

ENB-15.18 - Acceptable Alternatives to Required Elevator Lobbies - UBC/4/#4

ACCEPTABLE ALTERNATIVES TO REQUIRED ELEVATOR LOBBIES

Administrative Rule Adopted by Bureau Pursuant to Rule-Making Authority

ARB-ENB-15.18

TOPIC: Elevator Lobbies â€” UBC/4/#4

CODE: Structural Specialty Code: 1998 Edition

APPROVED: January 1, 2004

REFERENCE: Section 403.7 â€” Structural Specialty Code
Section 1004.3.4.5 â€” Structural Specialty Code

SUBJECT: Acceptable Alternatives to Required Elevator Lobbies

QUESTION: 1. Section 403.7 and Section 1004.3.4.5 require that elevators be provided with elevator lobbies when the elevator is located in a high-rise building or when the elevator opens up into a corridor. Will the City of Portland allow an elevator to be located in a high-rise B or R-1 occupancy or open into a corridor without a lobby?

RESPONSE: 1. Elevator lobbies are always required in high-rise residential occupancies [R-1, SR occupancies].

For high-rise Group B occupancies, the Bureau of Development Services (BDS) will allow an elevator to be installed without an elevator lobby when the elevator shaft is pressurized and all of the following conditions are met:

1. Pressurization Requirements

- a. Elevator hoistways shall be pressurized to maintain a minimum positive pressure of 0.04 inches of water column and a maximum positive pressure of 0.06 inches of water column with respect to adjacent occupied space on all floors.
- b. This pressure shall be measured at the middle of the height of the hoistway, with all ground floor level doors open and all other doors closed.
- c. The supply air intake shall be from an outside, uncontaminated source located a minimum distance of 20' from any air exhaust system or outlet.

2. Ducts for System

Any duct system that is part of the pressurization system shall be protected with the same fire rated construction as required for the elevator shaft(s).

3. Fan System

- a. When located in the building, the fan system that provides the pressurization shall be protected with the same fire rated construction as required for the elevator shaft(s).
- b. The fan system shall be equipped with a smoke detector. The smoke detector shall automatically shut down the fan system anytime smoke is detected within the system.
- c. A separate fan system shall be used for each bank of elevators.
- d. The supply fan shall either be:
 - 1) Adjustable with a capacity of at least 1000-cfm per door; or
 - 2) That specified by a registered engineer to meet the requirements of a designed pressurization system.

4. Emergency Power and Secondary Power Source

- a. The pressurization system shall be provided with emergency power from the same source as other required emergency systems for the building.
- b. All emergency power shall comply with the building and electrical codes.

5. Activation of Pressurization System

- a. The elevator pressurization system shall be activated by either the building alarm system or smoke detectors

located adjacent to the elevator(s).

b. Installation of detectors is to be by permit from the Fire Marshal's Office.

QUESTION: 2. In existing buildings constructed before the requirement for separated elevator lobbies, when will an elevator lobby be required to be constructed?

RESPONSE: 2. For existing buildings, elevator lobbies will be required as specified below:

1. Elevator lobbies shall be provided on any floor of a building where 51% or more of the floor area of the floor is involved in a change of occupancy; or
2. Elevator lobbies shall be provided throughout a building where the building is being completely renovated; or
3. Elevator lobbies shall be provided when alterations to 51% of a floor of a building occurs within any 12 month period. Elevator lobbies are only required for the floor where the alteration occurs; or
4. In buildings containing multiple wings, elevator lobbies shall be provided where alterations to an entire floor of a wing of a building occurs. Elevator lobbies are only required for the elevators serving the wing where the alteration occurs; or
5. Elevator lobbies shall be provided on any floor where alteration or modification changes the configuration of the corridor or hall providing common access to the exits; or
6. Elevator lobbies shall be provided on any floor where an increase in occupant load of more than 15% occurs due to an increase in floor area or intensification of use.

HISTORY

New January 1, 2004

Filed for inclusion in PPD September 29, 2004