



# CITY OF NEWPORT BEACH

## COMMUNITY DEVELOPMENT DEPARTMENT BUILDING DIVISION

100 Civic Center Drive | P.O. Box 1768 | Newport Beach, CA 92658-8915  
[www.newportbeachca.gov](http://www.newportbeachca.gov) | (949) 644-3200

### 2019 HOUSING ACCESSIBILITY PLAN REVIEW COMMENTS

#### <Division I: GENERAL PROVISIONS>

##### **MULTI-STORY DWELLINGS WITHOUT ELEVATOR:**

1. At least 10 percent, any fraction thereof rounding to next highest whole number, but not less than one of the MULTI-STORY dwellings shall comply with the following (1102A.3.1): [Exception: Carriage units – See definition below]
  - a. The primary entry to the dwelling unit shall be on an accessible route.
  - b. At least one accessible powder room or bathroom shall be located on the primary entry level, served by an accessible route and shall comply with the provisions in Division IV.
  - c. All rooms or spaces located on the primary entry level shall be served by an accessible route and shall comply with the provisions in Division IV.
  - d. Common use areas covered by this section shall be accessible.
2. CARRIAGE UNIT [HCD 1-AC] (CBC Section 202) must meet the definition listed below:
  - a. A dwelling unit with living space on one or more floors immediately above a Group U, private garage or garages. The footprint of the garage or garages is used as the footprint for the remaining floor or floors of the units above and the garage level contains no habitable space.
  - b. Dwelling units located over a common garage shall not be considered carriage units.
  - c. No overhangs allowed.

##### **MULTI-STORY DWELLINGS WITH ELEVATOR(S):**

3. For MULTI-STORY dwelling units in buildings with elevators, the story of the unit that served by the building elevator is considered a ground floor and the primary entry floor to the unit and shall comply with the following (1102A.3.2):
  - a. At least one powder room or bathroom shall be located on the primary entry level.
  - b. At least one kitchen shall be located on the primary entry level.
  - c. All rooms or spaces located on the primary entry level shall be served by an accessible route and shall comply with Division IV.

##### **COVERED MULTI-FAMILY DWELLINGS**

4. All ground-floor dwellings units in nonelevator buildings shall be adaptable and on an accessible route.
  - a. Exception: buildings that meet site impracticality provisions in Section 1150A.in accordance with Section 1106A.
5. The first floor containing dwelling units in the building is above grade, all units on that floor shall be served by an accessible route. This floor will be considered a ground floor and all dwelling units are considered covered multi-family dwelling units. (1104A.2)

## **<Division II: EXTERIOR FACILITIES>**

### **SITE DEVELOPMENT AND ROUTE OF TRAVEL:**

6. Site development and grading shall be designed to provide access to all entrances and exterior ground floor exits and access to normal paths of travel, and where necessary to provide access, shall incorporate pedestrian ramps, curb ramps, etc.
7. When a building or portion of a building is required to be accessible or adaptable, an accessible route of travel shall be provided to all portions of the building, to accessible building entrances, and between the building and the public way. (1110A.1)
8. The accessible route of travel shall be the most practical direct route and to the maximum extent feasible, coincide with the route for the general public and building residents. (1110A.1)
9. At least one accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking and accessible passenger loading zones, and public streets or sidewalks, to the accessible building entrance they serve. Where more than one route of travel is provided, all routes shall be accessible. (1110A.1.1)
10. When more than one building or facility is located on a site, accessible routes of travel shall be provided between buildings and accessible site facilities. (1110A.1.2)
11. At least one accessible route shall connect to the following: (1110A.1.2 & 1110A.1.3)
  - a. Accessible buildings, facilities, elements and spaces that are on the same site.
  - b. Accessible building or facility entrances with all accessible spaces and elements and with all accessible dwelling units within the building or facility.
12. An accessible route shall connect at least one accessible entrance of each covered multi-family dwelling unit with those exterior and interior spaces and facilities that serve the accessible dwelling unit. (1110A.1.4)
13. All covered ground floor units in non-elevator buildings must be adaptable and on an accessible route. (1104A.1)
14. Except within individual dwelling units, an accessible route of travel shall not pass through kitchens, storage rooms, restrooms, closets or other spaces used for similar spaces. (1119A.1)
15. Garages, carports and other parking facilities, which are accessory to covered multi-family dwelling units, shall be accessible as required by 1109A. (1105A.1)

### **ACCESSIBLE PARKING:**

16. Each parking facility provided for covered multi-family dwellings and facilities (e.g., swimming pools, club houses, recreation areas and laundry rooms) that serve covered multi-family dwellings shall provide accessible parking from the following. (1109A.1)
  - a. Garages
  - b. Private garages (see Section 1105A for the application of building standards for accessibility)
  - c. Carports
  - d. Off-street parking (parking lots/spaces)
17. Private garages accessory to covered multi-family dwelling units shall be accessible. Private garages include individual garages and multiple individual garages grouped together. (1109A.2.1)
18. For each attached private garage directly serving a single covered multi-family dwelling unit, detail compliance with at least one of the following options: (1109A.2.1)
  - a. A door leading directly from the covered dwelling unit, which immediately enters the garage. The door shall comply on both sides with Sections 1132A.3 through 1132A.9.

- b. An accessible route of travel from the covered dwelling unit to an exterior door entering the garage. See Section 1132A.1 for requirements at both exit doors.
  - c. An accessible route of travel from the dwelling unit's primary entry door to the vehicular entrance at the garage. See Section 1132A.1 for requirements at the primary entry door.
19. Accessible parking spaces shall be provided at a minimum rate of 2 percent of the covered multi-family dwelling units. At least one space of each type of parking facility shall be made accessible even if the total number exceeds 2 percent. (1109A.3)
20. Identify on the cover sheet and parking plan layout the following:
- a. Specify whether parking provided for both guests and dwelling units are assigned or unassigned.
  - b. Identify the location of assigned and unassigned parking stalls.
  - c. Identify the parking stalls' assignment for assigned parking.
21. When assigned parking spaces are provided for a resident or a group of residents (1109A.4):
- a. Provide at least 2 percent accessible parking in each type of parking facility.
  - b. At least one space of each type of parking facility shall be made accessible even if the total number exceeds 2 percent.
  - c. When assigned parking is provided, signage as required by Section 1109A.8.8 shall not be required.
22. When unassigned parking spaces are provided for a resident or a group of residents (1109A.5):
- a. Provide at least 5 percent accessible parking.
  - b. Provide accessible route to grade-level entrances of covered multi-family dwellings and facilities (e.g., swimming pools, club houses, recreation areas and laundry rooms) that serve covered multi-family dwellings.
  - c. Accessible parking spaces shall be provided with signage as required by Section 1109A.8.8. Such signage shall not be blocked from view by a vehicle parked in the space.
23. The location of accessible parking spaces shall comply with the following: (1109A.7)
- a. Accessible parking spaces shall be located on the shortest accessible route to an accessible building or covered multi-family dwelling unit entrance. All van accessible spaces may be grouped on one level of a multilevel parking facility.
  - b. When parking facilities are located adjacent to a building with multiple accessible entrances, accessible parking spaces shall be dispersed and located near the accessible building entrances.
  - c. When practical, the accessible route shall not cross lanes for vehicular traffic. When crossing vehicle traffic lanes is necessary, the accessible route shall be designated and marked as a crosswalk.
  - d. Parking facilities that do not serve a particular building shall have accessible parking spaces located on the shortest accessible route to an accessible pedestrian entrance of the parking facility.
  - e. Accessible parking spaces shall be located so that persons with physical disabilities are not compelled to wheel or walk behind parked cars other than their own.
24. Provide 8'-2" vertical clearances from accessible parking stalls to at ALL entrances, exits and vertical passageways. 1109A.8.1
25. Provide curb or bumper at parking stalls. 1109A.8.2 (1)
26. Ramp and curb ramp shall not encroach into accessible parking and loading and unloading access aisle. 1109A.8.2(2)

27. Surface slopes of accessible parking spaces and access aisles shall be the minimum possible and shall not exceed  $\frac{1}{4}$  inch per foot (2.083% gradient) in any direction. (1109A.8.3)
28. Accessible single spaces shall be constructed in accordance with the following: (1109A.8.5):
  - a. Single spaces shall be minimum 14 feet wide and shall provide a 9 feet wide parking area and a 5 feet wide loading and unloading access aisle.
  - b. Access aisles shall be permitted to be located on either side of the vehicle and shall extend the full require length of the parking spaces they serve.
  - c. When more than one space is provided, two 9 feet wide parking spaces may be lined on each side of a 5-foot wide loading and unloading access aisle.
  - d. The minimum length of each parking space shall be 18 feet.
29. One in every eight accessible spaces, but not less than one, shall be van accessible and shall be constructed in accordance with the following (1109A.8.6):
  - a. Each van-accessible parking space shall be 17 feet wide minimum, and shall provide either of the following:
    - i. A 12 feet wide minimum parking area and a 5-foot wide minimum loading and unloading access aisle.
    - ii. A 9 feet wide minimum parking and an 8-foot wide minimum loading and unloading access aisle.
  - b. Van accessible parking space access aisles shall be located on the passenger side of the vehicle with the vehicle parked in the forward position and shall extend the full required length of the parking space they serve.
  - c. The minimum length of each space shall be 18 feet.
  - d. Each space shall be designated "van accessible" as required by 1109A.8.8.
  - e. All van accessible spaces may be grouped on one level of a multilevel parking facility.
30. The loading and unloading access aisle shall be marked by a border painted blue (1109A.8.5, 1109A.8.6):
  - a. Within the blue border, hatched lines a maximum of 36 inches on center shall be painted a color contrasting with the parking surface, preferably blue or white.
  - b. Minimum 12 inches high words "NO PARKING" shall be painted on the ground within each loading and unloading access aisle.
  - c. The words shall be visible from the adjacent vehicular way.
  - d. See Figures 11A-2A, 11A-2B and 11A-2C.
31. Show and detail required reflective sign consisting of the "International Symbol of Accessibility" complying with Section 1143A.8 for each accessible parking stall. (1109A.8.8.1)
  - a. The sign shall not be smaller than 70 square inches in area and shall be posted 60 inches minimum above the finish floor or ground surface, measured to the bottom of the sign.
  - b. Signs located on accessible routes shall be posted at a minimum height of 80 inches above the finish floor or ground surface of the accessible route, measured to the bottom of the sign. (1109A.8.8.1)
  - c. Signs identifying accessible parking spaces shall be visible from each parking space they serve and shall be permanently posted immediately adjacent to the parking space or within the projected parking space width at the head end of the parking space. Signs may also be permanently posed on a wall at the interior end of the parking space. (1109A.8.8.1)
  - d. Van accessible spaces shall comply with Section 1109A.8.6 and shall have an additional sign or additional language stating "Van Accessible" below the symbol of accessibility.

32. Show and detail the required additional sign to be posted in a conspicuous place at each entrance to off-street parking facilities or immediately adjacent to and visible from each accessible stall or space. The sign shall not be less than 17 inches by 22 inches in size with lettering not less than 1 inch in height and shall clearly and conspicuously state the following (1109A.8.8.1):
  - a. “Unauthorized vehicles parked in designated accessible spaces not displaying distinguishing placards or special license plates issued for persons with disabilities will be towed away at the owner's expense. Towed vehicles may be reclaimed at Police Department, or by telephoning 949-644-3681.”
33. Each accessible parking space shall have a surface identification complying with either of the following (1109A.8.8.2):
  - a. The parking space shall be outlined or painted blue and shall be marked with the “International Symbol of Accessibility” in white or a suitable contrasting color. The “International Symbol of Accessibility” shall be 36 inches wide by 36 inches high minimum, with the centerline 6 inches maximum from the centerline of the parking space, its sides parallel to the length of the parking space, and its lower side aligned with the end of the parking space.
  - b. The parking space shall be marked with the “International Symbol of Accessibility”, in white on a blue background, 36 inches wide by 36 inches high minimum in size. The centerline of the “International Symbol of Accessibility” shall be 6 inches maximum from the centerline of the parking space, its sides shall be parallel to the length of the parking space, and its lower side shall be aligned with the end of the parking space length.
  - c. See Figures 11A-2A, 11A-2B, and 11A-2C.

#### **EXTERIOR ACCESSIBLE ROUTES**

34. Show and delineate accessible path of travel, including minimum width, slope, cross-slope, etc.
35. Walks and sidewalks shall have a continuous common surface, not interrupted by steps or by abrupt changes in level exceeding ½ inch. (1113A.1)
36. Walks and sidewalks serving an individual dwelling unit in a covered multi-family building shall be 36 inches minimum in clear width. All other walks and sidewalks shall be 48 inches minimum in clear width. (1113A.1.1)
37. Walk and sidewalk surface cross slopes shall not exceed 1 unit vertical in 48 units horizontal (2.083-percent slope). (1113A.1.2)
38. All walks on an accessible route with continuous gradients shall have level areas at least 60 inches in length at intervals of at least every 400 feet. (1113A.2)
39. Walks, sidewalks, and pedestrian ways on an accessible route shall be free of gratings whenever possible. For gratings located in the surface of any of these areas, grid openings in gratings shall be limited to ½ inch in the direction of traffic. (1113A.5)
40. When the slope in the direction of travel of any walk exceeds 1 unit vertical to 20 units horizontal (5-percent slope), it shall comply with the provisions of Section 1114A as a pedestrian ramp. (1113A.3)
41. Provide and reference ramp details, including slope, landings, handrails, extensions, etc.
42. Walks on an accessible route shall be provided with a level area at each side of a door or gate. Level areas shall comply with the applicable requirements for maneuvering clearances in Section 1126A.3. (1113A.4)
43. Handrails provided along walking surfaces with running slopes not steeper than 1 unit vertical in 20 units horizontal (5-percent slope) shall comply with Section 1114A.6. (1113A.6)

#### **CURB RAMPS:**

44. Provide and reference curb ramp details including slopes, landing, detectable warnings, etc.
45. Curb ramps shall be a minimum of 48 inches in width. (1112A.3)
46. The slope of curb ramps shall not exceed 1 unit vertical to 12 units horizontal (8.33-percent slope). (1112.5)
47. Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. (1112A.5)
48. Curb ramp is located where pedestrians must walk across the ramp. Detail the required flared sides; the maximum slope of the flare shall be 1 unit vertical in 10 units horizontal (10-percent slope). Curb ramps with returned curbs can be used where pedestrians would not normally walk across the ramp. (1112A.5)
49. Dimension a level landing, 48 inches deep, at the upper end of each curb ramp over its full width to permit safe egress from the ramp surface, or the slope of the fanned or flared sides of the curb ramp shall not exceed 1 unit vertical to 12 units horizontal (8.33-percent slope). (1112A.6)
50. Curb ramps shall be located to prevent their obstruction by parked cars. Built-up curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or the adjacent loading and unloading access aisles. (1112A.2)
51. All curb ramps shall have a grooved border 12 inches wide at the level surface of the sidewalk along the top and each side approximately 3/4 inch on center. All curb ramps constructed between the face of the curb and the street shall have a grooved border at the level surface of the sidewalk. See Figures 11A-3A through 11A-3K. (1112A.8)
52. Show and detail required detectable warnings per Chapter 11B. (1112A.9)

***RAMPS (EXTERIOR OR INTERIOR):***

53. Any path of travel shall be considered a ramp if its slope is greater than 1-unit vertical in 20 units horizontal (5-percent slope).
54. Specify the clear width at each ramp. The clear width must meet the requirements in Chapter 10 of this Code and shall not be less than 48 inches, except at ramps serving accessible entrances to covered multi-family dwellings with an occupant load of 10 or less, which may be 36 inches minimum between handrails. See Section 1114A.6.2.4 and 1122A.5.2.4 for handrail projections. (1114A.1, 1122A.1)
55. The maximum slope of ramps on an accessible route shall be no greater than 1 unit vertical in 12 units horizontal (8.33-percent slope). (1114A.2, 1122A.2) See exception.
56. The cross slope of ramp surfaces shall be no greater than 1 unit vertical in 48 units horizontal (2.083-percent slope). (1114A.2.1, 1122A.2.1)
57. Show and dimension level ramp landings, complying with the following: (1114A.4, 1122A.3)
  - a. Landings shall be provided at the top and bottom of each ramp. Intermediate landings shall be provided at intervals not exceeding 30 inches of vertical rise and at each change of direction. (1114A.4.1, 1122A.3.1)
  - b. Top landings shall not be less than 60 inches wide. Top landings shall have a minimum length of not less than 60 inches in the direction of the ramp run. See Section 1126A.3 for maneuvering clearances at doors. (1114A.4.2, 1122A.3.2)
  - c. The minimum width of bottom and intermediate landings shall not be less than the width of the ramp. (1114A.4.3, 1122A.3.3)
  - d. Intermediate landings shall have a length in the direction of ramp run of not less than 60 inches.
  - e. Bottom landings shall have a length in the direction of ramp run of not less than 72 inches.

- f. Doors in any position shall not reduce the minimum dimension of the landing to less than 42 inches and shall not reduce the required width by more than 3 inches when fully open. See Figure 11A-6D. (1114A.4.4, 1122A.3.4)
  - g. The width of the landing shall comply with Section 1126A.3 for strike edge extension and maneuvering space at doors. (1114A.4.5, 1122A.3.5)
  - h. Intermediate landings at a change of direction shall be sized to provide 60 inches turning space complying with Section 1138A.1.3. Intermediate landings at a change of direction in excess of 30 degrees shall have a length in the direction of ramp run of not less than 72 inches. (See Figures 11A-6C and 11A6D). (1114A.4.6, 1122A.3.6)
58. Ramps more than 30 inches above the adjacent floor or ground and open on one or both sides shall be provided with guardrails as required by Section 1013. Guardrails shall be continuous from the top of the ramp to the bottom of the ramp. (1114A.5, 1122A.4)
59. Ramp handrails shall comply with the following: (1114A.6, 1122A.5)
- a. Handrails shall be provided at each side of ramps when the slope exceeds 1 unit vertical in 20 units horizontal (5-percent slope). (1114A.6.1, 1122A.5.1) See exceptions.
  - b. The top of handrails shall be 34 to 38 inches above the ramp surface. (1114A.6.2.1, 1122A.5.2.2)
  - c. Handrails on all ramps shall be continuous within the full length of each ramp run. Inside handrails on switchback or dogleg ramps shall be continuous between ramp runs. (1114A.6.2.2, 1122A.5.2.2)
  - d. Handrails shall extend a minimum of 12 inches horizontally above landings, beyond the top and bottom of the ramp runs. Extensions shall return to a wall, guard, or the walking surface, or shall be continuous to the handrail of an adjacent ramp run. Handrail extensions shall be in the same direction as the ramp runs. (See Figure 11A-5A) (1114A.6.2.3, 1122A.5.2.3)
  - e. Handrails projecting from a wall shall have a space of 1½ inches minimum between the wall and the handrail. (1114A.6.2.4, 1122A.5.2.4)
  - f. Handrails may be located in a recess if the recess is a maximum of 3 inches deep and extends at least 18 inches above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. See Figure 11A-6B. (1114A.6.2.4, 1122A.5.2.4)
  - g. Handrails shall not rotate within their fittings. (1114A.6.2.7, 1122A.5.2.7)
  - h. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. When provided, horizontal projections shall occur 1½ inches minimum below the bottom of the handrail gripping surface. The distance between horizontal projections and the bottom of the gripping surface shall be permitted to be reduced by 1/8 inch for each ½ inch of additional handrail perimeter dimension that exceeds 4 inches. (1114A.6.2.5, 1122A.5.2.5)
  - i. Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges. (1114A.6.2.5, 1122A.5.2.5)
  - j. Handrail gripping surfaces shall comply with the following, or the shape shall provide equivalent gripping surface: (1114A.6.2.6, 1122A.5.2.6)
    - i. The handrail gripping surfaces with a circular cross section shall not be less than 1¼ inches nor more than 2 inches in cross-sectional dimension.
    - ii. Handrail gripping surfaces with a noncircular cross section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section dimension of 2¼.
60. Ramps and ramp landings shall be provided with a continuous and uninterrupted barrier on each side along the entire length in compliance with Sections 1012.10 and 1012.10.1. (See Figure 11A-5A) (1114A.7, 1122A.6)

- a. A curb shall be not less than 4 inches in height,
- b. Barriers shall be constructed so that the barrier prevents the passage of a 4-inch diameter sphere where the sphere is within 4 inches of the floor or ground surface.

**STAIRWAYS (INTERIOR AND EXTERIOR):**

- 61. Provide enlarged stairway details including rise, run, nosing, handrail, handrail extensions, striping, etc.
- 62. Within the individual dwelling unit(s), show the required stairway handrail(s). Minimum one handrail is required; stairways open on one or both sides shall have handrails on the open side or sides. (1123A.6.1, 1115A.6.1)
- 63. For each stairway outside of the individual dwelling units, show the required handrails at both sides of the stair. (1123A.6.1, 1115A.6.1)
- 64. Intermediate handrails shall be located equidistant from the sides of the stairway and comply with Section 1012.9. (1123A.6.1, 1115A.6.1)
- 65. The top of handrails shall be 34 to 38 inches above the nosing of the treads. (1123A.6.2.1, 1115A.6.2.1)
- 66. Handrails on all stairways shall be continuous within the full length of each stair flight. Inside handrails on switchback or dogleg stairs shall be continuous between stair flights. (1123A.6.2.2, 1115A.6.2.2)
- 67. At the top of stair flights, handrails shall extend a minimum of 12 inches horizontally above landings, beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the walking surface, or shall be continuous to the handrail of an adjacent stair flight. (1123A.6.2.3, 1115A.6.2.3)
- 68. At the bottom of stair flights, handrails shall extend at the slope of the stair flight for a distance equal to one tread depth beyond the last riser nosing. Such extension shall continue with 12 inches minimum horizontal extension, shall be continuous to the handrail of an adjacent stair flight, or shall return to the wall, guard, or the walking surface. Handrail horizontal extensions shall be in the same direction as the stair flights. (See Figures 11A-6A and 11A-6E) (1123A.6.2.3, 1115A.6.2.3)
- 69. Handrails projecting from a wall shall have a space of 1½ inches minimum between the wall and the handrail. Handrails may be located in a recess if the recess is a maximum of 3 inches deep and extends at least 18 inches above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. See Figure 11A-6B. (1123A.6.2.4, 1115A.6.2.4)
- 70. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. When provided, horizontal projections shall occur 1½ inches minimum below the bottom of the handrail gripping surface. The distance between horizontal projections and the bottom of the gripping surface shall be permitted to be reduced by 1/8 inch for each ½ inch of additional handrail perimeter dimension that exceeds 4 inches.
- 71. Handrail gripping surfaces with a circular cross section shall be not less than 1¼ inches nor more than 2 inches in cross-sectional dimension (1123A.6.2.5, 1115A.6.2.5)
- 72. Handrail gripping surfaces with a noncircular cross section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section dimension of 2¼ inches maximum. (1123A.6.2.5, 1115A.6.2.5)
- 73. The nosing shall not project more than 1¼ " past the face of the riser below. Risers shall be sloped or the underside of the nosing shall have an angle not more than 30 degrees from the vertical. See Figure 11A-6A. (1123A.4, 1115A.4)
- 74. Exterior stairs serving buildings on a site containing multi-family dwelling units shall have the upper approach and all treads marked by a stripe providing clear visual contrast. (1115A.5)
- 75. Except within an individual dwelling unit, interior stairs shall have the upper approach and lower tread marked by a stripe providing clear visual contrast. (1123A.5)



76. Required stair stripes shall be a minimum of 2 inches wide to a maximum of 4 inches wide placed parallel to, and not more than 1 inch from, the nose of the step or upper approach. The stripe shall extend the full width of the step or upper approach and shall be of material that is at least as slip resistant as the other treads of the stair. A painted stripe shall be acceptable. Grooves shall not be used to satisfy this requirement. (1123A.5, 1115A.5)
77. Open risers are not permitted on exterior stairways. (1115A.2)
  - a. An opening of not more than ½ inch may be permitted between the base of the riser and the tread.
  - b. Risers constructed of grating containing openings of not more than ½ inch may be permitted.
78. Except within an individual dwelling unit, open risers are not permitted on interior stairways. (1123A.2)

**HAZARDS ON ACCESSIBLE ROUTES (INTERIOR AND EXTERIOR):**

79. Abrupt changes in level exceeding 4 inches in vertical dimension, such as changes in level at planters or fountains located in or adjacent to walks, sidewalks, or other pedestrian ways, shall be identified by curbs or other approved barriers projecting at least 6 inches in height above the walk or sidewalk surface to warn the blind of a potential drop-off. (1116A.1)
80. If the vertical clearance of an area adjoining an accessible route is reduced to less than 80 inches, a guardrail or other barrier having its leading edge at or below 27 inches above the finished floor shall be provided. See Figure 11A-1B. (1116A.2) See exception.
81. Any obstruction that overhangs a pedestrian way shall be a minimum of 80 inches above the walking surface as measured from the bottom of the obstruction. (1116A.3)
82. When a walk crosses or adjoins a vehicular way, the walking surface shall be separated from the vehicular area by curbs, railings, or other elements, or the boundary between the pedestrian areas and the vehicular areas shall be defined by a continuous detectable warning 36 inches wide minimum, complying with Chapter 11B, Section 11B-705. (1116A.5)

**<DIVISION III – BUILDING FEATURES>**

**ELEVATORS AND PLATFORM (WHEELCHAIR) LIFTS (ALSO SEE PROVISIONS IN SECTION 1124A):**

83. Elevators provided in covered multi-family buildings shall be accessible. Elevators required to be accessible shall comply with Section 1124A, ASME A17.1, Safety Code for Elevators and Escalators, Title 8, of the California Code of Regulations, under “Elevator Safety Orders,” and any other applicable safety regulations of other administrative authorities having jurisdiction.

**Exception:** Private elevators serving only one dwelling unit. (1124A.1)

84. Size of cab and control locations (1124A.3):

- a.

85. Other provisions 1124A.4 – 1124A.10):

- a.

**DOORS, GATES AND WINDOWS:**

86. Doorways which provide access to common use areas or covered multi-family dwellings shall comply with the following: (1126A.1)
  - a. Permit the installation of a door or gate not less than 36 inches in width, not less than 80 inches in height, and provide a clear opening of not less than 32 inches, measured with the door positioned at an angle of 90 degrees from its closed position.
  - b. Doors or gates shall be capable of opening at least 90 degrees.

- c. A pair of doors or gates, manual or automatic, shall have at least one leaf which provides a clear width of not less than 32 inches, measured with the door or gate positioned at an angle of 90 degrees from its closed position.
  - d. The width of any component in the egress system shall not be less than the minimum width required by Section 1005.
  - e. Revolving doors or gates shall not be used as required entrances for persons with disabilities and shall not be part of an accessible route.
  - f. The floor or landing on each side of an exit door or gate shall be level. See Chapter 10.(1126A.2)
  - g. The floor or landing shall not be more than ½ inch lower than the top of the threshold of the doorway. (1126A.2.1, Fig.11A-8I)
87. The minimum maneuvering clearance at doors or gates shall comply with Sections 1126A.3.2, 1126A.3.3, and 1126A.3.4. The floor or landing area within the required maneuvering clearance shall be level and clear. The required length shall be measured at right angles to the plane of the door or gate in its closed position. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearances (strike edge maneuvering clearances). (1126A.3.1)
  88. At each swinging door and gate, show and dimension required maneuvering clearances compliance with the following; (1126A.3.2), (Figure 11A-8A(a), 11A-8a(b))
  89. Provide strike edge maneuvering space as marked on plan.
  90. Dimension the minimum space between the two hinged or pivoted doors or gates in series. Provide a minimum of 48 inches plus the width of the door or gate swinging into the space for areas other than a required exit stairway and 60 inches minimum where the door or gate opens into a stair or smoke proof enclosure. See Figures 11A-8G and 11A-8H. (1126A.3.3)
  91. At doorways less than 36 inches wide without doors or gates, sliding doors, or folding doors, dimension maneuvering clearances complying with (1126A.3.4), Figures 11A-8B (a) through (d) & Figure 11A-8C
  92. Hand-activated door or gate latching, locking and opening hardware shall be centered between 34 inches and 44 inches above the floor. (1010.1.9.2, 1126A.6)
  93. Latching and locking doors that are hand-activated and on an accessible route shall be operable with a single effort by lever type hardware, panic bars, push-pull activating bars or other hardware designed to provide passage without requiring the ability to grasp the opening hardware. Locked exit doors or gates shall operate consistent with Section 1126A.4, in the direction of egress. (1010.1.9.2, 1126A.6)
  94. When sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides. (1126A.6)
  95. The lever or lever of actuated latches or locks shall be curved with a return to within ½ inch of the door or gate to prevent catching on the clothing of persons during egress. (1126A.6.1)
  96. Swinging door or gate surfaces within 10 inches of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch of the same plane as the other and be free of sharp or abrasive edges. Cavities created by added kick plates shall be capped. (1126A.7) See exceptions.
  97. Where glazed openings are provided in accessible rooms or spaces for operation by occupants, at least one opening shall comply with Section 1138A.4 Controls and Operating Mechanisms. Each glazed opening required be operable shall comply with Section 1138A.4.

**COMMON USE FACILITIES:**

98. When provided, common use areas and facilities in covered multi-family housing developments shall be accessible to persons with disabilities. Common use facilities include, but are not limited

to, lobbies, toilet and bathing facilities, laundry facilities, community rooms, club-houses, health and fitness facilities, game rooms, and portions of common use tenant storage. All entrances, doors, fixtures and controls shall be on an accessible route. (1127A.1)

**COMMON TOILET FACILITIES:**

99. When common use toilet facilities are provided for residents or guests, at least one percent of the total number of fixtures but not less than one of each type shall comply with the following correction items. (1127A.2)

**Multiple-accommodation toilet facilities:** (1127A.2.1, Figures 11A-9A and 11A-9B)

100. Turning space of sufficient size to inscribe a circle with a diameter not less than 60 inches or a T-shaped space shall be provided within the toilet facility. The wheelchair turning space shall comply with Section 1138A.1.3. Other than the door to the accessible water closet compartment, a door, in any position, may encroach into this space by not more than 12 inches.
101. Doors shall not swing into the clear floor space required for any fixture. Required clear floor space, clearance at fixtures, and turning space shall be permitted to overlap.
102. Accessible water closet compartments shall be 60 inches wide minimum measured perpendicular to the side wall, 56 inches deep minimum for wall hung water closets and 59 inches deep minimum for floor mounted water closets measured perpendicular to the rear wall. See Figure 11A-9A(c).
103. Water closet fixtures located in accessible water closet compartments shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 17 inches minimum to 18 inches maximum from the side wall or partition.
104. In ambulatory accessible toilet compartments, the water closet shall be 17 inches minimum and 19 inches maximum from the side wall or partition. See Figure 11A-9A (d).
105. Clearance around a water closet shall be 60 inches minimum measured perpendicular from the side wall and 56 inches minimum measured perpendicular from the rear wall. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet clearance.
106. A minimum 48 inches deep and 60 inches wide clear maneuvering space shall be provided in front of the water closet if the compartment has an end-opening door (facing the water closet). A minimum 60 inches deep and 60 inches wide clear maneuvering space shall be provided in a compartment with the door located at the side. See Figure 11A-9A.
107. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall and shall comply with the following:
- a. The side wall grab bar shall be 42 inches long minimum, located 12 inches maximum from the rear wall and extend 54 inches minimum from the rear wall. The front end of the side grab bar shall be positioned 24 inches minimum in front of the water closet.
  - b. The rear wall grab bar shall be 36 inches long minimum and extend from the centerline of the water closet 12 inches minimum on one side and 24 inches minimum on the other side. See exceptions.
108. Compartment doors shall comply with the following:
- a. The water closet compartment shall be equipped with a door that has an automatic-closing device, and shall have a clear, unobstructed opening width of 32 inches when located at the end and 34 inches when located at the side with the door positioned at an angle of 90 degrees from its closed position.
  - b. When standard compartment doors are used, with a minimum 9 inch clearance for footrests underneath and a self-closing device, clearance at the strike edge as specified in Section 1126A.3.2 is not required.

- c. The inside and outside of the compartment door shall be equipped with a loop or U-shaped handle immediately below the latch. The latch shall be flip-over style, sliding, or other hardware not requiring the user to grasp or twist.
  - d. Except for door-opening widths and door swings, a clear, unobstructed access of not less than 44 inches shall be provided to water closet compartments designed for use by persons with disabilities and the space immediately in front of a water closet compartment shall not be less than 48 inches as measured at right angles to compartment door in its closed position.
  - e. Doors shall be located in the front or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches maximum from the side wall or partition. Where located in the side wall or partition, the door opening shall be 4 inches maximum from the front wall or partition.
109. When six or more toilet compartments are provided within a multiple-accommodation toilet room, or when the combination of urinals and water closets totals six or more fixtures:
- a. Provide least one accessible water closet compartment in accordance with Section 1127A.2.1, Items 2 and 3.
  - b. Provide at least one additional ambulatory compartment having a depth of 60 inches minimum, and a width of 35 inches minimum and 37 inches maximum.
110. The ambulatory accessible compartment shall have a self-closing door, which shall not swing into the minimum required compartment area. Grab bars, complying with Sections 1127A.4.2, 1127A.4.3, 1127A.4.4 and 1127A.4.5, shall be installed on each compartment side wall. See Figure 11A-9A (d).

***Single-accommodation toilet facilities: (1127A.2.2, Figures 11A-9A and 11A-9B)***

111. There shall be sufficient space in the toilet room for a wheelchair measuring 30 inches wide by 48 inches long to enter the room and permit the door to close. There shall be in the room a clear turning space of at least 60 inches in diameter, or a T-shaped space complying with Section 1138A.1.3. Required clear floor space, clearances at fixtures, and turning space shall be permitted to overlap. Doors shall not encroach into this required turning space by more than 12 inches.
112. A water closet fixture located in a single-accommodation toilet facility shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 17 inches minimum to 18 inches maximum from the side wall or partition.
113. Clearance around a water closet shall be 60 inches minimum measured perpendicular from the side wall and 56 inches minimum measured perpendicular from the rear wall.
- a. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space.
  - b. No other fixtures or obstructions shall be located within the required water closet clearance.
114. A minimum 48 inches deep and 60 inches wide clear maneuvering space shall be provided in front of the water closet.
115. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall. Show and detail grab bars, compliant with Sections 1127A.2.2 and 1127A.4.
- a. The side wall grab bar shall be 42 inches long minimum, located 12 inches maximum from the rear wall and extend 54 inches minimum from the rear wall. The front end of the side grab bar shall be positioned 24 inches minimum in front of the water closet.
  - b. The rear wall grab bar shall be 36 inches long minimum and extend from the centerline of the water closet 12 inches minimum on one side and 24 inches minimum on the other side.

116. All doors, fixtures and controls shall be on an accessible route. The minimum clear width of an accessible route shall be 36 inches except at doors (See Section 1126A). If a person in a wheelchair must make a turn around an obstruction, the minimum clear width of the accessible route shall be as specified in Section 1138A.1.5.

**Accessible Water Closets:** (1127A.2.3, Figure 11A-9B)

117. The height of accessible water closets shall be a minimum of 17 inches to a maximum of 19 inches measured to the top of a maximum 2-inch high toilet seat.
118. Flush controls shall be hand operated or automatic.
- Hand operated controls shall be operable with one hand and shall not require tight grasping, pinching or twisting.
  - Controls for the flush valves shall be mounted on the open side of the water closet no more than 44 inches above the floor.
  - The force required to activate controls shall be no greater than 5 pounds.

**Accessible Urinals:** (1127A.2.4)

119. Urinals shall be floor mounted (stall type) or wall hung. The rim of the wall hung urinals shall be 17 inches maximum above the finish floor. Urinals (floor mounted and wall hung) shall be 13½ inches deep minimum measured from the outer face of the rim to the back of the fixture.
120. Flush controls shall be hand operated or automatic.
- Hand operated controls shall be operable with one hand, shall not require tight grasping, pinching or twisting of the wrist and shall be mounted no more than 44 inches above the floor.
  - The force required to activate controls shall be no greater than 5 pounds.
  - Electronic automatic flushing controls are preferable.
121. A clear floor space 30 inches by 48 inches shall be provided in front of the urinal to allow forward approach. The clear floor space shall comply with Section 1138A.1.4.

**Accessible Lavatories:**

122. When common use lavatories are provided for residents or guests, at least one, and not less than 1 percent of all lavatories, shall comply with the following: (1127A.3)
123. Lavatories shall be installed with the centerline of the fixture a minimum of 18 inches horizontally from an adjoining wall, partition or fixture. The top of the fixture rim shall be a maximum of 34 inches above the finished floor.
124. A clear floor space at least 30 inches by 48 inches shall be provided in front of accessible lavatories to allow forward approach. Such clear floor space shall adjoin or overlap an accessible route or another clear floor space.
125. A clear and obstructed knee and toe space, complying with Section 1138A.2, shall be provided underneath the lavatory. The knee and toe space shall be centered on the fixture. The clear floor space required shall not extend into the knee and toe space more than 19 inches. See Figure 11A-9D.
126. The finished floor beneath the lavatory shall be extended to the wall.
127. Water supply and drain-pipes under lavatories shall be insulated or otherwise covered to protect against contact. There shall be no sharp or abrasive surfaces under lavatories.

**Grab bars, Tub and Shower seats, Fasteners, and mounting devices:**

128. Include dimensions on plan/details showing grab bars complying with following (1127A.4):

- a. Grab bars shall be installed in a horizontal position, 33 inches minimum and 36 inches maximum above the finish floor measured to the top of the gripping surface. See exception.
- b. Grab bars with circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum.
- c. Grab bars with non-circular cross section shall have a cross-section dimension of 2 inches maximum. The perimeter dimension of grab bars with non-circular cross section shall be 4 inches minimum and 4.8 inches maximum.
- d. When grab bars are mounted adjacent to a wall, the space between the wall and the grab bars shall be 1½ inches. (See Figure 11A-9C). The space between the grab bar and projecting objects below and at the ends shall be 1½ inches minimum. The space between the grab bar and projecting objects above shall be 12 inches minimum. See exceptions.

**COMMON BATHING FACILITIES:**

129. When common use bathing facilities are provided for residents or guests, including showers, bathtubs or lockers, at least one of each type of fixture in each facility, and not less than 1 percent of all fixtures, shall comply with the following: (1127A.5.1)

**Accessible Bathtubs: (1127A.5.2)**

130. Clearance in front of bathtubs shall extend the length of the bathtub and shall be 48 inches wide minimum for forward approach and 30 inches wide minimum for parallel approach. A lavatory complying with Section 1127A.3 shall be permitted at the control end of the clearance. When a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches minimum beyond the wall at the head end of the bathtub. See Figure 11A-9E. (1127A.5.2.1)
131. A removable in-tub seat or a permanent seat at the head end of the tub shall be provided. The structural strength of seats and their attachments shall comply with Section 1127A.4.4. Seats shall be mounted securely and shall not slip during use. The top of bathtub seats shall be 17 inches minimum and 19 inches maximum above the bathroom finish floor. The depth of a removable in-tub seat shall be 15 inches minimum and 16 inches maximum. Permanent seats at the head end of the bathtub shall be 15 inches deep minimum and shall extend from the back wall to or beyond the outer edge of the bathtub. See Figure 11A-9E. (1127A.5.2.2)
132. Grab bars complying with Section 1127A.4 shall be provided in accordance with the following: (See Figure 11A-9F.) When separate grab bars are required on adjacent walls at a common mounting height, an L-shaped or U-shaped grab bar meeting the dimensional requirements of this section shall be permitted. (Section 1127A.5.2.3).
- a. At bathtubs with permanent seats: Two horizontal grab bars shall be installed on the back wall. One shall be located 33 inches minimum and 36 inches maximum above the finish floor measured to the top of the gripping surface, and the other shall be located 8 inches minimum and 10 inches maximum above the rim of the bathtub. Each grab bar shall be 48 inches long minimum and shall be installed 15 inches maximum from the head end wall and 12 inches maximum from the control end wall. A grab bar 24 inches long minimum shall be installed on the control end wall at the front edge of the bathtub.
  - b. At bathtubs with removable seats: Two horizontal grab bars shall be installed on the back wall. One shall be located 33 inches minimum and 36 inches maximum above the finish floor measured to the top of the gripping surface, and the other shall be located 8 inches minimum and 10 inches maximum above the rim of the bathtub. Each grab bar shall be 24 inches long minimum and shall be installed 24 inches maximum from the head end wall and 12 inches maximum from the control end wall. A grab bar 24 inches long minimum shall be installed on the control end wall at the front edge of the bathtub. A grab bar 12 inches long minimum shall be installed on the head end wall at the front edge of the bathtub.

133. Faucets and controls (other than drain stoppers) shall be located on an end wall between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub. (1127A.5.2.4, Figure 11A-9F)
134. Controls shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 pounds. (1127A.5.2.4)
135. A shower spray unit with a hose at least 59 inches long that can be used both as a fixed shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of the grab bars. (1127A.5.2.5)
136. When provided, enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units, or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the open face of the bathtub. (1127A.5.2.6).

**Accessible Showers Compartments:** (1127A.5.3, Figures 11A-9H, 11A-9I, 11A-9J and 11A-9K)

137. Standard roll-in shower compartments shall meet one of the following: (Section 1127A.5.3.1)
  - a. 30 inches minimum in depth and 60 inches minimum in width between wall surfaces measured at center points of opposing sides, with a full opening width on the long side. A clear floor space 30 inches minimum by 60 inches minimum shall be provided adjacent to the open face of the shower compartment.
  - b. 42 inches in width between wall surfaces, and 48 inches minimum in depth with an entrance opening of 42 inches.
138. Alternate roll-in shower compartments shall be 36 inches minimum in depth and 60 inches minimum in width between wall surfaces measured at center points of opposing sides. A 36-inch wide minimum entry shall be provided at one end of the long side of the compartment.
139. Thresholds in roll-in shower compartments shall be ½ inch maximum in height and shall be beveled with a slope no greater than one unit vertical in two units horizontal (50-percent slope). Changes in level not exceeding ¼ inch shall be permitted to be vertical. (See Figure 11A-1F.) (1127A.5.3.2)
140. Enclosures, when provided for shower compartments, shall not obstruct controls, faucets, shower spray units, and transfer from wheelchairs onto shower seats. (1127A.5.3.3)
141. Shower compartment floor surfaces shall be stable, firm and slip resistant. The maximum slope of the floor shall be ¼ inch per foot (2.083 percent slope) in any direction. When drains are provided, grate openings shall be ¼ inch maximum and located flush with the floor surface. (1127A.5.3.4)
142. In standard roll-in shower compartments: (1127A.5.3.5.1)
  - a. Operable parts of controls and faucets shall be installed on the back wall of the compartment adjacent to the seat wall, 19 inches minimum and 27 inches maximum from the seat wall.
  - b. Operable parts of controls and faucets shall be located above the grab bar, but no higher than 48 inches above the shower floor, with their centerline at 39 inches minimum and 41 inches maximum above the shower floor.
  - c. Operable parts of the shower spray unit, including the handle, shall be installed on the back wall adjacent to the seat wall, 19 inches minimum and 27 inches maximum from the seat wall.
  - d. Operable parts of the shower spray unit, including the handle, shall be located above the grab bar, but no higher than 48 inches above the shower floor (measured to the top of the mounting bracket).
143. In alternate roll-in shower compartments: (1127A.5.3.5.2)

- a. Operable parts of controls and faucets shall be installed on the side wall of the compartment adjacent to the seat wall, 19 inches minimum and 27 inches maximum from the seat wall.
  - b. Operable parts of controls and faucets shall be located above the grab bar, but no higher than 48 inches above the shower floor, with their centerline at 39 inches minimum and 41 inches maximum above the shower floor.
  - c. Operable parts of the shower spray unit, including the handle, shall be installed on the following locations (1127A.5.3.5.2):
    - i. On the side wall of the compartment adjacent to the seat wall, 17 inches minimum and 19 inches maximum from the seat wall; or
    - ii. On the back wall opposite the seat, 15 inches maximum, left or right, of the centerline of the seat.
    - iii. Operable parts of the shower spray unit, including the handle, shall be located above the grab bar, but no higher than 48 inches above the shower floor.
144. A flexible hand-held shower spray unit with a hose at least 59 inches long that can be used both as a fixed shower head and as a hand-held shower shall be provided. (1127A.5.3.6)
- a. The shower spray unit shall have an on/off control with a non-positive shut-off.
  - b. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars.
145. When accessible shower facilities are provided in areas subject to excessive vandalism, in lieu of providing the fixed flexible hose, two wall-mounted shower heads shall be installed. Each shower head shall be installed so that it can be operated independently of the other and shall have swivel angle adjustments, both vertically and horizontally. One shower head shall be located at a height of 48 inches maximum above the floor. (1127A.5.3.6.1)
146. A seat in a standard roll-in shower compartment shall be a folding type, installed on the side wall adjacent to the controls. The seat shall extend from the back wall to a point within 3 inches of the compartment entry. (1127A.5.3.7)
147. A seat in an alternate roll-in type shower compartment shall be a folding type, installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches of the compartment entry. (1127A.5.3.7)
148. Shower compartment seats shall comply with Section 1127A.4.4 and shall be located within 27 inches of the shower controls. The top of the seat shall be 17 inches minimum and 19 inches maximum above the bathroom finish floor. When folded, the seat shall not extend more than 6 inches from the mounting wall. (1127A.5.3.7)
149. The rear edge of a rectangular seat shall be 2½ inches maximum from the seat wall. The front edge of a rectangular seat shall be 15 inches minimum and 16 inches maximum from the seat wall. The side edge of the seat shall be 1½ inches maximum from the adjacent wall. (1127A.5.3.7.1)
150. The rear edge of an L-shaped seat shall be 2½ inches maximum from the seat wall. The front edge of an L-shaped seat shall be 15 inches minimum and 16 inches maximum from the seat wall. The rear edge of the “L” portion of the seat shall be 1½ inches maximum from the wall. The front edge shall be 14 inches minimum and 15 inches maximum from the wall. The end of the “L” shall be 22 inches minimum and 23 inches maximum from the main seat wall. (1127A.5.3.7.2)
151. Accessible shower compartments shall be provided with grab bars, installed in accordance with Section 1127A.5.3.8.1 or Section 1127A.5.3.8.2. Grab bars shall also comply with Section 1127A.4.
152. When multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the finish floor. When separate grab bars are required on adjacent walls at a common mounting height, L-shaped or U-shaped grab bars meeting the dimensional requirements of Section 1127A.5.3.8.1 or Section 1127A.5.3.8.2 shall be permitted. See Figure 11A-9H or Figure 11A-9I. (1127A.5.3.8)



153. In standard roll-in shower compartments, grab bars shall be installed on the back wall and on the side wall opposite the seat. Grab bars above the seat are not permitted. Grab bars shall be installed 6 inches maximum from adjacent walls. (1127A.5.3.8.1)
154. In alternate roll-in shower compartments, grab bars shall be installed on the back wall and the side wall farthest from the compartment entry. Grab bars above the seat are not permitted. Grab bars shall be installed 6 inches maximum from adjacent walls. (1127A.5.3.8.2)
155. When a soap dish is provided, it shall be located on the control wall at a maximum height of 40 inches above the shower floor, and within the reach limits from the seat. (1127A.5.3.9)
156. When no separate shower compartments are provided, the shower for persons with disabilities shall be located in a corner with L-shaped grab bars extending along two adjacent walls with a folding seat adjacent to the shower controls. (See Figure 11A-9J.) (1127A.5.3.10)
157. When two or more accessible showers are provided within the same functional area, there shall be at least one shower constructed opposite hand from the other or others (i.e., one left-hand control versus right-hand controls). (1127A.5.3.11)

**Lockers:**

158. Where lockers are provided for residents or guests, at least one locker and not less than 1 percent of all lockers shall be accessible to persons with disabilities. An accessible route not less than 36 inches in clear width shall be provided to these lockers. See Section 1138A for required clear space, allowable reach ranges and requirements for control and operating mechanisms. (1127A.6.1)

**Signs:**

159. All accessible toilet and bathing facilities shall be identified by the "International Symbol of Accessibility." Signs need not be provided for facilities within a dwelling unit or guestroom. (1127A.7.1)
160. Doorways leading to sanitary facilities (toilet or bathing rooms) shall be identified by geometric symbols centered horizontally on the door at a height of 58 inches minimum and 60 inches maximum above the finish floor measured to the center of the symbol. When a door is provided, the symbol shall be mounted within 1 inch of the vertical centerline of the door.
161. Directional signs indicating the location of the nearest accessible toilet or bathing rooms shall be provided. Such directional signs shall comply with Section 1143A.5 and shall include the International Symbol of Accessibility.
162. Edges of accessibility signage shall be rounded, chamfered or eased. Corners shall have a minimum radius of 1/8 inch. See Section 1143A for additional signage requirements applicable to sanitary facilities. (1127A.7.2)
163. Men's sanitary facilities shall be identified by an equilateral triangle, ¼ inch thick with edges 12 inches long and a vertex pointing upward. The triangle symbol shall contrast with the door, either light on a dark background or dark on a light background. (1127A.7.2.1)
164. Women's sanitary facilities shall be identified by a circle, ¼ inch thick and 12 inches in diameter. The circle symbol shall contrast with the door, either light on a dark background or dark on a light background. (1127A.7.2.2)
165. Unisex sanitary facilities shall be identified by a circle, ¼ inch thick and 12 inches in diameter with a ¼ inch thick triangle superimposed on the circle and within the 12-inch diameter. The triangle symbol shall contrast with the circle symbol, either light on a dark background or dark on a light background. The circle symbol shall contrast with the door, either light on a dark background or dark on a light background. (1127A.7.2.3)

**TOILET ROOM FIXTURES AND ACCESSORIES:**

166. Where towel, sanitary napkins, waste receptacles, and other similar dispensing and disposal fixtures are provided, at least one of each type shall be located with all operable parts, including coin slots, within 40 inches from the finished floor. Controls and operating mechanisms shall comply with Section 1138A.4. (1127A.8.1)

- 167. Toilet tissue dispensers shall be located on the wall or partition closest to the water closet, 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be below the grab bar, 19 inches (minimum above the finish floor). The outlet of the dispenser shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. (See Figure 11A-9B). (1127A.8.2)
- 168. Where mirrors are provided, at least one shall be accessible. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches maximum above the finish floor. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches maximum above the finish floor. (1127A.8.3)

**FIXED OR BUILT-IN SEATING, TABLES, AND COUNTERS:**

- 169. Where fixed or built-in seating, tables, or counters are provided for residents or guests, 5 percent, but not less than one, shall be accessible. (1127A.12.1)
- 170. When seating spaces for persons in wheelchairs are provided at fixed tables or counters, clear floor space complying with Section 1138A.1.4 positioned for a forward approach shall be provided. Such clear floor space shall not overlap the required knee and toe space by more than 19 inches. See Figure 11A-1K. (1127A.12.2)
- 171. When seating for persons in wheelchairs is provided at fixed tables or counters, knee and toe space complying with Section 1138A.2 shall be provided. See Figure 11A-1K. (1127A.12.3)
- 172. The tops of tables and counters shall be 28 inches to 34 inches from the finish floor. (1127A.12.4)

**<DIVISION IV – DWELLING UNIT FEATURES>**

- 173. Provide an accessible route in all rooms and spaces of the dwelling unit. The accessible route shall pass through the primary entry door, and shall connect with all additional exterior doors, required clear floor spaces at kitchen appliances, and bathroom fixtures. For this requirement, “accessible routes” may include hallways, corridors, and ramps. (1130A.1)
- 174. Provide 36 inches wide accessible route into and throughout covered multi-family dwelling units. (1130A.2)

**CHANGES IN LEVEL ON ACCESSIBLE ROUTES:**

- 175. Note and detail on the plans: Abrupt changes in level along any accessible route shall not exceed ½ inch. When changes in level do occur, they shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50-percent slope). Changes in level not exceeding ¼ inch may be vertical. (1131A.1)
- 176. Changes in level greater than ½ inch shall be made by means of a sloped surface not greater than 1 unit vertical in 20 units horizontal (5-percent slope), or a ramp, elevator or platform (wheelchair) lift. (1131A.2)

**DWELLING UNIT DOORS:**

- 177. Primary entry doors and required exit doors shall comply with Section 1126A.1 for the width and height. (1132A.1)
- 178. The requirements of Sections 1126A.3 shall apply to maneuvering clearances at the side of the door exposed to common or public use spaces (e.g., entry or exit doors which open from the covered multi-family dwelling unit into a corridor, hallway or lobby, or directly to the outside). (1132A.1)
- 179. Interior and secondary exterior doors shall comply with the following: (1132A.3)
  - a. Doors shall not be less than 6 feet 8 inches in height.

- b. Swinging doors shall provide a net clear opening width of not less than 32 inches, measured with the door or doors positioned at an angle of 90 degrees from the closed position.
  - c. Swinging doors shall be capable of opening at least 90 degrees.
  - d. A nominal 32-inch clear opening provided by a standard 6-foot wide sliding patio door assembly is acceptable.
  - e. A pair of doors, manual or automatic, must have at least one leaf which provides a clear width of not less than 32 inches, measured with the door positioned at an angle of 90 degrees from its closed position.
  - f. The width of any component in the means of egress system shall not be less than the minimum width required by Section 1005.
180. Provide level floor or landing on each side of the door. Primary entry doors, required exit doors, or secondary exterior doors with changes in height between the interior surface or floor level and the exterior surface or floor level shall comply with the following: (1132A.4)
- a. Exterior landings of impervious construction (e.g., concrete, brick, flagstone) serving primary entry doors and required exit doors are limited to not more than ½ inch of change in height between floor surfaces. Changes in level shall comply with Section 1131A.
  - b. Exterior landings of pervious construction (e.g., wood decking with spaces) shall be the same level as the interior landing, except that secondary exterior doors may have no more than ½ inch of change in height between floor surfaces. Changes in level shall comply with Section 1131A.
  - c. Secondary exterior doors onto decks, patios, or balcony surfaces constructed of impervious materials (e.g., concrete, brick, flagstone) may have a maximum change in height from the interior landing of 4 inches. Changes in height greater than ½ inch shall be accomplished by means of a ramp complying with Section 1114A or by means of a platform constructed to the level of the floor as illustrated in Figure 11A-8J.
  - d. Secondary exterior doors onto decks, patios or balcony surfaces constructed of impervious materials (e.g., concrete, brick, flagstone) may have a maximum change in height from the interior landing of 1 inch, provided a ramp with maximum slope of 1:8 is permanently installed. (See Figure 11A-8K).
  - e. In buildings containing covered multi-family dwelling units, the floor or landing immediately outside the entry may be sloped up to ¼ inch per foot (12 inches), in a direction away from the primary entrance of the dwelling unit for drainage.
181. Provide max. ½ inch threshold at the primary entry and required exit doors. Provide max. ¾ inch threshold at secondary exit doors, including sliding door tracks. Changes in height at interior door thresholds (e.g. floor material changes at door thresholds) shall not exceed ½ inch. Thresholds shall comply with the following: (1132A.4.1)
- a. Thresholds with a change in height of not more than ¼ inch may be vertical.
  - b. Thresholds with a change in height between ¼ inch and ¾ inch shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50-percent slope).
182. Provide minimum 42-inches maneuvering clearances on both sides of interior doors measured at a right angle to the plane of the door in its closed position, except a 39-inch length is acceptable at interior doors when a minimum clear opening width of 34 inches is provided. (1132A.5.1)
183. Maneuvering clearances at interior doors shall provide a minimum length on both sides of the door of at least 42 inches measured at a right angle to the plane of the door in its closed position, except a 39-inch length is acceptable at interior doors when a minimum clear opening width of 34 inches is provided. (1132A.5.1)
184. Provide 18 inches (24 inches preferred) minimum strike edge clearance for all doors on the width of the level area on the side to which the door swings. The width of the level area at the exterior side of the primary entry door and any required exit doors shall comply with Section 1126A. (1132A.5.2)

185. The maximum effort to operate doors shall not exceed 8½ pounds for exterior doors and 5 pounds for interior doors, such pull or push effort being applied at right angles to hinged doors and at the center plane of sliding or folding doors. Compensating devices or automatic door operators may be utilized to meet these standards. When fire doors are required, the maximum effort to operate the door may be increased to the minimum allowable by the appropriate enforcement agency, not to exceed 15 pounds. (1132A.6)
186. Hand-activated door latching, locking, and opening hardware shall be centered between 34 inches and 44 inches above the floor. Latching and locking doors that are hand-activated and on an accessible route shall be operable with a single effort by lever-type hardware, panic bars, push-pull activating bars, or other hardware designed to provide passage without requiring the ability to grasp the opening hardware. Locked exit doors shall operate consistent with Section 1132A.6, in the direction of egress. (1010.1.9.2, 1132A.8)
187. The lever or lever of actuated latches or locks shall be curved with a return to within ½ inch of the door to prevent catching on the clothing of persons during egress in Group R and U Occupancies with an occupant load greater than 10. (1132A.8.1)
188. Swinging door or gate surfaces within 10 inches of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch of the same plane as the other and be free of sharp or abrasive edges. Cavities created by added kick plates shall be capped. (1132A.9) See exceptions.
189. Every primary entrance to a covered multi-family dwelling unit shall be provided with a door buzzer, bell, chime or equivalent. The activating mechanism shall be mounted a maximum of 48 inches above the floor and connected to permanent wiring. (1132A.10)

**DWELLING KITCHENS:**

190. Kitchens shall be on an accessible route. (1133A.1) See Figure 11A-10A.
191. Provide clear floor space at kitchens, complying with the following (1133A.2):
  - a. A clear floor space at least 30 inches by 48 inches that allows a parallel approach by a person in a wheelchair shall be provided at the range or cook-top.
  - b. A clear floor space at least 30 inches by 48 inches that allows either a parallel or forward approach shall be provided at the kitchen sink and all other fixtures or appliances including the oven, dishwasher, refrigerator/freezer and trash compactor.
  - c. A clear floor space at least 30 inches by 48 inches that allows either a parallel or a forward approach shall be provided at the work surface required by Section 1133A.4.
  - d. The centerline of the 30 inches by 48 inches clear floor space provided for parallel or forward approach shall be aligned with the centerline of the workspace, appliance or fixture.
192. Kitchens shall have a minimum clear width measured between any cabinet, countertop, or the face of any appliance (excluding handles and controls) that projects into the kitchen and the opposing cabinet, countertop, appliance, or wall as follows: (1133A.2.1)
  - a. U-shaped kitchens, designed with parallel approach at a range or cooktop located at the base of the U, shall have a minimum clear width of at least 60 inches. See Figure 11A-10A.
  - b. U-shaped kitchens, designed with a cooktop or sink located at the base of the U, which provides knee and toe space in accordance with Section 1133A.7 to allow for a forward approach, shall have a clear width of at least 48 inches. See Figure 11A-10A.
  - c. All other kitchen designs shall provide a minimum clear width of at least 48 inches. See Figure 11A-10A.
193. Sinks and work surfaces required by Section 1133A.4 (see Item 1 and Item 2) shall be provided with knee and toe space complying with Section 1133A.7. Base cabinets (including toeboard and shelving) directly under kitchen sinks and work surfaces shall be removable without the use of

specialized tools or specialized knowledge in order to provide knee and toe space. The finish floor beneath kitchen sinks and work surfaces shall be extended to the wall. (1133A.3)

194. Provide kitchen countertops complying with the following: (1133A.4)
- a. A minimum linear length of 30 inches of countertop shall be provided for the kitchen sink installation.
  - b. A minimum linear length of 30 inches of countertop shall be provided for a work surface.
  - c. Sinks and work surfaces may be a single integral unit a minimum of 60 inches in length or be separate components.
  - d. Two 15-inch wide minimum breadboards may be provided in lieu of the required 30 inches of countertop work surface.
195. Repositionable countertops shall be provided in a minimum of five percent of the covered multi-family dwelling units. Repositionable countertops shall comply with the following: (1133A.4.1)
- a. Sinks and work surfaces required by Section 1133A.4 shall be designed to enable repositioning to a minimum height of 28 inches.
  - b. Base cabinets directly under sinks and work surfaces shall be removable as required in Section 1133A.3.
  - c. The sides of adjacent cabinets and the back wall, which may become exposed to moisture or food handling when a countertop is lowered, shall be constructed of durable, nonabsorbent materials appropriate for such uses.
  - d. Finished flooring shall be extended to the wall beneath the sink and work surface.

**Exceptions:**

- i. Stone, cultured stone and tiled countertops may be used without meeting the repositioning requirements.
  - ii. Two 15-inch wide minimum breadboards may be provided in lieu of the required 30 inches of countertop work surface and used without meeting the repositioning requirements.
196. Lower shelving and/or drawer space shall be provided in the kitchen at a height of no more than 48 inches above the floor. (1133A.5)
197. Comply with Section 1138A.2 and the following for knee and toe space, when required by Section 1133A: (1133A.7)
- a. The knee and toe space shall be clear and unobstructed, or removable base cabinets in compliance with Section 1133A.3 shall be provided.
  - b. The knee and toe space shall be 30 inches wide minimum, centered on the sink, countertop or appliance.
  - c. A clear floor space shall not extend into the knee and toe space more than 19 inches.
198. Insulate or otherwise cover to protect against contact the water supply and drain-pipes under kitchen sinks. There shall be no sharp or abrasive surfaces under kitchen sinks. (1133A.7.1)
199. Kitchen countertops in dwelling units shall be permitted to be 36 inches maximum above the finished floor (1138A.3.2.2 exception).

**DWELLING BATHING AND TOILET FACILITIES:**

200. On the cover page of the plans, specify whether option#1 or option#2 is utilized in the design of dwelling unit bathing and toilet facilities. (1134A.2)
201. Provide enlarged bathroom details complying with one of the followings:
- Option 1** requires all bathrooms within the dwelling unit to comply with the following:
- a. Toilet, bathing and shower facilities shall comply with Section 1134A.4.
  - b. Bathtubs shall comply with Section 1134A.5.

- c. Showers shall comply with Section 1134A.6.
- d. Water closets shall comply with Section 1134A.7.
- e. Lavatories, vanities, mirrors and towel fixtures shall comply with 1134A.8.
- f. Bathrooms shall be provided with an accessible route into and through the bathroom.
- g. If a door is provided, it shall comply with the requirements of Section 1132A.5.
- h. A minimum 18 inches clear maneuvering space shall be provided on the swing side of the door at the strike edge of the door.
- i. Switches, outlets, and controls shall comply with Section 1142A.
- j. Reinforced walls to allow for the future installation of grab bars around the toilet, tub, and shower shall comply with Sections 1134A.5 for bathtubs, 1134A.6 for showers and 1134A.7 for water closets. Grab bars shall comply with Section 1127A.4.

**Option 2** requires one bathroom within the dwelling unit to comply with the following:

- a. Toilet, bathing and shower facilities shall comply with Section 1134A.4.
- b. Bathtubs shall comply with Section 1134A.5.
- c. Showers shall comply with Section 1134A.6.
- d. Water closets shall comply with Section 1134A.7.
- e. Lavatories, vanities, mirrors and towel fixtures shall comply with 1134A.8.
- f. Where both a tub and shower are provided in the bathroom, at least one shall be made accessible. Additional requirements apply to dwelling units containing two or more bathrooms when a bathtub is provided as the accessible bathing fixture.
- g. Where two or more bathrooms are provided within the same dwelling unit and a bathtub is installed to comply with Option 2, Item 6 in one bathroom and a shower stall is provided in a subsequent bathroom, both the bathtub selected to comply with Option 2, Item 6 and at least one shower stall within the dwelling unit shall meet all the applicable accessibility requirements provided in Section 1134A. (See Section 1134A.5 for bathtubs, or Section 1134A.6 for showers.)
- h. When two or more lavatories are provided, at least one shall be made accessible and comply with Section 1134A.8.
- i. Bathrooms shall be provided with an accessible route into and through the bathroom.
- j. If a door is provided, it shall comply with the requirements of Section 1132A.5.
- k. A minimum 18 inches clear maneuvering space shall be provided on the swing side of the door at the strike edge of the door.
- l. Switches, outlets, and controls shall comply with Section 1142A.
- m. Reinforced walls to allow for the future installation of grab bars around the toilet, tub, and shower shall comply with Sections 1134A.5 for bathtubs, 1134A.6 for showers and 1134A.7 for water closets. Grab bars shall comply with Section 1127A.4.

**Note:** When Option 2 is used, all additional bathrooms must comply with items h) through l) above.

- 202. All powder rooms are to be designed to comply with Section 1134A.2, Option 2, Items h) through l). When the powder room is the only toilet facility located on an accessible level, it shall comply with the Option 2 items listed above, plus all additional requirements located in Sections 1134A.4, 1134A.7 and 1134A.8. (1134A.3)
- 203. Provide sufficient maneuvering spaces for a person using a wheelchair or other mobility aid to enter and close the door, use the fixtures, reopen the door and exit in bathing and toilet facilities required to be adaptable. (1134A.4)

- a. Where the door swings into the bathroom or powder room, there shall be a clear maneuvering space outside the swing of the door of at least 30 inches by 48 inches within the room.
- b. The clear maneuvering space shall allow the user to position a wheelchair or other mobility aid clear of the path of the door as it is closed and to permit use of fixtures.
- c. Doors may swing into the required clear space at any fixture when a clear maneuvering space is provided outside the swing arc of the door so it can be closed.
- d. Maneuvering spaces may include any knee space or toe space available below bathroom fixtures.

204. Bathtubs required to be accessible shall comply with the following: (1134A.5)

- a. There shall be a minimum clear floor space 48 inches parallel by 30 inches perpendicular to the side of a bathtub or bathtub-shower combination to provide for the maneuvering of a wheelchair and transfer to and from the bathing facilities.
  - i. The controls shall be on the wall at the foot of the bathtub.
  - ii. The edge of the clear floor space shall be flush with the control wall surface.
  - iii. The area under a lavatory, located at the control end of the tub, may be included in the clear floor space provided the lavatory is 19 inches maximum deep, and the knee and toe space comply with Section 1134A.8.
  - iv. Cabinets under lavatories and toilets shall not encroach into the clear floor space.
- b. A bathtub installed without surrounding walls shall provide reinforced areas for the installation of floor-mounted grab bars.
- c. Where a bathtub is installed with surrounding walls, grab bar reinforcement shall be located on each end of the bathtub, 32 inches to 38 inches above the floor, extending a minimum of 24 inches from the front edge of the bathtub toward the back wall of the bathtub.
- d. The grab bar reinforcement shall be a minimum of 6 inches nominal in height. See Figure 11A-9G.
  - i. Grab bar reinforcement shall be installed on the back wall of the bathtub a maximum of 6 inches above the bathtub rim extending upward to at least 38 inches above the floor.
  - ii. Grab bar backing shall be installed horizontally to permit the installation of a 48-inch grab bar with each end a maximum of 6 inches from the end walls of the bathtub.
  - iii. The grab bar reinforcement shall be a minimum of 6 inches nominal in height.
- e. Doors and panels of bathtub enclosures shall be substantially constructed from approved, shatter-resistant materials.
  - i. Hinged doors shall open outward.
  - ii. Glazing used in doors and panels of bathtub enclosures shall be fully tempered, laminated safety glass or approved plastic:
    - 1. When glass is used, it shall have minimum thickness of not less than 1/8 inch when fully tempered, or 1/4 inch when laminated, and shall pass the test requirements of this Part, Chapter 24 Glass and Glazing.
    - 2. Plastics used in doors and panels of bathtub enclosures shall be of a shatter-resistant type.

205. Showers required to be accessible shall comply with the following: (1134A.6)

- a. When one or more shower stalls are provided within the same dwelling units, at least one shower stall shall comply with one of the following requirements:

- i. The shower stall shall measure at least 42 inches wide by 48 inches deep with an entrance opening of at least 36 inches; or
      - ii. The shower stall shall measure at least 30 inches deep by 60 inches wide with an entrance opening of at least 60 inches. A water closet may project a maximum of 12 inches into the opening, provided that a minimum of 36 inches clear space is maintained between the water closet and the shower wall as illustrated in Figure 11A-9L; or
      - iii. Other shower stall configurations shall measure at least 36 inches deep by 60 inches wide with an entrance opening of at least 36 inches when a wall is installed on the opening side.
    - b. The maximum slope of the shower floor shall be ½ inch per foot in any direction and shall slope to a drain. The floor surfaces shall be of Carborundum or grit-faced tile or of material providing equivalent slip resistance.
    - c. A clear maneuvering space at least 30 inches in width by 48 inches in length shall be located outside the shower, flush and parallel to the control wall.
    - d. Grab bar reinforcement shall be installed continuous in the walls of showers 32 inches to 38 inches above the floor.
      - i. The grab bar reinforcement shall be a minimum of 6 inches nominal in height.
      - ii. Glass-walled shower stalls shall provide reinforcement for installation of floor-mounted or ceiling-mounted grab bars.
    - e. When a threshold is used, it shall be a maximum of 2 inches in height and have a beveled or sloped angle not exceeding 1 unit vertical in 2 units horizontal (26.6 degrees from the horizontal). Thresholds ½ inch or less in height may have a beveled or sloped angle not exceeding 1 unit vertical in 1 unit horizontal (45 degrees from horizontal).
    - f. Doors and panels of shower enclosures shall be substantially constructed from approved, shatter-resistant materials.
      - i. Hinged shower doors shall open outward.
      - ii. Glazing used in doors and panels of shower enclosures shall be fully tempered, laminated safety glass or approved plastic:
        1. When glass is used, it shall have minimum thickness of not less than 1/8 inch when fully tempered, or ¼ inch when laminated, and shall pass the test requirements of this Part, Chapter 24 Glass and Glazing.
        2. Plastics used in doors and panels of showers enclosures shall be of a shatter-resistant type.
206. Water closets in bathrooms or powder rooms required to be accessible shall comply with the following: (1134A.7)
- a. The minimum floor space provided at a water closet shall be 48 inches in clear width. The clear floor space shall extend past the front edge of the water closet at least 36 inches. See Figure 11A-9M. Except, the 48 inches minimum clear width may be reduced to 36 inches for lavatories, cabinets, wing walls or privacy walls located immediately adjacent to a water closet which extend no more than 24 inches in depth.
  - b. Water closets shall be located within bathrooms in a manner that permits a grab bar to be installed on at least one side of the fixture.
    - i. The centerline of the water closet shall be 17 inches minimum to 18 inches maximum from a grab bar wall or partition.
    - ii. In locations where water closets are adjacent to non-grab bar walls, vanities, lavatories or bathtubs, the centerline of the fixture shall be a minimum of 18 inches from the obstacle.



- c. Where the water closet is not placed adjacent to a side wall capable of accommodating a grab bar, the bathroom shall have provisions for installation of floor-mounted, foldaway or similar alternative grab bars.
  - d. Where the water closet is placed adjacent to a side wall, reinforcement shall be installed on both sides or one side and the back.
    - i. Reinforcement installed at the back of the water closet, shall be installed between 32 inches and 38 inches above the floor. The grab bar reinforcement shall be a minimum of 6 inches nominal in height. The backing shall be a minimum of 40 inches in length.
    - ii. Reinforcement installed at the side of the water closet shall be installed 32 inches to 38 inches above the floor. The reinforcement shall be installed a maximum of 12 inches from the rear wall and shall extend a minimum of 26 inches in front of the water closet. The grab bar reinforcement shall be a minimum of 6 inches nominal in height.
  - e. The minimum height of water closet seats shall be 15 inches above the floor.
  - f. Water closet controls shall be mounted no more than 44 inches above the floor. The force required to activate controls shall be no greater than 5 pounds.
207. Provide at least one accessible lavatory in bathrooms or powder rooms required to be accessible. Where mirrors and towel fixtures are provided, at least one of each shall be accessible. (1134A.8)
- a. Locate vanities and lavatories with the centerline of the fixture a minimum of 18 inches horizontally from an adjoining wall or fixture to allow for forward approach.
  - b. When parallel approach is provided, lavatories shall be installed with the centerline of the fixture a minimum of 24 inches horizontally from an adjoining wall or fixture.
  - c. The top of the fixture rim shall be a maximum of 34 inches above the finished floor.
  - d. Provide a clear maneuvering space at least 30 inches by 48 inches centered at lavatories. This clear floor space shall not extend into the knee and toe space more than 19 inches. See Figure 11A-9D.
  - e. Cabinets under lavatories are acceptable provided the bathroom has space to allow a parallel approach by a person in a wheelchair and the lavatory cabinets are designed with adaptable knee and toe space.
  - f. Provide knee and toe space centered on fixture complying with Section 1138A.2. Knee and toe space shall be provided by one of the following:
    - i. The space beneath the lavatory shall be left clear and unobstructed;
    - ii. Any cabinet beneath the lavatory shall be removable without the use of specialized knowledge or specialized tools; or
    - iii. Doors to the cabinet beneath the lavatory shall be removable or openable to provide the required unobstructed knee and toe space.
  - g. The finished floor beneath the lavatory shall be extended to the wall.
  - h. Water supply and drain-pipes under lavatories shall be insulated or otherwise covered to protect against contact. There shall be no sharp or abrasive surfaces under lavatories.
  - i. Where mirrors or towel fixtures are provided, they shall be mounted with the bottom edge no higher than 40 inches from the floor.
208. Electrical receptacle, switch and control heights shall comply with following (1136A):
- a. Electrical receptacle outlets on branch circuits of 30 amperes or less and communication system receptacles shall be located no more than 48 inches measured from the top of the receptacle outlet box nor less than 15 inches measured from the bottom of the receptacle outlet box to the level of the finished floor or working platform.
  - b. Controls or switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances, alarms or cooling, heating and ventilating

equipment shall be located no more than 48 inches measured from the top of the outlet box nor less than 15 inches measured from the bottom of the outlet box to the level of the finished floor or working platform.

- c. If the reach is over a physical barrier or an obstruction (for example, a kitchen base cabinet) switches and controls shall be located within the reach ranges specified in Section 1138A.3.
- d. Physical barriers or obstructions shall not extend more than 25 inches from the wall beneath a control.

## <DIVISION V – FEATURES COMMON TO THE EXTERIOR AND INTERIOR OF BUILDINGS>

### **SPACE ALLOWANCES AND REACH RANGES IN COMMON USE AREAS:**

- 209. The minimum clear width for single wheelchair passage shall be 36 inches continuously. (See Figure 11A-1E.) See Section 1113A for minimum clear width of sidewalks, and Section 1120A for minimum clear width of interior accessible routes.
  - a. 32 inches in width is acceptable at a point not to exceed 24 inches in length.
  - b. The segments with reduced width shall be separated by segments that are 48 inches long minimum and 36 inches wide minimum. (1138A.1.1)
- 210. The minimum width for two wheelchairs to pass is 60 inches (See Figure 11A-1E). (1138A.1.2)
- 211. An accessible route (exterior and interior) with a clear width less than 60 inches shall provide passing spaces at intervals of 200 feet maximum.
- 212. Passing spaces shall be either:
  - a. A space 60 inches minimum by 60 inches minimum; or,
  - b. An intersection of two walking surfaces providing a T-shaped space complying with Section 1138A.1.3.1, where the base and arms of the T-shaped space extend 48 inches minimum beyond the intersection. (See Figure 11A- 1L.) (1138A.1.2)
- 213. The space required for a wheelchair to make a 180-degree turn shall be a circular clear space of 60 inches diameter minimum (See Figure 11A-1D(a)); or a T-shaped space complying with Section 1138A.1.3.1. The circular turning space shall be permitted to include knee and toe clearance complying with Section 1138A.2. (1138A.1.3)
- 214. If a person in a wheelchair must make a turn around an obstruction, the minimum clear width of the accessible route shall be as required in Section 1138A.1.5. (1138A.1.3)
  - a. A T-shaped turning space shall be within a 60 inches square minimum with arms and base 36 inches wide minimum. Each arm of the T shall be clear of obstructions 12 inches minimum in each direction, and the base shall be clear of obstructions 24 inches minimum. The space shall be permitted to include knee and toe clearance complying with Section 1138A.2 only at the end of either the base or one arm. (See Figure 11A-1D (b).) (1138A.1.3.1)
  - b. Surfaces of turning spaces for wheelchairs shall be stable, firm, slip resistant, and shall comply with Section 1110A.3 or Section 1119A.2. Changes in level are not permitted. Slopes not steeper than 1:48 shall be permitted. (1138A.1.3.2)
- 215. Clear floor or ground space for wheelchairs shall comply with the following: (1138A.1.4)
  - a. The minimum clear floor or ground space shall be 30 inches by 48 inches. The minimum clear floor or ground space may be positioned for forward or parallel approach to an object (See Figure 11A-1G). Clear floor or ground space may be part of the knee and toe space required under some objects unless otherwise specified. (1138A.1.4.1)

- b. One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin an accessible route or adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or a part of three sides, additional maneuvering clearances shall be provided in accordance with the following: (1138A.1.4.2, Figure 11A-1H)
    - i. Forward approach. Alcoves shall be 36 inches wide minimum when the depth exceeds 24 inches.
    - ii. Parallel approach. Alcoves shall be 60 inches wide minimum when the depth exceeds 15 inches.

Clear floor or ground spaces for wheelchairs shall be stable, firm, slip resistant, and shall comply with Section 1110A.3 or Section 1119A.2. Changes in level are not permitted. Slopes not steeper than 1:48 shall be permitted. (1138A.1.4.3)
  - c. Clear floor or ground spaces for wheelchairs shall be stable, firm, slip resistant, and shall comply with Section 1110A.3 or Section 1119A.2. Changes in level are not permitted. Slopes not steeper than 1:48 shall be permitted. (1138A.1.4.3)
216. Gratings located in ground and floor surfaces along accessible routes shall be limited to spaces no greater than ½-inch wide in one direction. If gratings have elongated openings, they shall be placed so that the long dimension is perpendicular to the dominant direction of traffic. (1138A.1.4.3.1)
217. When the accessible route makes a 180 degree turn around an element which is less than 48 inches wide, clear width shall be 42 inches minimum approaching the turn, 48 inches minimum at the turn and 42 inches minimum leaving the turn. When the clear width at the turn is 60 inches minimum, the clear width when approaching and when leaving the turn shall be 36 inches minimum. (1138A.1.5, Figure 11A-1C(b))
218. When the accessible route makes a 90 degree turn around an element which is more than 48 inches wide, clear width shall be 36 inches minimum approaching the turn, at the turn, and leaving the turn. (1138A.1.5, Figure 11A-1C(a))
219. When space beneath an accessible element is included as part of a clear floor space, or turning space, the space shall comply with this section. Additional space shall not be prohibited beneath an element but shall not be considered as part of the clear floor space or turning space. (1138A.2, Figure 11A-9D)
- a. Knee space under an element between 9 inches and 27 inches above the finish floor shall be considered knee space. The knee space shall be clear and unobstructed. (1138A.2.1) See exceptions.
  - b. Minimum width for knee space shall be 30 inches wide minimum. (1138A.2.1.1)
  - c. Maximum depth for knee space shall extend 25 inches maximum under an element at 9 inches above the finish floor. (1138A.2.1.2)
  - d. When knee space is required under an element as part of a clear floor space, the knee space shall be 11 inches deep minimum at 9 inches above the finish floor, and 8 inches deep minimum at 27 inches above the finish floor, measured from the front edge of the element. (1138A.2.1.3) See exceptions.
  - e. Between 9 inches and 27 inches above the finish floor, the knee space shall be permitted to be reduced at a rate of 1 inch in depth for each 6 inches in height. (1138A.2.1.4)
220. Space under an element between the finish floor and 9 inches above the finish floor shall be considered toe space. (1138A.2.2)
- a. Toe space shall be 30 inches wide minimum. (1138A.2.2.1)
  - b. Toe space shall extend 25 inches maximum under an element. (1138A.2.2.2)
  - c. When toe space is required under an element as part of a clear floor space, the toe space shall extend 17 inches minimum under the element, measured from the front edge of the element. (1138A.2.2.3). See exceptions.

- d. Space extending greater than 6 inches beyond the available knee space at 9 inches above the finish floor shall not be considered toe space. (1138A.2.2.4)
221. Reach ranges shall comply with the following: (1138A.3)
- a. When the clear floor space allows only forward approach to an object, the maximum high forward reach allowed shall be 48 inches and the minimum low forward reach shall be no less than 15 inches above the finish floor. (1138A.3.1, Figure 11A-1L(a))
  - b. When the high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the reach depth over the obstruction.
222. The high forward reach shall be 48 inches maximum when the reach depth is 20 inches maximum. When the reach depth exceeds 20 inches, but is not more than 25 inches, the high forward reach shall be 44 inches maximum. (1138A.3.1, Figure 11A-11(b))
223. When a clear floor space allows a parallel approach to an element, and the side reach is unobstructed, the high side reach shall be 48 inches maximum, and the low side reach shall be 15 inches minimum above the finish floor. (1138.3.2, Figures 11A-1J(a) and 11A-1J(b))
224. When a clear floor space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches maximum and the depth of the obstruction shall be 24 inches maximum. The high side reach shall be 48 inches maximum for a reach depth of 10 inches maximum. When the reach depth exceeds 10 inches, but no more than 24 inches, the high side reach shall be 46 inches maximum. (See Figure 11A-1J(c))
225. The top of washing machines and clothes dryers shall be permitted to be 36 inches maximum above the finished floor (1138A3.2.2 exception)
226. Controls and operating mechanisms in accessible spaces, along accessible routes or as part of accessible elements shall comply with the following: (1138A.4.1) Note: See also Section 1142A, for receptacle, switch and control installation.
- a. Clear floor space complying with Section 1138A.1.4 that allows a forward or parallel approach by a person using a wheelchair shall be provided at all controls and operating mechanisms. (1134A.4.2)
  - b. Controls and operating mechanisms shall be located no higher than 48 inches, and no lower than 15 inches, above the finished floor measured to the center of the grip.
    - i. If the reach is over an obstruction (for example, washer or dryer), controls and operating mechanisms shall be located within the reach ranges specified in Section 1138A.3.
    - ii. Controls and operating mechanisms that do not satisfy these specifications are acceptable, provided that comparable mechanisms, controls or outlets, that perform the same functions, are provided within the same area and are accessible. (1134A.4.3)
  - c. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.
  - d. The force required to activate controls and operating mechanisms shall be no greater than 5 pounds. (1138A.4.4)

**ACCESSIBLE DRINKING FOUNTAINS:**

227. A side approach drinking fountain is not acceptable. (1139A.1, Figure 11A-11A)
228. Drinking fountains and water coolers shall be on an accessible route. (1139A.2)
229. Drinking fountains shall be a minimum of 18 inches and a maximum of 19 inches in depth. (1139.A.3)
230. Drinking fountains shall be provided with 30 inches by 48 inches clear floor space, centered on the unit. The clear floor space shall be positioned for a forward approach. (1139A.4)

- 231. Drinking fountains shall be provided with a clear and unobstructed knee and toe space. Knee and toe space shall comply with Section 1138A.2. (1139A.4.1)
- 232. The spout shall be located 15 inches minimum from the vertical support and 5 inches maximum from the front edge of the drinking fountain, including bumpers. Spout outlets shall be 36 inches maximum above the finish floor. (1139A.5)
- 233. The spout shall provide a flow of water at least 4 inches high to allow the insertion of a cup or glass under the flow of water.
  - a. The angle of the water stream shall be measured horizontally relative to the front face of the unit.
  - b. When spouts are located less than 3 inches from the front of the unit, the angle of the water stream shall be 30 degrees maximum.
  - c. When spouts are located between 3 inches and 5 inches maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum. (1139A.6)
- 234. The flow of water shall be activated by manually or electronically operated controls. The manually operated controls shall be front mounted or side mounted, located within 6 inches (152 mm) of the front edge of the fountain. The force required to activate controls shall be no greater than 5 pounds. (1139A.7)
- 235. Drinking fountains shall be located completely within alcoves, between wing walls or otherwise positioned so as not to encroach into pedestrian ways.
  - a. The alcove or otherwise protected area in which the drinking fountain is located shall not be less than 32 inches in width and 18 inches in depth.
  - b. When the depth of the protected area where the drinking fountain is located exceeds 24 inches, additional maneuvering clearance shall be provided in accordance with Section 1138A.1.4.2 and Figure 11A-1H. (1139A.8)
  - c. When provided, wing walls shall project out from the supporting wall at least as far as the drinking fountain to within 6 inches vertically from the finish floor.
- 236. Protruding objects located in alcoves or otherwise positioned so as to limit encroachment into pedestrian ways are permitted to project 4 inches into walks, halls, corridors, passageways or aisles. (See Figure 11A-11A.)

**ACCESSIBLE SWIMMING POOLS:**

- 237. Swimming pools in common-use areas shall comply with the provisions of section 1141A and Chapter 31B. (1141A.1)
- 238. Swimming pool deck areas must be accessible, and a mechanism to assist persons with disabilities gain entry into the pool and exit from the pool shall be provided. Such a mechanism may consist of a swimming pool lift device as long as the device meets all of the following criteria: (1141A.2)
  - a. Has a seat that meets all of the following:
    - i. The seat must be rigid;
    - ii. The seat must be not less than 17 inches and not more than 19 inches, inclusive of any cushioned surface that might be provided, above the pool deck;
    - iii. The seat must have two armrests. The armrest on the side of the seat by which access is gained shall be either removable or fold clear of the seat;
    - iv. The seat must have a back support that is at least 12 inches tall;
    - v. The seat must have an occupant restraint for use by the occupant of the seat and the restraint must meet the standards for operable controls in compliance with Section 1127A.9.6.4.
  - b. Be capable of unassisted operation from both the deck and water levels.

- c. Be stable and not permit unintended movement when a person is getting into or out of the seat.
- d. Be designed to have a live-load capacity of not less than 300 pounds.
- e. Be positioned so that, if the pool has water of different depths, it will place the operator into water that is at least 3 feet deep.
- f. Be capable of lowering the operator at least 18 inches below the surface of the water.

***ELECTRICAL RECEPTACLE, SWITCH AND CONTROL HEIGHTS:***

*See Division V, Section 1142A.*

***SIGNAGE:***

**Note:** See Section 1127A.7 for additional signage requirements applicable to sanitary facilities, and Section 1124A for additional signage requirements applicable to elevators. (1143A.1)

- 239. When signs and/or identification devices are provided they shall comply with section 1143A. When both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs - one with visual, and one with tactile characters, shall be provided.
- 240. When signs identify permanent rooms and spaces of a building or site, they shall comply with Sections 1143A.1 general requirement, 1143A.5 visual character, 1143A.6 raised character and 1143A.7 braille.
- 241. When signs direct to or give information about permanent rooms and spaces of a building or site, they shall comply with Section 1143A.5 visual character.
- 242. When signs identify, direct or give information about accessible elements and features of a building or site, they shall include the appropriate symbol of accessibility and shall comply with Section 1143A.5.

**ADDITIONAL WRITTEN COMMENTS**

- 243.