NYC Buildings Department
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Technical

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Purpose: This document clarifies the requirements for an elevator, ambulance stretcher accommodation, and emergency power for such an elevator.

Related Code/Zoning Section(s):

BC	403.1	BC	1107	BC	2702.2.15	ICC A117.1	407.4.1
BC	403.11.2	BC	1107.7.1	BC	2702.2.20	ICC A117.1	408.4.1
BC	405.4.3	BC	1109.6.1	BC	3002.4	ICC A117.1	409.4.1
BC	1104.4	BC	2702.2.14	BC	3003.1	ASME A17.1	5.2.1.16
						ASME A17.1	5.3.1.10

Subject(s): Elevator, five stories; Elevator, emergency power; Elevator, ambulance stretcher; Elevator, elevator-in-readiness; High-rise buildings, elevator; High-rise buildings, emergency power; Underground buildings, emergency power; Group B, emergency power; Group E, emergency power; Group R-1, emergency power; Elevator, international symbol for emergency medical services; Elevator, private residence; Elevator, Limited Use Limited Application; Elevator, accessibility

I. Elevator required. Section BC 3002.4 establishes the requirements for elevator in buildings five stories or more in height:

> "In buildings five stories in height or more, at least one elevator shall be provided for Fire Department emergency access to all floors. Emergency power shall be provided in accordance with Sections 2702 and 3003. Such elevator car shall be of such a size and arrangement to accommodate a 24-inch by 76-inch (610 mm by 1930 mm) ambulance stretcher in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than 3 inches (76 mm) high and shall be placed on both jambs of the hoistway entrances on each floor."

Therefore in accordance with section BC 3002.4, regardless of occupancy classification, an elevator is required when a building reaches a height of five stories or more. However, other provisions in the 2008 NYC Construction Codes, such as sections BC 1104.4 and 1107.7.1 may necessitate an elevator for the purposes of providing an accessible route regardless of the overall height of the building.

II. Emergency Power. In accordance with section BC 2702.2.14, emergency power is required to be provided to elevators only in the following categories:

A. Elevator(s) in high-rise buildings covered by section BC 403.1, other than R-2 occupancies, as required by section BC 403.11.1

B. Elevator(s) in high-rise buildings in R-2 occupancy more than 125 feet in height, as required by section BC 403.11.2

C. Elevator(s) in underground buildings, as required by section BC 405.4.3

D. Elevator(s) in certain Groups B, E, and R-1 occupancies, per section BC 2702.2.20

E. Elevator(s) serving as accessible means of egress, per section BC 1007.4.

III. Elevator cab size.

A. Stretcher-sized elevator cab. Per section BC 3002.4, where a building is 5 stories or more in height, at least one elevator cab that is designed to serve as elevator-in-readiness shall be sized to accommodate an ambulance stretcher (see Figure 1 for sample cab sizes). Such elevator shall be identified as per section BC 3002.4 with the international symbol for emergency medical services/star of life (see Figure 2). Emergency power shall be required only where one of the triggers in II, above, is met.

Exception from stretcher-sized elevator cab: Elevators serving not more than one individual dwelling unit, regardless of height or number of stories in the building, are not required to be sized to accommodate an ambulance stretcher. See III.B below for required cab sizes for such elevators.

B. Other elevator cabs. For each elevator cab not required to be sized to accommodate an ambulance stretcher per III.A above, the elevator shall be sized as follows:

1. Passenger elevators. Passenger elevators on an accessible route shall meet dimensional requirements ICC A117.1-2003, section 407.4.1 (see figure 3). Passenger elevators not on an accessible route are not subject to dimensional cab size requirements. Regardless of the cab size, emergency power shall be required only where one of the triggers in II above, is met.

2. Limited-Use/Limited-Application (LULA) elevators (25 feet maximum rise). LULA elevators on an accessible route, where permitted pursuant to section BC 1109.6.1, shall meet the minimum dimensional requirements of ICC A117.1, section 408.4.1 (see figure 4). LULA elevators not on an accessible route are subject only to the maximum dimensional requirement of ASME A17.1, section 5.2.1.16(b). Regardless of the cab size, emergency power shall be required only where one of the triggers in II above, is met.

3. Private residence elevators (50 feet maximum rise). Within an individual dwelling unit in R-2 and R-3 occupancies, a private residence elevator may be installed for convenience purposes or to serve as an accessible route. Note that ASME A17.1 defines "*Private Residence*" as "*a separate dwelling or a separate apartment in a multiple dwelling which is occupied only by the members of a single family unit.*" Therefore a private residence elevator is not permitted to serve more than one individual dwelling unit. Private residence elevators on an accessible route shall meet the minimum dimensional requirements of ICC A117.1, section 409.4.1. Private residence elevators not on an accessible route are subject only to the maximum dimensional requirement of ASME A17.1, section 5.3.1.10. Emergency power shall not be required for any private residence elevator.

(Figures continue on next page)

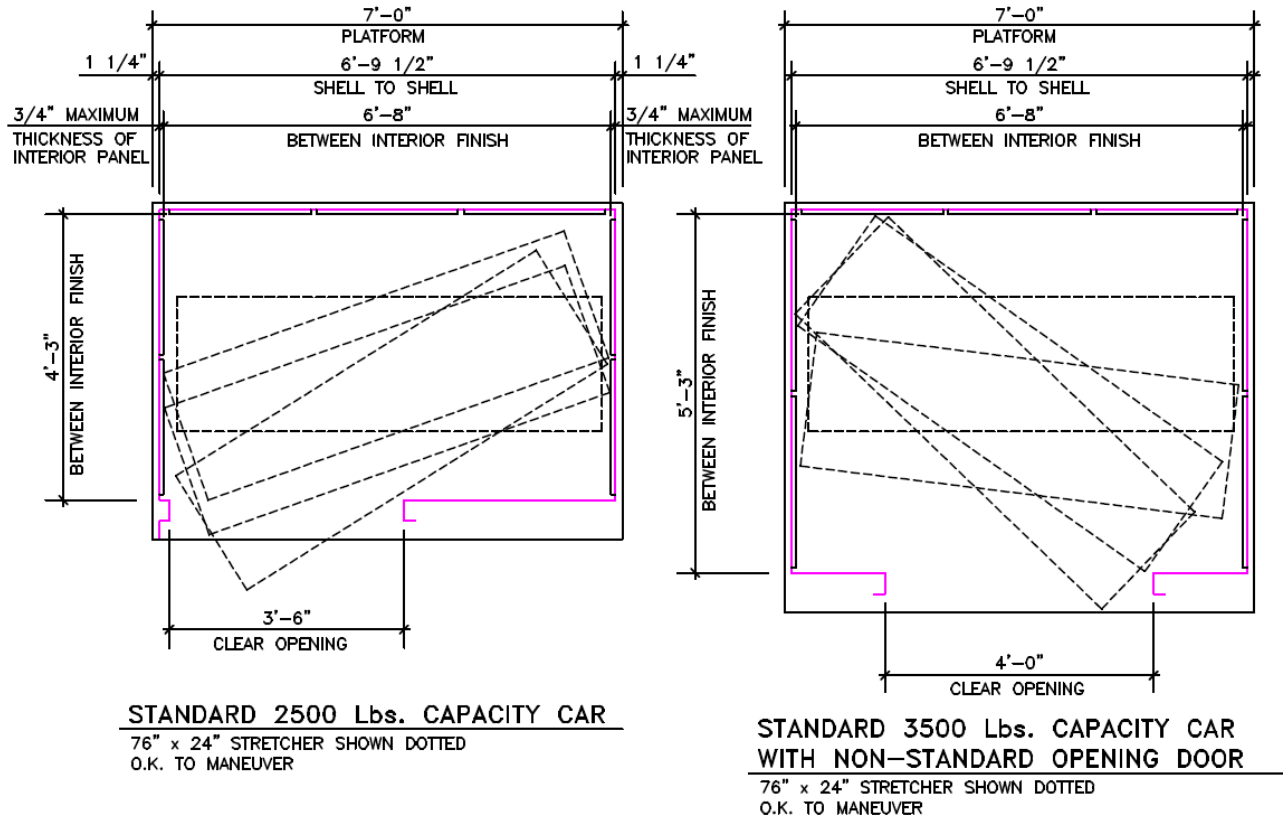

Figure 1
Stretcher-sized elevator cars

Figure 2
Symbol for emergency medical services (Star of Life)

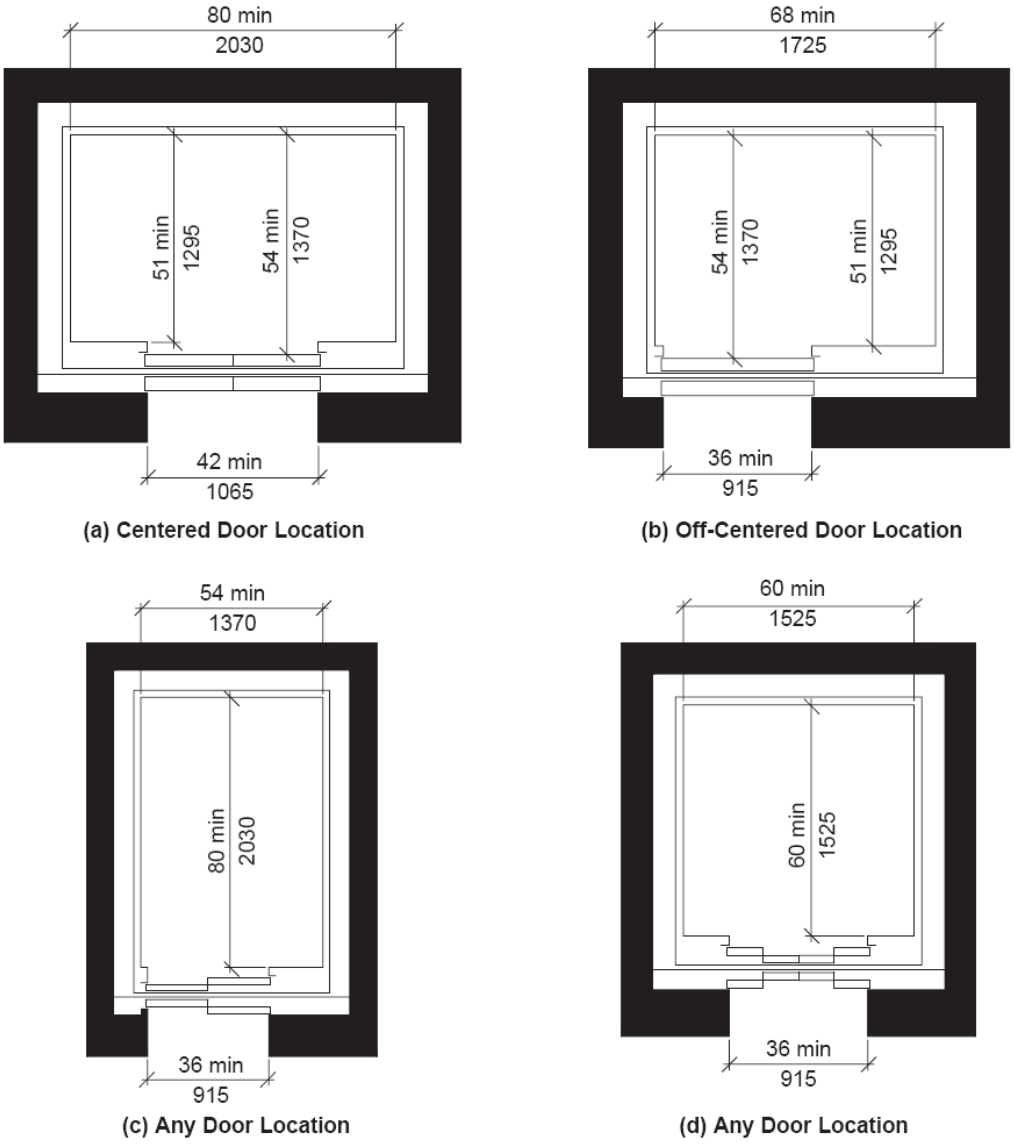

Figure 3
Excerpt of
Figure 407.4.1 of ICC A117.1-2003
Inside Dimensions of Elevator Cars

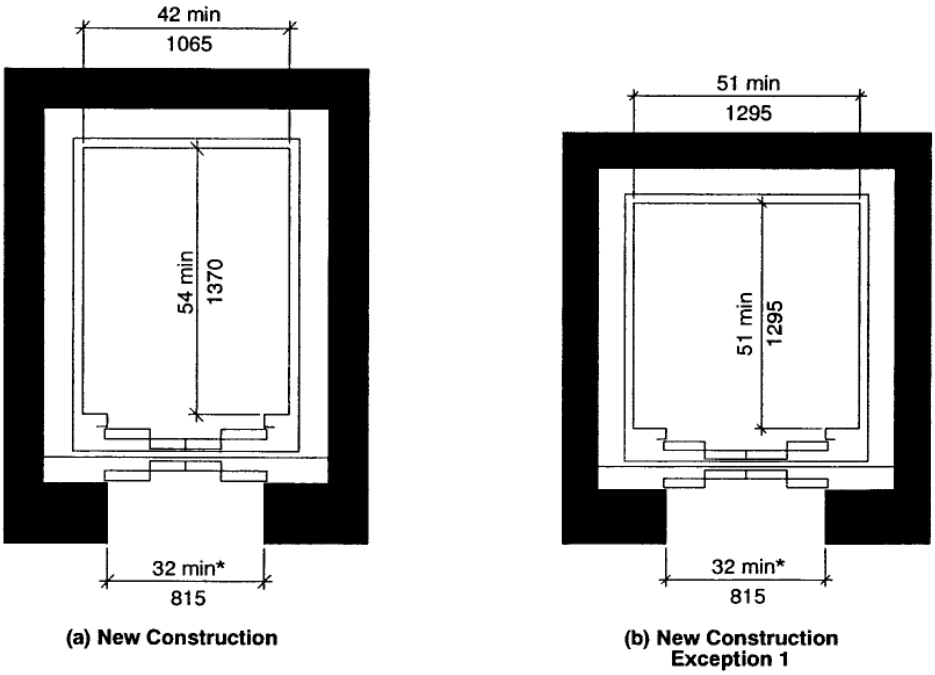

Figure 4
Excerpt of Figure 408.4.1 of ICC A117.1-2003
Inside Dimensions of Limited Use/Limited Application (LULA) Elevator Cars