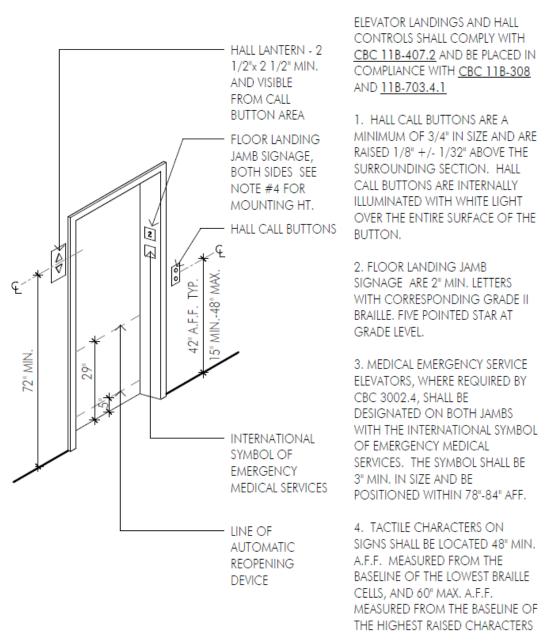


Date Created: June 12, 2023

Created By: Kurt Schieszer, KP Elevator Consulting

## SUBJECT: CBC ACCESSIBILITY CODE | HALL STATION HEIGHTS

**Summary:** Elevator hall stations can be between 15" and 48" measured above finish floor to the centerline of the top operable button.



### NOTES:



### 2019 CALIFORNIA BUILDING CODE SECTION 1124A ELEVATORS AND PLATFORM (WHEELCHAIR) LIFTS

#### 1124A.4 Hall call buttons.

Call operation buttons and keypads shall be located within one of the reach ranges specified in Section 1138A.3, measured to the centerline of the highest operable part. Buttons shall have square shoulders, shall be a minimum of 3/4 inch (19.1 mm) in size, and shall be raised 1/8 inch (3.2 mm) plus or minus 1/32 inch (0.8 mm) above the surrounding surface. The button designating the "Up" direction shall be on top. A clear floor or ground space complying with Section 1138A.1.4 shall be provided at call controls.

Visual indication shall be provided to show each call registered and extinguished when answered. Objects adjacent to, and below, hall call buttons shall not project more than 4 inches (101.6 mm) from the wall. Hall call buttons shall be internally illuminated with a white light over the entire surface of the button.

#### 1138A.3 Reach ranges.

#### 1138A.3.1 Forward reach.

- Unobstructed. When the clear floor space allows only forward approach to an object, the maximum high forward reach allowed shall be 48 inches (1219 mm) and the minimum low forward reach shall be no less than 15 inches (381 mm) above the finish floor. (See Figure 11A-1I(a)).
- 2. Obstructed high reach. 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. The high forward reach shall be 48 inches (1219 mm) maximum when the reach depth is 20 inches (508 mm) maximum. When the reach depth exceeds 20 inches (508 mm), but is not more than 25 inches (635 mm), the high forward reach shall be 44 inches (1118 mm) maximum. (See Figure 11A-11(b).)

#### 1138A.3.2 Side reach.

1. Unobstructed. 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 (1219 mm) maximum, and the low side reach shall be 15 inches (381 mm) minimum above the finish floor. (See Figures 11A-1J(a) and 11A-1J(b).)

#### Exceptions:

1. An obstruction shall be permitted between the clear floor space and the element when the depth of the obstruction is 10 inches (254 mm) maximum.

2. Obstructed high reach. 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 (864 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum.



The high side reach shall be 48 inches (1219 mm) maximum for a reach depth of 10 inches (254 mm) maximum. When the reach depth exceeds 10 inches (254 mm), but no more than 24 inches (610 mm), the high side reach shall be 46 inches (1168 mm) maximum. (See Figure 11A-1J(c).)

#### **1138A.1.4** Clear floor or ground space for wheelchairs.

#### 1138A.1.4.1 Size and approach.

The minimum clear floor or ground space shall be 30 inches by 48 inches (762 mm by 1219 mm). 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.1.4.2 Relationship of maneuvering clearances to wheelchair spaces.

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: (See Figure 11A-1H).

- 1. Forward approach. Alcoves shall be 36 inches (914 mm) wide minimum when the depth exceeds 24 inches (610 mm).
- 2. Parallel approach. Alcoves shall be 60 inches (1524 mm) wide minimum when the depth exceeds 15 inches (381 mm).

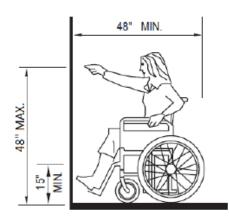
#### 1138A.1.4.3 Surfaces of wheelchair spaces.

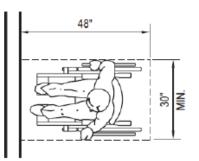
Clear floor or ground spaces for wheelchairs shall be stable, firm, slip resistant, and shall comply with Section 1110A.3 or Section 1119A.2. Changes in level are not permitted. Slopes not steeper than 1:48 shall be permitted.

#### 1138A.1.4.3.1 Gratings.

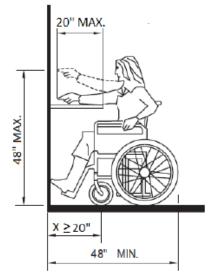
Gratings located in ground and floor surfaces along accessible routes shall be limited to spaces no greater than 1/2-inch (12.7mm) wide in one direction. If gratings have elongated openings, they shall be placed so that the long

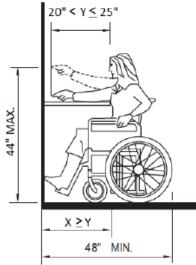


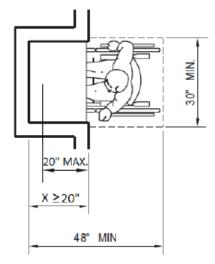


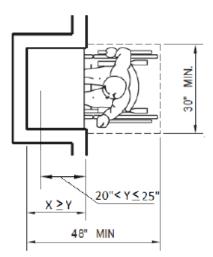


(a) UNOBSTRUCTED FORWARD REACH









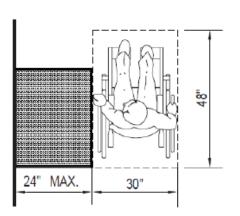
(b) FORWARD REACH OVER OBSTRUCTION

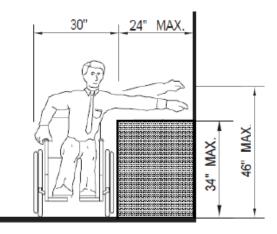
#### FIGURE 11A-1J SIDE REACH

#### (c) SIDE REACH OVER OBSTRUCTION > 10" AND 24" MAXIMUM

CLEAR FLOOR SPACE FOR PARALLEL APPROACH

MAXIMUM SIDE REACH OVER OBSTRUCTION





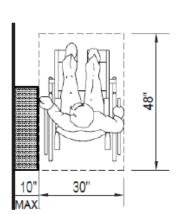
#### (b) SIDE REACH OVER OBSTRUCTION 10" MAXIMUM

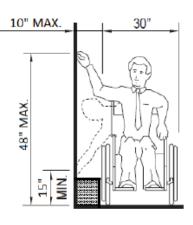
(a) UNOBSTRUCTED SIDE REACH

CLEAR FLOOR SPACE FOR PARALLEL APPROACH

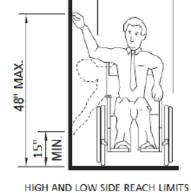
CLEAR FLOOR SPACE FOR PARALLEL APPROACH

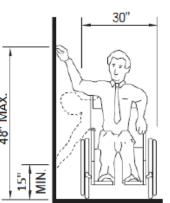
HIGH AND LOW SIDE REACH LIMITS

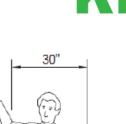




\$ 30











# ADA 2010

**407.2.1 Call Controls.** Where elevator call buttons or keypads are provided, they shall comply with 407.2.1 and 309.4. Call buttons shall be raised or flush.

EXCEPTION: Existing elevators shall be permitted to have recessed call buttons.

**407.2.1.1 Height.** Call buttons and keypads shall be located within one of the reach ranges specified in 308, measured to the centerline of the highest *operable part*.

EXCEPTION: Existing call buttons and existing keypads shall be permitted to be located at 54 inches (1370 mm) maximum above the finish floor, measured to the centerline of the highest operable part.

**407.2.1.2 Size.** Call buttons shall be <sup>3</sup>/<sub>4</sub> inch (19 mm) minimum in the smallest dimension. *EXCEPTION: Existing elevator call buttons shall not be required to comply with 407.2.1.2.* 407.2.1.3 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided at call controls.

Advisory 407.2.1.3 Clear Floor or Ground Space. The clear floor or ground space required at elevator call buttons must remain free of obstructions including ashtrays, plants, and other decorative elements that prevent wheelchair users and others from reaching the call buttons. The height of the clear floor or ground space is considered to be a volume from the floor to 80 inches (2030 mm) above the floor. Recessed ashtrays should not be placed near elevator call buttons so that persons who are blind or visually impaired do not inadvertently contact them or their contents as they reach for the call buttons.

## 308 Reach Ranges

**308.1 General.** Reach ranges shall comply with 308.

## 308.2 Forward Reach.

**308.2.1 Unobstructed.** Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

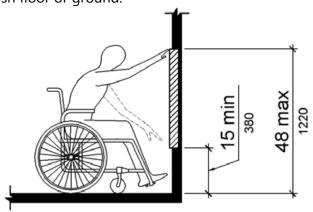
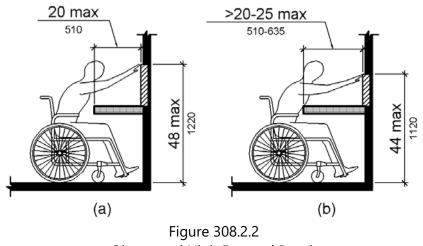


Figure 308.2.1 Unobstructed Forward Reach



**308.2.2 Obstructed High Reach.** Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum and the reach depth shall be 25 inches (635 mm) maximum.



Obstructed High Forward Reach

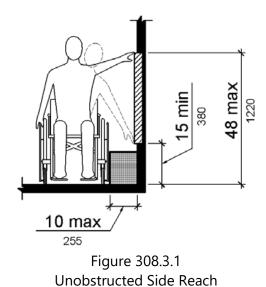
## 308.3 Side Reach.

**308.3.1 Unobstructed.** Where a clear floor or ground *space* allows a parallel approach to an *element* and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

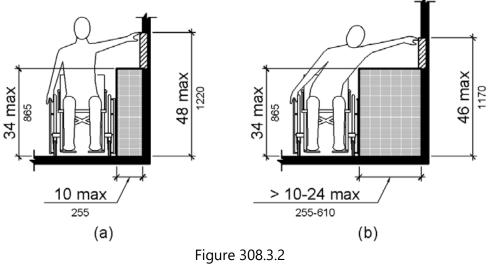
EXCEPTIONS:

1. An obstruction shall be permitted between the clear floor or ground *space* and the *element* where the depth of the obstruction is 10 inches (255 mm) maximum.





**308.3.2 Obstructed High Reach.** Where a clear floor or ground 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 (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.



Obstructed High Side Reach