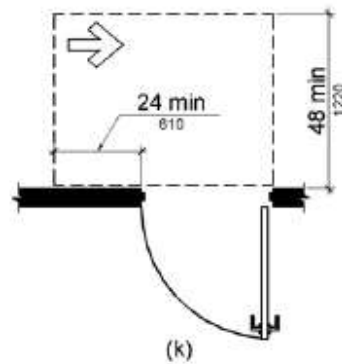
latch approach, pull side



latch approach, pull side, door provided with closer

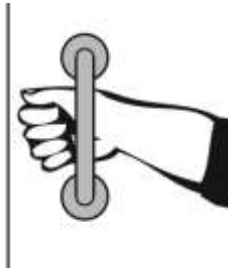


latch approach, push side

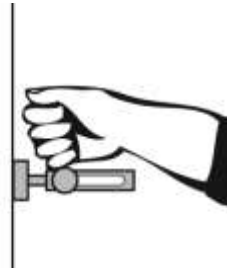


latch approach, push side, door provided with closer

3c. Door Hardware

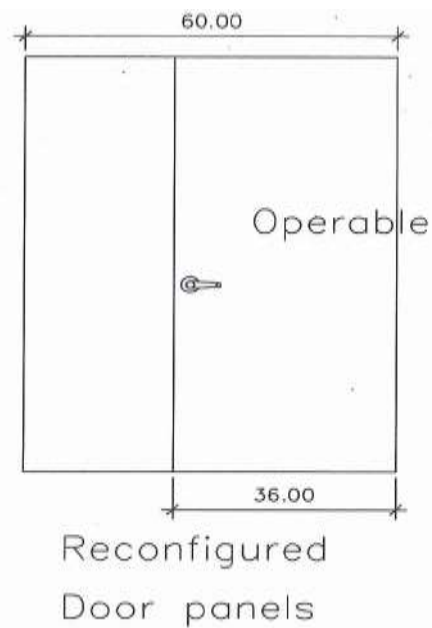
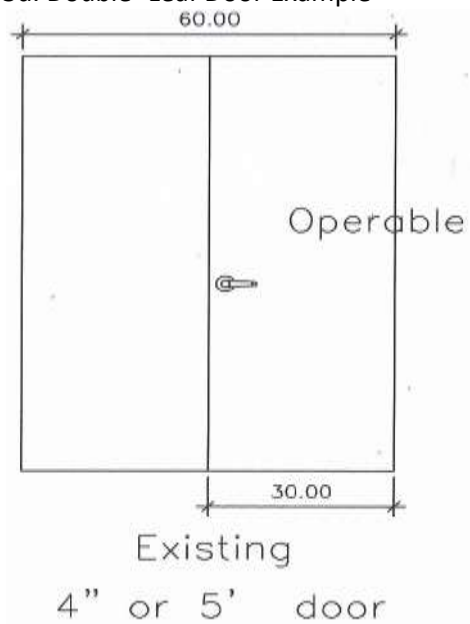


Example of a U-Pull

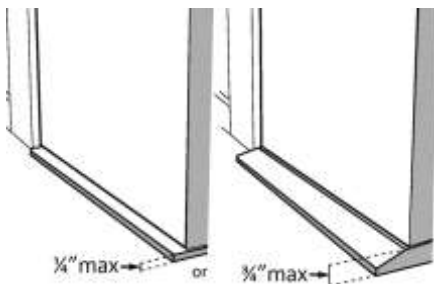


–Door hardware must be operable with closed fist

3d. Double- Leaf Door Example -



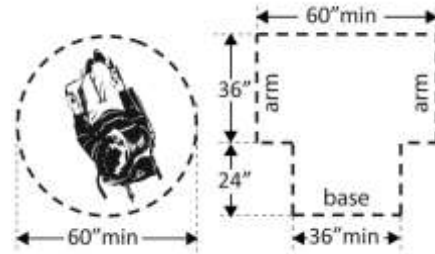
4. Max Threshold heights



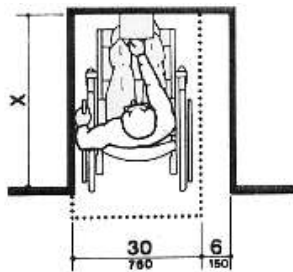
5. Accessible route –minimum width



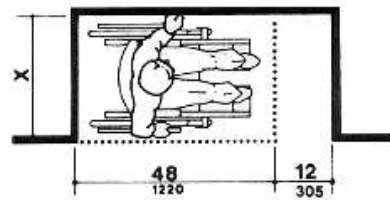
6. – Turning space required in rooms



7a.- Alcove 24" deep or less



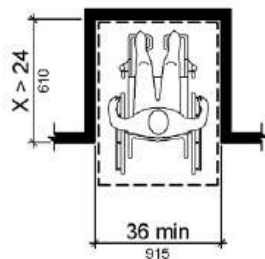
NOTE: If $x > 24$ in (610 mm), then an additional maneuvering clearance of 6 in (150 mm) shall be provided as shown.



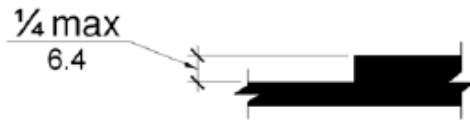
NOTE: If $x > 15$ in (380 mm), then an additional maneuvering clearance of 12 in (305 mm) shall be provided as shown.

Alcove-side approach

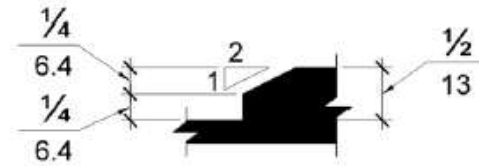
7b.– Example of alcove depth more than 24"



8. – Max change of elevation without beveled edge



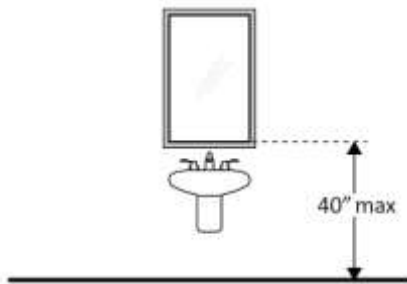
9. Max change of elevation with beveled edge



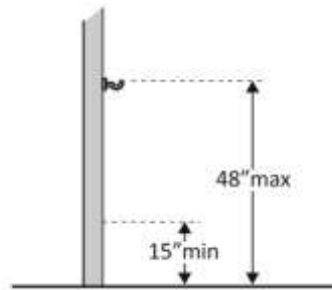
10. – Carpet pile height



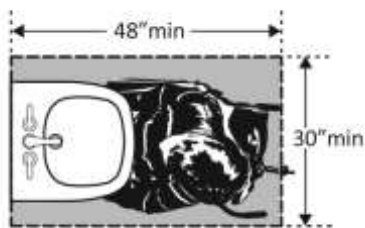
11. – Mirror Height to reflective surface



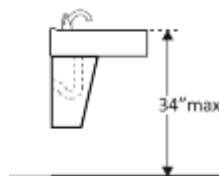
12. – Robe hook (minimum one)



13. CFS UNDER LAV.



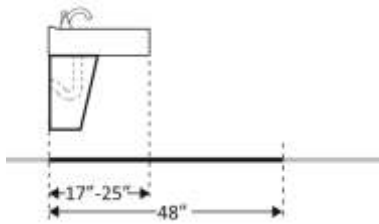
14. Lav Rim Hgt.



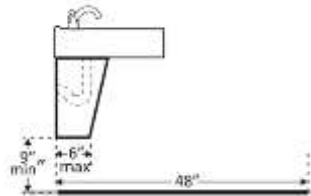
15. Knee Clearance



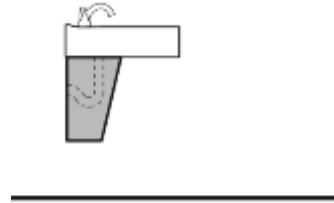
16. Min. Space Under Lav



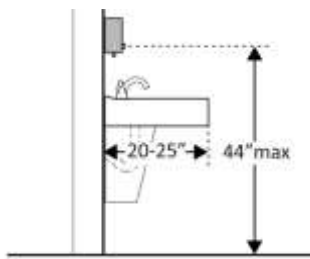
17. Toe Clearance



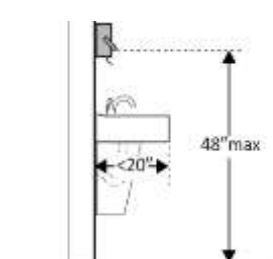
18. Shield or insulation for pipes



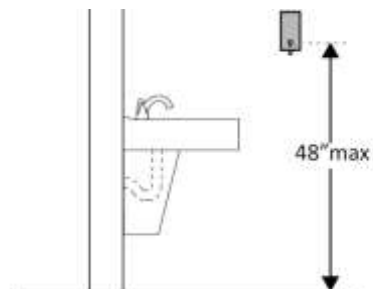
19. Soap Dispensers.



a. Over 20"-25" deep Lav

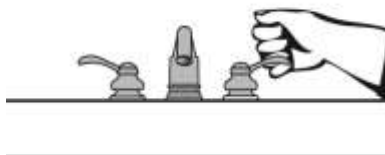


b. Over 20" deep Lav



c. Not over and obstruction

20. – Example of accessible faucets

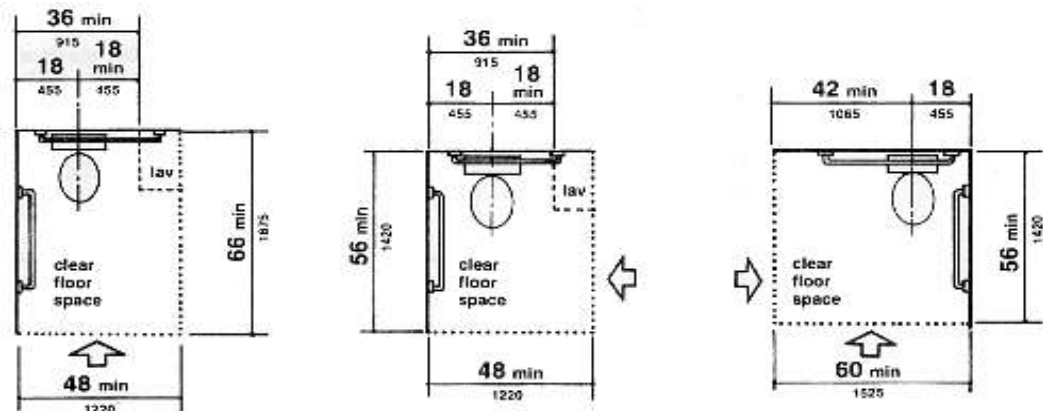


21a. Compliant toilet CFS

A – 91 code

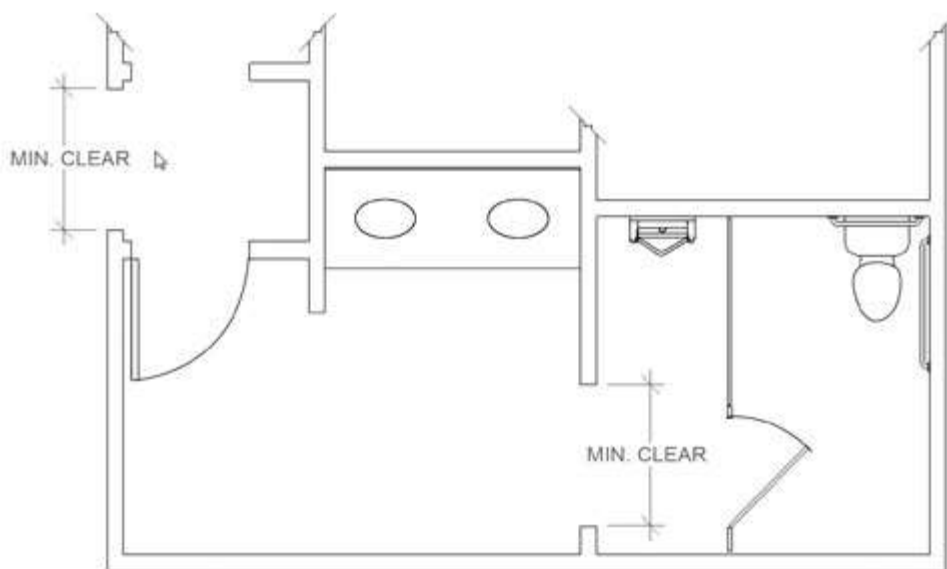
B- 91 code

C- 2010 code

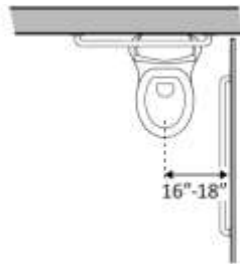


a,b,c –only A and B are allowed for buildings built before 1992 buildings built or renovated after March 15, 2102 must use “C”.

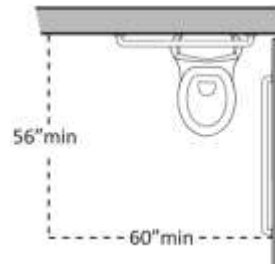
21b. – Example of clear path to all toilet fixtures –opening cannot be less than 32”- also see detail 5 above.



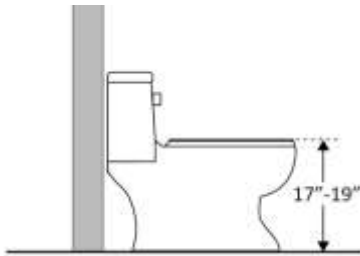
22. Toilet Center Line SAD-10



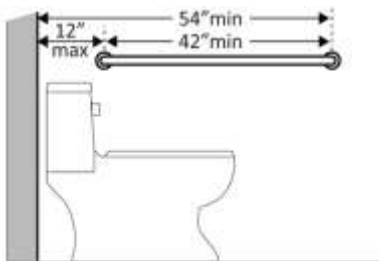
23. Minimum Toilet CFS also see detail 21a.



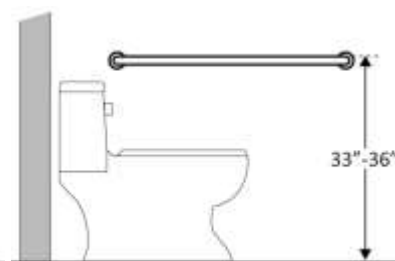
24. Toilet Seat Height to top of seat in down position.



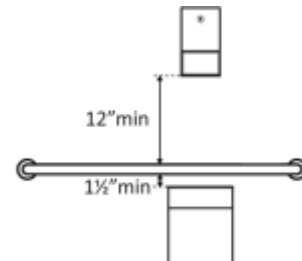
25. Grab bar locations and heights a. thru e.



a. Side grab bar location



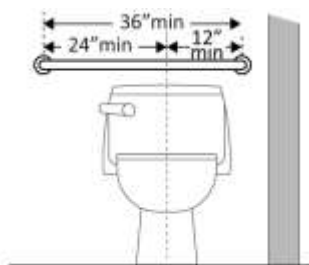
b. Grab bar height to top of bar



c. Items Mounted below and above bar



d. Rear Grab Bar height



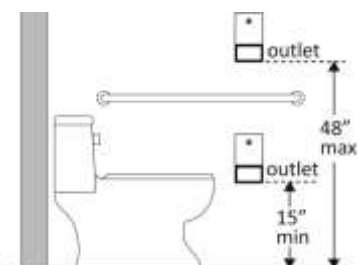
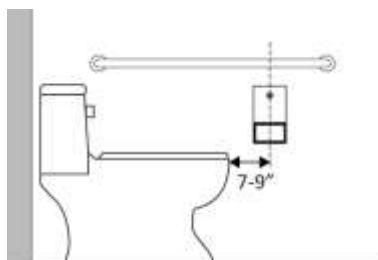
e. Rear Grab Bar Location

26. Flush Control Location

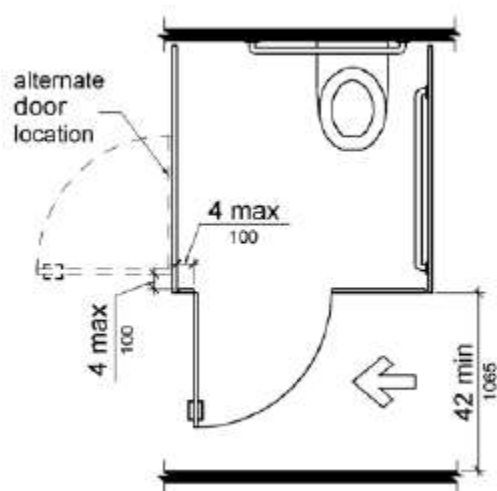
27. Toilet Paper Location

28. Toilet Paper Location Hgt.

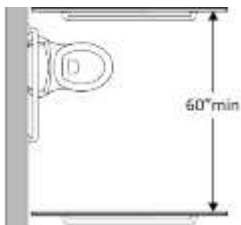
also see detail 25c.



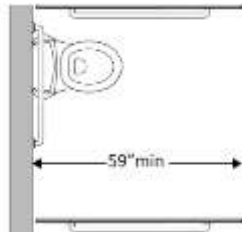
29. Compliant Stall door locations and minimum hall width to latch side of door when open 90 degrees



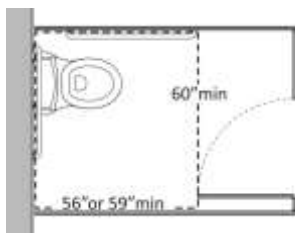
30. - Stall width



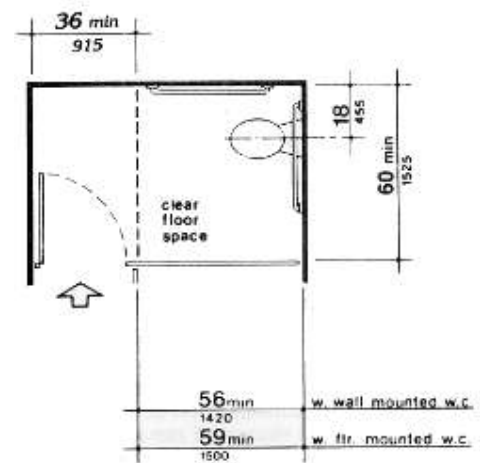
31.- Stall depth can be 56" if wall hung toilet



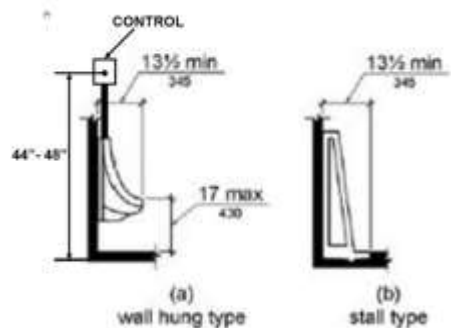
32a. Door may open in if it doesn't encroach required CFS



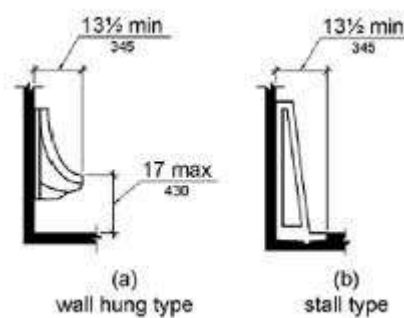
32b.- Example Door swing not allowed in CFS of toilet



33. – Urinal Control Height



34. – Urinal bowl and depth dimensions



Note: accessible urinal required only when more than one urinal is provided in a toilet room.

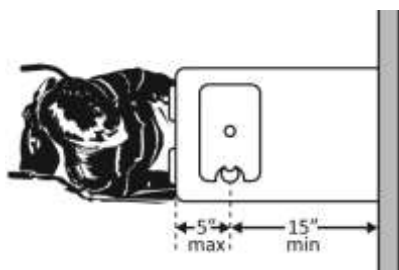
35.- Accessible drinking fountains



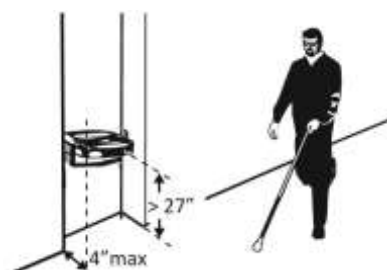
a. Dual Fountain

b. Single lower fountain

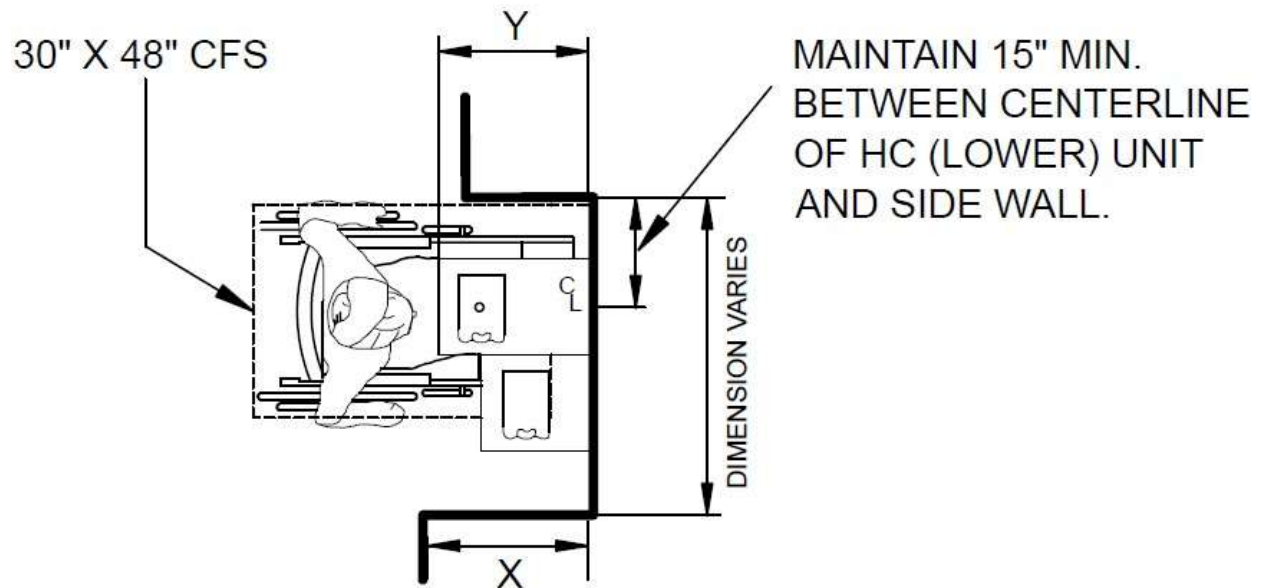
c. Operable with closed fist



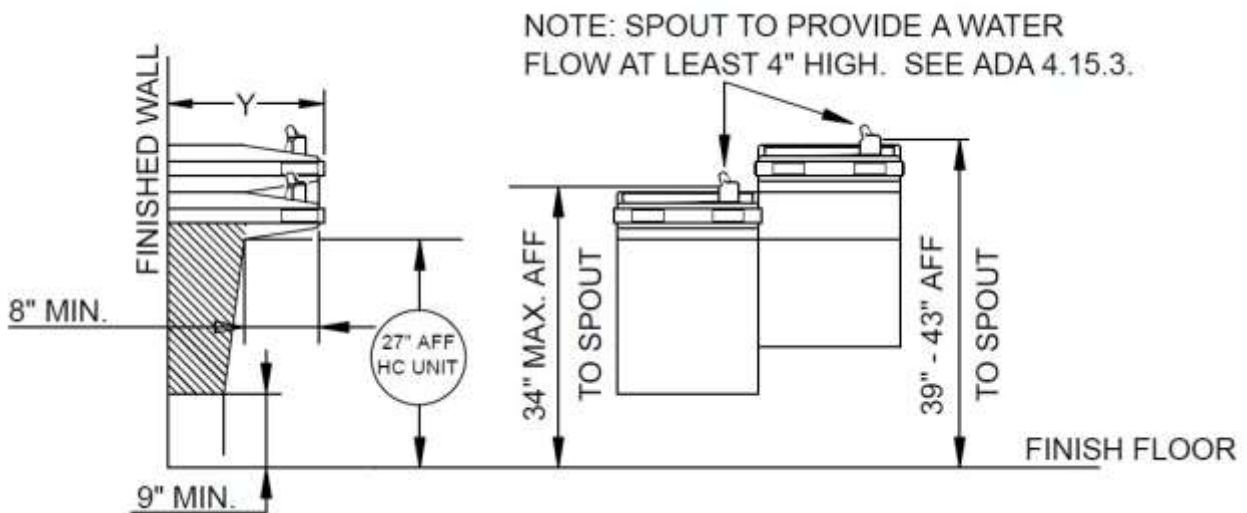
d. Accessible drinking fountain dimensions



e. In an alcove

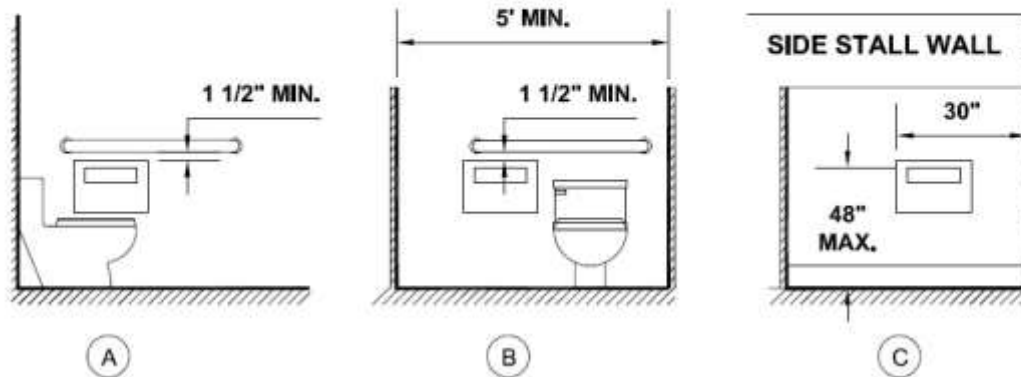
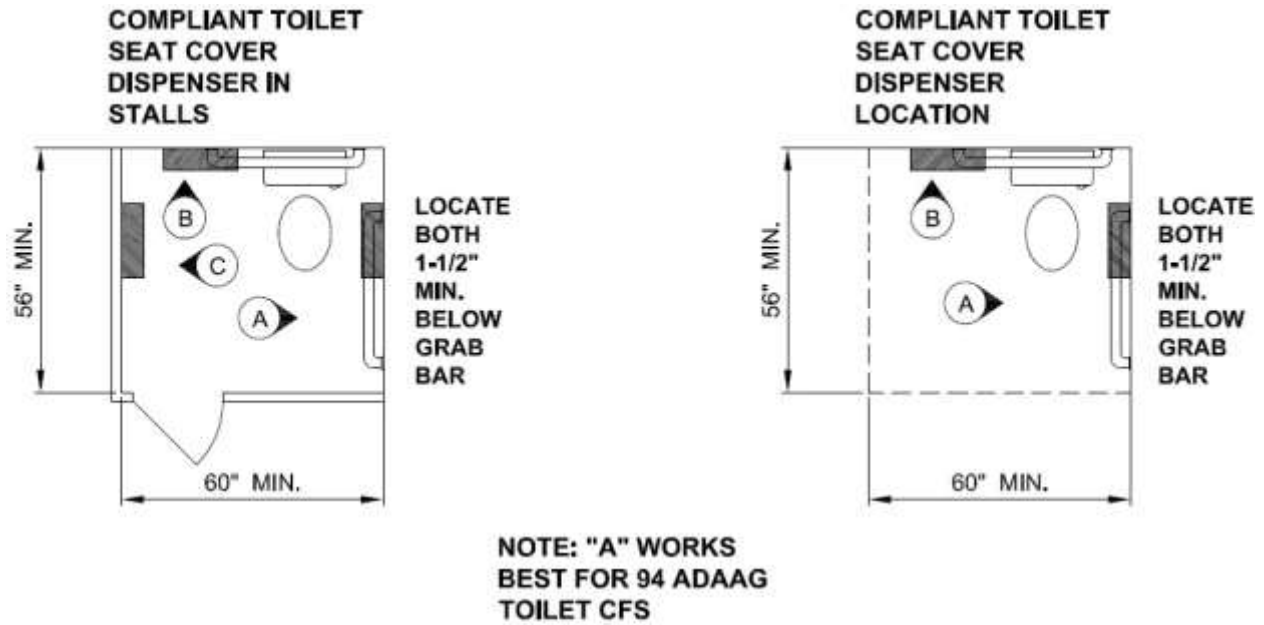


f. Accessible drinking fountain Clear Floor Space in alcoves. Also see detail 7b.

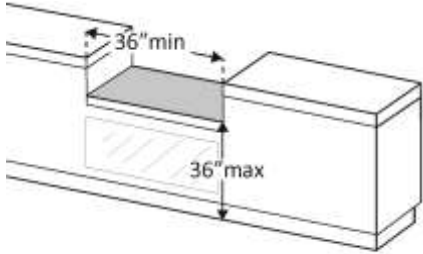


g. Accessible Dual Drinking Fountain dimensions

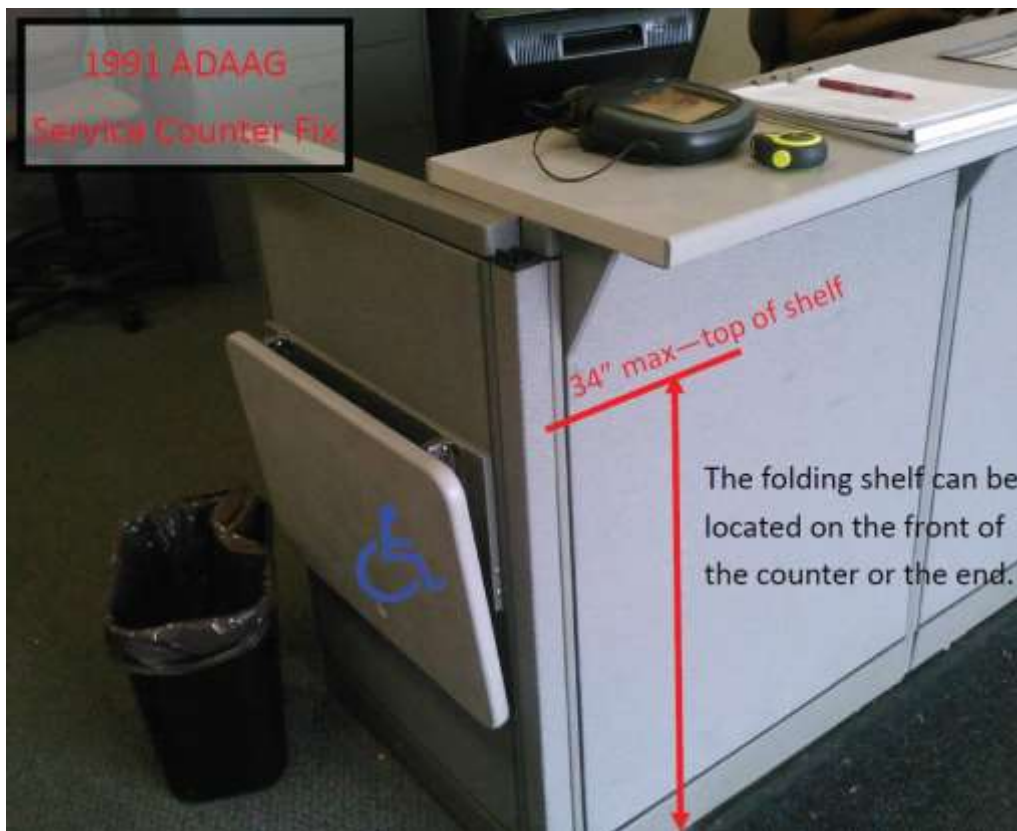
36. Compliant Toilet Seat Cover Dispenser Locations



37. – A. transaction counter showing accessible portion.

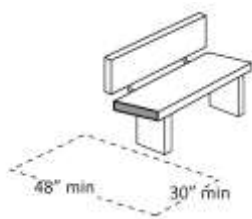


38. Accessible counter-alternative fix.

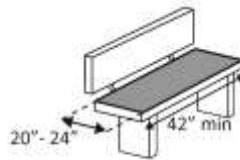


39. – Dressing room bench dimensions for SAD-10 code – bench back is optional but if not used then bench must against a wall. Either location requires the bench to be fastened to wall or floor so that it

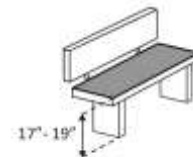
doesn't move during a transfer from a wheelchair. Note CFS is required on end of bench for benches installed after March 15, 2012. Before that date the CFS could be side approach and in front of the bench.



a.

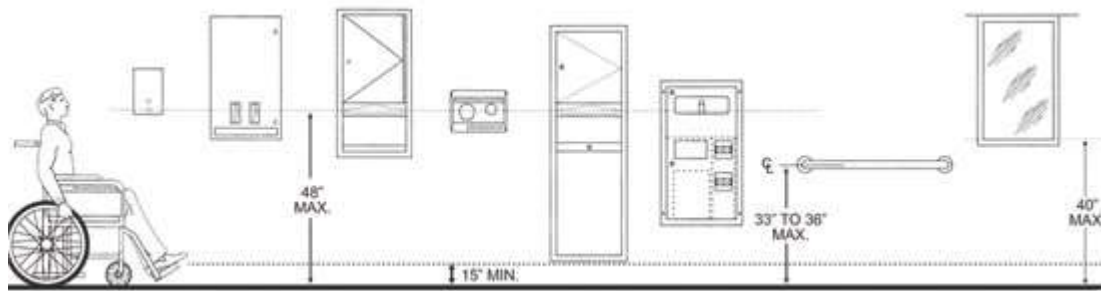


b.

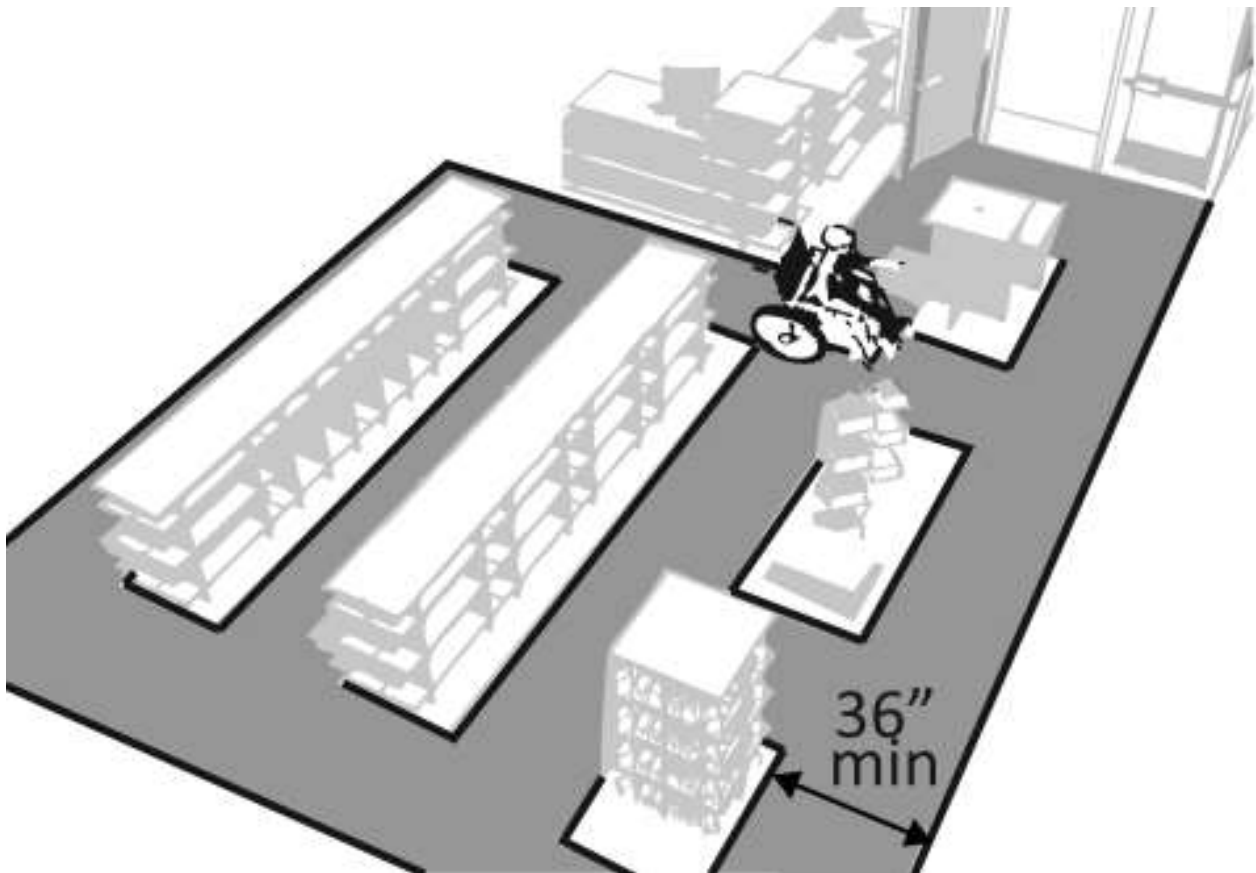


c.

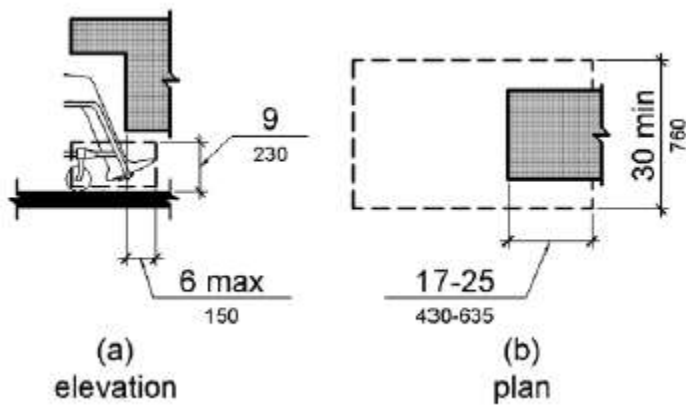
40. Example of heights to highest operable parts.



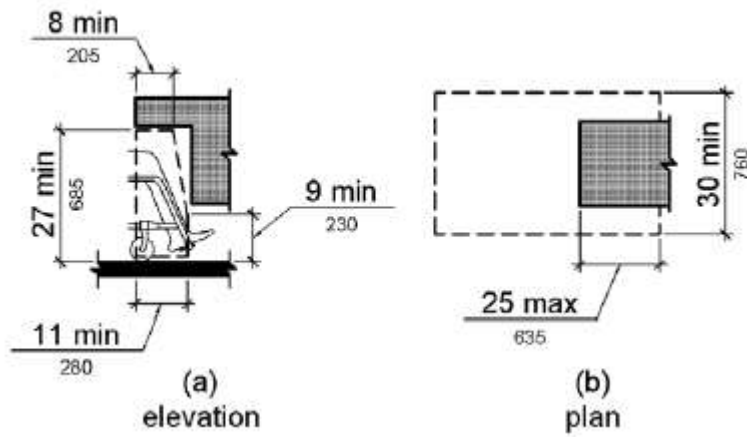
41. Access to goods and services (also Library Stacks)



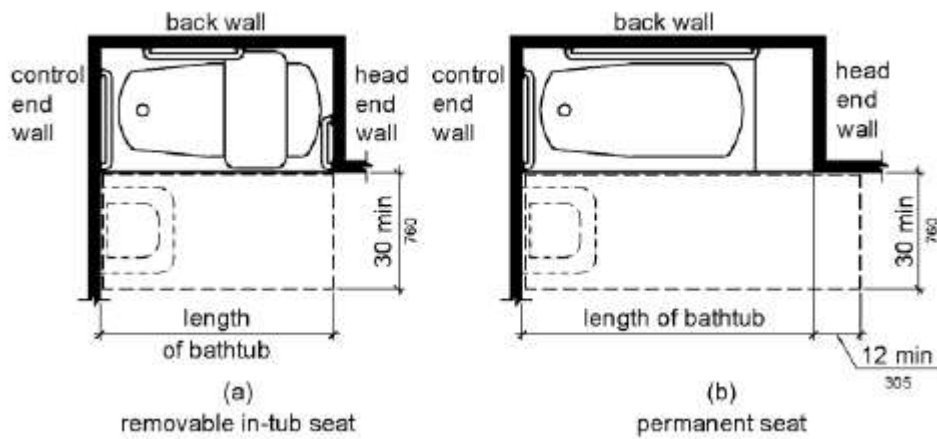
42. – Toe Clearance



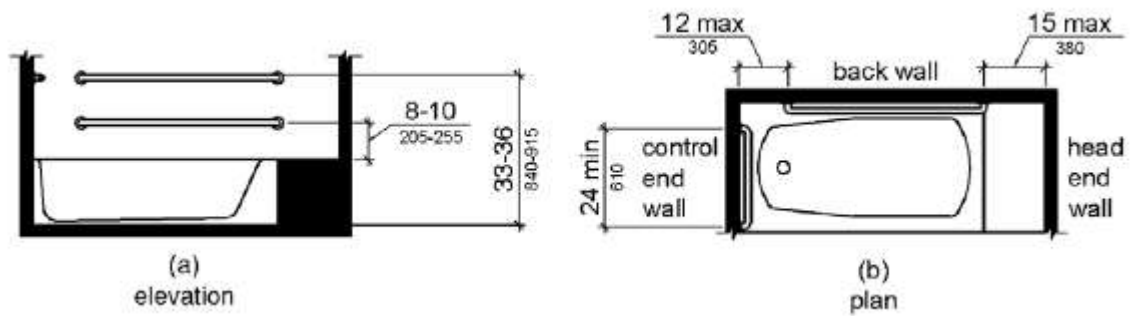
43. – Knee Clearance



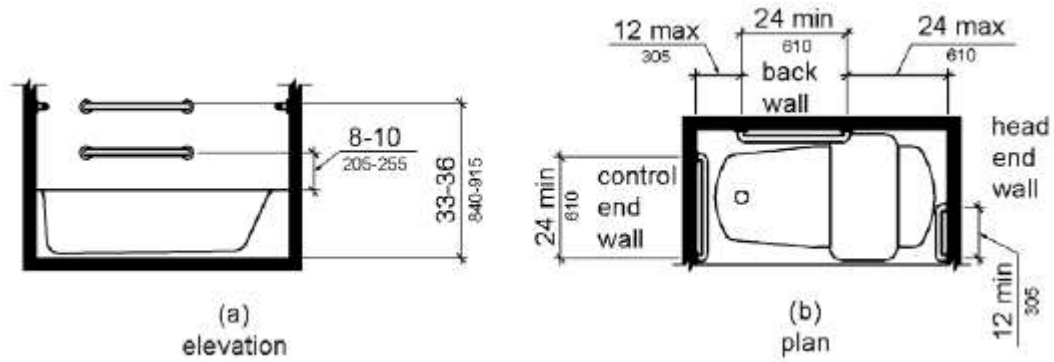
44. – Clearance for Bathtubs (detail below)



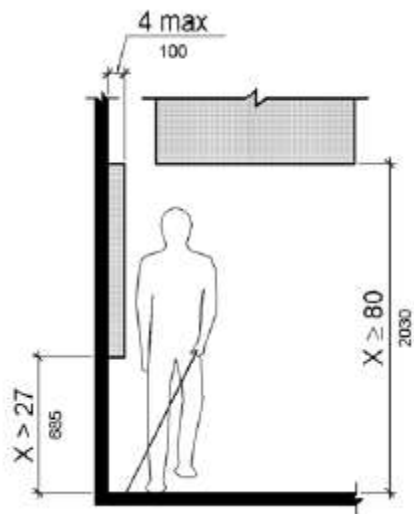
45. – Grab Bars for Bathtubs with Permanent Seats



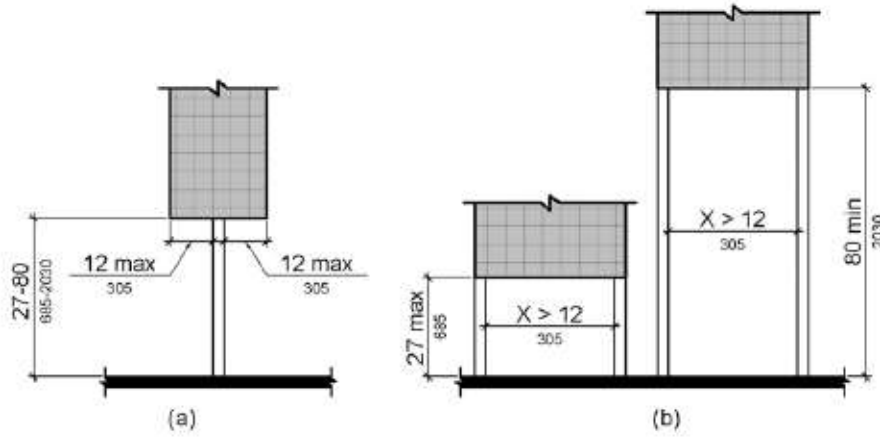
46. – Grab Bars for Bathtubs with Removable In-Tub Seats



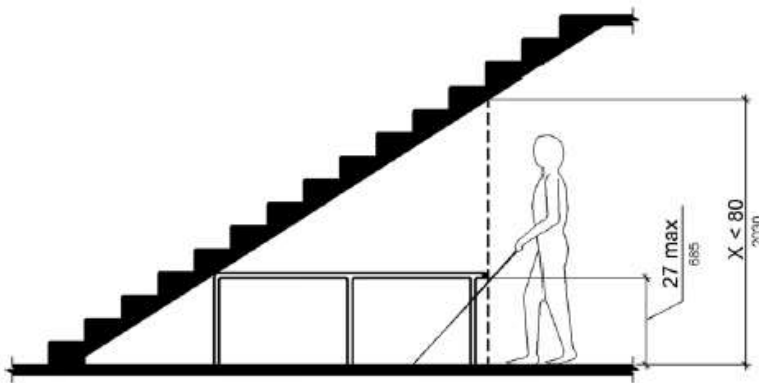
47.a. – Limits of Protruding Objects



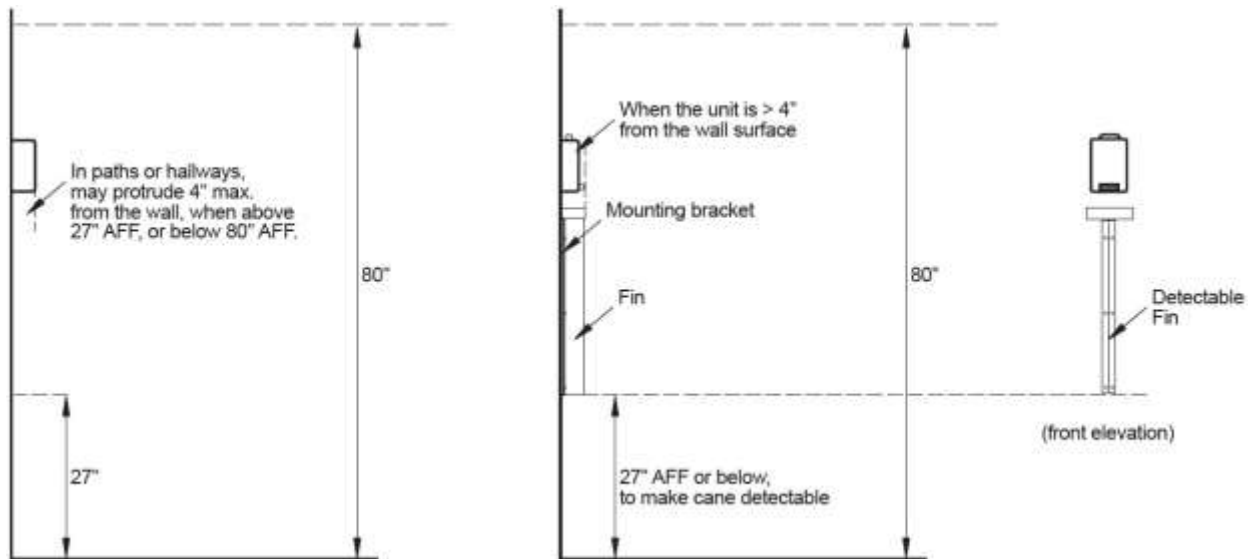
47.b. – Post-Mounted Protruding Objects



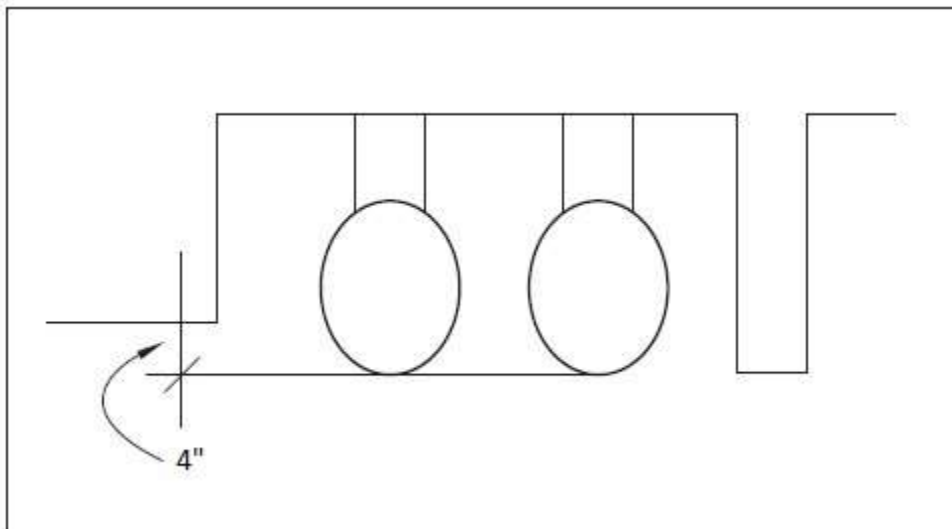
47.c. - Vertical Clearance -under stairs.



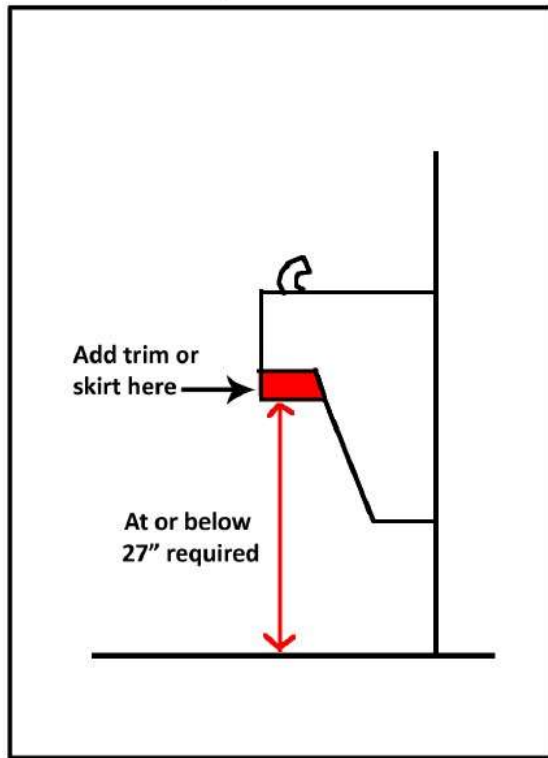
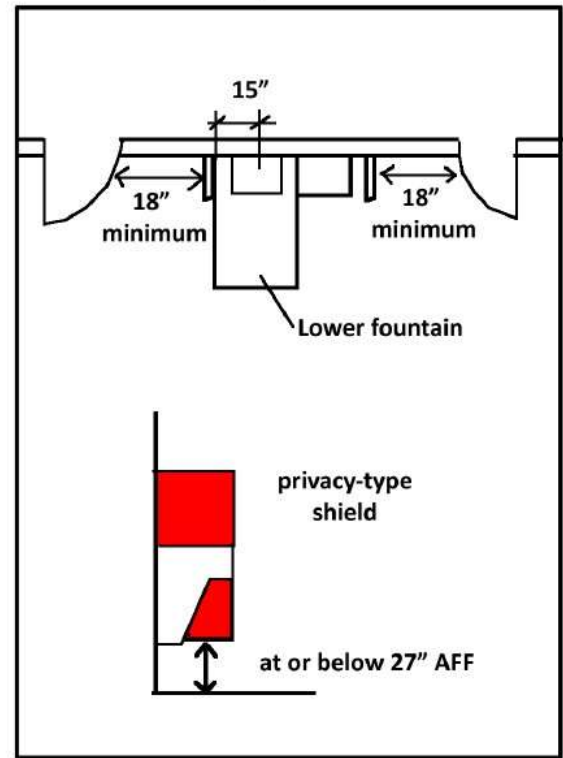
48. (Fixes) – Detectable Warning Fin in hallways with small protruding wall appliances



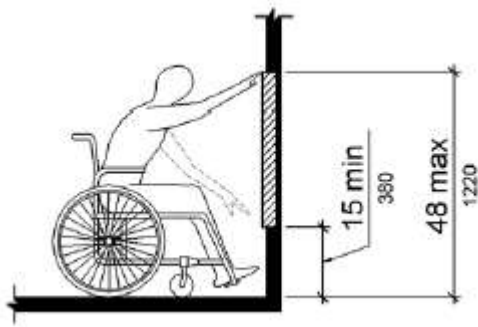
49. a.– Drinking Fountain Protruding Object Hazard



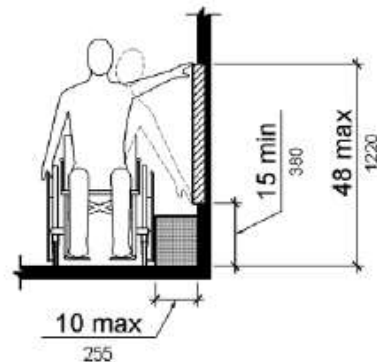
49.b. Correcting Drinking Fountain as Protruding Object Hazard

Option 1**Option 2**

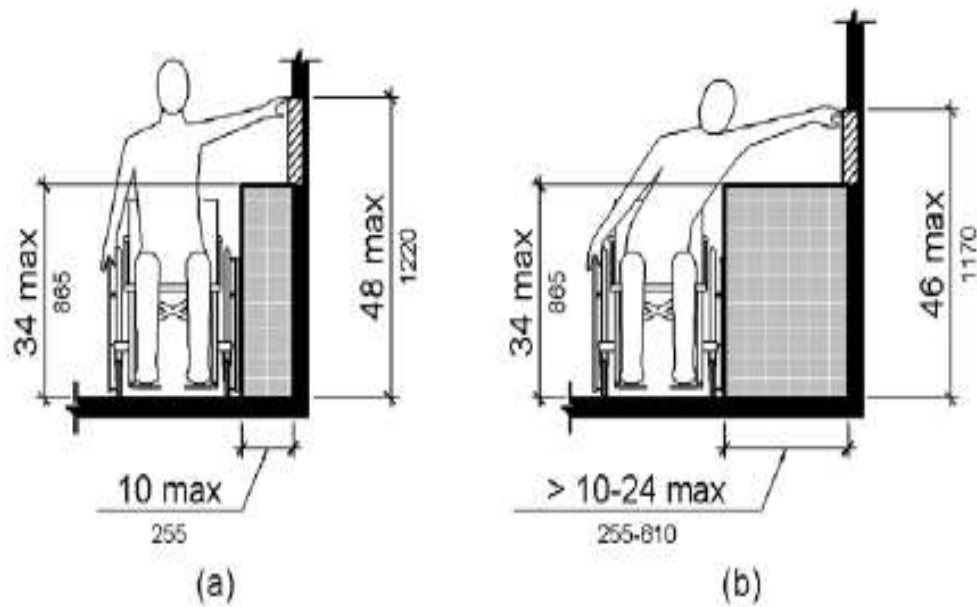
50. – Unobstructed Forward Reach



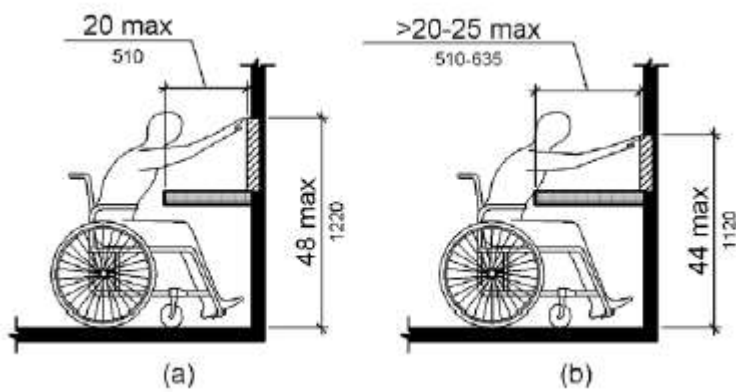
51. – Unobstructed Side Reach



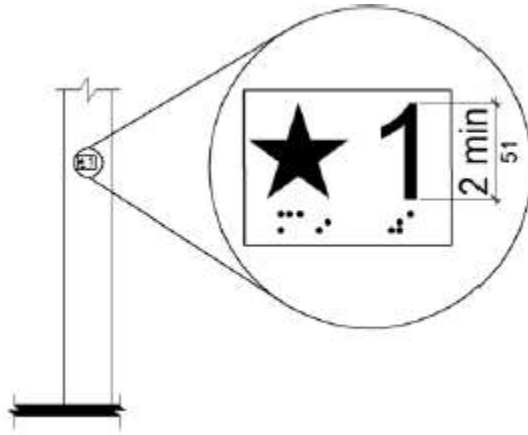
52. – Obstructed High Forward Reach



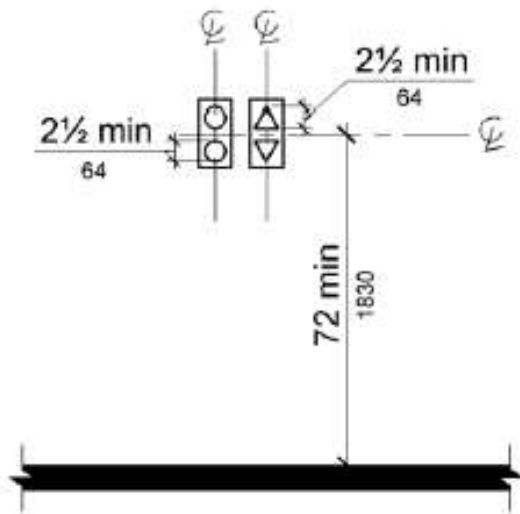
53. Obstructed High Forward Reach



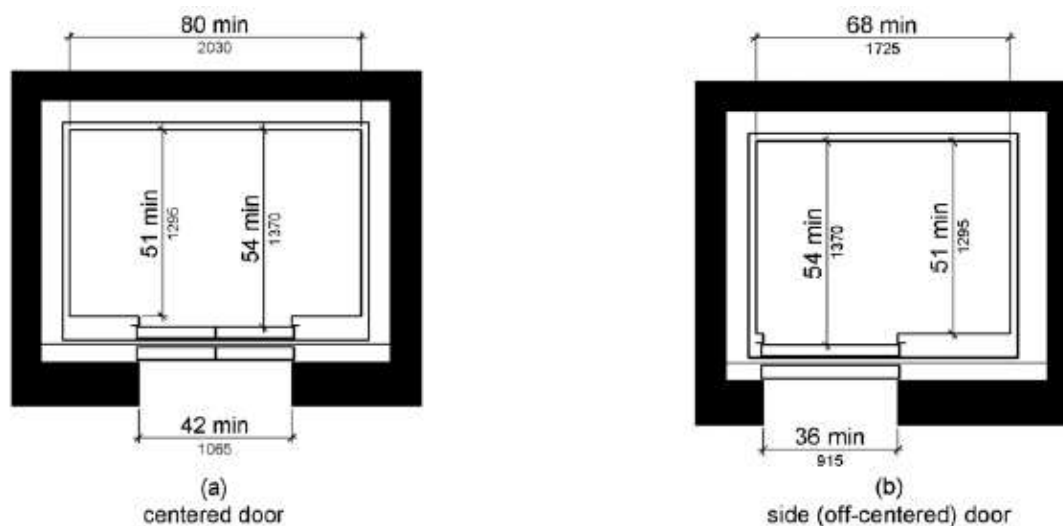
54. – Floor Designations on Jambs of Elevator Hoistway Entrances



55. – Visible Hall Signs



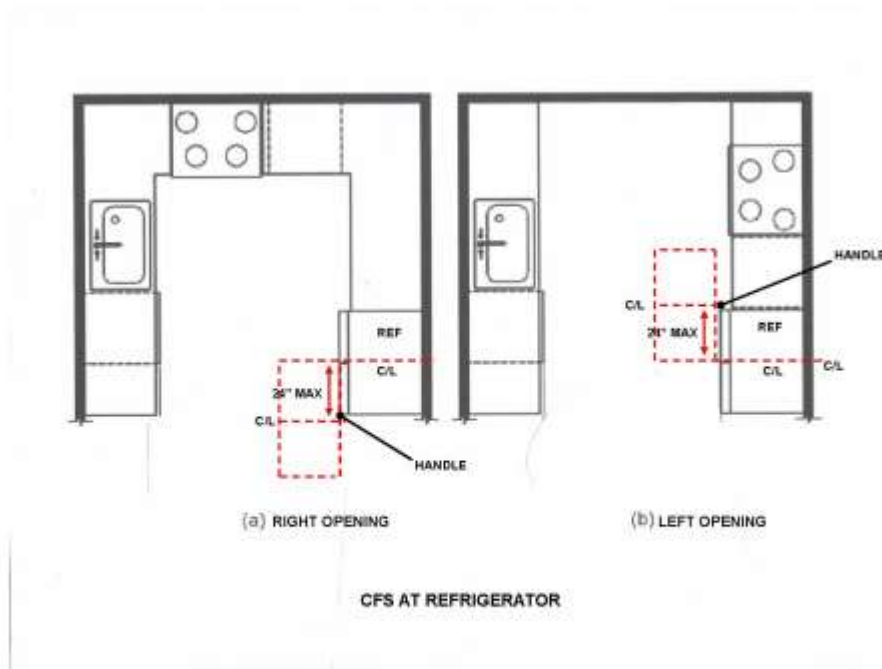
56. – Elevated Car Dimensions



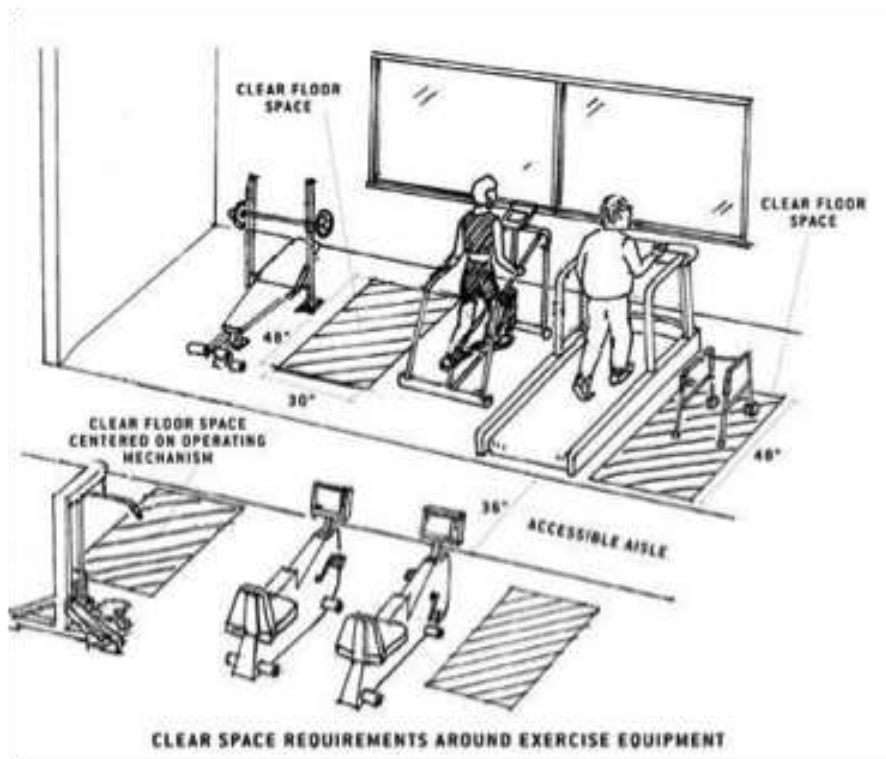
57. – Elevator Control Button Identification

Control Button	Tactile Symbol	Braille Message
Emergency Stop		⠠⠠⠠ "ST"OP Three cells
Alarm		⠠⠠⠠⠠ AL"AR"M Four cells
Door Open		⠠⠠⠠ OP"EN" Three cells
Door Close		⠠⠠⠠⠠⠠ CLOSE Five cells
Main Entry Floor		⠠⠠⠠ MA"IN" Three cells
Phone		⠠⠠⠠⠠ PH"ONE" Four cells

58. – CFS at Refrigerator



59. Accessible Exercise Equipment Room Layout



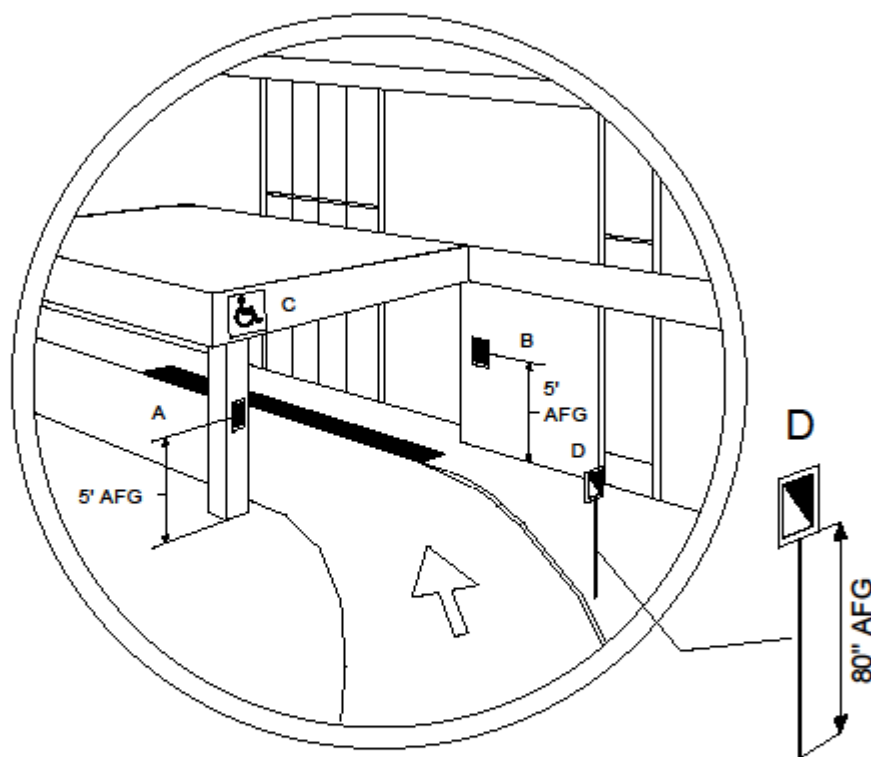
60. PLZ Signage required bu IBC/ANSI

ACCESSIBLE PASSENGER LOADING ZONE SIGNAGE

PER ADA 4.1.2 (7) b.



UNIVERSAL
SYMBOL



REQUIRES ONLY UNIVERSAL WHEELCHAIR SYMBOL (ADA FIG. 43 B)

LOCATIONS (A, B, C, D) ARE ALL ACCEPTABLE WHEN FACING INCOMING TRAFFIC

A, B & D SAME SIZE AS PARKING SIGNS - MAKE CANOPY SIGN 'C' (16" - 18") HIGH MIN.

LOCATION 'D' (ON POLE) MUST BE 80" AFG TO NOT BE A PROTRUDING OBJECT HAZARD

NOTE: WHEN NOT ALL PASSENGER LOADING ZONES (PLZ) ARE ACCESSIBLE, DIRECTIONAL

SIGNAGE MUST BE POSTED AT NON-ACCESSIBLE PLZs DIRECTING

HC TO NEAREST ACCESSIBLE PLZ - DETAIL PDS A-24

PDS	
A	23

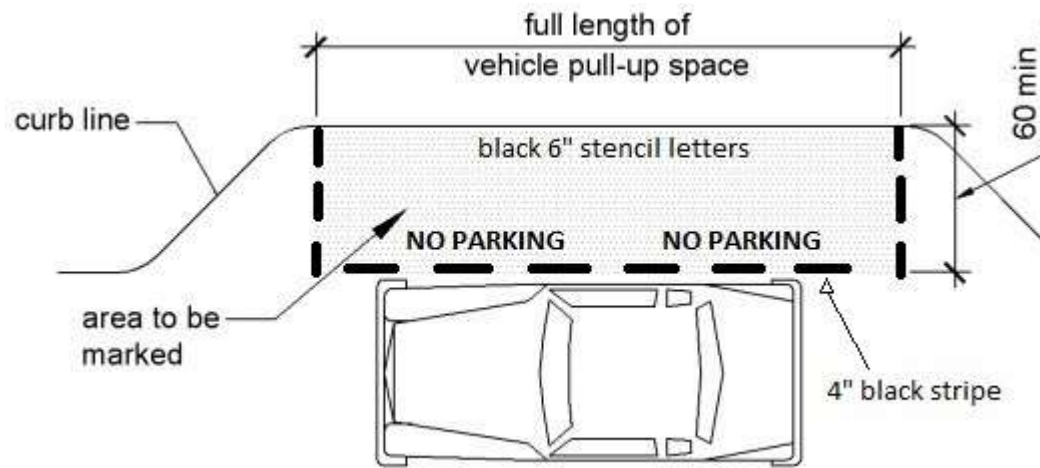
PASSENGER LOADING ZONE SIGNAGE

INSTALLER NOTES

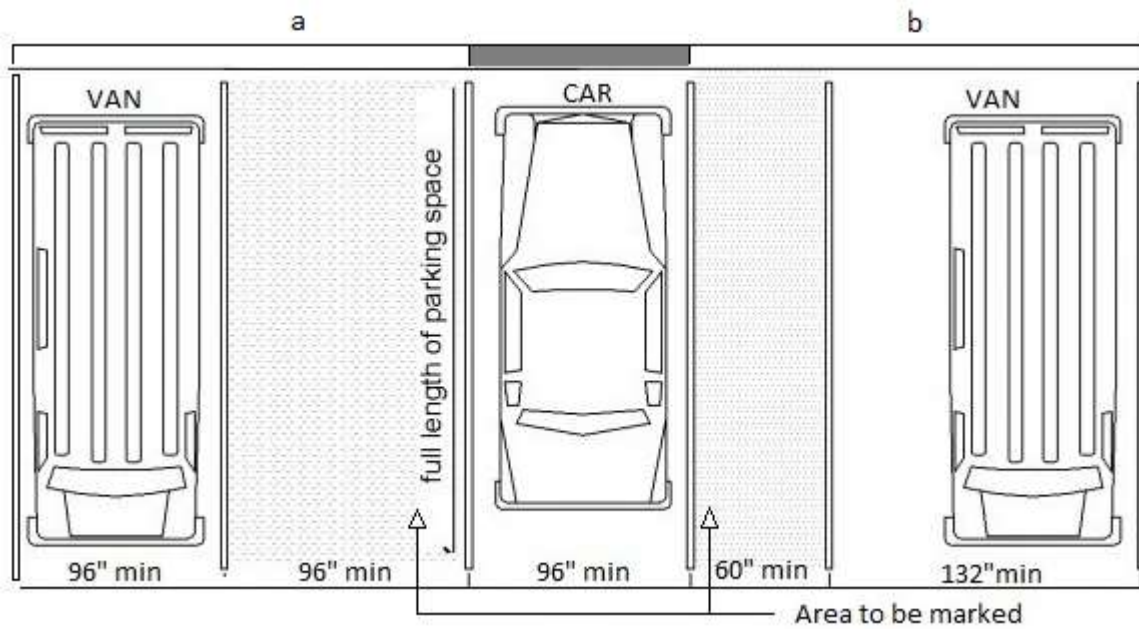
NTS

© 2004

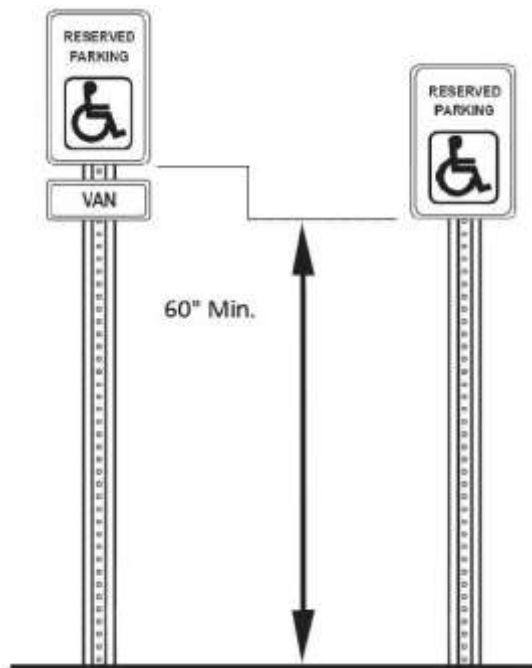
61. PLZ Access Aisle



62. Compliant Parking Space/Aisle width example a. and b.



63. Parking Space Sign height



64. Compliant Locker Hardware



65. LULA Elevators

408 Limited-Use/Limited-Application Elevators

408.1 General. Limited-use/limited-application elevators shall comply with 408 and with ASME A17.1 (incorporated by reference, see “Referenced Standards” in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

408.2 Elevator Landings. Landings serving limited-use/limited-application elevators shall comply with 408.2.

408.2.1 Call Buttons. Elevator call buttons and keypads shall comply with 407.2.1.

408.2.2 Hall Signals. Hall signals shall comply with 407.2.2.

408.2.3 Hoistway Signs. Signs at elevator hoistways shall comply with 407.2.3.1.

408.3 Elevator Doors. Elevator hoistway doors shall comply with 408.3.

408.3.1 Sliding Doors. Sliding hoistway and car doors shall comply with 407.3.1 through 407.3.3 and 408.4.1.

408.3.2 Swinging Doors. Swinging hoistway doors shall open and close automatically and shall comply with 404, 407.3.2 and 408.3.2.

408.3.2.1 Power Operation. Swinging doors shall be power-operated and shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1).

408.3.2.2 Duration. Power-operated swinging doors shall remain open for 20 seconds minimum when activated.

408.4 Elevator Cars. Elevator cars shall comply with 408.4.

408.4.1 Car Dimensions and Doors. Elevator cars shall provide a clear width 42 inches (1065 mm) minimum and a clear depth 54 inches (1370 mm) minimum. Car doors shall be positioned at the narrow ends of cars and shall provide 32 inches (815 mm) minimum clear width.

EXCEPTIONS: 1. Cars that provide a clear width 51 inches (1295 mm) minimum shall be permitted to provide a clear depth 51 inches (1295 mm) minimum provided that car doors provide a clear opening 36 inches (915 mm) wide minimum.

2. Existing elevator cars shall be permitted to provide a clear width 36 inches (915 mm) minimum, clear depth 54 inches (1370 mm) minimum, and a net clear platform area 15 square feet (1.4 m²) minimum.

408.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

408.4.3 Platform to Hoistway Clearance. The platform to hoistway clearance shall comply with 407.4.3.

408.4.4 Leveling. Elevator car leveling shall comply with 407.4.4.

408.4.5 Illumination. Elevator car illumination shall comply with 407.4.5.

408.4.6 Car Controls. Elevator car controls shall comply with 407.4.6. Control panels shall be centered on a side wall.

408.4.7 Designations and Indicators of Car Controls. Designations and indicators of car controls shall comply with 407.4.7.

408.4.8 Emergency Communications. Car emergency signaling devices complying with 407.4.9 shall be provided.

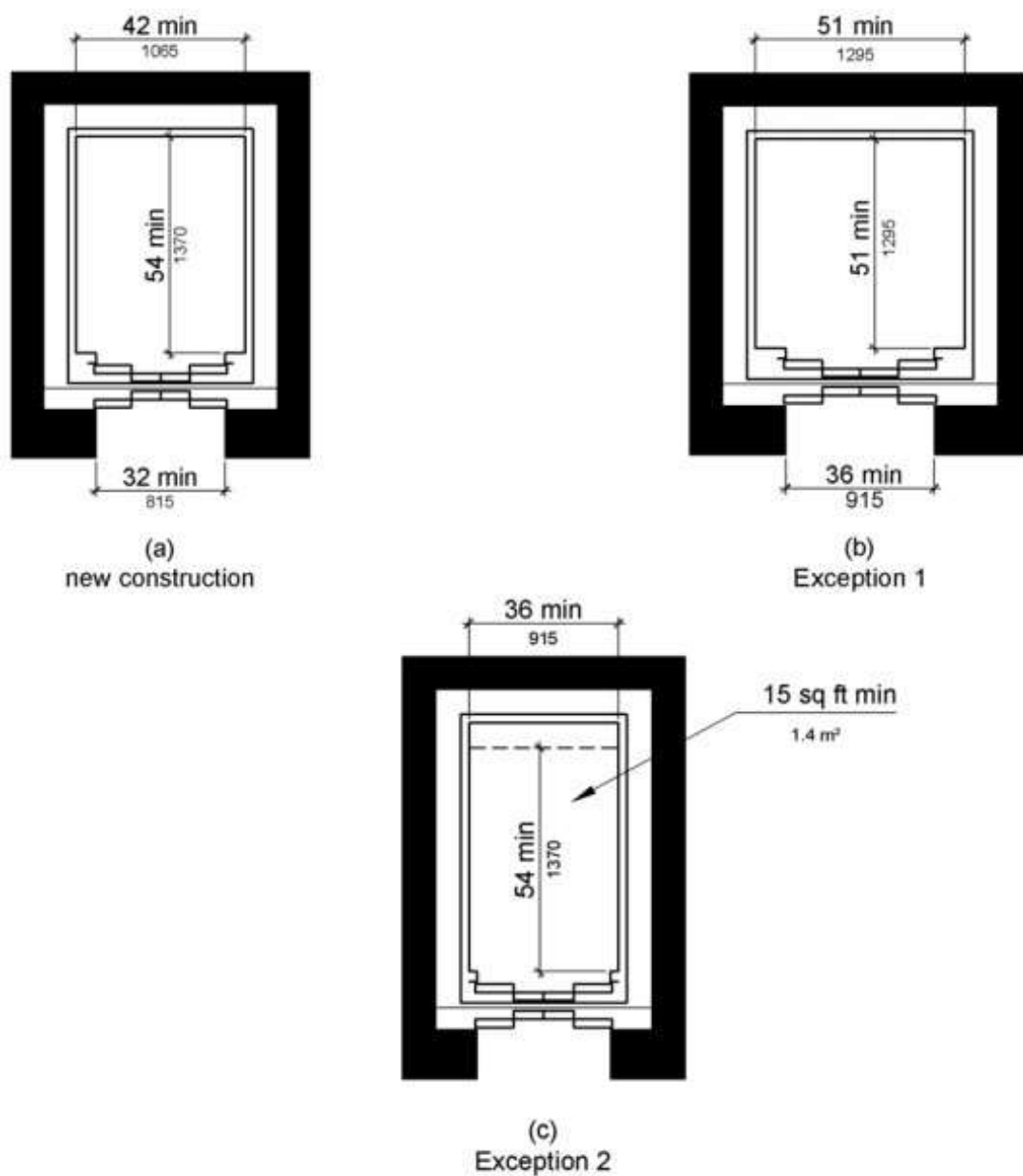


Figure 408.4.1
Limited-Use/Limited-Application (LULA) Elevator Car Dimensions

66. Sign Height

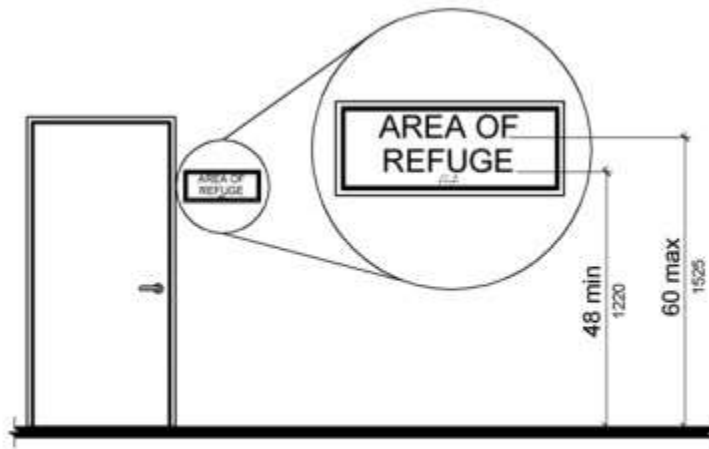


Figure 703.4.1
Height of Tactile Characters Above Finish Floor or Ground

67.-a. Sign location

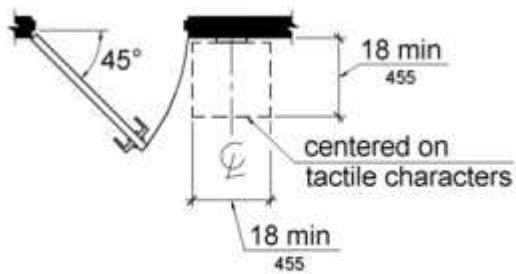
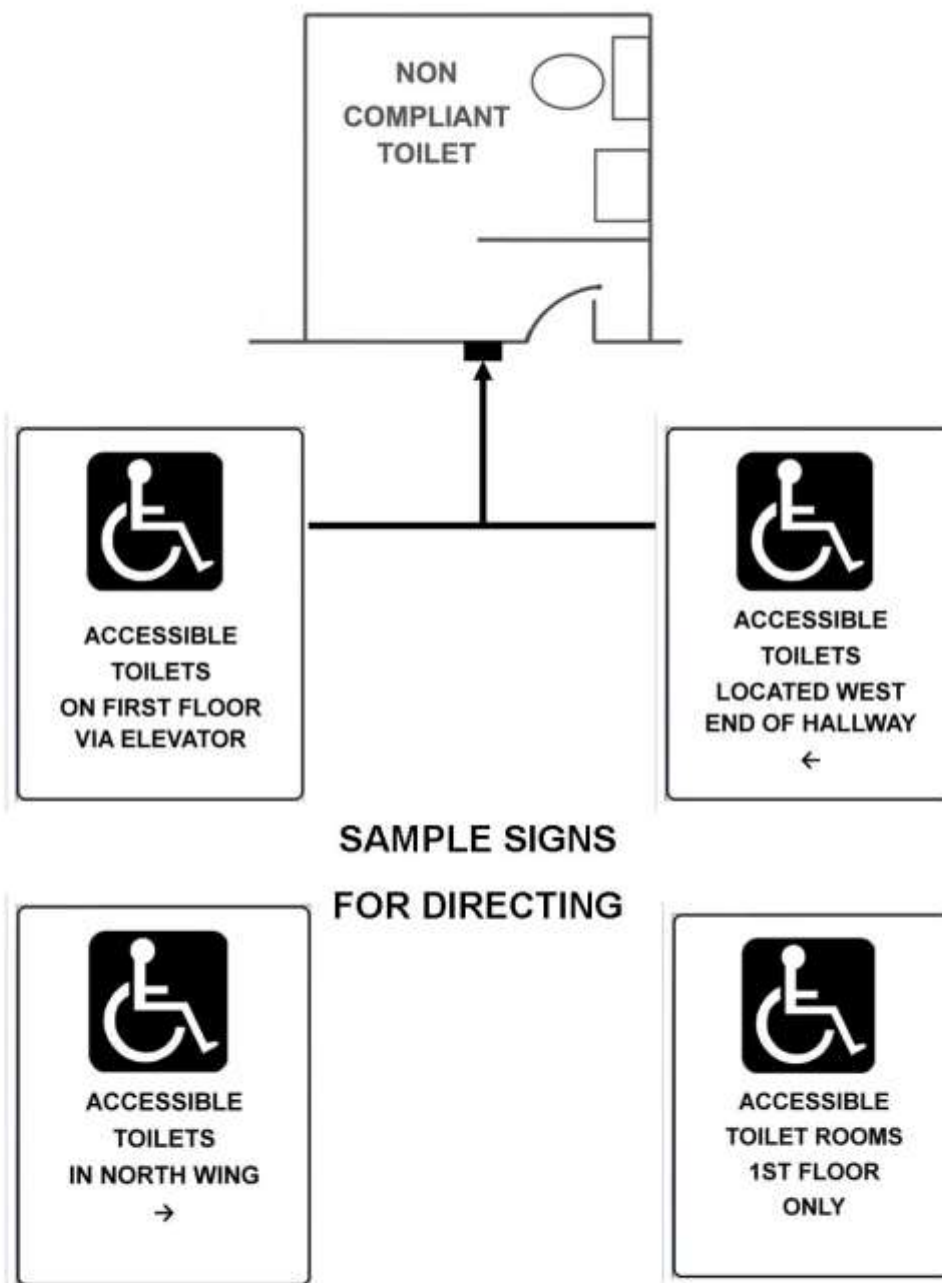


Figure 703.4.2
Location of Tactile Signs at Doors

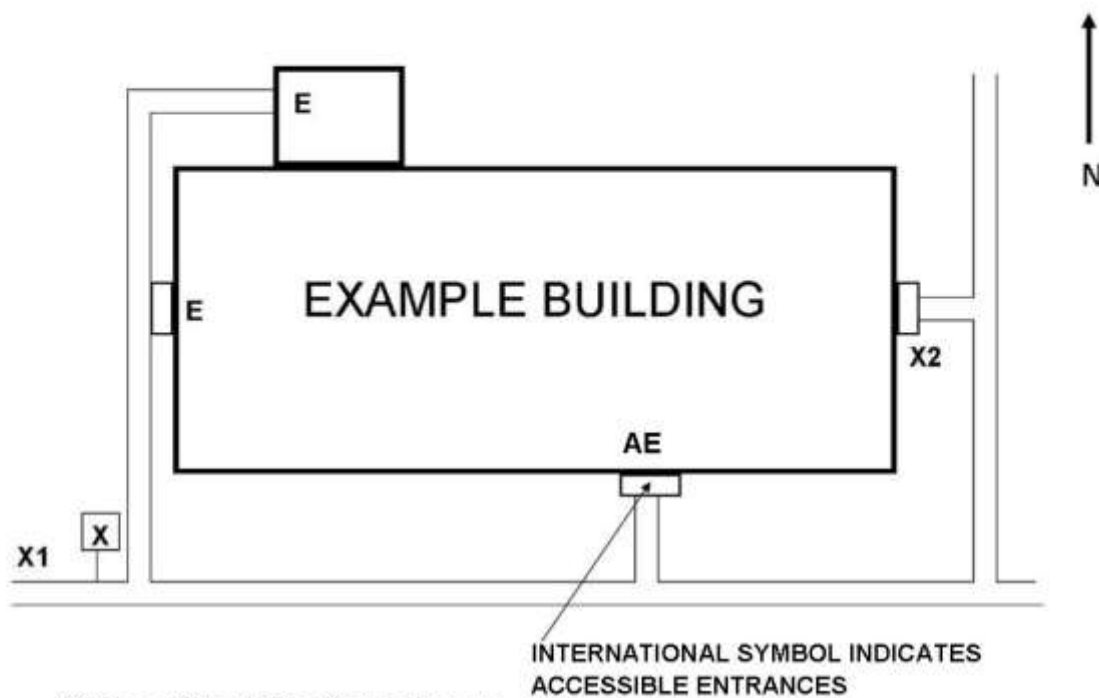
67 – b. Directional Signage at Non-Compliant Toilets

DIRECTIONAL SIGNAGE AT NON-COMPLIANT TOILETS

NOTE: If route is complicated additional sign locations may be needed.

Optional sign in elevator cab.

67 – c. Directional Signage to Accessible Entrances Example

DIRECTIONAL SIGNAGE TO ACCESSIBLE ENTRANCES EXAMPLE

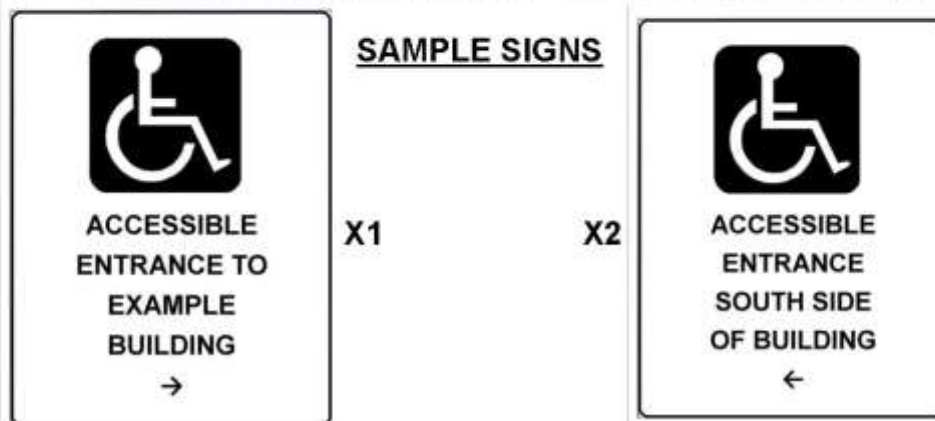
X = Location of directional signage.

E = Entrance

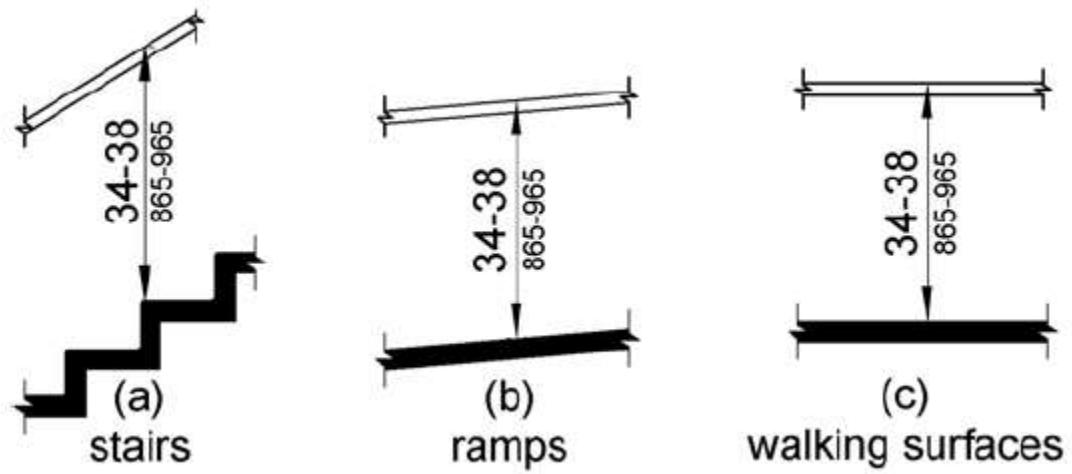
SE = Accessible Entrance

X1 = Locate at walk intersection to keep disabled from have to retrace their paths. No height dimensions specified - can be low.

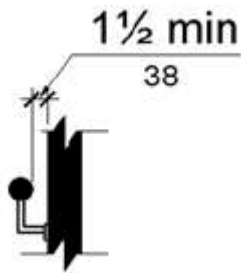
X2 = Can be located beside entrance door - 60" AFF to centerline of sign.



68. Handrail Heights

**Figure 505.4 Handrail Height**

69. Handrail Clearances

**Figure 505.5 Handrail Clearance**

70. Handrail Projections below gripping surface

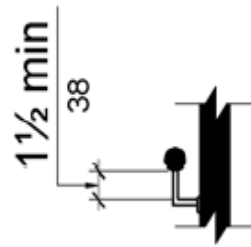


Figure 505.6 Horizontal Projections Below Gripping Surface

71. Handrail Non-Circular Cross Section Style

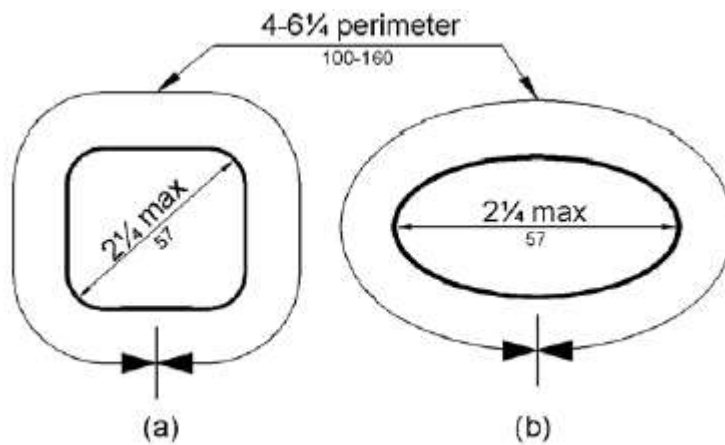


Figure 505.7.2 Handrail Non-Circular Cross Section

72. Ramp handrails-top and bottom extensions

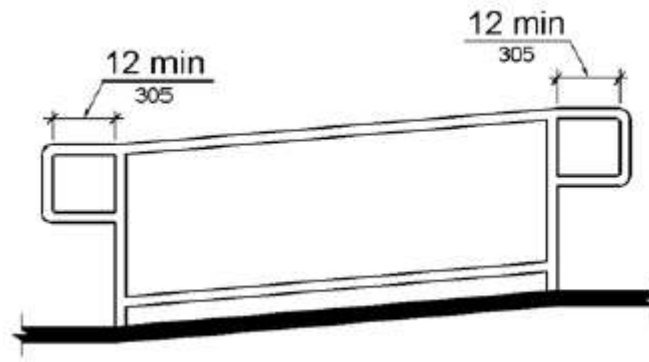


Figure 505.10.1 Top and Bottom Handrail Extension at Ramps

73. Top handrail extensions at stairs

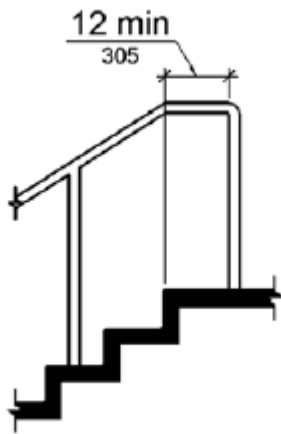


Figure 505.10.2 Top Handrail Extension at Stairs

74. Bottom Handrail extension at stair

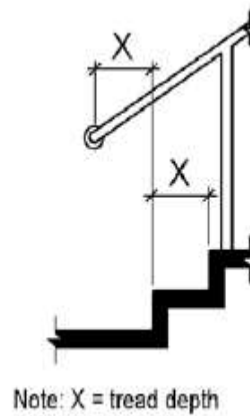


Figure 505.10.3 Bottom Handrail Extension at Stairs

75. Treads, risers and stair nosing

504.2 Treads and Risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches (100 mm) high minimum and 7 inches (180 mm) high maximum. Treads shall be 11 inches (280 mm) deep minimum.

504.3 Open Risers. Open risers are not permitted.

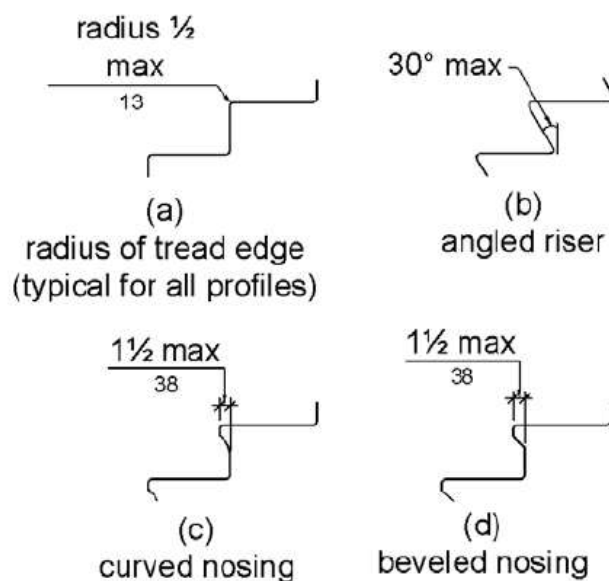


Figure 504.5 Stair Nosing

Technical questions concerning this report should be addressed to:

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PDS America

615-650-1254 fax 615 650 1231

BeauWildman@pdsamerica.com