

BCAC Meeting #12

Date: 12-22-2020

Work Group	Item	Vote
Egress	Item 6-1 Corridor continuity – elevator hoistway and door protection	
Egress	Item 6-2 Corridor continuity – lobby walls	
Egress	Item 6-3 Corridor continuity – rated corridors and elevator doors	
Egress	Item 6-4 Corridor continuity – door size in fire barriers	
Egress	Item 6-5 Corridor continuity – exception for low rise	
Egress	Item 11-1 Lodging houses/R-1 IBC Chapter 11	
Egress	Item 11-2 Lodging houses/R-1 IBC 310	
Egress	Item 11-3 Lodging houses/R-1 IBC 310.1	
Egress	Item 20-1 Automatic doors mixed use buildings	
Egress	Item 20-2 Automatic doors strip malls	
Egress	Item 20-3 Automatic doors definitions	
Egress	Item 20-4 Automatic doors terminology	
Egress	Item 24 exit enclosure exception (waiting for reason)	
Egress	Item 29 exit from elevator lobbies	
Egress	Item 32 man traps/control vestibules	In progress
Egress	Item 35 EERO path of travel	
Occupancy	Item 18 Vertical grab bars (still waiting for final proposal)	

There are also multiple Administrative proposals that are ready for review. BCAC needs to look at these to see if we can send to the other CACs for their co-sponsorship where needed.

Item	ADM Proposals	BCAC	FCAC	PMGCAC	SEHPCAC	Needs discussion
2	Fees (IECC R & C, IRC; see also Item 19)				X	
4	Temporary structures	X	X	X		
5	Enforcement agency (IRC)	X				
6	Means of Appeals	X	X	X	X	
9	Property protection (IRC) – returned by BCAC	X				
10	Service utilities (see also Item 18)	X				
18	duplicate text ADM 39 (see also Item 10 - ISPSC, IPSDC, IFGC, IMC, IPC)			X		

19	coordination with ADM 27 and 33 (see also Item 2)	X		X		
20	duplicate of Board of Appeals (ISPSC, IPSDC, IFGC)			X		

## BCAC Egress Item 6 corridor continuity – 6 proposals

Revised 11-15-2020

# Proposal 1 – Elevator hoistway and door protection

**713.14 Elevator, dumbwaiter and other hoistways.** A hoistway for Elevator, dumbwaiter and other vertical access device hoistway enclosures shall comply with section 712. Where the hoistway is required to be enclosed it shall be constructed as a shaft enclosure in accordance with Sections ~~712 and~~ 713, and Chapter 30.

**716.2.6.1 Door closing.** *Fire doors* shall be latching and self- or automatic-closing in accordance with this section.

**Exceptions:**

1. *Fire doors* located in common walls separating *sleeping units* in Group R-1 shall be permitted without automatic- or *self-closing* devices.
2. The elevator car doors and the associated elevator hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I emergency recall operation.

### SECTION 3002 HOISTWAY ENCLOSURES

**3002.1 Hoistway enclosure protection.** A hoistway for Elevator, dumbwaiter and other vertical access device hoistway enclosures shall be shaft enclosures complying comply with Sections 712 ~~and 713~~. Where the hoistway is required to be enclosed it shall be constructed as a shaft enclosure in accordance with Section 713.

**3002.1.1 Opening protectives.** Openings in fire-resistance rated hoistway enclosures shall be protected as required in Chapter 7.

**Exception:** The elevator car doors and the associated elevator hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I Emergency Recall Operation.

**3002.1.2 Hardware.** Hardware on ~~opening-protectives~~ elevator hoistway doors shall be of an *approved* type installed as tested, except that *approved* interlocks, mechanical locks and electric contacts, door and gate electric contacts and door-operating mechanisms shall be exempt from the fire test requirements.

**3002.2 Number of elevator cars in a hoistway.** Where four or more elevator cars serve all or the same portion of a building, the elevators shall be located in not fewer than two separate fire-resistance rated hoistways enclosures. Not more than four elevator cars shall be located in any single fire-resistance rated hoistway enclosure.

**3002.6 Prohibited doors or other devices.** Doors or other devices, other than ~~hoistway doors~~ and the elevator car door and the associated elevator hoistway doors, shall be prohibited at the point of access to an elevator car unless such doors or other devices are readily openable from inside the car side without a key, tool, special knowledge or effort.

## **SECTION 3006 ELEVATOR LOBBIES AND HOISTWAY DOOR OPENING PROTECTION**

**3006.1 General.** ~~Elevator hoistway openings and~~ Enclosed elevator lobbies and elevator hoistway door protection shall be provided in accordance with the following:

1. Where elevator hoistway door opening protection is required by Section 3006.2, such protection shall be provided in accordance with Section 3006.3.
2. Where enclosed elevator lobbies are required for underground buildings, such lobbies shall comply with Section 405.4.3 (elevators-lobby requirements).
3. Where an area of refuge is required and an enclosed elevator lobby is provided to serve as an area of refuge, the enclosed elevator lobby shall comply with Section 1009.6.4 (separation - area of refuge).
4. Where fire service access elevators are provided, enclosed elevator lobbies shall comply with Section 3007.6 (fire service access elevator lobby).
5. Where occupant evacuation elevators are provided, enclosed elevator lobbies shall comply with Section 3008.6 (occupant evacuation elevator lobby).

**3006.2 Elevator Hoistway door opening protection required.** Elevator hoistway doors s openings shall be protected in accordance with Section 3006.3 where an elevator hoistway connects more than three *stories*, is required to be enclosed within a *shaft enclosure* in accordance with Section 712.1.1 and any of the following conditions apply:

1. The building is not protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
2. The building contains a Group I-1, Condition 2 occupancy.
3. The building contains a Group I-2 occupancy.
4. The building contains a Group I-3 occupancy.
5. The building is a high rise and the elevator hoistway is more than 75 feet (22 860 mm) in height. The height of the hoistway be measured from the lowest floor to the highest floor of the floors served by the hoistway.

**Exceptions:**

1. Protection of elevator hoistway doors s openings is not required where the elevator serves only open parking garages in accordance with Section 406.5.

2. Protection of elevator hoistway doors ~~s openings~~ is not required at the levels of exit discharge, provided that the levels of exit discharge is equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
3. ~~Enclosed elevator lobbies and~~ Protection of elevator hoistway doors ~~s openings~~ are not required on levels where the elevator hoistway door opens to the exterior.

**3006.3 Elevator Hoistway door opening protection.** Where Section 3006.2 requires protection of the elevator hoistway door ~~opening~~, the protection shall be provided by one of the following:

1. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway ~~shaft enclosure~~ doors from each floor by *fire partitions* in accordance with Section 708 (fire partitions). In addition, doors protecting openings in the elevator lobby enclosure walls shall comply with Section 716.2.2.1 (door assemblies in corridors and smoke barriers). Penetrations of the enclosed elevator lobby by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1 (corridors-duct and air transfer openings).
2. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway ~~shaft enclosure~~ doors from each floor by *smoke partitions* in accordance with Section 710 (smoke partitions) where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. In addition, doors protecting openings in the *smoke partitions* shall comply with Sections 710.5.2.2 (smoke and draft control doors), 710.5.2.3 (self- or automatic-closing doors) and 716.2.6.1 (door closing). Penetrations of the enclosed elevator lobby by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1 (corridors-duct and air transfer openings).
3. Additional doors or other devices shall be provided at each elevator hoistway door ~~opening~~ in accordance with Section 3002.6 (prohibited doors). Such door or other devices shall comply with the smoke and draft control door assembly requirements in Section 716.2.2.1.1 (smoke and draft controls) when tested in accordance with UL 1784 without an artificial bottom seal.
4. The elevator hoistway shall be pressurized in accordance with Section 909.21 (Elevator hoistway pressurization alternative).

Reason: The intent of this proposal is consistent terminology for elevator protection. The current text is very inconsistent. This is not intended to have any technical changes.

The elevator industry considers an elevator hoistway the vertical movement of that device, whether it be in a rated enclosure, in non-rated enclosure, or not enclosed at all. The photos are examples of hoistways that are the non-rated enclosure and the open hoistway.



Examples of an elevator in a hoistway but not in a shaft

3002 - First there is the requirements for the shaft itself in Section 3002.

The changes to 3002.1 is to clarify that a hoistway can use any of the vertical opening allowances in Section 712. If the hoistway is required to enclosed, it shall be constructed as a vertical shaft enclosure (713).

The change to 'elevator hoistway doors' is to clarify that we are talking about the door in the wall of the fire barrier that is the primary opening protective – not the doors in the elevator car or the option permitted in Section 3006.3 Exception 3.

The IBC talks about 'elevator lobbies' throughout the text (405.4.3, 407.5.5, 708.1, 709.4, 709.4.2, 907.2.2, 907.2.13.1.1., 907.2.13.2, 907.2.18.1, 907.5.2.1, 909.21, 909.21.6, 1016.2, 1029.7, 1023.10, 3006, 3007 and 3008). Most commonly this is room or area in front of an elevator or a group of elevators. However, there is also the options of an extra door or other device immediately in front of the elevator entrance door (3006.3 Item 3) or a pressurized elevator shaft (3006.3 Item 4).



Examples of doors or other devices in front of associated elevator entrance doors – see Section 3002.6 and 3006.3 Item 3

**Cost impact: None.** This is a clarification requirement and has no changes to the construction.

# Proposal 2 – Lobby walls

## SECTION 708 FIRE PARTITIONS

### 708.4 Continuity....

**708.4.1 Fire partition walls enclosing elevator lobbies.** *Fire partition walls used to enclose elevator lobbies in accordance with Section 3006.3 (elevator hoistway protection), shall form an effective enclosure that terminates at a fire barrier or fire partition having a level of fire-resistance-rating not less than 1 hour, or an outside wall.*

## SECTION 709 SMOKE BARRIERS

### 709.4 Continuity....

**709.4.2 Smoke-barrier walls enclosing areas of refuge or elevator lobbies.** *Smoke-barrier walls used to enclose areas of refuge in accordance with Section 1009.6.4, or to enclose elevator lobbies in accordance with Section 405.4.3 (elevators-underground buildings), 3007.6.2 (lobby enclosure-fire service access), or 3008.6.2 (lobby enclosure – occupant evacuation elevator), shall form an effective membrane enclosure that terminates at a fire barrier wall having a level of fire protection resistance rating not less than 1 hour, another smoke barrier wall or an outside wall.*

A smoke and draft control door assembly as specified in Section 716.2.2.1.1 shall not be required at each elevator hoistway door opening where protected by an elevator lobby, at each exit door opening into a protected lobby or at each exit doorway between an *area of refuge* and the exit enclosure.

## SECTION 710 SMOKE PARTITIONS

### 710.4 Continuity....

**710.4.1 Smoke partition walls enclosing elevator lobbies.** *Smoke partition walls used to enclose elevator lobbies in accordance with Section 3006.3 (elevator hoistway protection), shall form an effective enclosure that terminates at a fire barrier having a level of fire-resistance-rating not less than 1 hour, another smoke partition or an outside wall.*

## SECTION 405 UNDERGROUND BUILDINGS

**405.4.3 Elevators.** Where elevators are provided, each compartment shall have direct access to an elevator. Where an elevator serves more than one compartment, an **enclosed elevator lobby** shall be provided and shall be separated from each compartment by a *smoke barrier* in accordance with Section 709. Doorways in the *smoke barrier* shall be protected by *fire door assemblies* that comply with Section 716, shall comply with the smoke and draft control assembly requirements of Section 716.2.2.1 with the UL 1784 test conducted without an artificial bottom seal, and shall be automatic-closing by smoke detection in accordance with Section 716.2.6.6.

**SECTION 3006**  
**ELEVATOR LOBBIES AND**  
**HOISTWAY DOOR OPENING PROTECTION**

**3006.3 Elevator Hoistway door opening protection.** Where Section 3006.2 requires protection of the elevator hoistway door opening, the protection shall be provided by one of the following:

1. An **enclosed elevator lobby** shall be provided at each floor to separate the elevator hoistway ~~shaft enclosure~~ doors from each floor ~~by~~ with *fire partitions* in accordance with Section 708 (fire partitions). In addition, doors protecting openings in the ~~elevator lobby enclosure walls~~ fire partitions shall comply with Section 716.2.2.1 (door assemblies in corridors and smoke barriers) ~~as required for corridor walls~~. Penetrations of the ~~enclosed elevator lobby~~ fire partitions by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1 (corridors-duct and air transfer openings).
2. An **enclosed elevator lobby** shall be provided at each floor to separate the elevator hoistway ~~shaft enclosure~~ doors from each floor ~~by~~ with *smoke partitions* in accordance with Section 710 (smoke partitions) where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. In addition, doors protecting openings in the *smoke partitions* shall comply with Sections 710.5.2.2 (smoke and draft control doors), 710.5.2.3 (self- or automatic-closing doors) and 716.2.6.1 (door closing). Penetrations of the ~~enclosed elevator lobby~~ smoke partitions by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1 (corridors-duct and air transfer openings).
3. Additional doors shall be provided at each elevator hoistway door opening in accordance with Section 3002.6 (prohibited doors). Such door shall comply with the smoke and draft control door assembly requirements in Section 716.2.2.1.1 (smoke and draft controls) when tested in accordance with UL 1784 without an artificial bottom seal.
4. The elevator hoistway shall be pressurized in accordance with Section 909.21 (Elevator hoistway pressurization alternative).

**SECTION 3007**  
**FIRE SERVICE ACCESS ELEVATOR**

**3007.6 Fire service access **elevator lobby**.** The fire service access elevator shall open into an enclosed fire service access **elevator lobby** in accordance with Sections 3007.6.1 through 3007.6.5. Egress is permitted through the enclosed **elevator lobby in** accordance with Item 1 of Section 1016.2.

**Exception:** Where a fire service access elevator has two entrances onto a floor, the second entrance shall be permitted to be protected in accordance with Section 3006.3 (hoistway opening protection).



**3007.6.1 Access to interior exit stairway or ramp.** The enclosed fire service access **elevator lobby** shall have *direct access* from the enclosed **elevator lobby** to an enclosure for an *interior exit stairway or ramp*.

**Exception:** Access to an *interior exit stairway or ramp* shall be permitted to be through a protected path of travel that has a level of fire protection not less than the **elevator lobby** enclosure. The protected path shall be separated from the enclosed **elevator lobby** through an opening protected by a smoke and draft control assembly in accordance Section 716.2.2.1 (smoke and draft controls).

**3007.6.2 Elevator Lobby enclosure.** The fire service access **elevator lobby** shall be **enclosed separated from each floor** with a *smoke barrier in accordance with Section 709 having a fire-resistance rating of not less than 1 hour*, except that lobby doorways shall comply with Section 3007.6.3.

**Exception:** Enclosed fire service access **elevator lobbies** are not required at the *levels of exit discharge*.

**3007.6.3 Elevator Lobby doorways.** Other than doors to ~~the hoistway~~, elevator control room or elevator control space, each ~~door doorway to an enclosed fire service access elevator lobby in the fire barrier~~ shall be provided with a <sup>3</sup>/<sub>4</sub>-hour *fire door assembly* complying with Section 716 (opening protectives). ~~The Such~~ *fire door assembly* shall comply with the smoke and draft control door assembly requirements of Section 716.2.2.1.1 (smoke and draft controls) and be tested in accordance with UL 1784 without an artificial bottom seal.

## SECTION 3008 OCCUPANT EVACUATION ELEVATORS

**3008.6 Occupant evacuation elevator lobby.** Occupant evacuation elevators shall open into an enclosed **elevator lobby** in accordance with Sections 3008.6.1 through 3008.6.6. Egress is permitted through the **elevator lobby** in accordance with Item 1 of Section 1016.2.

**3008.6.1 Access to interior exit stairway or ramp.** The occupant evacuation **elevator lobby** shall have *direct access* from the enclosed **elevator lobby** to an *interior exit stairway or ramp*.

**Exceptions:**

1. Access to an *interior exit stairway or ramp* shall be permitted to be through a protected path of travel that has a level of fire protection not less than the **elevator lobby** enclosure. The protected path shall be separated from the enclosed **elevator lobby** through an opening protected by a smoke and draft control assembly in accordance Section ~~716.2.2.1~~ **716.2.2.1.1** (smoke and draft controls).
2. Elevators that only service an *open parking garage* and the **elevator lobby** of the building shall not be required to provide *direct access*.

**3008.6.2 Elevator Lobby enclosure.** The occupant evacuation **elevator lobby** shall be **enclosed separated from each floor** with a *smoke barrier in accordance with Section 709 having a fire-resistance rating of not less than 1 hour*, except that lobby doorways shall comply with Section 3008.6.3.

**Exception:** Enclosed occupant evacuation **elevator lobbies** are not required at the *levels of exit discharge*.

**3008.6.3 Elevator Lobby doorways.** Other than the doors to ~~the hoistway,~~ elevator machine rooms, machinery spaces, control rooms and control spaces ~~within the lobby enclosure in the smoke-barrier,~~ each doorway to an occupant evacuation **elevator lobby** shall be provided with a  $\frac{3}{4}$ -hour *fire door assembly* complying with Section 716 (opening protectives). ~~The~~ **Such** *fire door assembly* shall comply with the smoke and draft control assembly requirements of Section 716.2.2.1.1 (smoke and draft controls) and be tested in accordance with UL 1784 without an artificial bottom seal.

**3008.6.3.1 Vision panel.** A vision panel shall be installed in each *fire door assembly* ~~protecting the lobby doorway in the smoke barrier.~~ The vision panel shall consist of fire-protection-rated glazing, shall comply with the requirements of Section 716 (opening protectives) and shall be located to furnish clear vision of the occupant evacuation **elevator lobby**.

**3008.6.3.2 Door closing.** Each *fire door assembly* ~~protecting the lobby doorway in the smoke barrier~~ shall be automatic-closing upon receipt of any fire alarm signal from the *emergency voice/alarm communication system* serving the building.

Reason: The intent of this proposal is to clarify lobby protection requirements – which walls are fire barriers, fire partitions or smoke barriers. This will also clarify what requirements are applicable for the elevator hoistway doors vs. the doors in the other walls of the lobby protection. The current language is inconsistent for the locations where elevator lobbies are specified.

This protection of elevator lobbies is a combination of the elevator hoistway and exit stairway (direct access to a stairway is required for fire service an occupant evacuation elevator lobbies) shaft enclosure/fire barriers and the fire partitions or smoke barriers required for lobbies (405.4.3, 3006.3, 3007.6.2 and 3008.6.2) The intent of new 708.4.1 and revised 709.4.2 is to clarify that the fire partitions/smoke barrier criteria is not applicable to all the walls of the elevator lobby since the vertical shaft/fire barrier protections is adequate. Fires typically happen in the occupied portions of the buildings, not within the elevator shaft or the stairway. In addition, in situations where an elevator lobby is provided, the elevator shafts are double protected from smoke intrusion from a fire on the floor.

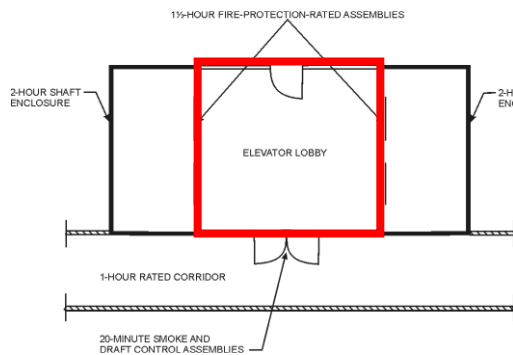


Diagram for elevator lobby

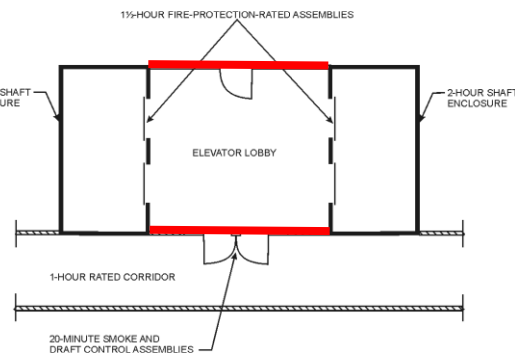


Diagram for which walls are fire partitions, smoke partitions or smoke barriers

Provisions for horizontal continuity are addressed for smoke barriers that surround elevator lobbies or areas of refuge. The same horizontal continuity should be addressed for elevator lobbies enclosed with fire partitions in Section 3006.3 Item 1 or smoke partitions in Section 3006.3 Item 2. The movement of ‘smoke barrier wall’ just assures a minimum fire resistance rating. The last sentence in 709.4.2 is not needed with the clarification of which walls meet which requirements in Chapter 30.

The reference to sprinklers is not needed in Section 3006.3 Item 2, because this is already a limitation in Section 3006.2. Taking it out makes this item easier to read. In addition, this could currently be read to not allow smoke

barriers to form elevator lobbies in non-sprinklered buildings. Smoke barriers provide equal or better protection than fire partitions.

Cost impact: None. This is a clarification for elevator lobby requirements. While technical criteria was added for horizontal continuity for fire partitions and smoke partitions at elevator lobbies, this was implied previously and does not add cost to construction.

## Proposal 3 – rated corridors and elevator doors

**3006.2 Elevator Hoistway door opening protection required.** Elevator hoistway doors openings shall be protected in accordance with Section 3006.3 where an elevator hoistway connects more than three *stories*, is required to be enclosed within a *shaft enclosure* in accordance with Section 712.1.1 and any of the following conditions apply:

1. The building is not protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
2. The building contains a Group I-1, Condition 2 occupancy.
3. The building contains a Group I-2 occupancy.
4. The building contains a Group I-3 occupancy.
5. The building is a high rise and the elevator hoistway is more than 75 feet (22 860 mm) in height. The height of the hoistway be measured from the lowest floor to the highest floor of the floors served by the hoistway.
6. The elevator hoistway door is located in the wall of a corridor required to be fire-resistance rated in accordance with 1020.1.

### Exceptions:

1. Protection of elevator hoistway door openings is not required where the elevator serves only open parking garages in accordance with Section 406.5.
2. Protection of elevator hoistway door openings is not required at the levels of exit discharge, provided that the levels of exit discharge is equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
3. **Enclosed elevator lobbies and** Protection of elevator hoistway door openings are not required on levels where the elevator hoistway opens to the exterior.

~~**3006.2.1 Rated corridors.** Where corridors are required to be fire-resistance rated in accordance with Section 1020.1, elevator openings shall be protected in accordance with Section 3006.3.~~

## SECTION 1020 CORRIDORS

### 1020.1 Construction....

**1020.2.1 Hoistway door opening protection.** Elevator hoistway doors in elevators hoistway enclosures required to be fire resistance rated shall be protected in accordance with Section 716. Elevator hoistway doors openings shall also be protected in accordance with Section ~~3006.2.1~~ 3006.2

Reason: Elevator doors that open into a rated corridor have to meet both the fire partition and fire barrier requirements. The options for elevator door protection in Section 3006.3 would be a viable option, so Section 3006.2.1 could be moved up as Item 6 in Section 3006.2.

The change to 1020.2.1 is a pointer to both the rated corridor and elevator hoistway door protection requirements.

Cost impact: None. This is a clarification of requirements.

## Proposal 4 – door size in fire barriers

### SECTION 707 FIRE BARRIERS

**707.1 General.** *Fire barriers* installed as required elsewhere in this code or the *International Fire Code* shall comply with this section.

**707.6 Openings.** Openings in a *fire barrier* shall be protected in accordance with Section 716. Openings shall be limited to a maximum aggregate width of 25 percent of the length of the wall, and the maximum area of any single opening shall not exceed 156 square feet (15 m<sup>2</sup>). Openings in enclosures for *exit access stairways* and *ramps*, *interior exit stairways* and *ramps* and *exit passageways* shall also comply with Sections 1019, 1023.4 and 1024.5, respectively.

#### Exceptions:

1. Openings shall not be limited to 156 square feet (15 m<sup>2</sup>) where adjoining floor areas are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
2. Openings shall not be limited to 156 square feet (15 m<sup>2</sup>) or an aggregate width of 25 percent of the length of the wall where the opening protective is a *fire door* serving enclosures for *exit access stairways* and *ramps*, and *interior exit stairways* and *ramps*.
3. Openings shall not be limited to 156 square feet (15 m<sup>2</sup>) or an aggregate width of 25 percent of the length of the wall where the opening protective has been tested in accordance with ASTM E119 or UL 263 and has a minimum *fire-resistance rating* not less than the *fire-resistance rating* of the wall.
4. *Fire window assemblies* permitted in *atrium* separation walls shall not be limited to a maximum aggregate width of 25 percent of the length of the wall.
5. Openings shall not be limited to 156 square feet (15 m<sup>2</sup>) or an aggregate width of 25 percent of the length of the wall where the opening protective is a *fire door assembly* in a *fire barrier* separating an enclosure for *exit access stairways* and *ramps*, and *interior exit stairways* and *ramps* from an *exit passageway* in accordance with Section 1023.3.1.
6. Openings providing entrance to an elevator car shall not be limited to 156 square feet (15 m<sup>2</sup>) or an aggregate width of 25 percent of the length of the wall where the opening protective is a fire door assembly in a fire barrier that is an elevator hoistway enclosure.

Reason: The doors to the elevator in an elevator shaft are limited by the size of the associated cab and addressed by the safety standards in ASME A17.1. The size of the shaft is determined by the car size and the number of cars. While this size and length limitation is a literal requirement in fire barriers, it is not typically applied to elevator shafts.

Cost impact: None. Clarification with no change in requirements.

# Proposal 5 – exception for low rise

## SECTION 716 OPENING PROTECTIVES

**716.2.2 Performance requirements.** *Fire door assemblies* shall be installed in the assemblies specified in Table 716.1(2) and shall comply with the *fire protection rating* specified.

**716.2.2.1 Door assemblies in corridors and smoke barriers.** *Fire door assemblies* required to have a minimum *fire protection rating* of 20 minutes where located in *corridor walls* or *smoke barrier walls* having a *fire-resistance rating* in accordance with Table 716.1(2) shall be tested in accordance with NFPA 252 or UL 10C without the hose stream test.

### Exceptions:

1. Viewports that require a hole not larger than 1 inch (25 mm) in diameter through the door, have not less than a 0.25-inch-thick (6.4 mm) glass disc and the holder is of metal that will not melt out where subject to temperatures of 1,700°F (927°C).
2. *Corridor* door assemblies in occupancies of Group I-2 shall be in accordance with Section 407.3.1.
3. Unprotected openings shall be permitted for *corridors* in multitheater complexes where each motion picture auditorium has not fewer than one-half of its required *exit* or *exit access doorways* opening directly to the exterior or into an *exit* passageway.
4. Horizontal sliding doors in *smoke barriers* that comply with Sections 408.6 and 408.8.4 in occupancies in Group I-3.
5. In corridor walls required to have a fire-resistance rating in accordance with Section 1020.2, an elevator hoistway door opening directly into the corridor is not required to meet the smoke and draft control door assembly requirements in this section where the elevator connect 3 stories or less and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.1.1 or 903.1.2.

## SECTION 1020 CORRIDORS

### 1020.1 Construction....

**1020.2.1 Hoistway door opening protection.** Elevator hoistway doors in elevators hoistway enclosures required to be fire resistance rated shall be protected in accordance with Section 716. Elevator hoistway doors openings shall also be protected in accordance with Section ~~3006.2.1~~ 3006.2

Reason: The intent of this proposal is to allow for two and three story Group R and Group I-1 buildings that do not have to have elevator lobbies to not have smoke and draft control at the doors. Even with sprinklers, these buildings have fire resistance rated corridors.

Elevators are within vertical shafts and are sent to fire barrier protection requirements in Section 712.1.1, 713.14 and 3002.1. Section 707.6 in fire barriers references Section 716 for opening protection of all openings, which would include door through the shaft to allow entrance into the elevator car. Elevator car doors often open directly into a rated corridor, so Section 716.2.2.1 is applicable to those elevator doors.

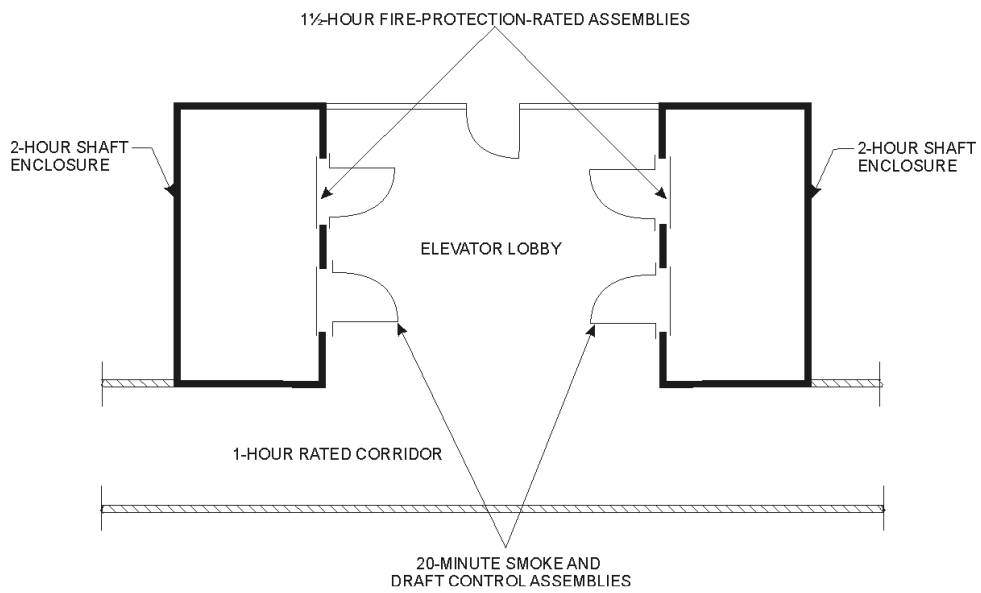
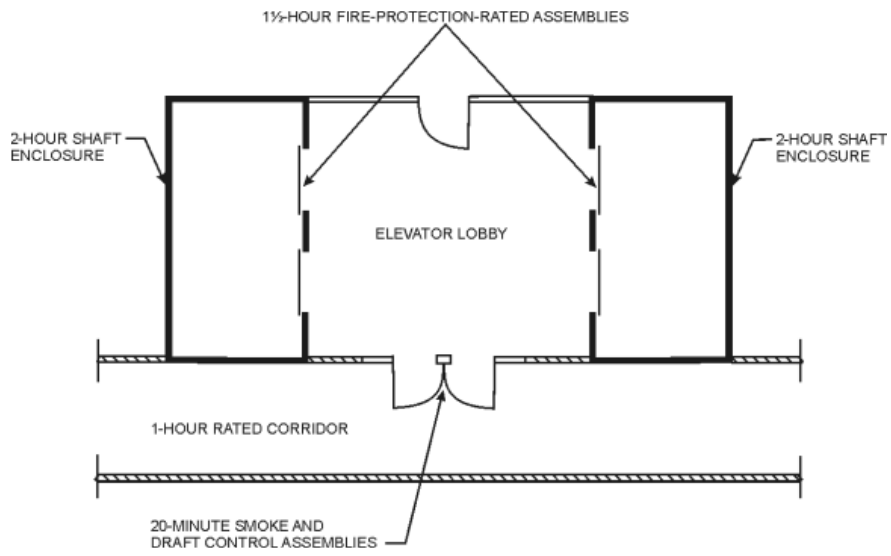
The new exception 5 in Section 716.2.2.1 is to allow for elevators in low rise building to not have to meet the smoke and draft requirements of opening protectives in corridors. While many elevator hoistway/vertical shaft doors are tested and labeled for the 1-hour or 1<sup>1</sup>/<sub>2</sub>-hour fire resistance rating (see Section 716.2.1), very few, if any

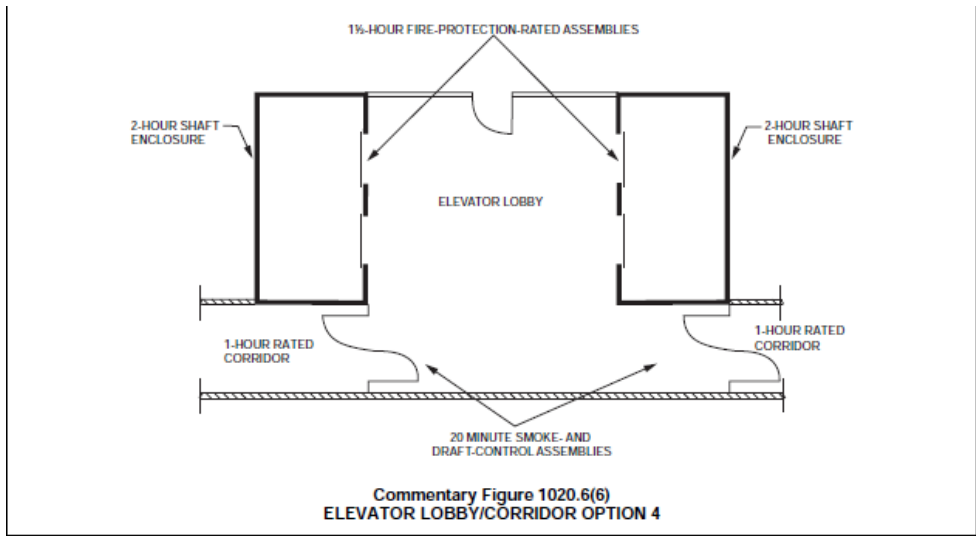
of the doors typically sold in the United States will also meet the smoke and draft requirements (see Section 716.2.2.1.1) that would allow them to open directly into a fire-resistance-rated corridor.

Current text literally results in elevator lobbies or other protection in front of the elevator doors in all rated corridors. There would not be significant stack effect for the movement of smoke with this minimal allowance. The code currently allows other floor vertical openings in Sections 712 and 1019.3 for four stories, so how is the elevator shaft more of a hazard? This allowance would make these buildings then require elevator lobbies/elevator opening protect at the same point, thus coordinating Section 716 and 3006.

The pointer in Section 1020.2.1 is in recognition that elevator entrance doors in rated corridors have to meet both criteria.

Below are what is currently required in even 2 story building with rated corridors.





Cost impact: Decrease in some 2 and 3 story buildings. The shaft would need a fire resistant elevator entrance door, but would not require a lobby or other protection options to meet the smoke and draft control.



# BCAC Egress Item 11

## Coordination with small B 'n B exception

Three questions:

Coordination between Chapter 3 Group R-3 and Section 1103.2.11  
Coordination with scoping in IBC and IRC Terminology  
What about fire stations? These are Title 2 buildings under ADA.

### Proposal 1 -

IBC

**1103.2.11 Residential Group R-1 or R-3.** Buildings of Group R-1 containing not more than five *sleeping units* for rent or hire that are also occupied as the residence of the proprietor are not required to comply with this chapter. Buildings of Group R-3 congregate living facilities (transient) or boarding houses (transient) containing not more than five *sleeping units* for rent or hire that are also occupied as the residence of the proprietor are not required to comply with this chapter.

**1107.6.3 Group R-3.** *Accessible units* and *Type B units* shall be provided in Group R-3 occupancies in accordance with Sections 1107.6.3.1 and 1107.6.3.2. ~~In Group R-3 occupancies where there are four or more dwelling units or sleeping units intended to be occupied as a residence in a single structure, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.~~ Bedrooms within congregate living facilities, dormitories, sororities, fraternities, and boarding houses shall be counted as *sleeping units* for the purpose of determining the number of units.

~~**Exception:** The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.~~

**1107.6.3.1 Accessible units.** In Group R-3 congregate living facilities (transient) or boarding houses (transient) Accessible sleeping units shall be provided in accordance with Table 1107.6.1.1.

**Exceptions:**

1. The residence of a proprietor is not required to be an Accessible unit or to be counted towards the total number of units.
2. Facilities as described in Section 1103.2.11 are not required to provide Accessible units.

**1107.6.3.2 Type B units.** In structures with four or more *sleeping units intended to be occupied as a residence, every sleeping unit intended to be occupied as a residence shall be a Type B unit.*

~~**Exception:** The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.~~

Reason: Group R-3 includes transient facilities with 10 or fewer occupants. The exception for accessibility is facilities with a non-transient proprietor and 5 or fewer guestrooms. Since this is not based on occupant load, the exempted facility could be Group R-1 or R-3. If very small hotels without the residents of the proprietor would be required to include Accessible units. This would align the IBC with the 2010 ADA.

Cost impact: None. This is a clarification for the application of the accessibility requirements, not a change in requirement.

### Proposal 2

## 2021 IRC

**[RB] GUESTROOM.** Any room or rooms used or intended to be used by one or more guests for living or sleeping purposes.

**[RB] LODGING HOUSE.** A one-family dwelling where one or more occupants are primarily permanent in nature, and rent is paid for guestrooms.

**[RB] SLEEPING UNIT.** A single unit that provides rooms or spaces for one or more persons, includes permanent provisions for sleeping and can include provisions for living, eating and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.

**R101.2 Scope.** The provisions of this code shall apply to the construction, *alteration*, movement, enlargement, replacement, repair, *equipment*, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and *townhouses* not more than three stories above *grade plane* in height with a separate means of egress and their *accessory structures* not more than three stories above *grade plane* in height.

**Exception:** The following shall be permitted to be constructed in accordance with this code where provided with an automatic sprinkler system complying with Section P2904:

1. Live/work units located in *townhouses* and complying with the requirements of Section 419 of the *International Building Code*.
2. **Owner-occupied lodging houses with five or fewer guestrooms.**
3. A care facility with five or fewer persons receiving custodial care within a dwelling unit.
4. A care facility with five or fewer persons receiving medical care within a dwelling unit.
5. A care facility for five or fewer persons receiving care that are within a single-family dwelling.

## 2021 IBC

**[BG] GUESTROOM.** A room used or intended to be used by one or more guests for living or sleeping purposes.

**[BG] LODGING HOUSE.** A one-family dwelling where one or more occupants are primarily permanent in nature and rent is paid for guest rooms.

**[A] SLEEPING UNIT.** A single unit that provides rooms or spaces for one or more persons, includes permanent provisions for sleeping and can include provisions for living, eating and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.

### SECTION 310 RESIDENTIAL GROUP R

**310.1 Residential Group R.** Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code*. Group R occupancies not constructed in accordance with the International Residential Code as permitted by Sections 301.4.1 and 301.4.2 shall comply with Section 420.

**310.2 Residential Group R-1.** Residential Group R-1 occupancies containing *sleeping units* where the occupants are primarily *transient* in nature, including:

- Boarding houses (transient)* with more than 10 occupants
- Congregate living facilities (transient)* with more than 10 occupants

Hotels (*transient*)

Motels (*transient*)

Lodging houses with more than 5 guest rooms

**310.3 Residential Group R-2.** Residential Group R-2 occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:

Apartment houses

*Congregate living facilities* (nontransient) with more than 16 occupants

*Boarding houses* (nontransient)

Convents

*Dormitories*

Fraternities and sororities

Monasteries

Hotels (nontransient) with more than 10 occupants

*Live/work units*

Motels (nontransient) with more than 10 occupants

Vacation timeshare properties

**310.4 Residential Group R-3.** Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two *dwelling units*

Care facilities that provide accommodations for five or fewer persons receiving care

*Congregate living facilities* (nontransient) with 16 or fewer occupants

*Boarding houses* (nontransient)

Convents

*Dormitories*

Fraternities and sororities

Monasteries

*Congregate living facilities* (*transient*) with 10 or fewer occupants

*Boarding houses* (*transient*)

Hotels (nontransient) with 10 or fewer occupants

Motels (nontransient) with 10 or fewer occupants

*Lodging houses* (~~*transient*~~) with five or fewer guest rooms ~~and 10 or fewer occupants~~

**310.4.1 Care facilities within a dwelling.** Care facilities for five or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or Section P2904 of the *International Residential Code*.

**310.4.2 Lodging houses.** Owner-occupied *lodging houses* with five or fewer *guest rooms* ~~and 10 or fewer total occupants~~ shall be permitted to be constructed in accordance with the *International Residential Code* provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or Section P2904 of the *International Residential Code*.

**310.5 Residential Group R-4.** Residential Group R-4 occupancy shall include buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive *custodial care*. Buildings of Group R-4 shall be classified as one of the occupancy conditions specified in Section 310.5.1 or 310.5.2. This group shall include, but not be limited to, the following:

Alcohol and drug centers  
Assisted living facilities  
Congregate care facilities  
*Group homes*  
Halfway houses  
Residential board and care facilities  
Social rehabilitation facilities

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code.

**310.5.1 Condition 1.** This occupancy condition shall include buildings in which all persons receiving custodial care, without any assistance, are capable of responding to an emergency situation to complete building evacuation.

**310.5.2 Condition 2.** This occupancy condition shall include buildings in which there are any persons receiving custodial care who require limited verbal or physical assistance while responding to an emergency situation to complete building evacuation.

Reasons: The intent of this proposal is to separate large and small facilities that are transient in nature.

For small hotels and motels, the maximum occupant load of 10 is consistent with the current limitations for transient boarding houses.

The definition for lodging house does not limit the size of the facility. To be consistent with what can use the IRC, the text in IBC cannot use the standard occupant load limitations. In addition, 5 guest rooms and a proprietors family is most likely to be more than 10 occupants, which is currently in the IBC. In addition, the whole lodging house is not transient.

Cost impact: None. This is a clarification of the divisions between R-1 and R-3 for transient lodging and does not add any requirements for these facilities.

## Proposal 3

**310.3 Residential Group R-2.** Residential Group R-2 occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:

Apartment houses  
*Congregate living facilities* (nontransient) with more than 16 occupants  
*Boarding houses* (nontransient)  
Convents  
*Dormitories*  
Fire station living quarters  
Fraternities and sororities  
Monasteries  
Hotels (nontransient)  
*Live/work units*  
Motels (nontransient)  
Vacation timeshare properties

**310.4 Residential Group R-3.** Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two *dwelling units*  
Care facilities that provide accommodations for five or fewer persons receiving care  
*Congregate living facilities (nontransient)* with 16 or fewer occupants  
    *Boarding houses (nontransient)*  
    Convents  
    Dormitories  
    Fire station living quarters  
    Fraternities and sororities  
    Monasteries  
*Congregate living facilities (transient)* with 10 or fewer occupants  
    *Boarding houses (transient)*  
*Lodging houses (transient)* with five or fewer *guest rooms* and 10 or fewer occupants

Reason: Fire stations are often mixed use facilities, and sometime include living quarters. There is the question if this is a single family residence, Group R-3, regardless of the number of fireman using the living quarters. This proposal will clarify how these spaces should be classified.

Cost impact: None. This is a clarification of the correct classification for fire stations.

# IBC Egress Item 20

Date 11-23-2020; 4 proposals , Revised 12-04-2020, and Revised 12-07-2020

## Proposal 1, Option 1 (clarification of footnote “a” as an exception to 1105.1.1) (E115-18 AMPC 1 & 2)

**1105.1.1 Automatic doors.** In facilities with the occupancies and building occupant loads indicated in Table 1105.1.1, public entrance that are required to be accessible shall have one door be either a full power-operated door or a low-energy power-operated door. Where the public entrance includes a vestibule, at least one door into and one door out of the vestibule shall meet the requirements of this section.

**Exception:** In mixed-use facilities, where the total building occupant load for the occupancies listed in the table is calculated as the sum of the ratios of the actual occupant load of each occupancy divided by the building occupant load threshold of each occupancy in Table 1105.1.1, and the sum of the ratios does not exceed 1, the requirements of Section 1105.1.1 do not apply. Where the sum of the ratios is greater than or equal to 1, the requirements of Section 1105.1.1 are applicable.

(E115-18 AMPC 1 & 2) TABLE 1105.1.1  
PUBLIC ENTRANCE WITH POWER-OPERATED DOOR <sup>a</sup>

OCCUPANCY	BUILDING OCCUPANT LOAD GREATER THAN
A-1, A-2, A-3, A-4	300
B, M, R-1	500

~~a.—In mixed-use facilities, when the total sum of the building occupant load is greater than those listed, the most restrictive building occupant load shall apply.~~

Reason: The intent of this proposal is to replace the footnote (a) to Table 1105.1.1 with an exception to 1105.1.1. Footnote “a” was added to Table 1105.1.1 by E115-18, Public Comment 2. The reason from the proponent for this public comment was that the table did not address mixed occupancies.

The effect of the existing footnote with “most restrictive occupant load shall apply” is that a hotel (Group R-1) that offers breakfast (Group A-2), an exercise room or a swimming pool (Group A-3) as an amenity would be required to provide automatic doors with an occupant load of 300 instead of 500. Another example would be a retail store (Group M) that includes a small coffee shop or fast food establishment (Group A-2).

In addition, the footnote could be read to apply to all mixed use buildings that include one of the occupancies listed and other occupancies not listed in the table. For example: an apartment building (Group R-2) with a one or two-person on-site rental office (Group B), could be required to provide automatic doors.

The proposed exception text is borrowed from 508.4.2 – allowable building area – and revised to be applicable to the application. This would allow for a balanced approach. This would balance the two occupant loads rather than using the most restrictive.

Example:

Hotel with small restaurant, pool or exercise room:

A-3 (75 /300 occupants) + R-1 (350 /500 occupants) =  $.25 + 0.7 = 0.95$

## IBC Section 508.4.2

**508.4.2 Allowable building area.** In each *story*, the *building area* shall be such that the sum of the ratios of the actual *building area* of each separated occupancy divided by the allowable *building area* of each separated occupancy shall not exceed 1.

Cost impact: There may be a reduction in the cost of construction. For mixed-use buildings, the requirement for automatic door openers at doors required to be accessible may be “triggered” at a slightly higher building occupant load depending on how the original footnote “a” is interpreted, applied, and enforced.

## Proposal 1, Option 2 (clarification of footnote “a”, as a footnote to Table 1105.1.1) (E115-18 AMPC 1 & 2)

**1105.1.1 Automatic doors.** In facilities with the occupancies and building occupant loads indicated in Table 1105.1.1, public entrance that are required to be accessible shall have one door be either a full power-operated door or a low-energy power-operated door. Where the public entrance includes a vestibule, at least one door into and one door out of the vestibule shall meet the requirements of this section.

(E115-18 AMPC 1 & 2) TABLE 1105.1.1  
PUBLIC ENTRANCE WITH POWER-OPERATED DOOR <sup>a</sup>

OCCUPANCY	BUILDING OCCUPANT LOAD GREATER THAN
A-1, A-2, A-3, A-4	300
B, M, R-1	500

- ~~b. In mixed-use facilities, when the total sum of the building occupant load is greater than those listed, the most restrictive building occupant load shall apply.~~
- a. In mixed-use facilities, where the total building occupant load for the occupancies listed in the table is calculated as the sum of the ratios of the actual occupant load of each occupancy divided by the building occupant load threshold of each occupancy in Table 1105.1.1, and the sum of the ratios does not exceed 1, the requirements of Section 1105.1.1 do not apply. Where the sum of the ratios is greater than or equal to 1, the requirements of Section 1105.1.1 are applicable.

Reason: The intent of this proposal is to replace the footnote (a) to Table 1105.1.1 with a revised footnote. Footnote “a” was added to Table 1105.1.1 by E115-18, Public Comment 2. The reason from the proponent for this public comment was that the table did not address mixed occupancies.

The effect of the existing footnote with “most restrictive occupant load shall apply” is that a hotel (Group R-1) that offers breakfast (Group A-2), an exercise room or a swimming pool (Group A-3) as an amenity would be required to provide automatic doors with an occupant load of 300 instead of 500. Another example would be a retail store (Group M) that includes a small coffee shop or fast food establishment (Group A-2).

In addition, the footnote could be read to apply to all mixed use buildings that include one of the occupancies listed and other occupancies not listed in the table. For



example: an apartment building (Group R-2) with a one or two-person on-site rental office (Group B), could be required to provide automatic doors.

The proposed footnote text is borrowed from 508.4.2 – allowable building area – and revised to be applicable to the application. This would allow for a balanced approach. This would balance the two occupant loads rather than using the most restrictive.

Example:

Hotel with small restaurant, pool or exercise room:

A-3 (75 /300 occupants) + R-1 (350 /500 occupants) = .0.25 + 0.7 = 0.95

### IBC Section 508.4.2

**508.4.2 Allowable building area.** In each *story*, the *building area* shall be such that the sum of the ratios of the actual *building area* of each separated occupancy divided by the allowable *building area* of each separated occupancy shall not exceed 1.

Cost impact: There may be a reduction in the cost of construction. For mixed-use buildings, the requirement for automatic door openers at doors required to be accessible may be “triggered” at a slightly higher building occupant load depending on how the original footnote “a” is interpreted, applied, and enforced.

## Proposal 2

(E115-18 AMPC 1 & 2)

**1105.1.1 Automatic doors.** In facilities with the occupancies and building occupant loads indicated in Table 1105.1.1, public entrance that are required to be accessible shall have one door be either a full power-operated door or a low-energy power-operated door. Where the public entrance includes a vestibule, at least one door into and one door out of the vestibule shall meet the requirements of this section.

**Exception: Accessible public entrances to individual tenant spaces within a building are not required to be provided with a power-operated door or a low-energy power-operated door provided the occupant load of that tenant space does not exceed the occupant load in Table 1105.1.1.**

(E115-18 AMPC 1 & 2) TABLE 1105.1.1  
PUBLIC ENTRANCE WITH POWER-OPERATED DOOR <sup>a</sup>

OCCUPANCY	BUILDING OCCUPANT LOAD GREATER THAN
A-1, A-2, A-3, A-4	300
B, M, R-1	500

- a. In mixed-use facilities, when the total sum of the building occupant load is greater than those listed, the most restrictive building occupant load shall apply.

Reason statement: For strip malls, mixed use buildings with multiple small restaurants and retail stores, and other buildings with multiple tenant spaces with public entrances on the exterior, the existing code can be interpreted as requiring each of those individual tenants to provide a full power-operated door or a low-energy power-operated door. This exception ensures individual tenants with less than the



occupant load specified in table 1105.1.1 are not required to provide such doors, which have a significant cost.

Cost impact: Decrease. Small stores in a strip mall will not be required to provide automatic doors on each tenant space.

## PROPOSAL 3

Revise definition:

**[BE] PUBLIC ENTRANCE.** An entrance that is not a *service entrance* or a *restricted entrance*. A public entrance may be a door, or two or more doors in one opening such as a pair of doors or a bank of doors.

**[BE] SERVICE ENTRANCE.** An entrance intended primarily for delivery of goods or services. A service entrance may be a door, or two or more doors in one opening such as a pair of doors or a bank of doors.

**[BE] RESTRICTED ENTRANCE.** An entrance that is made available for *common use* on a controlled basis, but not public use, and that is not a *service entrance*. A restricted entrance may be a door, or two or more doors in one opening such as a pair of doors or a bank of doors.

**Reasoning:** The intent of this proposal is to clarify that an entrance may be a door, or may be multiple adjacent doors. This is done by adding to the definitions of public entrance, service entrance, and restricted entrance to address entrances which are a pair of doors or a bank of doors.

**Cost:** No increase in the cost of construction. This is a clarification.

## PROPOSAL 5

Revise as follows (section 1105.1 shown for context only)

**1105.1 Public entrances.** In addition to *accessible* entrances required by Sections 1105.1.1 through 1105.1.8, at least 60 percent of all *public entrances* shall be *accessible*.

**Exceptions:**

1. An *accessible* entrance is not required to areas not required to be *accessible*.
2. Loading and *service entrances* that are not the only entrance to a tenant space.

**1105.1.1 ~~Automatic-Power-operated~~ doors at public entrances.** In facilities with the occupancies and building occupant loads indicated in Table 1105.1.1, each public entrance that are required to be accessible shall have a minimum of one door be either a full a power-operated door or a low-energy power-operated door. Where the accessible public entrance includes a vestibule, at least a minimum of one door into and one door out of the vestibule shall meet the requirements of this section.

**Reasoning:** This proposal is intended to clarify which entrances and the number of doors at each entrance are affected by this requirement. The proposed revisions are intended to be editorial improvements of Section 1105.1.1, and are intended to be consistent with the intent of the E115-18.

**Cost:** No increase in the cost of construction. This is a clarification.

# BCAC Egress WG Item #24

From Sarah Rice  
12-07-2020

**1006.3.2 Path of egress travel.** The path of egress travel to an *exit* shall not pass through more than one adjacent *story*.

**Exception:** The path of egress travel to an *exit* shall be permitted to pass through more than one adjacent *story* in any of the following:

1. In Group R-1, R-2 or R-3 occupancies, exit access stairways and ramps connecting four stories or less serving and contained within an individual dwelling unit, sleeping unit or live/work unit.
2. Exit access stairways serving and contained within a Group R-3 congregate residence or a Group R-4 facility.
3. Exit access stairways and ramps within an atrium complying with the Section 404.
- ~~4. Exit access stairways and ramps in open parking garages that serve only the parking garage.~~
5. Exit access stairways and ramps serving open-air assembly seating complying with the exit access travel distance requirements of Section 1030.7.
6. Exit access stairways and ramps between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, places of religious worship, auditoriums and sports facilities.
7. Exterior exit access stairways and ramps between occupied roofs.

**1017.3 Measurement.** Exit access travel distance shall be measured from the most remote point of each room, area or space along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit. Where more than one exit is required, exit access travel distance shall be measured to the nearest exit.

**Exceptions:**

1. In *open parking garages*, where the exit stairway or ramp is not located in a fire-resistance rated enclosure in accordance with Section 1023.2, exit access travel distance ~~is permitted to shall~~ be measured to the closest riser of ~~an exit access a~~ stairway or the closest slope of ~~an exit access a~~ ramp.
2. In smoke protected seating and open air assembly seating, exit access travel distance shall be measured in accordance with Section 1030.7.

**1019.3 Occupancies other than Groups I-2 and I-3.** In other than Group I-2 and I-3 occupancies, floor openings containing *exit access stairways* or *ramps* shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

**Exceptions**

1. *Exit access stairways* and *ramps* that serve or atmospherically communicate between only two adjacent stories. Such interconnected stories shall not be open to other stories.
2. In Group R-1, R-2 or R-3 occupancies, *exit access stairways* and *ramps* connecting four stories or less serving and contained within an individual *dwelling unit* or *sleeping unit* or *live/work unit*.
3. *Exit access stairways* serving and contained within a Group R-3 congregate residence or a Group R-4 facility are not required to be enclosed.
4. *Exit access stairways* and *ramps* in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, where the area of the vertical opening between stories does not exceed twice the horizontal projected area of the *stairway* or *ramp* and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Group B and M occupancies, this provision is limited to openings that do not connect more than four stories.
5. *Exit access stairways* and *ramps* within an *atrium* complying with the provisions of Section 404.
- ~~6. Exit access stairways and ramps in open parking garages that serve only the parking garage.~~
6. *Exit access stairways* and *ramps* serving *smoke-protected* or *open-air assembly seating* complying with the *exit access* travel distance requirements of Section 1029.7.
7. ~~8.~~ *Exit access stairways* and *ramps* between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, *places of religious worship*, auditoriums and sports facilities.

**1023.1 General.** *Interior exit stairways* and *ramps* serving as an *exit* component in a *means of egress* system shall comply with the requirements of this section. *Interior exit stairways* and *ramps* shall be enclosed and lead directly to the exterior of the building or shall be extended to the exterior of the building with an *exit passageway* conforming

to the requirements of Section 1024, except as permitted in Section 1028.2. An *interior exit stairway* or *ramp* shall not be used for any purpose other than as a *means of egress* and a circulation path.

**Exception:** *Interior exit stairways and ramps in open parking garages are not required to be enclosed when they serve only the open parking garage.* [FROM CURRENT 1006.3.2 (#4), 1017.3 (#1) & 1019.3 (#6)]

**1027.6 Exterior exit stairway and ramp protection.** *Exterior exit stairways* and *ramps* shall be separated from the interior of the building as required in Section 1023.2. Openings shall be limited to those necessary for egress from normally occupied spaces. Where a vertical plane projecting from the edge of an *exterior exit stairway* or *ramp* and landings is exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the exterior wall shall be rated in accordance with Section 1023.7.

**Exceptions:**

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are not more than two stories above *grade plane* where a *level of exit discharge* serving such occupancies is the first story above *grade plane*.
2. Separation from the interior of the building is not required where the exterior exit stairway or ramp is served by an exterior exit ramp or balcony that connects two remote exterior exit stairways or other approved exits with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be not less than 50 percent of the height of the enclosing wall, with the top of the openings not less than 7 feet (2134 mm) above the top of the balcony.
3. Separation from the open-ended corridor of the building is not required for exterior exit stairways or ramps, provided that Items 3.1 through 3.5 are met:
  - 3.1. The building, including open-ended *corridors*, and *stairways* and *ramps*, shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
  - 3.2. The open-ended corridors comply with Section 1020.
  - 3.3. The open-ended corridors are connected on each end to an exterior exit stairway or ramp complying with Section 1027.
  - 3.4. The exterior walls and openings adjacent to the exterior exit stairway or ramp comply with Section 1023.7.
  - 3.5. At any location in an open-ended corridor where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m<sup>2</sup>) or an exterior stairway or ramp shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.
4. In Group R-3 occupancies not more than four stories in height, *exterior exit stairways* and *ramps* serving individual *dwelling units* are not required to be separated from the interior of the building where the *exterior exit stairway* or *ramp* discharges directly to grade.
5. *Exterior exit stairways and ramps in open parking garages are not required to be separated from the interior of the building when they serve only the open parking garage.*

[REASON – [REASON – per 1017.3 exit access travel distance “is measured from the most remote point to shall be measured from the most remote point of each room, area or space along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit.” When the exit stairway/ramp itself is the “exit” the exit access travel distance stops at the top of the stair or ramp,]

## BCAC Egress Item 29

Date: 08-21-2020; 9-4-2020

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IBC Sections 1006.3.4, 3006.4

### SECTION 1006 NUMBER OF EXITS AND EXIT ACCESS DOORWAYS

**1006.3.3 Egress based on occupant load.** Each *story* and occupied roof shall have the minimum number of separate and distinct *exits*, or access to *exits*, as specified in Table 1006.3.3. A single *exit* or access to a single *exit* shall be permitted in accordance with Section 1006.3.4. The required number of *exits* or *exit access stairways* or *ramps* providing access to *exits*, from any *story* or occupied roof shall be maintained until arrival at the *exit discharge* or a *public way*.

**1006.3.4 Single exits.** A single *exit* or access to a single *exit* shall be permitted from any *story* or occupied roof where one of the following conditions exists:

1. The *occupant load*, number of *dwelling units* and exit access travel distance do not exceed the values in Table 1006.3.4 (1) or 1006.3.4 (2).
2. Rooms, areas and spaces complying with Section 1006.2.1 with *exits* that discharge directly to the exterior at the *level of exit discharge*, are permitted to have one *exit* or access to a single *exit*.
3. Elevator lobbies shall be permitted to have one exit in accordance with Section 3006.4.
3. Parking garages where vehicles are mechanically parked shall be permitted to have one *exit* or access to a single *exit*.
4. Group R-3 and R-4 occupancies shall be permitted to have one *exit* or access to a single *exit*.
5. Individual single-story or multistory *dwelling units* shall be permitted to have a single *exit* or access to a single *exit* from the *dwelling unit* provided that both of the following criteria are met:
  - 5.1. The *dwelling unit* complies with Section 1006.2.1 as a space with one *means of egress*.
  - 5.2. Either the *exit* from the *dwelling unit* discharges directly to the exterior at the *level of exit discharge*, or the *exit access* outside the *dwelling unit*'s entrance door provides access to not less than two approved independent *exits*.

### SECTION 1016 EXIT ACCESS

**1016.2 Egress through intervening spaces.** Egress through intervening spaces shall comply with this section.

1. *Exit access* through an enclosed elevator lobby is permitted. Where access to two or more *exits* or *exit access doorways* is required in Section 1006.2.1, access to not less than one of the required *exits* shall be provided without travel through the enclosed elevator lobbies required by Section 3006. Where the path of *exit access* travel passes through an enclosed elevator lobby, the level of protection required for the enclosed elevator lobby is not required to be extended to the *exit* unless direct access to an *exit* is required by other sections of this code.
2. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas and the area served are accessory to one or the other, are not a Group H occupancy and provide a discernible path of egress travel to an *exit*.

**Exception:** *Means of egress* are not prohibited through adjoining or intervening rooms or spaces in a Group H, S or F occupancy where the adjoining or intervening rooms or spaces are the same or a lesser hazard occupancy group.

3. An *exit access* shall not pass through a room that can be locked to prevent egress.
4. *Means of egress* from *dwelling units* or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.
5. Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

**Exceptions:**

1. *Means of egress* are not prohibited through a kitchen area serving adjoining rooms constituting part of the same *dwelling unit* or *sleeping unit*.
2. *Means of egress* are not prohibited through stockrooms in Group M occupancies where all of the following are met:
  - 2.1. The stock is of the same hazard classification as that found in the main retail area.
  - 2.2. Not more than 50 percent of the *exit access* is through the stockroom.
  - 2.3. The stockroom is not subject to locking from the egress side.
  - 2.4. There is a demarcated, minimum 44-inch-wide (1118 mm) *aisle* defined by full- or partial-height fixed walls or similar construction that will maintain the required width and lead directly from the retail area to the *exit* without obstructions.

## SECTION 3006

### ELEVATOR LOBBIES AND

### HOISTWAY OPENING PROTECTION

**3006.4 Means of egress.** Elevator lobbies shall ~~be provided with not less than one means of egress complying with Chapter 10 and other provisions in this code shall have direct access from the elevator lobby to an enclosure for an interior exit stairway or ramp.~~ Egress through an enclosed elevator lobby shall be permitted in accordance with Item 1 of Section 1016.2.

**Exception:** Access to an interior exit stairway or ramp shall be permitted to be through a protected path of travel enclosed with a smoke barrier having a fire-resistance rating of not less than 1 hour.

## SECTION 3007

### FIRE SERVICE ACCESS ELEVATOR

**3007.6 Fire service access elevator lobby.** The fire service access elevator shall open into an enclosed fire service access elevator lobby in accordance with Sections 3007.6.1 through 3007.6.5. Egress is permitted through the enclosed elevator lobby in accordance with Item 1 of Section 1016.2.

**Exception:** Where a fire service access elevator has two entrances onto a floor, the second entrance shall be permitted to be protected in accordance with Section 3006.3.

**3007.6.1 Access to interior exit stairway or ramp.** The enclosed fire service access elevator lobby shall have direct access from the enclosed elevator lobby to an enclosure for an *interior exit stairway* or *ramp*.

**Exception:** Access to an *interior exit stairway* or *ramp* shall be permitted to be through a protected path of travel that has a level of fire protection not less than the elevator lobby enclosure. The protected path shall be separated from the enclosed elevator lobby through an opening protected by a smoke and draft control assembly in accordance Section 716.2.2.1.

**3007.6.2 Lobby enclosure.** The fire service access elevator lobby shall be enclosed with a *smoke barrier* having a *fire-resistance rating* of not less than 1 hour, except that lobby doorways shall comply with Section 3007.6.3.

**Exception:** Enclosed fire service access elevator lobbies are not required at the *levels of exit discharge*.

Reason: This proposal is intended to be a clarification of current exit requirements for secure elevator lobbies. The allowance for one exit from an elevator lobby is buried in Chapter 30 so it is often missed. The current language in Section 3006.4 can appear to be a conflict with Section 1006.3.

The original intent of the allowance for one exit from an elevator lobby is to address secure lobby situations where the 2<sup>nd</sup> stairway is through a tenant space.

The language in the exception is using the language for fire service access elevators in Section 3007 so that access to the stairway can be from the lobby to the exit stairway via a protected corridor.

Cost impact: None. This is a clarification of requirements, not a change.

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**IBC SECTION 1030 EMERGENCY ESCAPE AND RESCUE**

**1030.1 General.** In addition to the *means of egress* required by this chapter, *emergency escape and rescue openings* shall be provided in the following occupancies:

1. Group R-2 occupancies located in stories with only one *exit* or *access to only one exit* as permitted by Tables 1006.3.3(1) and 1006.3.3(2).
2. Group R-3 and R-4 occupancies.

*Basements* and sleeping rooms below the fourth story above *grade plane* shall have not fewer than one exterior *emergency escape and rescue opening* in accordance with this section. Where *basements* contain one or more sleeping rooms, *emergency escape and rescue openings* shall be required in each sleeping room, but shall not be required in adjoining areas of the *basement*. Such openings shall open directly into a *public way* or to a *yard* or *court* that opens **into or has access** to a *public way*.

**Exceptions:**

1. *Basements* with a ceiling height of less than 80 inches (2032 mm) shall not be required to have *emergency escape and rescue openings*.
2. *Emergency escape and rescue openings* are not required from *basements* or sleeping rooms that have an *exit door* or *exit access door* that opens directly into a *public way* or to a *yard, court* or exterior exit balcony that opens to a *public way*.
3. *Basements* without *habitable spaces* and having not more than 200 square feet (18.6 m<sup>2</sup>) in floor area shall not be required to have *emergency escape and rescue openings*.
4. Within individual *dwelling* and *sleeping units* in Groups R-2 and R-3, where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, *sleeping rooms* in *basements* shall not be required to have *emergency escape and rescue openings* provided that the *basement* has one of the following:
  - 4.1. One *means of egress* and one *emergency escape and rescue opening*.
  - 4.2. Two *means of egress*.

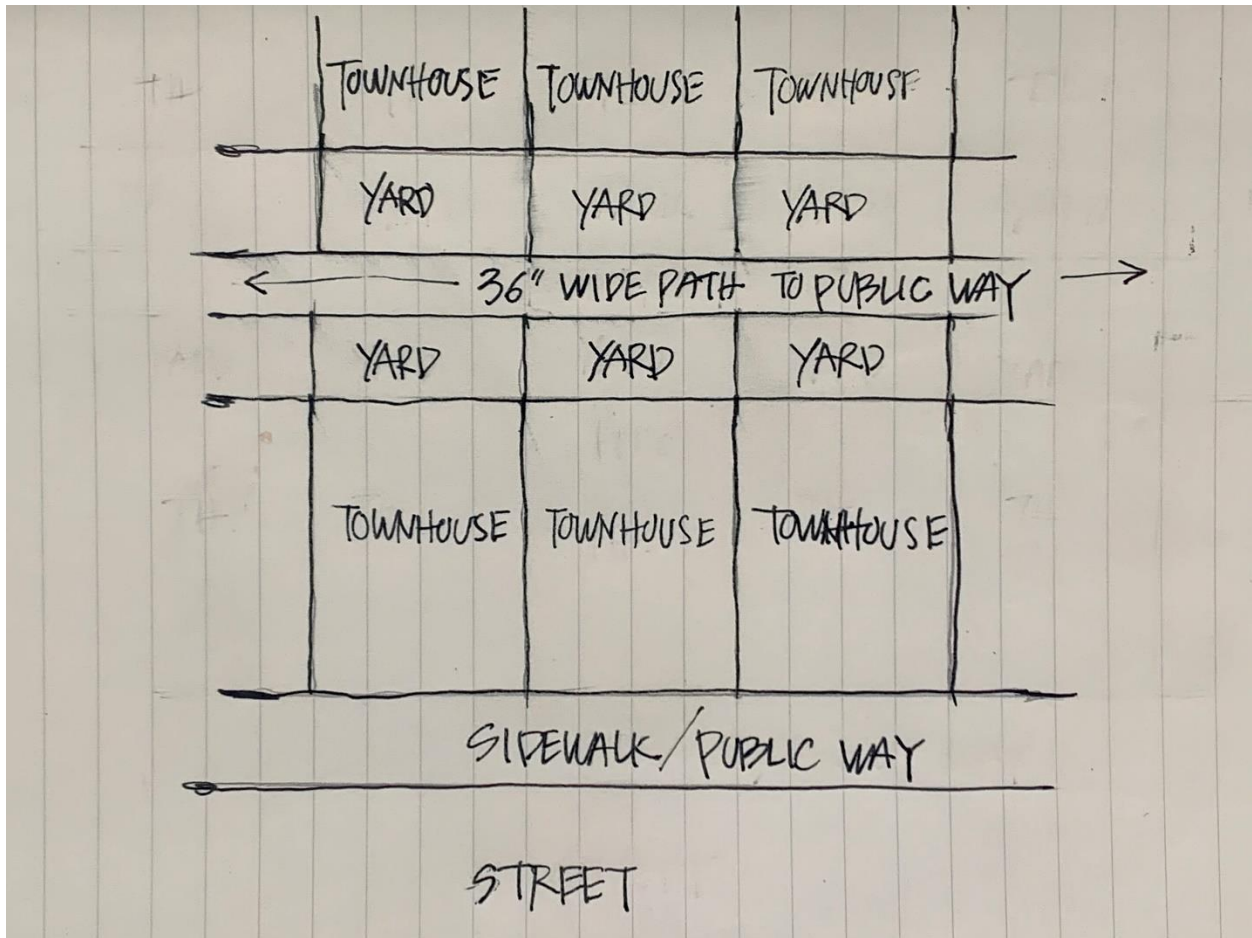
**Reason:** The purpose of this code change is to allow an EERO to discharge into a fenced yard that does not directly open onto a public way if a path can be provided from the fenced yard to the public way. In many cities, new townhouses are being constructed on infill lots with tight space limitations.

Locating an EERO while also wanting to provide fenced yards is becoming challenging. In some cases, a builder may want to construct two rows of townhouses that are tight up to the street but that have fenced backyards for each unit. Under the current code, the builder would either have to construct a window well in the sidewalk to access a basement EERO or in the backyard and forgo the private fenced yards as there will likely not be enough space to provide a 10 foot wide “public way”.

The issue with placing an EERO in the front to allow a fenced yard in the back include coordinating the location with entry doors and front steps, coordinating the location with utilities, and providing a cover over the window well that prevents passers-by from dropping trash into the window well or getting high heels stuck in the openings of a grate. The problem with forgoing fenced yards is obviously the loss of privacy.



While a 10-foot wide path between back-to-back fenced yards is almost certainly not feasible, a narrower path will be in many cases. The new exception would allow such a path, that occupants could use to get out of their yard after escaping through an EERO, or that firefighters could use to access the fenced yard for firefighting and rescue operations without having to demolish or scale over a series of fences. The assumption is that the yard opens via a gate with access to the public way. Note that an emergency escape and rescue opening is a means of escape, not an 'exit,' so the provisions for 'egress courts' are not applicable. Yards and courts are both defined as spaces open to the sky.



**Cost Impact:** The code change proposal will not increase or decrease the cost of construction. The code change does not change the requirement to provide an EERO for sleeping rooms and for basements (including each sleeping room in a basement). Thus, there should be no increase in cost as a result of this proposal. There may be a modest savings from the added ability to locate a basement EERO in the rear of the home, where covers may not be required and coordination with utilities is easier.