



<b>INFO</b>	PLAN CHECK NO.:	EXPIRATION DATE:
	PROJECT ADDRESS:	REVIEW STATUS:
<b>NOTE</b>	Numbers within the parenthesis ( ) refer to the section of the applicable code. 2010 Edition of the California Building Code (CBC). Table (T).	

**A. ELEVATORS**

NOTE: In buildings two or more stories in height, served by an elevator, or a building served by an elevator required by Chapter 11A or 11B or a building served by an elevator required for accessibility by Section 11A or 11B, all elevators provided shall accommodate a wheelchair.

1. In buildings two or more stories in height, served by an elevator, or a building served by an elevator required by chapter 11B, or a building served by an elevator required for accessibility by Section 1.9.1, if more than one passenger elevator is required, each full passenger elevator shall comply with this chapter. The following exceptions may be exercised if applicable to your project.
  - a) In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception to such regulation shall be granted when equivalent facilitation is provided.
  - b) In existing buildings, where existing shaft configuration or technical infeasibility prohibits strict compliance with Section 1116B.1.8, the minimum car plan dimensions may be reduced by the minimum amount necessary, but in no case shall the inside car area be smaller than 48" by 48".
  - c) In existing buildings, equivalent facilitation may be provided with an elevator car of different dimensions where it can be demonstrated that a person using a wheelchair can enter and operate the elevator and when all other elements required to be accessible comply with the applicable provisions of Section 1116B.
  - d) These provisions shall not apply to existing buildings when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See section 1.9.1.
2. Passenger elevators shall be located on a major accessible route and provisions shall be made to ensure that they remain accessible and usable at all times the building is occupied. (1124A.2, 1116B.1.15).
3. The car inside shall allow for the turning of a wheelchair. The minimum clear distance between walls or between wall and door, excluding return

- panels, shall be not less than 80" by 54" for center-opening doors, and 68" by 54" for side-slide opening doors. Minimum distance from wall to return panel shall be not less than 51". Where elevators in buildings four or more stories above, or four or more stories below grade plane, at least one elevator shall accommodate an open stretcher in a horizontal position 24" x 84" with not less than 5" radius corners per Section 3002.4. (1124A.3.2, 1116B.1.8, Fig 11-7A & Fig 11B-40A)
4. Minimum clear width for elevator doors shall be 36". (1124A.3.2.1, 1116B.1.4, Fig 11A-7A & Fig 11B-40A).
  5. Provide the following note(s) or detail(s) on the plans:
    - a) A handrail shall be provided on one wall of the car, preferably the rear. The rails shall be smooth and the inside surface at least 1-1/2" clear of the walls at a nominal height between 31" and 33" above the floor. 32" is required to reduce interference with car controls where the lowest button is centered at 35" above floor. (1116B.1.11, Fig 11A-7B & Fig 11B-40B)
    - b) The centerline of elevator floor buttons shall be no higher than 54" above the finish floor for side approach and 48" for front approach. Where possible a 48" maximum height for elevator floor buttons is preferred. (1124A.3.3.1, 1116B.1.8, Fig. 11A-7B & Fig 11B-40B).
    - c) Floor buttons shall be provided with visual indications to show when each call is registered. The visual indicators shall be extinguished when each call is answered. (1124A.3.3.1, 1116B.1.8, Fig 11A-7B & Fig 11B-40B).
    - d) Except for photo electric tube by-pass switches, emergency controls, including the emergency stop and alarm, shall be grouped in or adjacent to the bottom of the panel and shall be no lower than 2'-11" from the floor. For multiple controls only, one set must comply with these height requirements. (1124A.3.3.1, 1116B.1.8, Fig 11A-7B & Fig 11B-40B)
    - e) The centerline of the hall call buttons shall be 3'-6" above the floor. The buttons shall be a minimum of 3/4" in size and shall be raised 1/8" + 1/32" above the surrounding surface. 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" from the wall. (1124A.4, 1116B.1.10, Fig 11A-7C & Fig 11B-40C).
- f) The emergency telephone handset shall be positioned no higher than 4'-0" above the floor, and the handset cord shall be a minimum of 2'-5" in length. (1124A.3.4, 1116B.1.8)
6. Provide the following note(s) on the plans:
- a) If the telephone system is located in a closed compartment, the compartment door hardware shall be of the lever type, conforming to the provisions of Section 1008.1.8, type of lock or latch. Emergency intercommunication shall not require voice communication. (1124A.3.4, 1116B.1.8)
- b) A visual car position indicator shall be provided above the car control panel or over the door to show the position of the elevator in the hoist way. As the car passes or stops at a floor served by the elevators, the corresponding numerals shall illuminate, and an audible signal shall sound. (1116B.1.9)
- c) Numerals shall be a minimum of 1/2" in height. (1116B.1.9).
- d) An audible verbal announcement or signal shall sound to tell passengers that the car is stopping or passing a floor served by the elevator. The audible signal shall be no less than 20 decibels with a frequency no higher than 1500 Hz. (1116B.1.9).
- e) The minimum illumination at the car controls, threshold, and the landing when the car and landing doors are open shall not be less than 5 foot-candles. (1124A.5, 1116B.1.12).
7. Identification for the visually impaired shall be as follows: (1124A.3.3.2, 1116B.1.9, Fig 11A-7B & Fig 11B-40B).
- a) Passenger elevator car controls shall have a minimum dimension of 3/4" and shall be raised 1/8" + 1/32" above the surrounding surface.
- b) Control buttons shall be illuminated, shall have square shoulders, and shall be activated by a mechanical motion that is detectable.
- c) All control buttons shall be designated by a 5/8" minimum, Arabic numeral, standard alphabet character, or standard symbol immediately to the left of the control button.
- d) A Braille symbol shall be located immediately below the numeral, character, or symbol.
- e) A minimum clear space of 3/8" or other suitable means of separation shall be provided between rows of control buttons.
- f) The raised character shall be white on a black background.
- g) Controls and emergency equipment identified by raised symbols shall include, but not be limited to, "door open", "door close", "alarm bell", "emergency stop", and "telephone".
- h) The call button for the main entry floor shall be designated by a raised star at the left of the floor designation.
8. A visual and audible signal shall be provided at each hoist way entrance indicating to the prospective passenger the car answering the call and its direction of travel as follows: (1124A.6, 1116B.1.13)
- a) The visual signal for each direction shall be a minimum of 2-1/2" high by 2-1/2" wide, and visible from the proximity of the hall call button.
- b) The audible signal shall sound once for the "up" direction and twice for the "down" direction or shall have verbal communicators that say "up" or "down".
- c) The centerline of the fixture shall be located a minimum of 6' in height from the lobby floor.
- d) The use of in-car lanterns, located in or on the car door jambs, visible from the proximity of the hall call button and conforming to Sections. 1124A.6 or 1116B.1.13 will be acceptable. (1110A.6, 1116B.1.13).
- e) The use of arrow shapes is preferred for visible signals. (1124A.6, 1116B.1.13).
9. Passenger elevator landing jambs on all elevator floors shall have the number of the floor on which the jamb is located designated by raised characters that are a minimum of 2" in height and conform to section 1117B.5.5 and contracted grade 2 Braille that conforms to Section 1117B.5.6, located 60" on center from the floor on the jamb panels on both sides of the door so that they are visible from within the elevator. On the grade level, a raised five-pointed star shall be placed to the left of the raised character. The outside diameter of the star shall be 2". Braille shall be placed below the corresponding raised characters. (1124A.8, 1116B.1.14)
10. Power-operated horizontally sliding car and hoist way doors opened and closed by automatic means shall be provided. (1116B.1.3)
11. Doors closed by automatic means shall be provided with a door reopening device which will function to stop and reopen a car door and adjacent hoist way door in case the car door is obstructed while closing. This reopening device shall also be capable of sensing an object or person in the path of the closing door without requiring contact for activation at a normal 5" and 29" above the floor. Door reopening devices shall remain effective for a period of not less than 20 seconds. After such an interval the doors may close in

accordance with the requirements of ASME 17.1. (1124A.9, 1116B.1.5, Fig 11A-7B & Fig. 11B-40B).

12. The minimum acceptable time from notification that a car is answering a call (lantern and audible signal) until the doors of the car start to close shall be calculated in accordance with Sections 1124A.7.1 and 1116B.1.6. (1124A.7.1, 1116B.1.6. Fig 11A-7C & Fig 11B-40C).

13. For cars with in-car lanterns, the total time, T, as calculated in accordance with Section 1116B.1.6, begins when the lantern is visible from the vicinity of hall call buttons and an audible signal is sounded. (1124A.7.1, 1116B.1.6, Fig. 11A-7C & Fig. 11B-40C).

a) The minimum acceptable time for doors to remain fully open shall not be less than 5 seconds. (1124A.7.2, 1116B.1.7).

b) The elevator shall be automatic and be provided with a self-leveling feature that will automatically bring the car to the floor landings within a tolerance of plus or minus 1/2" under normal loading and unloading conditions. This self-leveling shall, within its zone, be entirely automatic and independent of the operating device and shall correct the over-travel or under-travel. The car shall also be maintained approximately level with the landing irrespective of load. The clearance between the car platform sill and the edge of the hoist way landing shall be no greater than 1-1/4". (1124A.10, 1116B.1.2)

## B. AREAS OF REFUGE.

NOTE: Area of refuge is an area where persons unable to use stairways can remain temporarily to await instructions or assistance during emergency evacuation.

NOTE: In alterations of existing buildings, Areas of refuge are not required. (1007.1, Exc.1)

1. Provide at least one accessible means of egress for accessible spaces complying with Section 1007. (1007.1)

2. Where more than one means of egress is required by Sections 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by accessible means of egress in at least the same number required by Sections 1015.1 or 1021.1. All applicable provisions of chapters 11A or 11B shall also be met since accessibility is required for this establishment or structure. (1007.1).

3. Each required accessible means of egress shall be continuous to a public way and shall consist of one or more of the following components. (1007.2).

a) Accessible routes complying with Sections 1110A.1 and 1120A, or Section 1114B.1.2, as applicable.

b) Interior exit stairways complying with Sections 1007.3, 1026 and Section 1123A, or Section 1133B.4, as applicable.

c) Exterior exit stairways complying with Sections 1007.3, 1026 and Section 1115 A or Section 1133B.4, as applicable.

d) Elevators complying with Section 1007.4, and 1124A, or Section 1116B.1, as applicable.

e) Platform lifts complying with Section 1007.5, and 1124A, or Section 1116B.2 or and 1116B.3, as applicable.

f) Horizontal exits complying with Section 1025.

g) Ramps complying with Section 1010 and Sections 1114A and 1122A, or Section 1133B.5, as applicable.

h) Areas of refuge complying with Section 1007.6

4. In buildings where a required accessible floor is four or more stories above or below a level of exit discharge, at least one required accessible means of egress shall be an elevator complying with section 1007.4. (1007.2.1)

5. When exit stairways serve as a part of the required accessible means of egress, they shall have a clear width of 48" minimum between handrails; furthermore, exit stairways shall either incorporate an area of refuge within an enlarged floor-level landing or shall be accessed from either an area of refuge complying with Section 1007.6 or a horizontal exit. In addition, exit stairways shall comply with Sections 1115A and 1123A, or Section 1133B.4, as applicable. (1007.3)

6. Elevators being considered as an accessible means of egress shall comply with emergency operation and signaling device requirements of section 2.27 of ASME A17.1. Standby power shall be provided in accordance with Chapter 27 and Section 3003. The elevator shall be accessed from either an area of refuge complying with Section 1007.6 or a horizontal exit. (1007.4)

7. Platform (wheelchair) lifts shall not serve as part of an accessible means of egress (except where allowed as part of a required accessible route in section 1121A or 1116B.2.1 through 1116B.2.4, as applicable). (1007.5)

a) Standby power shall be provided in accordance with section 2702.2.6 for platform lifts permitted to serve as part of means of egress.

b) Show conformance with section 1116B.2 for additional accessible means of egress requirements at platform or platform lifts.

c) Platform lifts on an accessible means of egress shall not be installed in a fully enclosed hoist way.

8. Every required area of refuge shall be accessible from the space it serves by an accessible means of egress, and must comply with the following: (1007.6)
  - a) The maximum travel distance from any accessible space to an area of refuge shall not exceed the travel distance permitted for the occupancy in accordance with section 1016.1.
  - b) Every required area of refuge shall have direct access to an enclosed stairway complying with Sections 1007.3, and 1022 or an elevator complying with section 1007.4.
  - c) Where an elevator lobby is used as an area of refuge, the shaft and lobby shall comply with Section 1022.9 for smoke proof enclosures, unless the elevator is in an area of refuge formed by a horizontal exit or smoke barrier.
  - d) Areas of refuge shall comply with the requirements of the 2010 California Building Code, and shall adjoin an accessible route of travel complying with Section 1114B.1.2.
  - e) Each area of refuge shall be sized to accommodate two wheel chair spaces that are not less than 30" by 48" each. (1007.6.1)
  - f) The total number of wheelchair spaces within the area of refuge per story shall not be less than one for every 200 persons of calculated occupant load served by the area of refuge. The total minimum number of wheelchair spaces within an area of refuge may not be less than two, regardless of the occupant load being served by the area of refuge. (1007.6.1)
  - g) Wheel chair spaces within the area of refuge may not reduce the required means of egress width. (1007.6.1)
  - h) Access to any of the required wheelchair spaces in an area of refuge shall not be obstructed by more than one adjoining wheelchair space. (1007.6.1)
9. Each area of refuge shall be separated from the remainder of the story by a smoke barrier complying with Section 710 of the 2010 California Building Code, or a horizontal exit complying with Section 1025. Each area of refuge shall be designed to minimize the intrusion of smoke. (Exception applies to areas of refuge located within a vertical exit enclosure). (1007.6.2)
10. Areas of refuge shall be provided with a two-way communication system between the area of refuge and the fire command center or a central control point approved by the Fire Department. (1007.8.1)
11. Where the central control point is not constantly attended, a two-way communication system shall have a timed automatic telephone dial-out capability to a monitoring location or 911. The two-way communication system shall include both audible and visible signals. (1007.8.1)
12. The required visible signals shall be provided between the area of refuge and the central control point. As such, a button complying with section 1117B.6 in the area of refuge shall activate both a light in the area of refuge indicating that rescue has been requested and a light at the central point indicating that rescue is being requested. A button at the central control point shall activate both a light at the central control point and a light in the area of refuge indicating that the request has been received. (1007.8.1.1)
13. Directions for the use of the two-way communication system, instructions for summoning assistance via the two-way communication system and written identification of the location shall be posted adjacent to the two-way communication system. (1007.8.2)
14. Signage indicating special accessibility provisions shall be provided as shown: (1007.9)
  - a) Each door providing access to an area of refuge from an adjacent floor area shall be identified by a sign complying with section 1117B.5.1, item 2, stating: AREA OF REFUGE.
  - b) Each door providing access to an exterior area for assisted rescue shall be identified by a sign stating: EXTERIOR AREA FOR ASSISTED RESCUE.
15. Signage shall comply with Section 1117B.5.1, Items 2 and 3, requirements for visual characters and include the International Symbol of Accessibility. Provide illumination for the area of refuge sign when exit sign illumination for the door leading to the area of refuge is required by section 1011.2. Additionally, provide tactile signage complying with section 1117B.5.1, Item 1. It shall be located at each door to an area of refuge and exterior area for assisted rescue in accordance with Section 1011.3. (1007.9)
16. Direction signage indicating the location of the other means of egress and which are accessible means of egress shall be provided at the following: (1007.10)
  - a) At exits serving a required accessible space but not providing an approved accessible means of egress.
  - b) At elevator landings.
  - c) Within areas of refuge.
17. In areas of refuge and exterior areas for assisted rescue, instructions on the use of the area under emergency conditions shall be posted. The instructions shall include all of the following and shall comply with Section 1117B.5.1, Item 2.



18. If emergency warning systems are required, they shall activate a means of warning the hearing impaired. Emergency warning systems as part of the fire-alarm system shall be designed and installed in accordance with NFPA 72 as amended in chapter 35. (1007.12)

**C. PLATFORM LIFTS**

Platform (wheelchair) lifts may be provided between levels in lieu of passenger elevators when the vertical distance between landings, as well as the structural design and safeguards, are as allowed by ASME A18.1, Safety Standard for Platform Lifts and Stairway Chair Lifts; the State of California, Division of the State Architect- Access Compliance; the Department of Industrial Relations, Division of Occupational Safety and Health and any applicable safety regulations of other administrative authorities having jurisdiction.

When lifts are provided, they shall be designed and constructed to facilitate unassisted entry, operation and exit from the lift and shall comply with the restrictions and enhancements of this section in conjunction with Title 8 of the California Code of Regulations.

1. Lifts may be provided as part of an accessible route only for the following conditions:
  - a) To provide an accessible route to a performing area in an assembly occupancy, or to a speaking area or similar space (such as dais or "head table") in an assembly or group B occupancy. (1116B.2.1)
  - b) To comply with the wheelchair viewing position line-of-sight and dispersion requirements of Section 1104B.3.5. (1116B.2.2)
  - c) To provide access to incidental occupiable spaces and rooms, which are not open to the general public and which house no more than five persons, including, but not limited to, equipment control rooms and projection booths. (1116B.2.3)
  - d) To provide access where existing site constraints or other constraints make use of a ramp or an elevator infeasible. (1116B.2.4)
2. In new construction, the minimum size of landings at platform lifts shall be 60" by 60" (1524 mm by 1524 mm). Other dimensions may be substituted where it

can be demonstrated that a person using a wheelchair measuring 30" by 48" (762 mm by 1219 mm) can enter and operate the lift safely. (1116B.2.3)

3. Level and clear floor areas or landings at the platform lifts shall be part of "path of travel" requirements. The exceptions outlined in Section 1116B.2.4 cannot be used or applied to your project. If you wish to further discuss this comment, please contact your plans examiner. (1116B.2.4)
4. Platform (wheelchair) lifts, when provided as a component in an accessible means of egress, shall conform to the requirements of Section 1116B.2.5, as specified below:
  - a) To ensure continued operation in case of primary power loss, platform (wheelchair) lifts shall be provided with standby power or with self-rechargeable battery power that provides sufficient power to operate all platform lift functions for a minimum of five upward and downward trips. (1116B2.5.1)
  - b) Platform (wheelchair) lifts, when provided per Section 1116B.2, Item 2, are permitted to be a component of an accessible means of egress when the area served by the platform (wheelchair) lift does not serve more than four wheelchair viewing positions and where any one of the following condition exist. (1116B.3.2)
    - i) The building has a supervised automatic sprinkler system.
    - ii) The maximum distance from the point where the wheelchair occupant is seated to a point where the occupant has a choice of two directions of travel to an exit shall not exceed 30'-0" (9144 mm). The length of the path of travel shall include the vertical travel distance of the lift.
5. Lifts shall have low energy power-operated doors or gates. Doors and gates shall remain open for 20 seconds minimum. End doors shall be 32" (813 mm) clear width. Slide doors shall be 42" (1067 mm) minimum clear width. Manual doors or gates are allowed for lifts having doors or gates on opposite sides. (1116B2.6)

**D. ADDITIONAL COMMENTS**

No.	Comment	Code Sec. No.