

BCAC Meeting 5 proposals

10-13-2020 report

1. Administrative Work Group –
BCAC ADM Item 1 – IBC Section 106 – move forward
BCAC ADM Item 9 – Intent revision – return to work group
BCAC ADM Item 11 – Demolition – move forward
BCAC ADM Item 15 – exempt from permit – do not move forward
2. Egress Work Group –
BCAC Egress Item 7 – Type B unit exception – move forward
BCAC Egress Item 8 – building security/dead bolts (2 proposals)- move forward
BCAC Egress Item 12 – terminology for accessible moe – move forward
BCAC Egress Item 22 – door opening height (2 proposals) –
proposal 1 back to egress,
proposal 2 move forward
3. Occupancy Work Group –
BCAC Occupancy Item 6 – Section 508 and 509 (2 proposals) –
proposal 1 do not move forward;
proposal 2 move forward
4. General Work Group – General will start Oct. 27 BCAC call
BCAC General Item 5 – Private garage
BCAC General Item 12 – Podium buildings
BCAC General Item 13 – ICC 500 coordination
BCAC General Item 2/Egress Item 3/FCAC WG 1.4 occupied roofs (4 proposals)

BCAC Admin Item 1 Option 1

From Shane Nilles

Date: 9-17-2020

Notes: Admin work group preferred this option.

SECTION 106 FLOOR AND ROOF DESIGN LOADS

~~**[A] 106.1 Live loads posted.** In commercial or industrial buildings, for each floor or portion thereof designed for live loads exceeding 50 psf (2.40 kN/m²), such design live loads shall be conspicuously posted by the owner or the owner's authorized agent in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.~~

~~**[A] 106.2 Issuance of certificate of occupancy.** A certificate of occupancy required by Section 111 shall not be issued until the floor load signs, required by Section 106.1, have been installed.~~

~~**[A] 106.3 Restrictions on loading.** It shall be unlawful to place, or cause or permit to be placed, on any floor or roof of a building, structure or portion thereof, a load greater than is permitted by this code.~~

1607.7.5 Posting. The maximum weight of vehicles allowed into or on a garage or other structure shall be posted on a durable sign in a readily visible location at the vehicle entrance of the building or other approved location by the owner or the owner's authorized agent in accordance with Section 106.1.

Reason: This proposal addresses the concerns expressed during testimony on a similar change last cycle. S52-19 attempted to move this signage requirement back to Chapter 16. This section was moved to the administrative provisions from structural by S48-07/08 The structural committee felt that this sign did not belong with the loading provisions in Chapter 16. There was testimony stating that the signage for live loads exceeding 50 pounds was an erroneous requirement. Signage requirements do not belong in the administrative provisions and none are found in any of the Administrative requirements in any of the other codes. Therefore, this proposal to delete the sign that was considered ineffective out of Chapter 1, and add a clarification of the requirements for the vehicle loading in Section 107.7.5 where it currently exists.

Cost impact: Reduction. Eliminates signage in some areas.

BCAC ADM Item 9 Intent – add ‘property protection’

Sections IRC R101.3, IECC C101.3 and R101.3

Rep: Marc Nard

Date: 10-1-2020

ADM 10-19 Part 1

Coordination with IBC, IEBC, IFC, ISPSC, IPMC, IZC

ADM 10-19 Part 2 - IRC

Revise as follows:

R101.3 Intent Purpose.

The purpose of this code is to establish minimum requirements to safeguard the public safety, health and general welfare through affordability, structural strength, means of egress facilities, stability, sanitation, light and ventilation, energy conservation ~~and safety to life~~ providing a reasonable level of life safety and property protection from fire and other hazards attributed to the hazards of fire or dangerous conditions attributed to the built environment, and to provide safety to fire fighters and emergency responders during emergency operations.

Reason: The purpose of this proposal is for consistency in language for the sections related to the purpose of the codes throughout the ICC family of codes. This would be consistent with IFC, IBC, IEBC, ISPSC, and IZC – which were passed with ADM A10-19.

The change in the title reflects the language in the first sentence. The revision is for consistency with “providing a reasonable level of life safety and property protection from the hazards of fire or dangerous conditions attributed to the level of the built environment”.

Cost impact: None. This change is for coordination and does not change requirements.

BCAC ADM Item 11 DEMOLITION

Date: 9-17-2020

Notes: Marc to also look at Unsafe Building. Add reason and cost impact

This item addresses the topic of demolition in both the IEBC and the IPMC.

SECTION 117 DEMOLITION

Current 2021 IEBC Text

[A] 117.1 General.

~~The *code official* shall order the owner or owner's authorized agent of any premises on which is located any structure that in the *code official's* judgment is so old or dilapidated, or has become so out of *repair* as to be *dangerous, unsafe, insanitary* or otherwise unfit for human habitation or occupancy, and such that it is unreasonable to *repair* the structure, to demolish and remove such structure; or if such structure is capable of being made safe by *repairs*, to *repair* and make safe and sanitary or to demolish and remove to the owner's or the owner's authorized agent's option; or where there has been a cessation of normal construction of any structure for a period of more than two years, to demolish and remove such structure.~~

Proposed IEBC Code Change Text

Replace with the following:

[A] 117.1 General.

When the *code official* determines any structure is so old, dilapidated or has become so out of repair and is dangerous, unsafe, insanitary and otherwise unfit for human habitation or occupancy the code official can order either of the following:

1. The code official is permitted to authorize the owner or owner's authorized agent to make the structure safe by repairs in order to make the structure safe and sanitary. Where there has been a cessation of construction repairs of any structure for a period of more than two years the structure will be ordered demolished and removed.
2. The code official is permitted to order the owner or owner's authorized agent to demolish and remove any such structure.

2021 IPMC

**SECTION 113
DEMOLITION**

Current 2021 Text

[A] 113.1 General.

~~The *code official* shall order the *owner* or *owner's* authorized agent of any *premises* upon which is located any *structure*, which in the *code official's* or *owner's* authorized agent judgment after review is so deteriorated or dilapidated or has become so out of repair as to be dangerous, unsafe, insanitary or otherwise unfit for human habitation or *occupancy*, and such that it is unreasonable to repair the *structure*, to demolish and remove such *structure*; or if such *structure* is capable of being made safe by repairs, to repair and make safe and sanitary, or to board up and hold for future repair or to demolish and remove at the *owner's* option; or where there has been a cessation of normal construction of any *structure* for a period of more than two years, the *code official* shall order the *owner* or *owner's* authorized agent to demolish and remove such *structure*, or board up until future repair. Boarding the building up for future repair shall not extend beyond one year, unless *approved* by the building official.~~

Proposed IPMC Code Change Text

Replace with the following:

[A] 113.1 General.

When the code official determines any structure is so old, dilapidated or has become so out of repair and is dangerous, unsafe, insanitary and otherwise unfit for human habitation or occupancy the code official can order either of the following:

1. The code official is permitted to authorize the owner or owner's authorized agent to make the structure safe by repairs in order to make the structure safe and sanitary. Where there has been a cessation of construction repairs of any structure for a period of more than two years the structure will be ordered demolished and removed.
2. The code official is permitted to order the owner or owner's authorized agent to demolish and remove any such structure.

Reason: The current text is a run on sentence. The intent is only to break up the run on sentence and to have no technical change to the requirements.

Cost Impact: None. There are not technical changes or additional administrative requirements.

BCAC Admin Item 15

For: Allison Cook, Amber Armstrong, Truong Huynh, Mike O'Brian

Revised 10-3-2020

2021 revisions in red. Proposal highlighted in yellow.

2021 IBC

[A] 105.2 Work exempt from permit. Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. *Permits* shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses provided that the floor area is not greater than 120 square feet (11 m²).
2. (No change to rest of text.)

IRC

ADM24-19 Part II AS

R105.2 Work exempt from permit. Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

Permits shall not be required for the following:

Building:

1. ~~Other than storm shelters,~~ One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses not intended to be occupied, provided that the floor area does not exceed 200 square feet (18.58 m²).
2. (no change to rest of section)

IEBC

EB71-19 AS

[A] 105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses not intended to be occupied, provided that the floor area does not exceed 120 square feet (11 m²).
1. (no change to rest of section)

Reason: The intent of this proposal is to coordinate requirements for permits. ADM24-19 was to required storm shelters to always have a permit, regardless of size. The IBC has descriptors for small structures, so they felt that they did not storm shelters would not be exempted by the current test in Section 105.2 Item 1. The intent of this proposal is to include the same descriptors for IBC, IRC and IEBC. With the descriptors in Item 1, storm shelters do not need to be listed because they would require permits.

Cost impact: None. This is a clarification.

BCAC Egress Item 7 – exceptions for dwelling units

Section 1108.7, 1108.7.1

Review: Sarah Rice

Date 9-20-2020

2021 IBC

1108.7 General exceptions. Where specifically permitted by Section 1108.5 or 1108.6, the required number of *Type A units* ~~and *Type B units*~~ is permitted to be reduced in accordance with ~~Sections 1108.7.1 through Section 1108.7.5~~ and the required number of *Type B units* is permitted to be reduced in accordance with ~~Sections 1108.7.1 through 1108.7.5.~~

1108.7.1 Structures without elevator service. Where elevator service is not provided in a structure, only the *dwelling units* and *sleeping units* that are located on stories indicated in Sections 1108.7.1.1 and 1108.7.1.2 are required to be ~~*Type A units* and *Type B units*, respectively. The number of *Type A units* shall be determined in accordance with Section 1108.6.2.2.1.~~

1108.7.1.1 One story with Type B units required. At least one *story* containing *dwelling units* or *sleeping units* *intended to be occupied as a residence* shall be provided with an *accessible* entrance from the exterior of the structure and all units *intended to be occupied as a residence* on that *story* shall be *Type B units*.

1108.7.1.2 Additional stories with Type B units. Where stories have entrances not included in determining compliance with Section 1108.7.1.1, and such entrances are proximate to arrival points intended to serve units on that *story*, as indicated in Items 1 and 2, all *dwelling units* and *sleeping units* *intended to be occupied as a residence* served by that entrance on that *story* shall be *Type B units*.

1. Where the slopes of the undisturbed *site* measured between the planned entrance and all vehicular or pedestrian arrival points within 50 feet (15 240 mm) of the planned entrance are 10 percent or less.
2. Where the slopes of the planned finished grade measured between the entrance and all vehicular or pedestrian arrival points within 50 feet (15 240 mm) of the planned entrance are 10 percent or less.

Where arrival points are not within 50 feet (15 240 mm) of the entrance, the closest arrival point shall be used to determine access unless that arrival point serves the *story* required by Section 1108.7.1.1.

1108.7.2 Multistory units. A *multistory dwelling unit* or *sleeping unit* that is not provided with elevator service is not required to be a *Type B unit*. Where a *multistory unit* is provided with external elevator service to only one floor, the floor provided with elevator service shall be the primary entry to the unit, shall comply with the requirements for a *Type B unit* and, where provided within the unit, a living area, a kitchen and a toilet facility shall be provided on that floor.

1108.7.3 Elevator service to the lowest story with units. Where elevator service in the building provides an *accessible route* only to the lowest *story* containing *dwelling units* or *sleeping units intended to be occupied as a residence*, only the units on that *story* that are *intended to be occupied as a residence* are required to be *Type B units*.

1108.7.4 Site impracticality. On a *site* with multiple nonelevator buildings, the number of units required by Section 1108.7.1 to be *Type B units* is permitted to be reduced to a percentage that is equal to the percentage of the entire *site* having grades, prior to development, that are less than 10 percent, provided that all of the following conditions are met:

1. Not less than 20 percent of the units required by Section 1108.7.1 on the *site* are *Type B units*.
2. Units required by Section 1108.7.1, where the slope between the building entrance serving the units on that *story* and a pedestrian or vehicular arrival point is not greater than 8.33 percent, are *Type B units*.
3. Units required by Section 1108.7.1, where an elevated walkway is planned between a building entrance serving the units on that *story* and a pedestrian or vehicular arrival point and the slope between them is 10 percent or less, are *Type B units*.
4. Units served by an elevator in accordance with Section 1108.7.3 are *Type B units*.

(E127 AS)

1108.7.5 Flood hazard areas. Type A units and Type B units shall not be required for buildings without elevator service that are located in flood hazard areas as established in Section 1612.3, where the minimum required elevation of the lowest floor or lowest supporting horizontal structural member, as applicable, results in all of the following:

1. A difference in elevation between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm) exceeding 30 inches (762 mm).
2. A slope exceeding 10 percent between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm).

Where such arrival points are not within 50 feet (15 240 mm) of the primary entrances, the closest arrival points shall be used.

Reason:

Section 1108.7 –The problem with the current language is that the text does not clearly indicate that only the exception in 1108.7.5 is allowed to be used for the reduction of the number of required Type A units. The proposed language is more specific as to which exception is applicable by dividing the allowances for Accessible and Type A units.

Section 1108.7.1 - The language regarding Type A units is not needed in this exception because this exception does not allow for a reduction in the number of Type A units. The last sentence is only a pointer that is not needed.

Cost Impact: None. This is a clarification. There are no changes in requirements.

BCAC Egress Item 8

Sections IPMC 304.18.1, IBC 1010.2.4

Rep: John Woestman

Proposal 1

2021 International Property Maintenance Code

304.18 Building security. Doors, windows or hatchways for *dwelling units*, room units or *housekeeping units* shall be provided with devices designed to provide security for the *occupants* and property within.

304.18.1 Doors. Doors providing access to ~~a~~ an individual *dwelling unit*, *rooming unit* or *housekeeping unit* that is rented, leased or let ~~shall be where~~ equipped with a deadbolt lock, ~~the deadbolt lock shall be~~ designed to be readily openable from the side from which egress is to be made without the need for keys, special knowledge or effort and shall have a minimum lock throw of 1 inch (25 mm). Such deadbolt locks shall be installed according to the manufacturer's specifications and maintained in good working order. For the purpose of this section, a sliding bolt shall not be considered an acceptable deadbolt lock.

304.18.2 Windows. Operable windows located in whole or in part within 6 feet (1828 mm) above ground level or a walking surface below that provide access to a *dwelling unit*, *rooming unit* or *housekeeping unit* that is rented, leased or let shall be equipped with a window sash locking device.

304.18.3 Basement hatchways. *Basement* hatchways that provide access to a *dwelling unit*, *rooming unit* or *housekeeping unit* that is rented, leased or let shall be equipped with devices that secure the units from unauthorized entry.

Reason: The intent of this provisions is to remove a requirement in the IPMC that exceeds the IBC and the IEBC. IPMC Section 304.18.1 requires deadbolts on doors. The IBC does not require deadbolts on doors but allows for them in Section 1010.2.4. So once a building is constructed with doors that comply with Sections 716 for opening protectives, the question of altering the doors to provide deadbolts can be an issue. IEBC does not address adding locks. The proposal resolves a disconnect between the IBC and IPMC.

Cost impact: None. Security locks are typically provided on these types of doors. The requirement for these not to be key operated is in IBC, so there is no change to requirements for the locks.

Proposal 2

IBC and IFC

(E37-18 AM) (E52-18 AMPC1) (E53-18 AMPC1)

1010.2.4 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exist:

1. Places of detention or restraint.
2. In Group I-1 Condition 2 and Group I-2 occupancies where the clinical needs of persons receiving care require containment or where persons receiving care pose a security threat, provided that all clinical staff can readily unlock doors at all times, and all such locks are keyed to keys carried by all clinical staff at all times or all clinical staff have the codes or other means necessary to operate the locks at all times.
3. In buildings in occupancy Group A having an *occupant load* of 300 or less, Groups B, F, M and S, and in *places of religious worship*, the main door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
 - 3.1. The locking device is readily distinguishable as locked.
 - 3.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.
 - 3.3. The use of the key-operated locking device is revocable by the *building official* for due cause.
4. Where egress doors are used in pairs, *approved* automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts does not have a doorknob or surface-mounted hardware.
5. Doors from individual *dwelling* or *sleeping units* of Group R occupancies ~~having an occupant load of 10 or less permitted to have a single exit in accordance with Section 1006.2.1 or 1006.3.3~~ are permitted to be equipped with a night latch, dead bolt or security chain, that require a 2nd

releasing motion provided such devices are openable from the inside without the use of a key or tool.

6. *Fire doors* after the minimum elevated temperature has disabled the unlatching mechanism in accordance with *listed fire door* test procedures.
7. Doors serving roofs not intended to be occupied shall be permitted to be locked preventing entry to the building from the roof.
8. Other than egress courts, where occupants must egress from an exterior space through the building for means of egress, exit access doors shall be permitted to be equipped with an approved locking device where installed and operated in accordance with all of the following:
 - 8.1. The maximum occupant load shall be posted where required by Section 1004.9. Such signage shall be permanently affixed inside the building and shall be posted in a conspicuous space near all the exit access doorways.
 - 8.2. A weatherproof telephone or two-way communication system installed in accordance with Sections 1009.8.1 and 1009.8.2 shall be located adjacent to not less than one required exit access door on the exterior side.
 - 8.3. The egress door locking device is readily distinguishable as locked and shall be a key-operated locking device.
 - 8.4. A clear window or glazed door opening, not less than 5 square feet (0.46 m²) sq. ft. in area, shall be provided at each exit access door to determine if there are occupants using the outdoor area.
 - 8.5. A readily visible, durable sign shall be posted on the interior side on or adjacent to each locked required exit access door serving the exterior area stating: "THIS DOOR TO REMAIN UNLOCKED WHEN THE OUTDOOR AREA IS OCCUPIED." The letters on the sign shall be not less than 1 inch (25.4 mm) high on a contrasting background.
 - 8.6. The occupant load of the occupied exterior area shall not exceed 300 occupants in accordance with Section 1004.
9. Locking devices are permitted on doors to balconies, decks or other exterior spaces serving individual dwelling or sleeping units.
10. Locking devices are permitted on doors to balconies, decks or other exterior spaces of 250 square feet (23.23 m²) or less, serving a private office space.

Reason: The intent of this provision is to coordinate with the change in Table 1006.2 for single exit dwelling units in E17-15 which changed R-2, R-3 and R-4 requirements for single exit dwelling units from 10 to 20 occupants. This was essentially moving an existing exception for sprinklered dwelling units into the table since all Group R are sprinklered. It is appropriate to coordinate Section 1010.2.4 with this allowance to allow deadbolts to be installed for security on these doors. In order to not have a conflict in the future if this changes again, rather than change the number of occupant for individual dwelling units it is more appropriate to reference the section. The reference to Section 1006.3.3 is to allow for the individual dwelling units addressed in Exceptions 4 and 5.

Cost impact: None. This is a clarification of requirement

BCAC Egress Item 12

– terminology for stairways that are part of accessible means of egress

Section 1011.2

Rep: Marc Nard

Date: 9-23-2020

1011.2 Width and capacity. The required capacity of *stairways* shall be determined as specified in Section 1005.1, but the minimum width shall be not less than 44 inches (1118 mm). *See*

~~Section 1009.3 accessible means of egress stairways. The minimum width for stairways that serve as part of the accessible means of egress shall comply with Section 1009.3~~

Exceptions:

1. Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches (914 mm).
2. Spiral stairways as provided for in Section 1011.10.
3. Where an incline platform lift or stairway chairlift is installed on stairways serving occupancies in Group R-3, or within dwelling units in occupancies in Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided. Where the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

Reason: The revised language would make the terminology consistent between this reference and the referenced Section 1009.3. Stairways are never considered to be part of an accessible route. They can serve as part of an accessible means of egress with assistance by emergency responders. As it is currently written the current language could be interpreted to be read as if the stairway is expected to be accessible. Adding “minimum width” would clarify why you need to go to Section 1009.3 – which could require 48” between handrails.

Cost impact: None. This a terminology clarification.

BCAC Egress Item 22

Section 1010.1.1 – two proposals.

Rep: Cesar Lujan

Proposal 1

(E37-18 AM) (E39-18 AS) (E40-18 AMPC1)

1010.1.1 Size of doors. The required capacity of each door opening shall be sufficient for the *occupant load* thereof and shall provide a minimum clear opening width of 32 inches (813 mm). The clear opening width of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear opening width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a minimum clear opening width of 32 inches (813 mm). In Group I-2, doors serving as *means of egress* doors where used for the movement of beds shall provide a minimum clear opening width of 41¹/₂ inches (1054 mm). The minimum **clear** opening height of doors shall be not less than 80 inches (2032 mm).

Exceptions: (no change to exceptions)

(E41-18 AS)

1010.1.1.1 Projections into clear opening. There shall not be projections into the required clear opening width lower than 34 inches (864 mm) above the floor or ground. Projections into the clear opening width between 34 inches (864 mm) and 80 inches (2032 mm) above the floor or ground shall not exceed 4 inches (102 mm).

Exception: Door closers, overhead door stops, power door operators, and electromagnetic door locks shall be permitted to be 78 inches (1980 mm) minimum above the floor.

Reason: The intent of this proposal is to remove some confusing text. The last sentence of main paragraph, was changed (E47-15 by BCAC) for consistent terminology. However, by changing the door height to “clear opening” instead of “opening”, now has code officials asking if the threshold and overhead stop need to be considered in the 80” height or not? (Door stops are excluded for the width of door

openings in the 2nd sentence of Section 1010.1.1.) With the clarification in Section 1010.1.1.1 as part of E41-18, door stops at the top are permitted into the opening height.
Cost impact: None. This is a clarification of requirement, not a change in door size or door opening size.

Proposal 2

(E37-18 AM) (E39-18 AS) (E40-18 AMPC1)

1010.1.1 Size of doors. The required capacity of each door opening shall be sufficient for the *occupant load* thereof and shall provide a minimum clear opening width of 32 inches (813 mm). The clear opening width of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear opening width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a minimum clear opening width of 32 inches (813 mm). In Group I-2, doors serving as *means of egress* doors where used for the movement of beds shall provide a minimum clear opening width of 41½ inches (1054 mm). The minimum clear opening height of doors shall be not less than 80 inches (2032 mm).

Exceptions:

1. In Group R-2 and R-3 *dwelling* and *sleeping units* that are not required to be an Accessible unit, Type A unit or Type B unit, the minimum and maximum width shall not apply to door openings that are not part of the required *means of egress*.
2. In Group I-3, door openings to resident *sleeping units* that are not required to be an Accessible unit shall have a minimum clear opening width of 28 inches (711 mm).
3. Door openings to storage closets less than 10 square feet (0.93 m²) in area shall not be limited by the minimum clear opening width.
4. The maximum width of door leaves in revolving doors that comply with Section 1010.3.1 shall not be limited.
5. The maximum width of door leaves in *power-operated doors* that comply with Section 1010.1.4.2/1010.3.2 shall not be limited
6. Door openings within a *dwelling unit* or *sleeping unit* shall have a minimum clear opening height of 78 inches (1981 mm).
7. In *dwelling* and *sleeping units* that are not required to be Accessible, Type A or Type B units, exterior door openings other than the required *exit* door shall have a minimum clear opening height of 76 inches (1930 mm).
8. In Groups I-1, R-2, R-3 and R-4, in *dwelling* and *sleeping units* that are not required to be Accessible, Type A or Type B units, the minimum clear opening widths shall not apply to interior egress doors.
9. Door openings required to be *accessible* within Type B units intended for user passage shall have a minimum clear opening width of 31.75 inches (806 mm).
10. Doors to walk-in freezers and coolers less than 1,000 square feet (93 m²) in area shall have a maximum width of 60 inches (1524 mm) nominal.
11. Doors serving nonaccessible single-user shower or sauna compartments, toilet stalls compartments or dressing, fitting or changing rooms compartments that are not required to be accessible shall have a minimum clear opening width of 20 inches (508 mm).
12. Door serving shower compartments in other than Accessible units or Type A units are not required to provide a minimum clear opening width.

Reason Statement: The intent of this proposal is to address a conflict.

The revision to Exception #11 is for clarity that this applies to compartments, not rooms.

Exception #11 currently requires a 20" minimum clear opening for doors serving non-accessible single shower compartments. But that minimum clear opening width would conflict with the width of a sliding door on a standard 36"x36" shower compartments. This is an issue for showers in non-accessible units and Type B units.

E40-18 was a proposal that added an exception for non-accessible dressing rooms or fitting rooms. This was Disapproved during the Committee Action Hearings because it could be applied to a large changing room that accommodates several individuals, such as a bridal fitting room where the 32"

clear width door opening is necessary. The exception by the Proponent did not specify that the intent was for single-user dressing rooms.

The Proponent submitted a Public Comment revising and combining some of the exceptions into one exception for doors serving non-accessible single-user showers, toilet stalls, and dressing rooms, and allowed for a minimum clear opening width of 20". The Reason Statement stated that the 20" width came from research to address doors serving these types of individual uses, and that it would address the needs of non-accessible dressing rooms, single-use toilet rooms, and shower compartments — all for single-person use rooms.

Revising exception #11 would remove shower compartments from the list of spaces where a 20" clear width opening requirement would apply to the door opening and move that to exception #12. Shower compartments in Accessible and Type A units would comply with ICC A117.1 requirements. Type B units do not have a requirement for an opening width of the shower compartment. This is clarified in the 2017 A117.1 Section 1004.11.3.1.3.3.

This change to the exceptions in this section would protect remodelers who do work on Type B or non-accessible bathrooms with limited space and without having to make adjustments such as moving the walls of a shower unit to accommodate a 20" clear width door opening or to change to enclosure to a swinging instead of a sliding door. This would be an unnecessary additional cost. This width has never been identified as a safety hazard.

Cost impact: None. This is addressing a conflict in door size and shower compartment limitations. It does not change any construction requirements.

BCAC OCC Item 6 – Section 508

From Shane Nilles

Revised: 9-3-2020

SECTION 508

~~MIXED USE AND OCCUPANCY~~

(Delete Section 508.1 through 508.4.4- relocate Live/Work units back to Chapter 4)

~~508.1 General....~~

~~508.2 Accessory occupancies....~~

~~508.3 Nonseparated occupancies.~~

~~508.4 Separated occupancies....~~

~~419.1 General 508.5 Live/Work units....~~

SECTION 504

BUILDING HEIGHT AND NUMBER OF STORIES

504.1 General....

504.2 Mixed occupancy. In a building containing mixed occupancies in accordance with Section 508, no individual occupancy shall exceed the height and number of *story* limits specified in this section for the applicable occupancies.

504.2.1 Mixed Use and Occupancy. In a building containing mixed occupancies ~~in accordance with Section 508~~, no individual occupancy shall exceed the height and number of story limits specified in this section for the applicable occupancies.

Exception: Accessory occupancies that are ancillary to the main occupancy of the building where the aggregate area of the accessory occupancy does not exceed 10% of the floor area of the story in which they are located, and does not exceed the tabular values for nonsprinklered buildings in Table 506.2 for each such accessory occupancy, the allowable height and number of stories is permitted to be based on the main occupancy.

504.3 Height in feet....

504.4 Number of stories.....

SECTION 506 BUILDING AREA

506.1 General. The floor area of a building shall be determined based on the type of construction, occupancy classification, whether there is an *automatic sprinkler system* installed throughout the building and the amount of building frontage on *public way* or open space.

506.1.1 Mixed Use and Occupancy. Where a building contains more than one occupancy group, each portion of a building shall be individually classified in accordance with Section 302.1. In each story, the building area shall be such that the sum of the ratios of the actual building area of each occupancy divided by the allowable building area of each occupancy shall not exceed 1.

Exception: Accessory occupancies that are ancillary to the main occupancy of the building where the aggregate area of the accessory occupancy does not exceed 10% of the floor area of the story in which they are located, and does not exceed the tabular values for nonsprinklered buildings in Table 506.2 for each such accessory occupancy, the allowable area is permitted to be based on the main occupancy.

506.1.1 506.1.2 Unlimited area buildings. Unlimited area buildings shall be designed in accordance with Section 507.

506.1.2 506.1.3 Special provisions. The special provisions of Section 510 permit the use of special conditions that are exempt from, or modify, the specific requirements of this chapter regarding the allowable areas of buildings based on the occupancy classification and type of construction, provided the special condition complies with the provisions specified in Section 510.

506.1.3 506.1.4 Basements. *Basements* need not be included in the total allowable floor area of a building provided the total area of such *basements* does not exceed the area permitted for a one-story *above grade plane* building.

SECTION 403 HIGH-RISE BUILDINGS

403.1. General Applicability. High-rise buildings shall comply with Sections 403.2 through 403.6. Where high-rise buildings contain mixed use and occupancies, the most restrictive

provisions of this Section shall apply throughout the fire area of the high-rise building or portion thereof.

SECTION 407 GROUP I-2

407.1 General. Occupancies in Group I-2 shall comply with the provisions of Sections 407.1 through 407.11 and other applicable provisions of this code.

407.1.1 Group I-2, Condition 2 occupancies. The most restrictive requirements of Section 407, 509, and 712 shall apply throughout the entire fire area containing the Group I-2 occupancy. The most restrictive requirements of Chapter 10 shall apply to the path of egress from the Group I-2, Condition 2 occupancy up to and including the exit discharge.

SECTION 415 GROUPS H-1, H-2, H-3, H-4 AND H-5

F] 415.6 Fire separation distance.

Group H occupancies shall be located on property in accordance with the other provisions of this chapter. In Groups H-2 and H-3, not less than 25 percent of the perimeter wall of the occupancy shall be an *exterior wall*.

F] 415.6.1 Rooms for flammable or combustible liquid use, dispensing or mixing in open systems. Rooms for flammable or combustible liquid use, dispensing or mixing in open systems having a floor area of not more than 500 square feet (46.5 m²) need not be located on the outer perimeter of the building where they are in accordance with the *International Fire Code* and NFPA 30.

F] 415.6.2 Liquid storage rooms and rooms for flammable or combustible liquid use in closed systems. Liquid storage rooms and rooms for flammable or combustible liquid use in closed systems, having a floor area of not more than 1,000 square feet (93 m²) need not be located on the outer perimeter where they are in accordance with the *International Fire Code* and NFPA 30.

F] 415.6.3 Spray paint booths. Spray paint booths that comply with the *International Fire Code* need not be located on the outer perimeter.

415.6.4 Mixed Occupancies. Where located in the same building H-2, H-3, H-4, and H-5 occupancies shall each be individually separated from the rest of the building by fire barriers constructed in accordance with Section 707, horizontal assemblies constructed in accordance with Section 711, or combination thereof having a fire-resistance rating of no less than 1 hour. H-1 shall not be located in buildings containing any other occupancies or uses.

F] 415.9 Group H-2. Occupancies in Group H-2 shall be constructed in accordance with Sections 415.9.1 through 415.9.3 and the *International Fire Code*.

[F] 415.9.1 Flammable and combustible liquids. The storage, handling, processing and transporting of flammable and combustible liquids in Group H-2 and H-3 occupancies shall be in accordance with Sections 415.9.1.1 through 415.9.1.9, the *International Mechanical Code* and the *International Fire Code*.

415.9.1.1 Mixed Occupancies. Where the storage tank area is located in a building containing H-3- or H-4 occupancies and the quantity of liquid exceeds the maximum allowable quantity for one control area, the use shall be completely separated from adjacent occupancies in accordance with the requirements of Section ~~508.4~~ 415.6.4.

SECTION 419 **LIVE/WORK UNITS**

419.1 General ~~508.5 Live/Work units~~. A *live/work unit* shall comply with Sections 419.1 through 419.9. ~~508.5 through 508.5.11.~~

Exception: Dwelling or sleeping units that include an office that is less than 10 percent of the area of the *dwelling unit* are permitted to be classified as *dwelling units* with accessory occupancies in accordance with Section 508.2.

419.1.1 ~~508.5.4~~ **Limitations.** All of the following shall apply to live/work areas:

1. The *live/work unit* is permitted to be not greater than 3,000 square feet (279 m²) in area.
2. The nonresidential area is permitted to be not more than 50 percent of the area of each *live/work unit*.
3. The nonresidential area function shall be limited to the first or main floor only of the *live/work unit*.
4. Not more than five nonresidential workers or employees are allowed to occupy the nonresidential area at any one time.

419.2 ~~508.5.2~~ **Occupancies.** *Live/work units* shall be classified as a Group R-2 occupancy. Separation requirements found in Sections 420 and 508 shall not apply within the *live/work unit* where the *live/work unit* is in compliance with Section 419. ~~508.5~~. Nonresidential uses that would otherwise be classified as either a Group H or S occupancy shall not be permitted in a *live/work unit*.

Exception: Storage shall be permitted in the *live/work unit* provided that the aggregate area of storage in the nonresidential portion of the *live/work unit* shall be limited to 10 percent of the space dedicated to nonresidential activities.

419.3 ~~508.5.3~~ **Means of egress.** Except as modified by this section, the *means of egress* components for a *live/work unit* shall be designed in accordance with Chapter 10 for the function served.

419.3.1 ~~508.5.4~~ **Egress capacity.** The egress capacity for each element of the *live/work unit* shall be based on the occupant load for the function served in accordance with Table 1004.5.

419.3.2 508.5.5 Spiral stairways. *Spiral stairways* that conform to the requirements of Section 1011.10 shall be permitted.

419.4 508.5.6 Vertical openings. Floor openings between floor levels of a *live/work unit* are permitted without enclosure.

[F] 419.5 508.5.7 Fire protection. The *live/work unit* shall be provided with a monitored *fire alarm* system where required by Section 907.2.9 and an *automatic sprinkler system* in accordance with Section 903.2.8.

419.6 508.5.8 Structural. Floors within a *live/work unit* shall be designed for the live loads in Table 1607.1, based on the function within the space.

419.7 508.5.9 Accessibility. Accessibility shall be designed in accordance with Chapter 11 for the function served.

419.8 508.5.10 Ventilation. The applicable *ventilation* requirements of the *International Mechanical Code* shall apply to each area within the *live/work unit* for the function within that space.

419.9 508.5.11 Plumbing facilities. The nonresidential area of the *live/work unit* shall be provided with minimum plumbing facilities as specified by Chapter 29, based on the function of the nonresidential area. Where the nonresidential area of the *live/work unit* is required to be *accessible* by Section 1108.6.2.1, the plumbing fixtures specified by Chapter 29 shall be *accessible*.

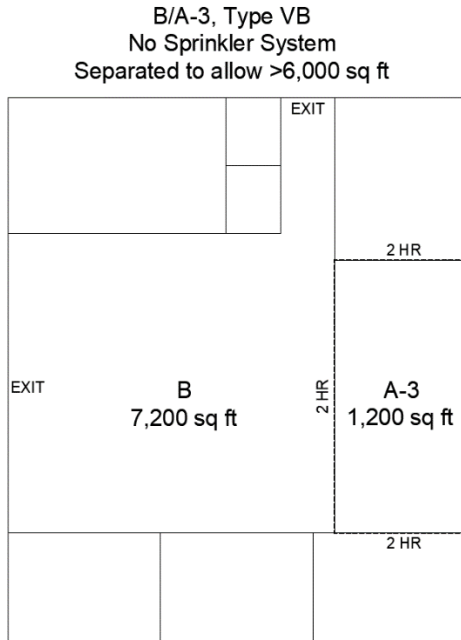
SECTION 419 429 ARTIFICIAL DECORATIVE VEGETATION

[F] 419.1 429.1 Artificial decorative vegetation. Artificial decorative vegetation exceeding 6 feet (1830 mm) in height and permanently installed outdoors within 5 feet (1524 mm) of a building, or on the roof of a building, shall comply with Section 321.1 of the *International Fire Code*.

Exception: Artificial decorative vegetation located more than 30 feet (9144 mm) from the *exterior wall* of a building.

Reason: The way mixed-occupancy buildings are currently addressed for allowable area is confusing, misleading, commonly misapplied, and arbitrary. Designers are forced to analyze the building multiple ways and do multiple presentations on the cost of construction for each option and limitations in future building expansions. In unfortunate scenarios, designers, builders, and officials may even be misled to believe that the “separated” option is the only option, leading to a network of fire-rated separations, including all associated opening protectives, to be put into place where the “non-separated” option would work without even coming close to the maximum allowable area, which is a substantial penalty that is not necessary. Even more alarming is scenarios where a code user misapplies 508 to extend beyond its purpose, which is allowable height and area only, and uses it to justify not providing proper separations for “fire areas” or otherwise uses it to avoid sprinklers or fire alarms where they actually would be needed. More importantly, having two options, separated and nonseparated, is unnecessary as a single option can provide a logical allowable area without requiring separations that serve no actual life/safety function. As an example, a building that contains B/A-3 occupancies, non-sprinkled, Type VB

construction, in order to be larger than the 6,000 square feet restriction where the non-separated option is used, the separated option requires a 2hr fire barrier between the B and A-3. Looking at the illustration below the question is, what does the fire barrier achieve? Are we protecting the occupants in the A-3 that are going to exit out through the B? Are we concerned about the storage of combustibles that wouldn't actually occur in the A-3? How is the expense of the fire barrier in terms of materials, extra construction and design time to address all details therefore, and the cost to install and maintain all opening protectives justified in order to allow the allowable area to be ratio based, which logically should apply without any arbitrary separation? It makes sense to not penalize the building and code user.



Additionally, there are many provisions that are currently in 508 that are unrelated to height and area, or are better located elsewhere in the code. This proposal relocates those provisions so that the information is in the place where the user is initially looking, and therefore prevents further misinterpretation.

Any situation where the code is not correctly applied leads to frustration, lack of proper life/safety features, and unnecessary costs; this proposal will lead to more consistent application of the codes which will prevent those issues.

Cost Impact: There is a reduction in cost of construction for mixed use buildings in cases where rated separations will no longer be required to use the ratio-calculation for allowable area.

BCAC OCC Item 6- Section 509

From Shane Nilles
Revised: 9-3-2020

**SECTION 509-429
INCIDENTAL USES**

509.1-429.1 General. Incidental uses located within single occupancy or mixed occupancy buildings shall comply with the provisions of this section. Incidental uses are ancillary functions associated with a given occupancy that generally pose a greater level of risk to that occupancy and are limited to those uses listed specified in Table 509-1429.1.

Exception: Incidental uses within and serving a *dwelling unit* are not required to comply with this section.

**[F] TABLE 509-1429.1
INCIDENTAL USES**

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic sprinkler system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic sprinkler system
Refrigerant machinery room	1 hour or provide automatic sprinkler system
Hydrogen fuel gas rooms, not classified as Group H	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and provide automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic sprinkler system
In Group E occupancies, laboratories and vocational shops not classified as Group H	1 hour or provide automatic sprinkler system
In Group I-2 occupancies, laboratories not classified as Group H	1 hour and provide automatic sprinkler system
In ambulatory care facilities, laboratories not classified as Group H	1 hour or provide automatic sprinkler system
Laundry rooms over 100 square feet	1 hour or provide automatic sprinkler system
In Group I-2, laundry rooms over 100 square feet	1 hour
Group I-3 cells and Group I-2 patient rooms equipped with padded surfaces	1 hour
In Group I-2, physical plant maintenance shops	1 hour

In ambulatory care facilities or Group I-2 occupancies, waste and linen collection rooms with containers that have an aggregate volume of 10 cubic feet or greater	1 hour
In other than ambulatory care facilities and Group I-2 occupancies, waste and linen collection rooms over 100 square feet	1 hour or provide automatic sprinkler system
In ambulatory care facilities or Group I-2 occupancies, storage rooms greater than 100 square feet	1 hour
Electrical installations and transformers	See Sections 110.26 through 110.34 and Sections 450.8 through 450.48 of NFPA 70 for protection and separation requirements.

For SI: 1 square foot = 0.0929 m², 1 pound per square inch (psi) = 6.9 kPa, 1 British thermal unit (Btu) per hour = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L, 1 cubic foot = 0.0283 m³.

509.2-429.2 Occupancy classification. Incidental uses shall not be individually classified in accordance with Section 302.1. Incidental uses shall be included in the building occupancies within which they are located.

509.3-429.3 Area limitations. Incidental uses shall not occupy more than 10 percent of the *building area* of the *story* in which they are located.

509.4-429.4 Separation and protection. The incidental uses **listed specified** in Table 509.1-429.1 shall be separated from the remainder of the building or equipped with an *automatic sprinkler system*, or both, in accordance with the provisions of that table.

509.4.1-429.4.1 Separation. Where Table 509.1-429.1 specifies a fire-resistance-rated separation, the incidental uses shall be separated from the remainder of the *building* by a *fire barrier* constructed in accordance with Section 707 or a *horizontal assembly* constructed in accordance with Section 711, or both. Construction supporting 1-hour *fire barriers* or *horizontal assemblies* used for incidental use separations in buildings of Type IIB, IIIB and VB construction is not required to be fire-resistance rated unless required by other sections of this code.

509.4.1.1-429.4.1.1 Type IV-B and IV-C construction. Where Table 509.1-429.1 specifies a fire-resistance-rated separation, mass timber elements serving as fire barriers or a horizontal assembly in Type IV-B or IV-C construction shall comply with Section 2304.11.2.3. ~~be separated from the interior of the incidental use with an approved thermal barrier consisting of a minimum of ½ inch (12.7 mm) gypsum board or a material that is tested in accordance with and complies with the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275.~~

509.4.2-429.4.2 Protection. Where Table 509.1-429.1 permits an *automatic sprinkler system* without a *fire barrier*, the incidental uses shall be separated from the remainder of the building by construction capable of resisting the passage of smoke. The walls shall extend from the top of

the foundation or floor assembly below to the underside of the ceiling that is a component of a fire-resistance-rated floor assembly or roof assembly above or to the underside of the floor or roof sheathing, deck or slab above. Doors shall be self- or automatic-closing upon detection of smoke in accordance with Section 716.2.6.6. Doors shall not have air transfer openings and shall not be undercut in excess of the clearance permitted in accordance with NFPA 80. Walls surrounding the incidental use shall not have air transfer openings unless provided with smoke dampers in accordance with Section 710.8.

~~509.4.2.1~~ 429.4.2.1 Protection limitation. Where an *automatic sprinkler system* is provided in accordance with Table ~~509.1~~429.1, only the space occupied by the incidental use need be equipped with such a system.

Reason: When users of the code are looking for specific requirements, they intuitively look to the chapter where the nature of the provision they are looking for is most closely related. This is why moving Section 509 to Chapter 4 will lead to better understanding and application of the code. The provisions of Chapter 5 “control the height and area of structures” whereas Chapter 4 contains “special uses”. “Incidental Uses” are ancillary functions associated with a greater level of risk to that occupancy. Therefore Section 509 belongs in Chapter 4.

Cost Impact: Will not increase the cost of construction. This is a relocation of existing provisions only with no changes.

BCAC General Item 5

Version 1

IBC Sections 406.3.1, 406.3.2 (New)

From Homer Mael and Shane Nilles

Revised: 9-15-2020

406.3.1 Classification. Private garages and carports shall be classified as Group U occupancies. ~~Each private garage shall be not greater than 1,000 square feet (93 m²) in area. Multiple private garages are permitted in a building where each private garage is separated from the other private garages by 1-hour fire barriers in accordance with Section 707, or 1-hour horizontal assemblies in accordance with Section 711, or both.~~

406.3.2 Allowable Area. Each private garage shall be not greater than 1,000 square feet (93 m²) in area. Multiple private garages are permitted in a building where each private garage is separated from the other private garages by 1-hour fire barriers in accordance with Section 707, or 1-hour horizontal assemblies in accordance with Section 711, or both. Where located in a mixed occupancy building, the allowable area of the building shall be determined by including the area of the private garages as part of the area for one of the other occupancies.

Reason: The intent of this proposal is to allow for the private garage option in occupancies other than Group R, such as a small mercantile or business with a delivery vehicle or a garage for the owner’s personal vehicle. The size limit of 1,000 sq.ft. in Section 406.3.1 would limit the number of vehicles.

G59-12 removed a provision (2012 IBC Section 406.3.2 Item 1) that provided a path to include the area of the private garage as a major occupancy of the building. Not allowing this could create a significant reduction in the allowable area of the building. For instance, where located in a Group B or M, as the private garage is classified as a U, the allowable area of the non-sprinklered building is 5,500

instead of 9,000. Section 406.3.2, which does address other occupancies, would require compliance with 508, which is a 2-hour fire barrier.

Cost impact: Decrease. This proposal will result in a reduction in cost of construction in cases where it will allow for a larger building without having to go to a more restrictive type of construction, or other method of area increase.

BCAC General Item 12

IBC Sections 510.2, 707.3.11 (New)

From Homer Maiel and Shane Nilles

Revised: 9-15-2020

510.2 Horizontal building separation allowance. A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of firewalls, limitation of number of stories and type of construction where all of the following conditions are met:

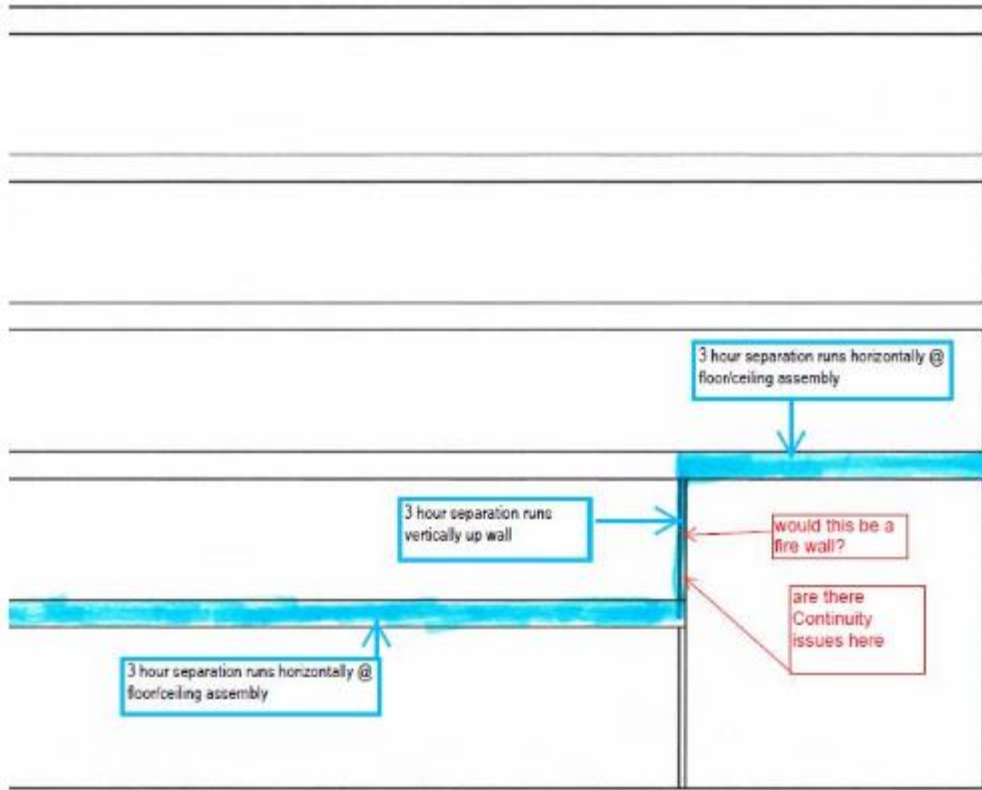
1. The buildings are separated with a horizontal assembly having a fire-resistance rating of not less than 3 hours. Where ~~vertical offsets are provided as part of the horizontal assembly~~ contains vertical offsets, the vertical offset ~~and the structure supporting the vertical offset~~ shall be constructed as a fire barrier in accordance with Section 707 and shall have a fire-resistance rating of not less than 3 hours.
2. The building below, including the horizontal assembly and any associated vertical offsets, is of Type IA construction.
3. Shaft, stairway, ramp and escalator enclosures through the horizontal assembly shall have not less than a 2-hour fire-resistance rating with opening protectives in accordance with Section 716.

Exception: Where the enclosure walls below the horizontal assembly have not less than a 3-hour fire-resistance rating with opening protectives in accordance with opening protectives in accordance with Section 716, the enclosure walls extending above the horizontal assembly shall be permitted to have a 1-hour fire-resistance rating, provided:

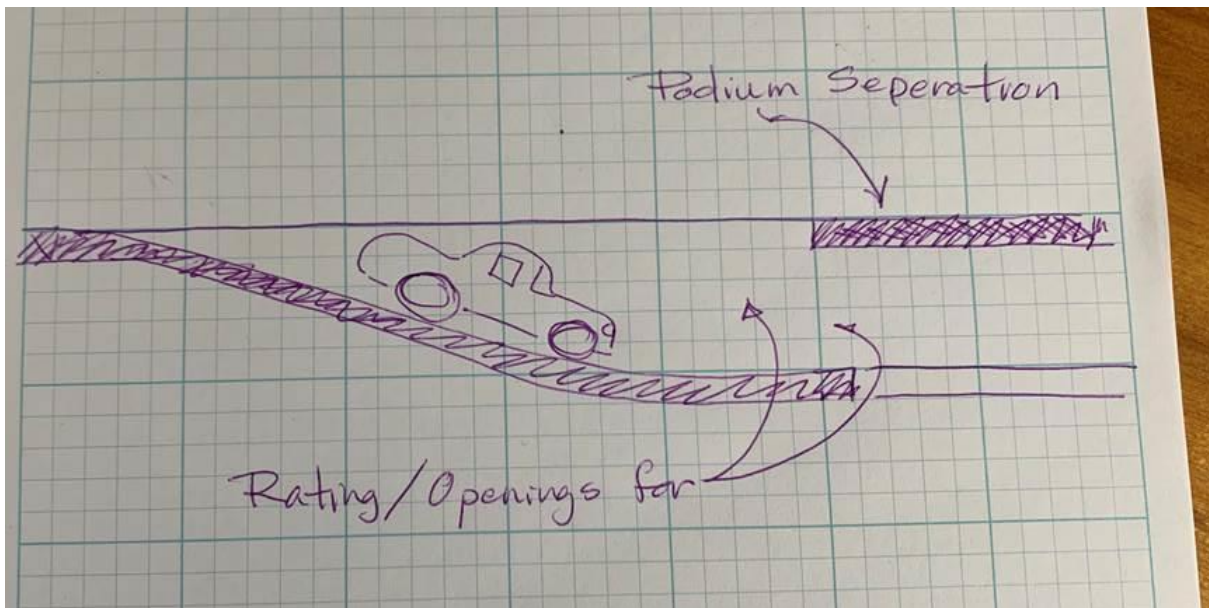
1. The building above the horizontal assembly is not required to be of Type I Construction;
2. The enclosure connects fewer than four stories; and
3. The enclosure opening protectives above the horizontal assembly have a fire protection rating of not less than 1 hour.
4. The building or buildings above the horizontal assembly shall be permitted to have multiple Group A occupancy uses, each with an occupant load of less than 300, or Group B, M, R or S occupancies.
5. The building below the horizontal assembly shall be protected throughout by an approved automatic sprinkler system in accordance with Section 903.3.1.1, and shall be permitted to be any occupancy allowed by this code except H.
6. The maximum building height in feet (mm) shall both exceed the limits set forth in Section 504.3 for the building having the smaller allowable height as measured from the grade plane.

707.3.11 Horizontal separation offsets. The fire-resistance rating of a fire barrier serving as the vertical offset in a horizontal building separation shall comply with Section 510.2.

Reason: The code provides for the allowance of vertical offsets in horizontal building separations, but does not clarify how the separation must be constructed other than to also be 3-hour rated. This code proposal fills in the gap so that users know what type of assembly must be used, fire barriers, and subsequently how to address openings, penetrations, joints, continuity, etc. This also clarifies that the vertical offset must also be Type 1A construction just like the horizontal assembly does.



BUILDING SECTION



Cost Impact: No cost impact. This proposal only provides clear direction as to how the vertical offset must be constructed, in the manner that it likely commonly is.

BCAC General Item 13

Joint with ICC 500 Development Committee

Contact: Gary Ehrlich

SECTION 423 STORM SHELTERS

423.1 General. This section applies to the design and construction of storm shelters constructed as separate detached buildings or constructed as rooms or spaces within buildings for the purpose of providing protection from ~~storms that produce high winds, such as tornadoes, and hurricanes and other~~ severe windstorms during the storm. This section specifies where storm shelters are required and provides requirements for the design and construction of storm shelters. Design of facilities for use as emergency shelters after the storm are outside the scope of ICC 500 and shall comply with Table 1604.5 as a Risk Category IV Structure.

423.2 Construction. Storm shelters shall be constructed in accordance with this code and ICC 500, and shall be designated as hurricane shelters, tornado shelters, or combined hurricane and tornado shelters. Buildings or structures that are also designated as emergency shelters shall also comply with Table 1604.5 as Risk Category IV structures. Any storm shelter not required by this section shall be permitted to be constructed provided such structures meet the requirements of this code and ICC 500.

423.3 Occupancy classification. The occupancy classification for a storm shelter shall be determined in accordance with this section.

423.3.1 Dedicated storm shelters. A facility designed to be occupied solely as a storm shelter shall be classified as Group A-3 for the determination of requirements other than those covered in ICC 500.

Exceptions:

1. The occupancy category for dedicated storm shelters with a design occupant ~~load~~ capacity of less than 50 persons as determined in accordance with ICC 500 shall be in accordance with Section 303.
2. The occupancy category for a dedicated residential storm shelter shall be the Group R occupancy served.

423.3.2 Storm shelters within host buildings. Where designated storm shelters are constructed as a room or space within a host building which will normally be occupied for other purposes, the requirements of this code for the occupancy of the building, or the individual rooms or spaces thereof, shall apply unless otherwise required by ICC 500.

423.4 Critical emergency operations. In areas where the shelter design wind speed for tornados in accordance with Figure 304.2(1) of ICC 500 is 250 mph, 911 call stations, emergency operation centers and fire, rescue, ambulance and police stations shall comply with Table 1604.5 as a Risk Category IV structure and shall be provided with a storm shelter constructed in accordance with ICC 500.

423.5 Group E occupancies. In areas where the shelter design wind speed for tornados is 250 mph in accordance with Figure 304.2(1) of ICC 500, all Group E occupancies with an occupant load of 50 or more shall have a storm shelter constructed in accordance with ICC 500.

Exceptions:

1. Group E day care facilities.
2. Group E occupancies accessory to places of religious worship.
3. Buildings meeting the requirements for shelter design in ICC 500.

423.5.1 ~~Design Required~~ occupant capacity. The required design occupant capacity of the storm shelter shall include all of the buildings on the site and shall be the greater of the following:

1. The total occupant load of the classrooms, vocational rooms and offices in the Group E occupancy.
2. The occupant load of the largest indoor assembly space that is associated with the Group E occupancy.

Exceptions:

1. Where a new building is being added on an existing Group E site, and where the new building is not of sufficient size to accommodate the required design occupant capacity of the storm shelter for all of the buildings on the site, the storm shelter shall at a minimum accommodate the required occupant capacity for the new building.
2. Where approved by the code official, the required design occupant capacity of the shelter shall be permitted to be reduced by the design occupant capacity of any existing storm shelters on the site.

423.5.2 Location. Storm shelters shall be located within the buildings they serve or shall be located where the maximum distance of travel from not fewer than one exterior door of each building to a door of the shelter serving that building does not exceed 1,000 feet (305 m).

STORM SHELTER. A building, structure or portion(s) thereof, constructed in accordance with ICC 500 and designated for use during ~~a severe wind storm event, such as a hurricane, or tornadoes or other~~ severe windstorms.

Community Storm Shelter. A storm shelter not defined as a “Residential storm shelter”. This includes storm shelters intended for use by the general public, by building occupants or a combination of both.

Residential Storm Shelter. A storm shelter serving occupants of *dwelling units* and having a design occupant capacity determined in accordance with ICC 500 ~~occupant load~~ ~~a design occupant capacity~~ not exceeding 16 persons.

Reason: ICC 500, a current reference standard in the IBC, IRC and IEBC, was recently updated to a 2020 edition for reference in the 2021 I-Codes. The new edition made some minor revisions to terminology differences that need to be reflected in the corresponding IBC Section 423 language. The key changes are as follows:

- Refer consistently to “tornadoes, hurricanes and other severe windstorms” to reflect that extratropical events are called hurricanes, typhoons or cyclones depending on region.
- Replace “occupant load” with design occupant capacity” to reflect ICC-500’s unique calculation of shelter capacity, which is different from the occupant load used in the IBC to size means of egress.
- Clarifying the term “community shelters” includes those shelters open to the general public, those open only to the occupants of the building served by the shelter, or both.

A corresponding proposal will be submitted in Group B to update Section R323 of the IRC.

Cost Impact: Will not increase the cost of construction.

The changes are editorial and necessary for correlation with ICC-500. They do not impact the way storm shelters are designed and constructed.

BCAC General Item 2/Egress Item 3/FCAC WG 1.4 Occupied Roof

FCAC WG1.4 – Proposal 1.4-2A

IBC - Occupiable Roof Definition

Add new definition as follows:

[BG] Occupiable roof. A space on a roof that is open to the exterior and that is designed for human occupancy, other than maintenance, and which is equipped with a *means of egress* system.

Revise sections as follows:

302.1 Occupancy classification. Occupancy classification is the formal designation of the primary purpose of the building, structure or portion thereof. Structures shall be classified into one or more of the occupancy groups specified in this section based on the nature of the hazards and risks to building occupants generally associated with the intended purpose of the building or structure. An area, room or space that is intended to be occupied at different times for different purposes shall comply with all applicable requirements associated with such potential multipurpose. Structures containing multiple occupancy groups shall comply with Section 508. Where a structure is proposed for a purpose that is not specified in this section, such structure shall be classified in the occupancy it most nearly resembles based on the fire safety and relative hazard. ~~Occupied~~ Occupiable roofs shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard, and shall comply with Section 503.1.4.

- 1.Assembly (see Section 303): Groups A-1, A-2, A-3, A-4 and A-5.
- 2.Business (see Section 304): Group B.
- 3.Educational (see Section 305): Group E.
- 4.Factory and Industrial (see Section 306): Groups F-1 and F-2.
- 5.High Hazard (see Section 307): Groups H-1, H-2, H-3, H-4 and H-5.
- 6.Institutional (see Section 308): Groups I-1, I-2, I-3 and I-4.
- 7.Mercantile (see Section 309): Group M.
- 8.Residential (see Section 310): Groups R-1, R-2, R-3 and R-4.
- 9.Storage (see Section 311): Groups S-1 and S-2.
- 10.Utility and Miscellaneous (see Section 312): Group U.

503.1.4 ~~Occupied~~ Occupiable roofs. A roof level or portion thereof shall be permitted to be used as an ~~occupied~~ occupiable roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the ~~occupied~~ occupiable roofs shall not be included in the building area as regulated by Section 506. An ~~occupied~~ occupiable roof shall not be included in the building height or number of stories as regulated by Section 504 provided the penthouses and other enclosed roof structures comply with Section 1510.

Exceptions:

- 1.The occupancy located on an ~~occupied~~ occupiable roof shall not be limited to the occupancies allowed on the *story* immediately below the roof where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and occupant notification in accordance with Sections 907.5.2.1 and 907.5.2.3 is provided in the area of the ~~occupied~~ occupiable roof. Emergency voice/alarm communication system notification per Section 907.5.2.2 shall also be provided in the area of the ~~occupied~~ occupiable roof where such system is required elsewhere in the building.
- 2.Assembly occupancies shall be permitted on roofs of open parking spaces of Type I or Type II construction, in accordance with the exception to Section 903.2.1.6.

503.1.4.1 Enclosures over ~~occupied~~ occupiable roof areas. Elements or structures enclosing the ~~occupied~~ occupiable roof areas shall not extend more than 48 inches (1220 mm) above the surface of the ~~occupied~~ occupiable roof.

Exception: Penthouses constructed in accordance with Section 1510.2 and towers, domes, spires and cupolas constructed in accordance with Section 1510.5.

[F] 903.2.1.6 Assembly occupancies on roofs. Where an ~~occupied~~ occupiable roof has an assembly occupancy with an *occupant load* exceeding 100 for Group A-2 and 300 for other Group A occupancies, all floors between the ~~occupied~~ occupiable roof and the *level of exit discharge* shall be equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.

Exception: Open parking garages of Type I or Type II construction.

1004.7 Outdoor areas. *Yards*, patios, ~~occupied~~ occupiable roofs, *courts* and similar outdoor areas accessible to and usable by the building occupants shall be provided with *means of egress* as required by this chapter. The *occupant load* of such outdoor areas shall be assigned by the *building official* in accordance with the anticipated use. Where outdoor areas are to be used by persons in addition to the occupants of the building, and the path of egress travel from the outdoor areas passes through the building, *means of egress* requirements for the building shall be based on the sum of the *occupant loads* of the building plus the outdoor areas.

Exceptions:

1. Outdoor areas used exclusively for service of the building need only have one *means of egress*.
2. Both outdoor areas associated with Group R-3 and individual dwelling units of Group R-2.

1006.1 General. The number of *exits* or *exit access doorways* required within the *means of egress* system shall comply with the provisions of Section 1006.2 for spaces, including *mezzanines*, and Section 1006.3 for *stories* or ~~occupied~~ occupiable roofs.

1006.3 Egress from stories or ~~occupied~~ occupiable roofs. The *means of egress* system serving any *story* or ~~occupied~~ occupiable roof shall be provided with the number of separate and distinct *exits* or access to *exits* based on the aggregate *occupant load* served in accordance with this section.

1006.3.1 Occupant load. Where stairways serve more than one story, or more than one story and an ~~occupied~~ occupiable roof, only the occupant load of each story or ~~occupied~~ occupiable roof, considered individually, shall be used when calculating the required number of exits or access to exits serving that story.

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 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~~ occupiable roofs.

1006.3.3 Egress based on occupant load. Each *story* and ~~occupied~~ occupiable 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~~ occupiable 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~~ occupiable 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. 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*.

1009.2.1 Elevators required. In buildings where a required *accessible* floor or ~~occupied~~ *occupiable* roof is four or more *stories* above or below a *level of exit discharge*, not less than one required *accessible means of egress* shall be an elevator complying with Section 1009.4.

Exceptions:

1. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a *horizontal exit* and located at or above the *levels of exit discharge*.
2. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a *ramp* conforming to the provisions of Section 1012.

1011.12 Stairway to roof. In buildings four or more *stories* above *grade plane*, one *stairway* shall extend to the roof surface unless the roof has a slope steeper than four units vertical in 12 units horizontal (33-percent slope).

Exception: Other than where required by Section 1011.12.1, in buildings without an ~~occupied~~ *occupiable* roof access to the roof from the top story shall be permitted to be by an *alternating tread device*, a ships ladder or a permanent ladder.

1011.12.1 Stairway to elevator equipment. Roofs and penthouses containing elevator equipment that must be accessed for maintenance are required to be accessed by a stairway.

1011.12.2 Roof access. Where a stairway is provided to a roof, access to the roof shall be provided through a penthouse complying with Section 1511.2.

Exception: In buildings without an ~~occupied~~ *occupiable* roof, access to the roof shall be permitted to be a roof hatch or trap door not less than 16 square feet (1.5 m²) in area and having a minimum dimension of 2 feet (610 mm).

1104.4 Multistory buildings and facilities. At least one *accessible route* shall connect each *accessible story*, *mezzanine* and ~~occupied~~ *occupiable* roofs in multilevel buildings and *facilities*.

Exceptions:

1. An *accessible route* is not required to *stories*, *mezzanines* and ~~occupied~~ *occupiable* roofs that have an aggregate area of not more than 3,000 square feet (278.7 m²) and are located above and below *accessible* levels. This exception shall not apply to:
 - 1.1. Multiple tenant facilities of Group M occupancies containing five or more tenant spaces used for the sales or rental of goods and where at least one such tenant space is located on a floor level above or below the *accessible* levels.
 - 1.2. *Stories* or *mezzanines* containing offices of health care providers (Group B or I).
 - 1.3. Passenger transportation facilities and airports (Group A-3 or B).
 - 1.4. Government buildings.
 - 1.5. Structures with 4 or more dwelling units.

2. *Stories, mezzanines or occupied occupiable* roofs that do not contain *accessible* elements or other spaces as determined by Section 1108 or 1109 are not required to be served by an *accessible route* from an *accessible* level.
3. In air traffic control towers, an *accessible route* is not required to serve the cab and the floor immediately below the cab.
4. Where a two-story building or facility has one *story* or *mezzanine* with an *occupant load* of five or fewer persons that does not contain *public use* space, that *story* or *mezzanine* shall not be required to be connected by an *accessible route* to the *story* above or below.

Reason: Add a definition for “occupiable roof”. Change terminology throughout the code to be consistent with use of “occupiable roof” rather than “occupied roof”.

Cost Impact: The code change will not increase the cost of construction
The code change is purely editorial and does not affect how occupiable roofs are designed or constructed.

FCAC WG1.4 – Proposal 1.4-2D

IFC –Section 317 Vegetative Roofs

SECTION 317 LANDSCAPED VEGETATIVE ROOFS

317.1 General. ~~Vegetative Landscaped roofs shall comply with be installed and maintained in accordance with Sections 317.2 through 317.5 and Sections 1505 and 1507.16 of the International Building Code. Vegetative roofs shall be maintained in accordance with Sections 317.2 and 317.3~~

317.2 Landscaped roof size. ~~Landscaped roof areas shall not exceed 15,625 square feet (1450 m²) in size for any single area, with a maximum dimension of 125 feet (39 m) in length or width. A minimum 6-foot-wide (1.8 m) clearance consisting of a listed Class A roof assembly tested in accordance with ASTM E108 or UL 790 shall be provided between adjacent landscaped roof areas.~~

317.3 Rooftop structure and equipment clearance. ~~For all vegetative roofs abutting combustible vertical surfaces, a Class A-rated roof system complying with ASTM E108 or UL 790 shall be achieved for a minimum 6-foot-wide (1829 mm) continuous border placed around rooftop structures and all rooftop equipment including, but not limited to, mechanical and machine rooms, penthouses, skylights, roof vents, solar panels, antenna supports and building service equipment.~~

317.4 317.2 Vegetation. ~~Vegetation shall be maintained in accordance with Sections 317.2.1 and 317.2.2 317.4.1 and 317.4.2.~~

317.4.4 317.2.1 Irrigation. ~~Supplemental irrigation shall be provided to maintain levels of hydration necessary to keep green roof plants alive and to keep dry foliage to a minimum.~~

317.4.2 317.2.2 Dead foliage. ~~Excess biomass, such as overgrown vegetation, leaves and other dead and decaying material, shall be removed at regular intervals not less than two times per year.~~

317.4.3 Maintenance plan. ~~The fire code official is authorized to require a maintenance plan for vegetation placed on roofs due to the size of a roof garden, materials used or where a fire hazard exists to the building or exposures due to the lack of maintenance.~~

317.5 317.3 Maintenance equipment. ~~Fueled equipment stored on roofs and used for the care and maintenance of vegetation on roofs shall be stored in accordance with Section 313.~~

Reason: The term “landscaped roofs” has been used by the public to mean the same as “vegetative roofs” and is unnecessary. Moreover, it is clear that some of the sections presently identified as “landscaped roofs” really should refer to “vegetative roofs” because it really addresses roofs that are part of the building envelope and, thus, are associated with the existing definition of “vegetative roofs”. Therefore, the term “landscaped roofs” is unnecessary and should be replaced by the defined term “vegetative roofs”.

One problem with the language in the IFC is the set of sections 317 of the IFC, which applies to “vegetative roofs” and is based on the old edition of the SPRI VF-1 standard and most of the requirements are unnecessary. Note Section 1505.10 of the IBC requires vegetative roofs be installed per the VF-1 standard.

This proposal is consistent with a companion editorial proposal that simply replaces the term “landscaped roofs” by “vegetative roofs” but does not delete obsolete language.

Cost Impact: The proposal will not increase the cost of construction. The proposal is primarily editorial and will not impact how vegetative roofs are designed and constructed.

FCAC WG1.4 – Proposal 1.4-2B

IBC, IFC –Change Landscaped to Vegetative Roofs
Part I - IFC

Add definition as follows:

VEGETATIVE ROOF. An assembly of interacting components designed to waterproof a building’s top surface that includes, by design, vegetation and related landscape elements.

Revise as follows:

SECTION 317 **LANDSCAPED VEGETATIVE ROOFS**

317.1 General. ~~Vegetative Landscaped roofs shall comply with be installed and maintained in accordance with Sections 317.2 through 317.5 and Sections 1505 and 1507.16 of the International Building Code and be installed and maintained in accordance with Sections 317.2 through 317.5.~~

317.2 Landscaped roof size. Landscaped roof areas shall not exceed 15,625 square feet (1450 m²) in size for any single area, with a maximum dimension of 125 feet (39 m) in length or width. A minimum 6-foot-wide (1.8 m) clearance consisting of a listed Class A roof assembly tested in accordance with ASTM E108 or UL 790 shall be provided between adjacent landscaped roof areas.

317.3 Rooftop structure and equipment clearance. For all vegetative roofs abutting combustible vertical surfaces, a Class A-rated roof system complying with ASTM E108 or UL 790 shall be achieved for a minimum 6-foot-wide (1829 mm) continuous border placed around rooftop structures and all rooftop equipment including, but not limited to, mechanical and machine rooms, penthouses, skylights, roof vents, solar panels, antenna supports and building service equipment.

317.4 Vegetation. Vegetation shall be maintained in accordance with Sections 317.4.1 and 317.4.2.

317.4.1 Irrigation. Supplemental irrigation shall be provided to maintain levels of hydration necessary to keep green roof plants alive and to keep dry foliage to a minimum.

317.4.2 Dead foliage. Excess biomass, such as overgrown vegetation, leaves and other dead and decaying material, shall be removed at regular intervals not less than two times per year.

317.4.3 Maintenance plan. The fire code official is authorized to require a maintenance plan for vegetation placed on roofs due to the size of a roof garden, materials used or where a fire hazard exists to the building or exposures due to the lack of maintenance.

317.5 Maintenance equipment. Fueled equipment stored on roofs and used for the care and maintenance of vegetation on roofs shall be stored in accordance with Section 313.

504.3 Stairway access to roof. New buildings four or more stories above grade plane, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3-percent slope), shall be provided with a stairway to the roof. Stairway access to the roof shall be in accordance with Section 1011.12. Such stairway shall be marked at street and floor levels with a sign indicating that the stairway continues to the roof. Where roofs are used ~~as vegetative roofs for landscaped roofs~~ or for other purposes, stairways shall be provided as required for such occupancy classification.

905.3.8 Vegetative ~~Landscaped~~ roofs. Buildings or structures that have vegetative ~~landscaped~~ roofs that are equipped with a standpipe system shall have the standpipe system extended to the roof level on which the vegetative ~~landscaped~~ roof is located.

FCAC WG1.4 – Proposal 1.4-2B
IBC, IFC –Change Landscaped to Vegetative Roofs

Part II - IBC

LIVE LOAD, ROOF. A load on a roof produced:

1. During maintenance by workers, equipment and materials;
2. During the life of the structure by movable objects such as planters or other similar small decorative appurtenances that are not occupancy related; or
3. By the use and occupancy of the roof such as for vegetative ~~landscaped~~ roofs or assembly areas.

[BF] 1505.10 Landscaped Vegetative roofs. ~~Landscaped~~ Vegetative roofs shall comply with Section Sections 1505.1 and 1507.16 and shall be installed in accordance with ANSI/SPRI VF-1.

1507.16 Vegetative roofs ~~and landscaped roofs~~. ~~Vegetative roofs and landscaped roofs~~ shall comply with the requirements of this chapter, Section 1607.13.3 and the International Fire Code.

1507.16.1 Structural fire resistance. The structural frame and roof construction supporting the load imposed upon the roof by the vegetative roof ~~or landscaped roofs~~ shall comply with the fire resistance rating requirements of Table 601.

TABLE 1607.1: MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS, L₀, AND MINIMUM CONCENTRATED LIVE LOADS

Item 26 Roofs

Occupiable roofs

Vegetative and landscaped roofs

Table footnote I: Areas of occupiable roofs, other than vegetative ~~landscaped~~ roofs and assembly areas, shall be designed for appropriate loads as approved by the building official. Unoccupied vegetative and landscaped areas of roofs shall be designed in accordance with Section 1607.13.3.

1606.3 Vegetative ~~and landscaped~~ roofs. The weight of all landscaping and hardscaping materials for vegetative ~~and landscaped~~ roofs shall be considered as dead load. The weight shall be computed considering both fully saturated soil and drainage layer materials and fully dry soil and drainage layer materials to determine the most severe load effects on the structure.

1607.13.3 Vegetative ~~and landscaped~~ roofs. The uniform design live load in unoccupied vegetative ~~landscaped~~ areas on roofs shall be 20 psf (0.958 kN/m²). The uniform design live load for occupied vegetative ~~landscaped~~ areas on roofs shall be determined in accordance with Table 1607.1.

1607.14.2.2 Occupiable roofs. Areas of roofs that are occupiable, such as vegetative roofs, landscaped roofs, or for assembly or other similar purposes, and marquees, are permitted to have their uniformly distributed live loads reduced in accordance with Section 1607.12.

Reason: This proposal is basically editorial. It is in two parts, covering the IFC and the IBC. The term “landscaped roofs” has been used by the public to mean the same as “vegetative roofs” and is unnecessary. Moreover, it is clear that some of the sections presently identified as “landscaped roofs” really should refer to “vegetative roofs” because it really addresses roofs that are part of the building envelope and, thus, are associated with the existing definition of “vegetative roofs”. Therefore, the term “landscaped roofs” is unnecessary and should be replaced by the defined term “vegetative roofs”. The term “roof garden” was eliminated in the 2021 IBC and IFC codes and has been replaced by either the term “vegetative roofs” or the term “landscaped roofs”. However, it is still present in Table 1607.1 of the IBC, and this proposal recommends replacing it also.

Note that the roof fire test requirement in the SPRI standard are not identical to those in the IBC but the installation requirements of the SPRI standard are appropriate. That is the reason that the language in IFC section 317 clarifies that the roof shall comply with the IBC sections and then be installed and maintained in accordance with the IFC sections.

There may be a need to add a section to the codes to regulate roof areas where planters are present but which are not part of the building envelope. In those areas, the load must be considered for structural concerns. This proposal does not do that.

Note that there is no definition for the term “landscaped roofs” and that the definition for the term “vegetative roofs” reads as follows, and it is proposed to be added to the IFC with identical language.

[BS] VEGETATIVE ROOF. An assembly of interacting components designed to waterproof a building’s top surface that includes, by design, vegetation and related landscape elements.

Cost Impact: The proposal will not increase the cost of construction. The proposal is primarily editorial and will not impact how vegetative roofs are designed and constructed.

FCAC WG1.4 – Proposal 1.4-2C

IBC – Live Load for Vegetative Roofs

Revise as follows:

LIVE LOAD, ROOF. A load on a roof produced:

1. During maintenance by workers, equipment and materials;
2. During the life of the structure by movable objects such as planters or other similar small decorative appurtenances that are not occupancy related; or
3. By the use and occupancy of the roof such as for landscaped roofs or assembly areas.

Reason: The term “landscaped roofs” has been used by the public to mean the same as “vegetative roofs” and is unnecessary. It is being proposed for replacement by a companion proposal. However, since a vegetative roof area is really typically not used for occupancy but just needs to be considered for load, this proposal eliminates that part of item 3 in the definition since the live load simply needs to consider the assembly areas.

Cost Impact: The proposal will not increase the cost of construction. The proposal is editorial and will not impact how vegetative roofs are designed and constructed.