TECHNICAL BULLETIN

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Source Document: 19NYCRR 1221 - Building Code of New York State (BCNYS)

Topic: Elevator Lobbies

Background:

Elevator hoistways may pose a significant hazard in their potential to spread fire and the products of combustion. Hoistways provide openings that can transport fire and smoke to other areas of the building if left unprotected. Because of this, the code regulates construction of hoistways and of areas surrounding elevator entrances to minimize this hazard.

The Building Code of New York State prohibits elevators from opening into exit passageways and some exit access corridors. Elevator lobbies may be required to separate elevator entrances from these two means of egress components and from smoke compartments in institutional occupancies.

Code Provisions:

Exit Access Corridors - Section 707.14.1 requires lobbies to be provided where an elevator would otherwise open into a fire-resistance-rated corridor as follows:

Section 707.14.1 Elevator lobby. Elevators opening into a fire-resistance-rated corridor as required by section 1016.1 shall be provided with an elevator lobby at each floor containing such a corridor. The lobby shall separate the elevators from the corridor by fire barriers and the required opening protection. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within this code.

EXCEPTIONS:

1. In office buildings, separations are not required from a street floor elevator lobby provided the entire street floor is equipped with an automatic sprinkler system in accordance with section 903.3.1.1.

2. Elevators not required to be located in a shaft in accordance with section 707.2.

3. Where additional doors are provided in accordance with section 3002.6. Such doors shall be tested in accordance with UL 1784 without an artificial bottom seal.
4. In buildings no more than four stories above the lowest level of fire department vehicle access, lobby separation is not required where the building, including the lobby and corridors leading to the lobby, is protected by an automatic sprinkler system installed throughout in accordance with section 903.3.1.1 or section 903.3.1.2. This exception shall not apply to Group I-3 occupancies.

Thus, elevator lobbies are required where section 1016.1 requires fire-resistance-rated corridors with exceptions as provided. In addition, section 1016.5 requires corridors to be continuous. Therefore, the elevator lobby cannot be within the required corridor, but must be adjacent. Note that elevators used as an accessible means of egress shall have lobbies at all floors if a single floor is required to have a lobby (BCNYS 1017.1). For institutional occupancies I-3, the provisions of Chapter 4 must also be considered in determining whether elevator lobbies are required.

I-2 Occupancies - Fire-resistance-rated corridors are not required by section 1016.1 for this occupancy classification. However, section 407.4 requires smoke barriers “to subdivide every story used by patients for sleeping or treatment and to divide other stories with an occupant load of 50 or more persons.” Openings into the smoke compartments so created must be provided with opening protectives in accordance with sections 709.5 and 714.2.3. Since elevator entrances do not normally comply with limits on air leakage found in UL 1784 (see section 714.2.3), an elevator lobby or its equivalent must be provided.

I-3 Occupancies - Section 1016.1 requires corridors to be fire rated and therefore requires elevator lobbies at these corridors. In addition, any smoke barriers provided in accordance with section 408.6 will require elevator lobbies as described for I-2 occupancies above.

Exit Passageways - Section 1021.4 prohibits elevators from opening into exit passageways. Where an elevator entrance would otherwise open into an exit passageway, an elevator lobby is required.

Fire-Resistance Rating:

The fire-resistance rating of portions of an elevator lobby are determined by the fire-resistance rating of building elements adjacent to it. Portions of an elevator lobby contiguous with a corridor or exit passageway have the same fire-resistance rating as the corridor or exit passageway as provided in sections 1016.1 or 1021.3 respectively. Where portions of the lobby form part of a smoke barrier, the fire-resistance rating of those portions is required to conform with the smoke barrier provisions of section 709.3.

Construction separating an elevator lobby from any area of a building would have its fire-resistance rating determined by requirements for the space or by general construction requirements of Chapter 6. Where the elevator lobby is used as an area of refuge, the fire-resistance rating shall be determined in accordance with the provisions of Chapter 10.

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