



Proposed Code Modifications

This document created by the Florida Department of Business and Professional Regulation -
850-487-1824

TAC: Fire

Total Mods for Fire in Approved as Modified: 1

Total Mods for report: 205

Sub Code: Building

F8224

1

Date Submitted	12/14/2018	Section	1010.1.7	Proponent	Lynn Miller
Chapter	10	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Approved as Modified				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Brings back door threshold requirements in the 5th Edition of the FBC (2014) that were inadvertently left out of the 6th Edition (2017) version.

Rationale

This language was provided in the 2014 FBC and was not brought into the 2017 version of the Code (inadvertently).

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Clarifies code requirements for water-rated doors.

Impact to building and property owners relative to cost of compliance with code

Does not impact cost of compliance with the code.

Impact to industry relative to the cost of compliance with code

Does not impact cost of compliance with the code.

Impact to small business relative to the cost of compliance with code

Does not impact cost of compliance with the code.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Does not adversely affect the health, safety, and welfare of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by providing clarification for water-rated doors.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Does not degrade effectiveness.

Attached. Text of Mod 8224-A1.

Mod 8224-A1**1010.1.7 Thresholds.**

Thresholds at doorways shall not exceed 3/4 inch (19.1 mm) in height above the finished floor or landing for sliding doors serving dwelling units or 1/2 inch (12.7 mm) above the finished floor or landing for other doors. Raised thresholds and floor level changes greater than 1/4 inch (6.4 mm) at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal (50-percent slope).

Exceptions:

1. In occupancy Group R-2 or R-3, threshold heights for sliding and side-hinged exterior doors shall be permitted to be up to 7-3/4 inches (197 mm) in height if all of the following apply:

- 1.1. The door is not part of the required means of egress.
- 1.2. The door is not part of an accessible route as required by Chapter 11.

2. For exterior doors serving dwelling units, thresholds at doorways shall not exceed the height required to pass the water resistance test of AAMA/WDMA/CSA 101/I.S.2/A440, or TAS 202 for high-velocity hurricane zones, or the maximum allowable height difference between interior floor levels. Exterior floor level shall comply with the following:

LEVEL DIFFERENCE (inches)	AT PRIMARY DOOR
0	Pervious construction (e.g., wood decking with spaces)
1/2	Impervious construction (e.g., concrete, brick or flag stone)
LEVEL DIFFERENCE (inches)	AT SECONDARY DOOR
1/2	Pervious construction
4	Impervious construction

1st Comment Period History

8224-A1

Proponent	Lynn Miller	Submitted	2/15/2019	Attachments	Yes
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Rationale

This language was provided in the 2014 FBC and was not brought into the 2017 version of the Code (inadvertently).

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Clarifies code requirements for water-rated doors.

Impact to building and property owners relative to cost of compliance with code

Does not impact cost of compliance with the code.

Impact to industry relative to the cost of compliance with code

Does not impact cost of compliance with the code.

Impact to Small Business relative to the cost of compliance with code

Does not impact cost of compliance with the code.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Does not adversely affect the health, safety, and welfare of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by providing clarification for water-rated doors.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Does not degrade effectiveness.

1010.1.7 Thresholds.

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Exceptions:

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LEVEL DIFFERENCE (inches)	AT PRIMARY DOOR
0	Pervious construction (e.g., wood decking with spaces)
1/2	Impervious construction (e.g., concrete, brick or flag stone)
LEVEL DIFFERENCE (inches)	AT SECONDARY DOOR
1/2	Pervious construction
4	Impervious construction

1010.1.7 Thresholds.

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LEVEL DIFFERENCE (inches)	AT PRIMARY DOOR
0	Pervious construction (e.g., wood decking with spaces)
1/2	Impervious construction (e.g., concrete, brick or flag stone)
LEVEL DIFFERENCE (inches)	AT SECONDARY DOOR
1/2	Pervious construction
4	Impervious construction

TAC: Fire

Total Mods for Fire in Approved as Submitted: 190

Total Mods for report: 205

Sub Code: Building

F7518

2

Date Submitted	11/28/2018	Section	202	Proponent	Ann Russo5
Chapter	2	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments **No** Alternate Language **No**

Related Modifications

Summary of Modification

The Code contains requirements regarding children's play structures. However, no definition exists and there have been discussions that there is some ambiguity about what is meant by the term, thus a definition should be included under Chapter 2.

Rationale

Sections of the Code contain requirements regarding children's play structures. However, no definition exists and there have been discussions that there is some ambiguity about what is meant by the term. The concept incorporated into this definition is that a children's play structure is one that: (a) is constructed of combustible materials, (b) is a structure into which the user (typically a child) enters and (c) has at least one structural component.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Assists enforcement by providing good definition and ability to better define components of a play structure

Impact to building and property owners relative to cost of compliance with code

No impact as just defining

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This will be a positive impact on welfare of users by better defining equipment and safety aspects

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

By providing a definition that highlights the equipment allows for better focus and applicable enforcement for safety and welfare aspects

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate

Does not degrade the effectiveness of the code

Improves process and effectiveness

CHILDREN'S PLAY STRUCTURE. A structure composed of one or more components, where the user enters a play environment

Date Submitted 11/28/2018	Section 202	Proponent Ann Russo5
Chapter 2	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Currently the definition for sleeping unit could be interpreted to be just a bedroom. When these bedrooms are combined into suites, they should be considered as one sleeping unit, so this definitions better identifies the variations.

Rationale

Some hotel rooms, assisted living and dormitories are designed as suites. In a hotel or assisted living space, common designs are one or two bedrooms a living space and private bath. In a dorm, common designs are two rooms with a private bath between; or three or four bedrooms with a living space and private bathrooms. These units act as a group similar to an apartment. Currently the definition for sleeping unit could be interpreted to be just a bedroom. When these bedrooms are combined into suites, they should be considered as one sleeping unit.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Definition will assist in proper classification and review of projects as well as proper enforcement
- Impact to building and property owners relative to cost of compliance with code**
None
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improved definition assists in proper enforcement which assists in welfare and safety areas
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves and helps in enforcement
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Definition does not have impact on this
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

DWELLING UNIT. A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

SLEEPING UNIT. A ~~room single unit providing rooms or space in which people sleep, which spaces for one or more persons, which~~ can also include permanent provisions for living, eating, sleeping, 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.

Date Submitted 11/28/2018	Section 202	Proponent Ann Russo5
Chapter 2	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Private garages can also be used by the owners of the building, so a definition will provide proper use and context.

Rationale

Private garages can also be used by the owners of a building.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Better definition assists in plan review, inspection and enforcement
- Impact to building and property owners relative to cost of compliance with code**
None
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
The definition allows better focus and enforcement with regards to better safety and user welfare
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code enforcement
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Improves effectiveness

Revise as follows:

PRIVATE GARAGE. A building or portion of a building in which motor vehicles used by the owner or tenants of the building or buildings on the premises are stored or kept, without provisions for repairing or servicing such vehicles for profit.

Date Submitted	11/28/2018	Section	202	Proponent	Ann Russo5
Chapter	2	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications**Summary of Modification**

To identify that "soft-contained play equipment structures" are those that contain pliable materials and where the user is enclosed.

Rationale

Section 424 discusses children's play structures and a definition is being proposed for that. Items 3, 6 and 7 of 424.2 also talks about "soft-contained play equipment structures", and a definition is being proposed for that as well, to identify that "soft-contained play equipment structures" are those that contain pliable materials and where the user is enclosed.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Definition will improve enforcement

Impact to building and property owners relative to cost of compliance with code

Assists in proper selection of products meeting safety and related requirements

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Proper definition will assist in defining and selection by user of products appropriate and safe for their intended use

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Provides for more focused product selection

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate but provides better definition for product selection

Does not degrade the effectiveness of the code

No

Add new definition as follows:

SOFT CONTAINED PLAY EQUIPMENT STRUCTURE: A children's play structure containing one or more components where the user enters a play environment that utilizes pliable materials.

Date Submitted 12/5/2018	Section 202	Proponent George Wiggins (BOAF)
Chapter 2	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

none

Summary of Modification

Changes Definition of "Change of Occupancy" by clarification of meaning and in a bulleted text for clarity.

Rationale

Provides clarity to definition of "Change of Occupancy" in a bulleted format

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None

Impact to building and property owners relative to cost of compliance with code

None

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Clarifies definition of "Change of Occupancy";

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves understanding of scope of "Change of Occupancy";

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Neutral to discrimination in these areas

Does not degrade the effectiveness of the code

Neutral in this area

Delete current definition in Florida and replace with updated definition (Text box here does not show a format to allow strike thru text)

[A] CHANGE OF OCCUPANCY. A change in the purpose or level of activity within a building that involves a change in application of the requirements of this code.

New Definition:

CHANGE OF OCCUPANCY. A change in the use of a building or a portion of a building which results in:

1. A change of occupancy classification,
2. A change from one group to another group within an occupancy classification, or

Any change in use within a group for which there is a change in the application of the requirements of this code.

Date Submitted 12/8/2018	Section 202	Proponent Ann Russo5
Chapter 2	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Defining open air assembly

Rationale

As there is no current definition for this, it is defined for ease of enforcement and correct application of other Code requirements

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
None expected

Impact to building and property owners relative to cost of compliance with code
None

Impact to industry relative to the cost of compliance with code
None

Impact to small business relative to the cost of compliance with code
None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
Definition will allow for proper Code enforcement in this use

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
Improves Code by focusing on use and coordinating with other requirements

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
Does not

Does not degrade the effectiveness of the code
Does not

Add the following definition:

OPEN-AIR ASSEMBLY SEATING. Seating served by *means of egress* that is not subject to smoke accumulation within or under a structure and is open to the atmosphere.

Date Submitted 12/8/2018	Section 202	Proponent Ann Russo5
Chapter 2	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Defining open air assembly by eliminating conflict with other definition

Rationale

Better defined for ease of enforcement and correct application of other Code requirements

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
None expected

Impact to building and property owners relative to cost of compliance with code
None

Impact to industry relative to the cost of compliance with code
None

Impact to small business relative to the cost of compliance with code
None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
Definition will allow for proper Code enforcement in this use

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
Improves Code by focusing on use and coordinating with other requirements

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
Does not

Does not degrade the effectiveness of the code
Does not

Revise as follows:

SMOKE-PROTECTED ASSEMBLY SEATING. Seating served by *means of egress* that is not subject to smoke accumulation within or under a structure for a specified design time by means of passive design or by mechanical ventilation.

Date Submitted 10/18/2018	Section 302.1	Proponent Steve Thomas
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

New 503.1.4

Summary of Modification

This change provides language outlining that occupied roofs shall be classified as an occupancy. The code cannot be used without knowing the occupancy of a space. Therefore, this change is a clarification to the current code requirements.

Rationale

Many buildings are being built or altered to create an occupied roof. The code is not clear as to the requirements for these "spaces". Chapter 10 takes care of the means of egress requirements. But, the rest of the code does not address these issues. Some areas are used as gathering spaces, dining areas, swimming pools, etc. The question has come up as to whether these uses are an "occupancy". Some jurisdictions classify them as occupancies and others do not. We were originally going to look at writing a much larger change that would state that they are not occupancies and provide exceptions throughout the code. However, the fact is that the code is an occupancy driven document. Therefore, we decided to use similar language in Section 302.1 combined with the language in Section 1004.5. An occupied roof would be classified to an occupancy that it most resembles. For example, a roof off of a private office would be classified as a Group B occupancy. However a roof above a restaurant would be classified as a Group A-2 occupancy.

This proposal provides users of the code some guidance and clarification on how to apply the provisions to an occupied roof.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact. This is just a clarification of the code requirements to assist the local entity

Impact to building and property owners relative to cost of compliance with code

No impact. This is just a clarification that will actually assist the owner by knowing how to address occupied roofs.

Impact to industry relative to the cost of compliance with code

No impact. This is just a clarification

Impact to small business relative to the cost of compliance with code

There is no impact on small business. This is just a clarification to assist in how small businesses would handle occupied roofs that they are already doing.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

By classifying an occupied roof as an occupancy, the health, safety and welfare provisions of the code can be applied equally. Right now there is not language to clarify that the occupied roof is an occupancy. Therefore, code officials are forced to make things up.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The proposal strengthens the code by clarifying that an occupied roof is an occupancy so that the provisions of the code can be applied equally.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This has no impact on materials, etc. This just a clarification of the code.

Does not degrade the effectiveness of the code

This helps with the effectiveness of the code by clarifying that an occupied roof is considered an occupancy.

302.1 General.

Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed in this section. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied. Structures with multiple occupancies or uses shall comply with Section 508. Where a structure is proposed for a purpose that is not specifically provided for in this code, such structure shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved. Occupied 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.

Date Submitted 11/20/2018	Section 307.1.1	Proponent Bryan Holland
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

This proposed modification adds stationary fuel cell power systems, capacitor energy storage systems, and modifies stationary storage battery systems in the list of items that exempt hazardous classification of the occupancy.

Rationale

This proposed modification adds "stationary fuel cell power systems" and "capacitor energy storage systems" to the list of items that can be stored, used, or handled in an occupancy without having to classify the building as Group H. This simply recognizes that other energy technologies exist on the market today similar to item 9 for "stationary storage battery systems" that is being revised to correlate with the two new items mentioned. It does not make sense to only exempt batteries when fuel cell and capacitor systems have essential the same hazard or risk associated with them. All three items now point to the FFPC which contains strict rules for these energy systems to prevent fire and other occupancy hazards.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
This proposed modification will not impact the local entity relative to code enforcement.
- Impact to building and property owners relative to cost of compliance with code**
This proposed modification will not change the cost of compliance to building and property owners.
- Impact to industry relative to the cost of compliance with code**
This proposed modification will not change the cost of compliance or impact industry.
- Impact to small business relative to the cost of compliance with code**
This proposed modification will not change the cost of compliance or impact small business.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
This proposed modification is directly connected to the health, safety, and welfare of the general public by ensuring these systems meet the requirements of the FFPC where stored, handled, or used in an occupancy.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
This proposed modification improves and strengthens the code by recognizing other energy systems on the market similar to batteries which are currently on the list of items in the Section.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
This proposed modification does not discriminate against materials, products, methods, or systems of construction.
- Does not degrade the effectiveness of the code**
This proposed modification enhances the effectiveness of the code.

[F] 307.1.1 Uses other than Group H. An occupancy that stores, uses or handles hazardous materials as described in one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the Florida Fire Prevention Code.
2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the Florida Fire Prevention Code.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers constructed in accordance with Section 707 or 1-hour horizontal assemblies constructed in accordance with Section 711, or both.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary storage battery systems installed in accordance with the Florida Fire Prevention Code.
- ~~9. Stationary batteries utilized for facility emergency power, uninterruptable power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and ventilation is provided in accordance with the Florida Building Code, Mechanical.~~
10. Corrosive personal or household products in their original packaging used in retail display.
11. Commonly used corrosive building materials
12. Buildings and structures occupied for aerosol storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the Florida Fire Prevention Code.
13. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with Section 414.2.5.
14. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the Florida Fire Prevention Code.
15. Mercantile occupancies offering for retail sale sparklers, novelties and trick noisemakers as defined at Section 791.01, Florida Statutes, and that are not defined as fireworks by Chapter 791, Florida Statutes. Storage of sparklers and other novelties or trick noisemakers as defined in Chapter 791, Florida Statutes, within mercantile occupancies shall be in accordance with Section 791.055, Florida Statutes.
16. Stationary fuel cell power systems installed in accordance with the Florida Fire Prevention Code.
17. Capacitor energy storage systems in accordance with the Florida Fire Prevention Code.

Date Submitted 11/27/2018	Section 307	Proponent Richard Schauland
Chapter 3	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Please refer to the attached file. The documentation for this proposal exceeds the 300 character limit.

Rationale

This proposal brings the Florida Building Code, Building in line with the Florida Fire Prevention Code's referenced standard, NFPA 30B Code for the Manufacture and Storage of Aerosol Products, 2015 Edition.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

There may be no impact to local entities relative to the enforcement of the code as this is an update of terminology.

Impact to building and property owners relative to cost of compliance with code

This proposal will not increase the cost of construction as this is an update on terminology.

Impact to industry relative to the cost of compliance with code

This proposal will not increase the cost of construction as this is an update on terminology.

Impact to small business relative to the cost of compliance with code

This proposal will not increase the cost of construction as this is an update on terminology.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This proposal is about standardizing terminology between different codes and their referenced standards. It provides clarity to the code.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal does not strengthen the Code, it standardizes terminology between different codes and their referenced standards.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The proposal does not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposal helps the effectiveness of the code by standardizing terminology between different codes and their referenced standards.

307.1.1 Uses other than Group H. An occupancy that stores, uses or handles hazardous materials as described in one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the *Florida Fire Prevention Code*.
2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the *Florida Fire Prevention Code*.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment *listed* by an *approved* testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour *fire barriers* constructed in accordance with Section 707 or 1-hour *horizontal assemblies* constructed in accordance with Section 711, or both.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterruptable power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and *ventilation* is provided in accordance with the *Florida Building Code, Mechanical*.

Corrosive personal or household products in their original packaging used in retail display.

Commonly used corrosive building materials.

Buildings and structures occupied for aerosol product storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the *Florida Fire Prevention Code*.

Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per *control area* in Group M or S occupancies complying with Section 414.2.5.

The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the *Florida Fire Prevention Code*.

Mercantile occupancies offering for retail sale sparklers, novelties and trick noisemakers as defined at Section 791.01, *Florida Statutes*, and that are not defined as fireworks by Chapter 791, *Florida Statutes*. Storage of sparklers and other novelties or trick noisemakers as defined in Chapter 791, *Florida Statutes*, within mercantile occupancies shall be in accordance with Section 791.055, *Florida Statutes*.

[F] 307.2 Definitions. The following terms are defined in Chapter 2:

AEROSOL PRODUCT

Level 1 aerosol products.

Level 2 aerosol products.

Level 3 aerosol products.

AEROSOL CONTAINER.

BALED COTTON.

BALED COTTON, DENSELY PACKED. BARRICADE.

Artificial barricade.

Natural barricade.

BOILING POINT.

CLOSED SYSTEM.

COMBUSTIBLE DUST.

COMBUSTIBLE FIBERS.

COMBUSTIBLE LIQUID.

Class II.

Class IIIA.

Class IIIB.

COMPRESSED GAS. CONTROL AREA. CORROSIVE. CRYOGENIC FLUID. DAY BOX. DEFLAGRATION. DETONATION.

DISPENSING. EXPLOSION. EXPLOSIVE.

High explosive.

Low explosive.

Mass-detonating explosives. UN/DOTn Class 1 explosives. Division 1.1.

Division 1.2.

Division 1.3.

Division 1.4.

Division 1.5.

Division 1.6.

FIREWORKS.

Fireworks, 1.3G.

Fireworks, 1.4G.

FLAMMABLE GAS.

FLAMMABLE LIQUEFIED GAS.

FLAMMABLE LIQUID.

Class IA.

Class IB.

Class IC.

FLAMMABLE MATERIAL.

FLAMMABLE SOLID.

FLASH POINT.

HANDLING.

HAZARDOUS MATERIALS.

HEALTH HAZARD.

HIGHLY TOXIC.

INCOMPATIBLE MATERIALS.

INERT GAS.

OPEN SYSTEM.

OPERATING BUILDING.

ORGANIC PEROXIDE.

Class I.

Class II.

Class III.

Class IV.

Class V.

Unclassified detonable.

OXIDIZER.

Class 4.

Class 3.

Class 2.

Class 1.

OXIDIZING GAS.

PHYSICAL HAZARD.

PYROPHORIC.

PYROTECHNIC COMPOSITION.

TOXIC.

UNSTABLE (REACTIVE) MATERIAL.

Class 4.

Class 3.

Class 2.

Class 1.

WATER-REACTIVE MATERIAL.

Class 3.

Class 2.

Class 1.

Code Change No: F363-16

Original Proposal

Section: 202, 907.2.16 (IBC [F] 907.2.16), 5102.1, 5104.1.1, 5104.3, 5104.3.1, 5104.3.2, 5106.2.2, 5106.3, 5106.3.2, 5106.3.3, 5106.4, 5106.5, 5106.5.1, 5106.5.2, 5106.5.6, 5106.5.7, IBC [F] 307.1.1, [F] 307.2, 311.2, [F] 414.1.2.1

Proponent: Patrick McLaughlin, representing Consumer Specialty Products Association (pmclaugma@aol.com)

Revise as follows:

AEROSOL CONTAINER. A metal can or plastic container, up to a maximum size of 33.8 fl.oz. (1000 ml) or a glass or plastic bottle, up to a maximum size of 4 fl.oz. (118 ml), that is designed and intended to dispense an aerosol.

AEROSOL PRODUCT ~~A product combination of a container, a propellant and a material that is dispensed from an aerosol container by a propellant.~~

Aerosol products shall be classified by means of the calculation of their chemical heats of combustion and shall be designated Level 1, Level 2 or Level 3.

Level 1 aerosol products. Those with a total chemical heat of combustion that is less than or equal to 8,600 British thermal units per pound (Btu/lb) (20 kJ/g).

Level 2 aerosol products. Those with a total chemical heat of combustion that is greater than 8,600 Btu/lb (20 kJ/g), but less than or equal to 13,000 Btu/lb (30 kJ/g).

Level 3 aerosol products. Those with a total chemical heat of combustion that is greater than 13,000 Btu/lb (30 kJ/g).

AEROSOL PRODUCT WAREHOUSE. *No change to text.*

5102.1 Definitions. The following terms are defined in Chapter 2:

AEROSOL PRODUCT.

Level 1 aerosol products.

Level 2 aerosol products.

Level 3 aerosol products.

AEROSOL CONTAINER.

AEROSOL PRODUCT WAREHOUSE.

PROPELLANT.

RETAIL DISPLAY AREA.

5104.1.1 Plastic containers Aerosol 1 Products. Aerosol products in plastic containers larger than 4 fluid ounces (118 ml), but not to exceed 33.8 fluid ounces (1000 ml), shall be allowed only where in accordance with this section. The commodity classification shall be Class III commodities, as defined in NFPA 13 where any of the following conditions are met:

1. Base product has no fire point where tested in accordance with ASTM D 92, and nonflammable propellant.

2. Base product has no sustained combustion as tested in accordance with Appendix H, "Method of Testing for Sustained Combustibility," in DOTn 49 CFR Part 173, and nonflammable propellant.
3. Base product contains up to 20 percent by volume (15.8 percent by weight) of ethanol and/or isopropyl alcohol in an aqueous mix, and nonflammable propellant.
4. Base product contains 4 percent by weight or less of an emulsified flammable liquefied gas propellant within an aqueous base. The propellant shall remain emulsified for the life of the product. Where such propellant is not permanently emulsified, the propellant shall be nonflammable.

5104.3 Storage in general purpose warehouses. Aerosol product storage in general purpose warehouses utilized only for warehousing-type operations involving mixed commodities shall comply with Section 5104.3.1 or 5104.3.2.

5104.3.1 Nonsegregated storage. Storage consisting of solid pile, palletized or rack storage of Level 2 and 3 aerosol products not segregated into areas utilized exclusively for the storage of aerosols products shall comply with Table 5104.3.1.

5104.3.2 Segregated storage. Storage of Level 2 and 3 aerosol products segregated into areas utilized exclusively for the storage of aerosols products shall comply with Table 5104.3.2 and Sections 5104.3.2.1 and 5104.3.2.2.

5106.2.2 Display of ~~containers~~ aerosol products. Level 2 and 3 aerosol ~~containers~~ products shall not be stacked more than 6 feet (1829 mm) high from the base of the aerosol product array to the top of the aerosol product array unless the ~~containers~~ aerosol products are placed on fixed shelving or otherwise secured in an *approved* manner. Where storage or retail display is on shelves, the height of such storage or retail display to the top of aerosol ~~containers~~ products shall not exceed 8 feet (2438 mm).

5106.3 Aerosol product display and normal merchandising exceeding 8 feet (2438 mm) high. Aerosol product display and merchandising exceeding 8 feet in height shall be in accordance with Sections 5106.3.1 through 5106.3.3.

5106.3.2 Automatic sprinkler protection. Aerosol product display and merchandising areas shall be protected by an *automatic sprinkler system* based on the requirements set forth in Tables ~~6-3-2-7(a)~~ 6.4.2.7(a) through ~~6-3-2-7(l)~~ 6.4.2.7(l) of NFPA 30B and the following:

1. Protection shall be based on the highest level of aerosol product in the array and the packaging method of the storage located more than 6 feet (1829 mm) above the finished floor.
2. Where using the cartoned aerosol product tables of NFPA 30B, uncartoned or display-cut Level 2 and 3 ~~aerosols~~ aerosol products shall be permitted not more than 6 feet (1829 mm) above the finished floor.
3. The design area for Level 2 and 3 ~~aerosols~~ aerosol products shall extend not less than 20 feet (6096 mm) beyond the Level 2 and 3 aerosol product display and merchandising areas.
4. Where ordinary and high-temperature ceiling sprinkler systems are adjacent to each other, noncombustible draft curtains shall be installed at the interface.

5106.3.3 Separation of Level 2 and 3 aerosol product areas. Separation of Level 2 and 3 aerosol product areas shall comply with the following:

1. Level 2 and 3 aerosol product display and merchandising areas shall be separated from each other by not less than 25 feet (7620 mm). See Table 5106.2.1.
2. Level 2 and 3 aerosol Product display and merchandising areas shall be separated from flammable and *combustible liquids* storage and display areas by one or a combination of the following:
 - 2.1. Segregating areas from each other by horizontal distance of not less than 25 feet (7620 mm).
 - 2.2. Isolating areas from each other by a noncombustible partition extending not less than 18 inches (457 mm) above the merchandise.

- 2.3. In accordance with Section 5106.5.
3. Where Item 2.2 is used to separate Level 2 or 3 ~~aerosols~~ aerosol products from flammable or combustible liquids, and the aerosol products are located within 25 feet (7620 mm) of flammable or combustible liquids, the area below the noncombustible partition shall be liquid tight at the floor to prevent spilled liquids from flowing beneath the aerosol products.
- 4.

**TABLE 5106.4
MAXIMUM STORAGE QUANTITIES FOR STORAGE AREAS ADJACENT TO RETAIL DISPLAY OF LEVEL 2
AND 3 AEROSOLS AEROSOL PRODUCTS**

MAXIMUM NET WEIGHT PER FLOOR (pounds)			
Floor	Unseparated ^{a,b}	Separated	
		Storage Cabinets ^b	1-hour Occupancy Separation
Basement	Not Allowed	Not Allowed	Not Allowed
Ground	2,500	5,000	In accordance with Sections 6.3.4.3 6.4.4.3 and 6.3.4.4 6.4.4.4 of NFPA 30B
Upper	500	1,000	In accordance with Sections 6.3.4.3 6.4.4.3 and 6.3.4.4 6.4.4.4 of NFPA 30B

For SI: 1 pound = 0.454 kg, 1 square foot = 0.0929 m².

- a. The aggregate quantity in storage and retail display shall not exceed the quantity limits for retail display.
- b. In any 50,000-square-foot area.

5106.5 Special protection design for Level 2 and 3 aerosols aerosol products adjacent to flammable and combustible liquids in double-row racks. The display and merchandising of Level 2 and 3 ~~aerosols~~ aerosol products adjacent to flammable and combustible liquids in double-row racks shall be in accordance with Sections 5106.5.1 through 5106.5.8 or Section 5106.3.3.

5106.5.1 Fire protection. Fire protection for the display and merchandising of Level 2 and 3 ~~aerosols~~ aerosol products in double-row racks shall be in accordance with Table ~~7.4.4~~ ~~7.5.1~~ and Figure ~~7.4.4~~ ~~7.5.1~~ of NFPA 30B.

5106.5.2 Cartoned aerosol products. Level 2 and 3 ~~aerosols~~ aerosol products displayed or merchandised more than 8 feet (2438 mm) above the finished floor shall be in cartons.

5106.5.6 Horizontal barriers. Horizontal barriers constructed of minimum 3/8-inch-thick (10 mm) plywood or minimum 0.034-inch (0.86 mm) (No. 22 gage) sheet metal shall be provided and located in accordance with Table ~~7.4.4~~ ~~7.5.1~~ and Figure ~~7.4.4~~ ~~7.5.1~~ of NFPA 30B where in-rack sprinklers are installed.

5106.5.7 Class I, II, III, IV and plastic commodities. Class I, II, III, IV and plastic commodities located adjacent to Level 2 and 3 ~~aerosols~~ aerosol products shall be protected in accordance with NFPA 13.

907.2.16 Aerosol storage uses. Aerosol product storage rooms and general-purpose warehouses containing ~~aerosols~~ aerosol products shall be provided with an approved manual fire alarm system where required by this code.

2015 International Building Code

Revise as follows:

[F] 307.1.1 Uses other than Group H. An occupancy that stores, uses or handles hazardous materials as described in one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the *International Fire Code*.
2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the *International Fire Code*.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment *listed* by an *approved* testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour *fire barriers* constructed in accordance with Section 707 or 1-hour *horizontal assemblies* constructed in accordance with Section 711, or both.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterruptable power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and *ventilation* is provided in accordance with the *International Mechanical Code*.
10. Corrosive personal or household products in their original packaging used in retail display.
11. Commonly used corrosive building materials.
12. Buildings and structures occupied for aerosol product storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the *International Fire Code*.
13. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per *control area* in Group M or S occupancies complying with Section 414.2.5.
14. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the *International Fire Code*.

[F] 307.2 Definitions. The following terms are defined in Chapter 2:

AEROSOL PRODUCT

Level 1 aerosol products.

Level 2 aerosol products.

Level 3 aerosol products.

AEROSOL CONTAINER.

BALED COTTON.

BALED COTTON, DENSELY PACKED.

BARRICADE.

Artificial barricade.

Natural barricade.

BOILING POINT.

CLOSED SYSTEM.

COMBUSTIBLE DUST.

COMBUSTIBLE FIBERS.

COMBUSTIBLE LIQUID.

Class II.

Class IIIA.

Class IIIB.

COMPRESSED GAS.

CONTROL AREA.

CORROSIVE.

CRYOGENIC FLUID.

DAY BOX.

DEFLAGRATION.

DETONATION.

DISPENSING.
 EXPLOSION.
 EXPLOSIVE.
 High explosive.
 Low explosive.
 Mass-detonating explosives.
 UN/DOTn Class 1 explosives.
 Division 1.1.
 Division 1.2.
 Division 1.3.
 Division 1.4.
 Division 1.5.
 Division 1.6.
 FIREWORKS.
 Fireworks, 1.3G.
 Fireworks, 1.4G.
 FLAMMABLE GAS.
 FLAMMABLE LIQUEFIED GAS.
 FLAMMABLE LIQUID.
 Class IA.
 Class IB.
 Class IC.
 FLAMMABLE MATERIAL.
 FLAMMABLE SOLID.
 FLASH POINT.
 HANDLING.
 HAZARDOUS MATERIALS.
 HEALTH HAZARD.
 HIGHLY TOXIC.
 INCOMPATIBLE MATERIALS.
 INERT GAS.
 OPEN SYSTEM.
 OPERATING BUILDING.
 ORGANIC PEROXIDE.
 Class I.
 Class II.
 Class III.
 Class IV.
 Class V.
 Unclassified detonable.
 OXIDIZER.
 Class 4.
 Class 3.
 Class 2.
 Class 1.
 OXIDIZING GAS.
 PHYSICAL HAZARD.
 PYROPHORIC.
 PYROTECHNIC COMPOSITION.
 TOXIC.
 UNSTABLE (REACTIVE) MATERIAL.
 Class 4.
 Class 3.
 Class 2.
 Class 1.
 WATER-REACTIVE MATERIAL.

Class 3.
Class 2.
Class 1.

311.2 Moderate-hazard storage, Group S-1. Storage Group S-1 occupancies are buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:-

- ~~Aerosols~~ **Aerosol products**, Levels 2 and 3
- Aircraft hangar (storage and repair)
- Bags: cloth, burlap and paper
- Bamboos and rattan
- Baskets
- Belting: canvas and leather
- Books and paper in rolls or packs
- Boots and shoes
- Buttons, including cloth covered, pearl or bone
- Cardboard and cardboard boxes
- Clothing, woolen wearing apparel
- Cordage
- Dry boat storage (indoor)
- Furniture
- Furs
- Glues, mucilage, pastes and size
- Grains
- Horns and combs, other than celluloid
- Leather
- Linoleum
- Lumber
- Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.8)
- Photo engravings
- Resilient flooring
- Silks
- Soaps
- Sugar
- Tires, bulk storage of
- Tobacco, cigars, cigarettes and snuff
- Upholstery and mattresses
- Wax candles

[F] 414.1.2.1 ~~Aerosols~~ **Aerosol Products. *No change to text.***

Reason: This proposal brings the IFC/IBC terminology in line with the referenced standard, NFPA 30B Code for the Manufacture and Storage of Aerosol Products, 2015 Edition Also a code references that were in error are updated.

Cost Impact: Will not increase the cost of construction
 There is no impact on the cost of construction as the proposal only updates terminology and references.

Report of Committee Action Hearings
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Committee Action:

Approved as Submitted

Committee Reason: This proposal provides correlation with NFPA 30B.

Assembly Action:

None

Final Action Results

F363-16

AS

Date Submitted 11/27/2018	Section 311	Proponent Richard Schauland
Chapter 3	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Please refer to the attached file. The documentation for this proposal exceeds the 300 character limit.

Rationale

This proposal brings the Florida Building Code, Building in line with the Florida Fire Prevention Code's referenced standard, NFPA 30B Code for the Manufacture and Storage of Aerosol Products, 2015 Edition

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

There may be no impact to local entities relative to the enforcement of the code as this is an update of terminology.

Impact to building and property owners relative to cost of compliance with code

This proposal will not increase the cost of construction as this is an update on terminology.

Impact to industry relative to the cost of compliance with code

This proposal will not increase the cost of construction as this is an update on terminology.

Impact to small business relative to the cost of compliance with code

This proposal will not increase the cost of construction as this is an update on terminology.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This proposal is about standardizing terminology between different codes and their referenced standards. It provides clarity to the code.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal does not strengthen the Code, it standardizes terminology between different codes and their referenced standards.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The proposal does not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposal helps the effectiveness of the code by standardizing terminology between different codes and their referenced standards.

311.2 Moderate-hazard storage, Group S-1. Storage Group S-1 occupancies are buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:

- Aerosols ~~Aerosol products~~, Levels 2 and 3
- Aircraft hangar (storage and repair)
- Bags: cloth, burlap and paper
- Bamboos and rattan
- Baskets
- Belting: canvas and leather
- Books and paper in rolls or packs
- Boots and shoes
- Buttons, including cloth covered, pearl or bone
- Cardboard and cardboard boxes
- Clothing, woolen wearing apparel
- Cordage
- Dry boat storage (indoor)
- Furniture
- Furs
- Glues, mucilage, pastes and size Grains
- Horns and combs, other than celluloid Leather
- Linoleum Lumber
- Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.8)
- Photo engravings
- Resilient flooring
- Silks
- Soaps Sugar
- Tires, bulk storage of
- Tobacco, cigars, cigarettes and snuff Upholstery and mattresses
- Wax candles

Code Change No: F363-16

Original Proposal

Section: 202, 907.2.16 (IBC [F] 907.2.16), 5102.1, 5104.1.1, 5104.3, 5104.3.1, 5104.3.2, 5106.2.2, 5106.3, 5106.3.2, 5106.3.3, 5106.4, 5106.5, 5106.5.1, 5106.5.2, 5106.5.6, 5106.5.7, IBC [F] 307.1.1, [F] 307.2, 311.2, [F] 414.1.2.1

Proponent: Patrick McLaughlin, representing Consumer Specialty Products Association (pmclaugma@aol.com)

Revise as follows:

AEROSOL CONTAINER. A metal can or plastic container, up to a maximum size of 33.8 fl.oz. (1000 ml) or a glass or plastic bottle, up to a maximum size of 4 fl.oz. (118 ml), that is designed and intended to dispense an aerosol.

AEROSOL PRODUCT ~~A product combination of a container, a propellant and a material that is dispensed from an aerosol container by a propellant.~~

Aerosol products shall be classified by means of the calculation of their chemical heats of combustion and shall be designated Level 1, Level 2 or Level 3.

Level 1 aerosol products. Those with a total chemical heat of combustion that is less than or equal to 8,600 British thermal units per pound (Btu/lb) (20 kJ/g).

Level 2 aerosol products. Those with a total chemical heat of combustion that is greater than 8,600 Btu/lb (20 kJ/g), but less than or equal to 13,000 Btu/lb (30 kJ/g).

Level 3 aerosol products. Those with a total chemical heat of combustion that is greater than 13,000 Btu/lb (30 kJ/g).

AEROSOL PRODUCT WAREHOUSE. *No change to text.*

5102.1 Definitions. The following terms are defined in Chapter 2:

AEROSOL PRODUCT.

Level 1 aerosol products.

Level 2 aerosol products.

Level 3 aerosol products.

AEROSOL CONTAINER.

AEROSOL PRODUCT WAREHOUSE.

PROPELLANT.

RETAIL DISPLAY AREA.

5104.1.1 Plastic containers Aerosol 1 Products. Aerosol products in plastic containers larger than 4 fluid ounces (118 ml), but not to exceed 33.8 fluid ounces (1000 ml), shall be allowed only where in accordance with this section. The commodity classification shall be Class III commodities, as defined in NFPA 13 where any of the following conditions are met:

1. Base product has no fire point where tested in accordance with ASTM D 92, and nonflammable propellant.

2. Base product has no sustained combustion as tested in accordance with Appendix H, "Method of Testing for Sustained Combustibility," in DOTn 49 CFR Part 173, and nonflammable propellant.
3. Base product contains up to 20 percent by volume (15.8 percent by weight) of ethanol and/or isopropyl alcohol in an aqueous mix, and nonflammable propellant.
4. Base product contains 4 percent by weight or less of an emulsified flammable liquefied gas propellant within an aqueous base. The propellant shall remain emulsified for the life of the product. Where such propellant is not permanently emulsified, the propellant shall be nonflammable.

5104.3 Storage in general purpose warehouses. Aerosol product storage in general purpose warehouses utilized only for warehousing-type operations involving mixed commodities shall comply with Section 5104.3.1 or 5104.3.2.

5104.3.1 Nonsegregated storage. Storage consisting of solid pile, palletized or rack storage of Level 2 and 3 aerosol products not segregated into areas utilized exclusively for the storage of aerosols products shall comply with Table 5104.3.1.

5104.3.2 Segregated storage. Storage of Level 2 and 3 aerosol products segregated into areas utilized exclusively for the storage of aerosols products shall comply with Table 5104.3.2 and Sections 5104.3.2.1 and 5104.3.2.2.

5106.2.2 Display of ~~containers~~ aerosol products. Level 2 and 3 aerosol ~~containers~~ products shall not be stacked more than 6 feet (1829 mm) high from the base of the aerosol product array to the top of the aerosol product array unless the ~~containers~~ aerosol products are placed on fixed shelving or otherwise secured in an *approved* manner. Where storage or retail display is on shelves, the height of such storage or retail display to the top of aerosol ~~containers~~ products shall not exceed 8 feet (2438 mm).

5106.3 Aerosol product display and normal merchandising exceeding 8 feet (2438 mm) high. Aerosol product display and merchandising exceeding 8 feet in height shall be in accordance with Sections 5106.3.1 through 5106.3.3.

5106.3.2 Automatic sprinkler protection. Aerosol product display and merchandising areas shall be protected by an *automatic sprinkler system* based on the requirements set forth in Tables ~~6-3-2-7(a)~~ 6.4.2.7(a) through ~~6-3-2-7(l)~~ 6.4.2.7(l) of NFPA 30B and the following:

1. Protection shall be based on the highest level of aerosol product in the array and the packaging method of the storage located more than 6 feet (1829 mm) above the finished floor.
2. Where using the cartoned aerosol product tables of NFPA 30B, uncartoned or display-cut Level 2 and 3 ~~aerosols~~ aerosol products shall be permitted not more than 6 feet (1829 mm) above the finished floor.
3. The design area for Level 2 and 3 ~~aerosols~~ aerosol products shall extend not less than 20 feet (6096 mm) beyond the Level 2 and 3 aerosol product display and merchandising areas.
4. Where ordinary and high-temperature ceiling sprinkler systems are adjacent to each other, noncombustible draft curtains shall be installed at the interface.

5106.3.3 Separation of Level 2 and 3 aerosol product areas. Separation of Level 2 and 3 aerosol product areas shall comply with the following:

1. Level 2 and 3 aerosol product display and merchandising areas shall be separated from each other by not less than 25 feet (7620 mm). See Table 5106.2.1.
2. Level 2 and 3 aerosol Product display and merchandising areas shall be separated from flammable and *combustible liquids* storage and display areas by one or a combination of the following:
 - 2.1. Segregating areas from each other by horizontal distance of not less than 25 feet (7620 mm).
 - 2.2. Isolating areas from each other by a noncombustible partition extending not less than 18 inches (457 mm) above the merchandise.

- 2.3. In accordance with Section 5106.5.
- 3. Where Item 2.2 is used to separate Level 2 or 3 ~~aerosols~~ aerosol products from flammable or combustible liquids, and the aerosol products are located within 25 feet (7620 mm) of flammable or combustible liquids, the area below the noncombustible partition shall be liquid tight at the floor to prevent spilled liquids from flowing beneath the aerosol products.
- 4.

**TABLE 5106.4
MAXIMUM STORAGE QUANTITIES FOR STORAGE AREAS ADJACENT TO RETAIL DISPLAY OF LEVEL 2
AND 3 AEROSOLS AEROSOL PRODUCTS**

MAXIMUM NET WEIGHT PER FLOOR (pounds)			
Floor	Unseparated ^{a,b}	Separated	
		Storage Cabinets ^b	1-hour Occupancy Separation
Basement	Not Allowed	Not Allowed	Not Allowed
Ground	2,500	5,000	In accordance with Sections 6.3.4.3 6.4.4.3 and 6.3.4.4 6.4.4.4 of NFPA 30B
Upper	500	1,000	In accordance with Sections 6.3.4.3 6.4.4.3 and 6.3.4.4 6.4.4.4 of NFPA 30B

For SI: 1 pound = 0.454 kg, 1 square foot = 0.0929 m².

- a. The aggregate quantity in storage and retail display shall not exceed the quantity limits for retail display.
- b. In any 50,000-square-foot area.

5106.5 Special protection design for Level 2 and 3 aerosols aerosol products adjacent to flammable and combustible liquids in double-row racks. The display and merchandising of Level 2 and 3 ~~aerosols~~ aerosol products adjacent to flammable and combustible liquids in double-row racks shall be in accordance with Sections 5106.5.1 through 5106.5.8 or Section 5106.3.3.

5106.5.1 Fire protection. Fire protection for the display and merchandising of Level 2 and 3 ~~aerosols~~ aerosol products in double-row racks shall be in accordance with Table ~~7.4.4~~ ~~7.5.1~~ and Figure ~~7.4.4~~ ~~7.5.1~~ of NFPA 30B.

5106.5.2 Cartoned aerosol products. Level 2 and 3 ~~aerosols~~ aerosol products displayed or merchandised more than 8 feet (2438 mm) above the finished floor shall be in cartons.

5106.5.6 Horizontal barriers. Horizontal barriers constructed of minimum 3/8-inch-thick (10 mm) plywood or minimum 0.034-inch (0.086 mm) (No. 22 gage) sheet metal shall be provided and located in accordance with Table ~~7.4.4~~ ~~7.5.1~~ and Figure ~~7.4.4~~ ~~7.5.1~~ of NFPA 30B where in-rack sprinklers are installed.

5106.5.7 Class I, II, III, IV and plastic commodities. Class I, II, III, IV and plastic commodities located adjacent to Level 2 and 3 ~~aerosols~~ aerosol products shall be protected in accordance with NFPA 13.

907.2.16 Aerosol storage uses. Aerosol product storage rooms and general-purpose warehouses containing ~~aerosols~~ aerosol products shall be provided with an approved manual fire alarm system where required by this code.

2015 International Building Code

Revise as follows:

[F] 307.1.1 Uses other than Group H. An occupancy that stores, uses or handles hazardous materials as described in one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the *International Fire Code*.
2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the *International Fire Code*.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment *listed* by an *approved* testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour *fire barriers* constructed in accordance with Section 707 or 1-hour *horizontal assemblies* constructed in accordance with Section 711, or both.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterruptable power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and *ventilation* is provided in accordance with the *International Mechanical Code*.
10. Corrosive personal or household products in their original packaging used in retail display.
11. Commonly used corrosive building materials.
12. Buildings and structures occupied for aerosol product storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the *International Fire Code*.
13. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per *control area* in Group M or S occupancies complying with Section 414.2.5.
14. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the *International Fire Code*.

[F] 307.2 Definitions. The following terms are defined in Chapter 2:

AEROSOL PRODUCT

Level 1 aerosol products.

Level 2 aerosol products.

Level 3 aerosol products.

AEROSOL CONTAINER.

BALED COTTON.

BALED COTTON, DENSELY PACKED.

BARRICADE.

Artificial barricade.

Natural barricade.

BOILING POINT.

CLOSED SYSTEM.

COMBUSTIBLE DUST.

COMBUSTIBLE FIBERS.

COMBUSTIBLE LIQUID.

Class II.

Class IIIA.

Class IIIB.

COMPRESSED GAS.

CONTROL AREA.

CORROSIVE.

CRYOGENIC FLUID.

DAY BOX.

DEFLAGRATION.

DETONATION.

DISPENSING.
 EXPLOSION.
 EXPLOSIVE.
 High explosive.
 Low explosive.
 Mass-detonating explosives.
 UN/DOTn Class 1 explosives.
 Division 1.1.
 Division 1.2.
 Division 1.3.
 Division 1.4.
 Division 1.5.
 Division 1.6.
 FIREWORKS.
 Fireworks, 1.3G.
 Fireworks, 1.4G.
 FLAMMABLE GAS.
 FLAMMABLE LIQUEFIED GAS.
 FLAMMABLE LIQUID.
 Class IA.
 Class IB.
 Class IC.
 FLAMMABLE MATERIAL.
 FLAMMABLE SOLID.
 FLASH POINT.
 HANDLING.
 HAZARDOUS MATERIALS.
 HEALTH HAZARD.
 HIGHLY TOXIC.
 INCOMPATIBLE MATERIALS.
 INERT GAS.
 OPEN SYSTEM.
 OPERATING BUILDING.
 ORGANIC PEROXIDE.
 Class I.
 Class II.
 Class III.
 Class IV.
 Class V.
 Unclassified detonable.
 OXIDIZER.
 Class 4.
 Class 3.
 Class 2.
 Class 1.
 OXIDIZING GAS.
 PHYSICAL HAZARD.
 PYROPHORIC.
 PYROTECHNIC COMPOSITION.
 TOXIC.
 UNSTABLE (REACTIVE) MATERIAL.
 Class 4.
 Class 3.
 Class 2.
 Class 1.
 WATER-REACTIVE MATERIAL.

Class 3.
Class 2.
Class 1.

311.2 Moderate-hazard storage, Group S-1. Storage Group S-1 occupancies are buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:-

- ~~Aerosols~~ **Aerosol products**, Levels 2 and 3
- Aircraft hangar (storage and repair)
- Bags: cloth, burlap and paper
- Bamboos and rattan
- Baskets
- Belting: canvas and leather
- Books and paper in rolls or packs
- Boots and shoes
- Buttons, including cloth covered, pearl or bone
- Cardboard and cardboard boxes
- Clothing, woolen wearing apparel
- Cordage
- Dry boat storage (indoor)
- Furniture
- Furs
- Glues, mucilage, pastes and size
- Grains
- Horns and combs, other than celluloid
- Leather
- Linoleum
- Lumber
- Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.8)
- Photo engravings
- Resilient flooring
- Silks
- Soaps
- Sugar
- Tires, bulk storage of
- Tobacco, cigars, cigarettes and snuff
- Upholstery and mattresses
- Wax candles

[F] **414.1.2.1 ~~Aerosols~~ **Aerosol Products**.** *No change to text.*

Reason: This proposal brings the IFC/IBC terminology in line with the referenced standard, NFPA 30B Code for the Manufacture and Storage of Aerosol Products, 2015 Edition Also a code references that were in error are updated.

Cost Impact: Will not increase the cost of construction
There is no impact on the cost of construction as the proposal only updates terminology and references.

**Report of Committee Action
Hearings**

Committee Action:

Approved as Submitted

Committee Reason: This proposal provides correlation with NFPA 30B.

Assembly Action:

None

Final Action Results

F363-16

AS

Date Submitted 11/29/2018	Section 310.4	Proponent Ann Russo5
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Provides clarification on uses for R-2 and R-3 based on size (number of occupants).

Rationale

The proposal provides a needed clarification of the uses which can be either an R-2 or an R-3 based on size (number of occupants.). The modification removes text which is redundant with the charging language of Section 310.4. Since both R-2 and R-3 are required to be provided within automatic sprinkler system, occupants in both occupancies are afforded that protection.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Clarifies enforcement and requirements
- Impact to building and property owners relative to cost of compliance with code**
Minimal
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves protection of occupants safety and welfare
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code by clarifying requirements
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not by actually improving effectiveness

Modify as follows:**310.4 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
- *Boarding houses* (nontransient) with more than 16 occupants
- *Congregate living facilities* (nontransient) with more than 16 occupants
- Convents
- *Dormitories*
- Fraternities and sororities
- Hotels (nontransient)
- *Live/work units*
- Monasteries
- Motels (nontransient)
- Vacation timeshare properties

Date Submitted 11/29/2018	Section 310.5	Proponent Ann Russo5
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

310.5.2

Summary of Modification

This proposal further refines the added language by inserting "owner occupied" which is a qualifier already in the Code; by clarifying that the lodging use is of a "transient" nature consistent with other Group R-3 use language.

Rationale

This proposal further refines the added language by inserting "owner occupied" which is a qualifier already in the Code; by clarifying that the lodging use is of a "transient" nature consistent with other Group R-3 use language. It further ties in the 10 or fewer occupant load criteria which is also intended for consistency with the current Board house language, a lodging house is a form of a boarding house.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Clarifies language allowing for better enforcement of requirements
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves safety for occupants by clarifying requirements in select uses and occupant loads
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code enforcement and safety aspects for occupants
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Improves Code effectiveness

Revise as follows:

310.5 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*
- *Boarding houses* (nontransient) with 16 or fewer occupants
- *Boarding houses (transient)* with 10 or fewer occupants
- Care facilities that provide accommodations for five or fewer persons receiving care
- *Congregate living facilities* (nontransient) with 16 or fewer occupants
- *Congregate living facilities (transient)* with 10 or fewer occupants
- *Owner occupied Lodging houses* with five or fewer *guest rooms* and 10 or fewer occupants

Date Submitted 11/29/2018	Section 310.5.2	Proponent Ann Russo5
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

310.5

Summary of Modification

This proposal further refines the added language by inserting "owner occupied" which is a qualifier already in the Code; by clarifying that the lodging use is of a "transient" nature consistent with other Group R-3 use language.

Rationale

This proposal further refines the added language by inserting "owner occupied" which is a qualifier already in the Code; by clarifying that the lodging use is of a "transient" nature consistent with other Group R-3 use language. It further ties in the 10 or fewer occupant load criteria which is also intended for consistency with the current Board house language, a lodging house is a form of a boarding house.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Clarifies language allowing for better enforcement of requirements
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves safety for occupants by clarifying requirements in select uses and occupant loads
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code enforcement and safety aspects for occupants
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Improves Code effectiveness

Revise as follows:

310.5.2 Lodging houses.

Owner-occupied *lodging houses* with five or fewer *guest rooms* and 10 or fewer occupants shall be permitted to be constructed in accordance with the *Florida Building Code, Residential*.

Date Submitted 11/29/2018	Section 311.1.1	Proponent Ann Russo5
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The subject of storage rooms has been discussed since the first edition of the Code. The original code considered storage rooms as incidental uses. This will better define that space's usage.

Rationale

The subject of storage rooms has been discussed since the first edition of the Code. The original code considered storage rooms as incidental uses and required them to be separated from the remainder of the building or be provided with a fire extinguishing system. The original requirement was based on health care uses, but was not introduced that way. That provision was deleted from the Incidental Use Table because it was causing problems with the design of buildings and there was no technical justification to maintain the requirement.

The previous Code edition was revised with the above section limiting the area to 100 square feet once again. However, it does not tell the user what to do if it exceeds 100 square feet. There was also no technical justification provided to support the 100 square foot limit. This proposal deletes the square footage limit as well as deleting the last sentence that did not give any direction as to what occupancy was to be used to determine the maximum aggregate area.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Clarifies section and eliminates possible confusion for designer and plan reviewers
- Impact to building and property owners relative to cost of compliance with code**
None
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Clarifies requirements and removes confusion as to technical requirements allowing for better definition in accordance to use
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Clarifies requirements and allows for consideration of what is being stored there and impact on life safety requirements
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
No
- Does not degrade the effectiveness of the code**
No

Revise as follows:

~~_____~~ **311.1.1 Accessory storage spaces.** A room or space used for storage purposes that is less than 100 square feet (9.3 m²) in area and accessory to another occupancy shall be classified as part of that occupancy. ~~The aggregate area of such rooms or spaces shall not exceed the allowable area limits of Section 508.2.~~

Date Submitted 11/29/2018	Section 312.1	Proponent Ann Russo5
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

This addition identifies the placement of communication equipment structures less than 1,500 sq ft gross into Group U.

Rationale

This addition identifies the placement of communication equipment structures less than 1,500 square feet gross into Group U. The selection of 1,500 square feet is a typical structure size that would be visited infrequently by only authorized and knowledgeable personnel. The characteristics of “Structures housing accessory equipment that is part of a utility or communications system are often classified as Group U occupancies when there is no intent that these structures be occupied except for servicing and maintaining the equipment with the structure. A pump house for a water or sewage system or equipment building at the base of a telecommunication tower is an example of such buildings”. This proposal memorializes the communication equipment structures under the U group and continues to require conformance to basis fire and life hazard while better identifying the occupancy and activities intended for the structure. The thousands of existing and future structures of this occupancy range from a small subterranean room, on-grade equipment housing or small communications structure visited only for equipment installation and maintenance will benefit from this clarification.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Clarifies usage and enforcement
- Impact to building and property owners relative to cost of compliance with code**
None
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Clarification will have small and positive impact on safety and general welfare
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens Code via clarification
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

312.1 General. Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

Agricultural buildings

Aircraft hangars, accessory to a one or two-family residence (see Section 412.5)

Barns

Carports

Communication equipment structures with a *gross floor area* of less than 1,500 square feet Fences more than 6 feet (1829 mm) in height

Grain silos, accessory to a residential occupancy

Greenhouses

Livestock shelters

Private garages

Retaining walls

Sheds

Stables

Tanks

Towers

Date Submitted	12/14/2018	Section	302.1	Proponent	Joseph Belcher for Bison
Chapter	3	Affects HVHZ	Yes	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

503.1.4

Summary of Modification

Adds provisions for occupied roofs.

Rationale

(Note: This is extracted from the ICC proponent's reason. For the full text see the Uploaded Support File.)

Commenter's Reason: There were several proposed changes to deal with occupied roofs submitted for this code cycle. All of them were disapproved by the General Committee. The proponents of all of those proposals have come together to develop one public comment to address this important issue. Building departments are seeing more and more roofs being occupied. The purpose of this public comment is to provide some direction to the code official in dealing with these uses. The code defines a story as "that portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above." While other proposals have been submitted to address the question whether or not an occupied roof would add to the number of stories, it is the opinion of the submitters that the code already addresses when a portion of the building is considered a story as indicated in the definition of Story. An uncovered roof deck is clearly not a story, because there is no floor or roof above.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact.

Impact to building and property owners relative to cost of compliance with code

No impact.

Impact to industry relative to the cost of compliance with code

No impact.

Impact to small business relative to the cost of compliance with code

No impact.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Occupied roofs are becoming more common and the propose will help to assure the health, safety, and welfare of members of the public using such facilities.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change to the code was will improve the code by helping to assure the safety of the public using such facilities.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change does not degrade the effectiveness of the code.

302.1 General. Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed in this section. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied. Structures with multiple occupancies or uses shall comply with Section 508. Where a structure is proposed for a purpose that is not specifically provided for in this code, such structure shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved. Occupied roofs shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved 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 roofs A roof level or portion thereof shall be permitted to be used as an occupied 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 roofs shall not be included in the building area as regulated by Section 506.

Exceptions:

1. The occupancy located on an occupied 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 Section 907.5 is provided in the area of the occupied roof.
2. Assembly occupancies shall be permitted on roofs of open parking garages of Type I or Type II construction, in accordance with the exception to Section 903.2.1.6.

Elements or structures enclosing the occupied roof areas shall not extend more than 48 inches above the surface of the occupied roof.

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

Commenter's Reason: There were several proposed changes to deal with occupied roofs submitted for this code cycle. All of them were disapproved by the General Committee. The proponents of all of those proposals have come together to develop one public comment to address this important issue. Building departments are seeing more and more roofs being occupied. The purpose of this public comment is to provide some direction to the code official in dealing with these uses. The code defines a story as "that portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above." While other proposals have been submitted to address the question whether or not an occupied roof would add to the number of stories, it is the opinion of the submitters that the code already addresses when a portion of the building is considered a story as indicated in the definition of Story. An uncovered roof deck is clearly not a story, because there is no floor or roof above.

The first portion of the change (Section 302.1) is to clarify that occupied roofs are required to be classified as an occupancy. The codes are so occupancy driven that you cannot determine what is needed when a roof is occupied unless you determine an occupancy classification. As an example, if a roof is used for gathering of people, it would be classified as a Group A-3. If it was a roof where patrons were drinking and dining, you would classify it as a Group A-2. An occupied roof outside a private office would be classified as a Group B. It is based on the use and the relative hazard of the use just like any other space in a building.

The second portion (Section 503.1.4) provides direction as to where the occupancies can be located. If the building is not provided with fire sprinklers, the use cannot be located on the roof unless it is permitted on the story directly below. For example, an occupied roof used for gathering of people on top of an office building of Type VB Construction without fire sprinklers would be limited to the roof of a one-story building. However, under the first exception, if the building is provide with fire sprinklers, there is no limitation as to where the occupied roof is permitted to be located. It is intended that the fire sprinklers will provide protection from the story below the occupied roof. The second exception in 503.1.4 correlates this section with the exception to Section 903.2.1.6, which allows assembly occupancies on the roof of Type I or II open parking garages without sprinklers on all the floors below.

During the discussions of the public comment, some contributors expressed the concern that if an uncovered occupied roof had walls or screens surrounding it, for all intents and purposes, the occupied roof area functions as a story from a firefighting perspective, even though it technically does not meet the definition of a story. The second paragraph of Section 503.1.4 is intended to reduce the height of any barriers or obstacles around the occupied roof area, so it does not function as a story. The exception is intended to allow abutting penthouses, towers, domes, spires, and cupolas that comply with Section 1510 to exceed the 48" height limit. Note that other rooftop structures in Section 1510 such as mechanical equipment screens and "bulkheads" are intentionally not included in the exception, since they were the source of the concern. The specified rooftop structures are generally limited in extent as related to the occupied roof, so their walls were not judged to be a major obstacle.

All other requirements in the code regarding occupied roofs will not change. They will still need a means of egress and an accessible route. The only purpose of this proposal is to clarify whether they have an occupancy classification and where they can be located.

Date Submitted	11/20/2018	Section	405.8	Proponent	Bryan Holland
Chapter	4	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications**Summary of Modification**

This proposed modification changes fire pumps for underground buildings to an emergency power load from a standby power load.

Rationale

In the 2015 IBC, Section 403.4.8 (High-rise buildings), the redundant power source requirements for electrically powered fire pumps was changed from stand-by power to emergency power. This proposed change applies the same requirement to Underground Buildings as it is possible for a single building to qualify as both an underground building and a high-rise building. As such, these provisions should be consistent between the two requirement sets to avoid potential design conflicts.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposed modification will not impact the local entity relative to code enforcement.

Impact to building and property owners relative to cost of compliance with code

This proposed modification will not change the cost of compliance to building and property owners unless the cost is passed on to the consumer by the builder.

Impact to industry relative to the cost of compliance with code

This proposed modification will increase the cost of compliance to industry to meet the more stringent requirements for an emergency system verses a legally required standby system.

Impact to small business relative to the cost of compliance with code

This proposed modification will not change the cost of compliance or impact small business.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This proposed modification is directly connected to the health, safety, and welfare of the general public by harmonizing power load requirements in high-rise buildings with those in underground buildings along with coordinating the FBC-B with the FFPC.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposed modification improves and strengthens the code by ensuring fire pump loads are on emergency systems which are more robust and effective verses standby systems.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposed modification does not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposed modification enhances the effectiveness of the code.

F] 405.8 Standby and emergency power. A standby power system complying with Section 2702 shall be provided for the standby power loads specified in Section 405.8.1. An emergency power system complying with Section 2702 shall be provided for the emergency power loads specified in Section 405.8.2.

[F] 405.8.1 Standby power loads. The following loads are classified as standby power loads:

1. Smoke control system.
2. Ventilation and automatic fire detection equipment for smokeproof enclosures.
3. ~~Fire pumps.~~
4. 3. Elevators, as required in Section 3003.

[F] 405.8.2 Emergency power loads. The following loads are classified as emergency power loads:

1. Emergency voice/alarm communications systems.
2. Fire alarm systems.
3. Automatic fire detection systems.
4. Elevator car lighting.
5. Means of egress and exit sign illumination as required by Chapter 10.
6. Fire pumps.

Date Submitted 11/21/2018	Section 412.6.3	Proponent Ann Russo2
Chapter 4	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

412.6.4

Summary of Modification

Aligns the aircraft paint hangar spray equipment cleaning and storage provisions with the fundamental system of classifying hazardous areas in accordance with Section 307.1 and result in more consistent application of Florida Fire Prevention Code and Florida Building Code provisions.

Rationale

The current spray equipment cleaning operations provisions in Section 412.6.3 that such operations be conducted in a liquid use, dispensing and mixing room and storage provisions in Section 412.6.4 requiring a liquid storage room are fairly absolute. The Section 412.6.3 specific requirement overlooks two important aspects. First, flammable or combustible liquids may not be used in the cleaning operation. Many new solvents in use today are not flammable nor combustible and many companies are utilizing these products in an effort to avoid environmental restrictions. Secondly, spray equipment can often be cleaned using minimal amounts of flammable or combustible solvents not in excess of maximum allowable quantities. In either event, the requirement for spray equipment cleaning operations to be conducted in a liquid use, dispensing and mixing room is unduly restrictive and unnecessary.

Similarly, Section 412.6.4 assumes storage of flammable liquids in amounts in excess of the maximum allowable quantities per control area in Table 307.1(1) which may or may not be the case.

Approval of this proposal would align the aircraft paint hangar spray equipment cleaning and storage provisions with the fundamental system of classifying hazardous areas in accordance with Section 307.1 and result in more consistent application of Florida Fire Prevention Code and Florida Building Code provisions.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Will have no impact to local entity relative to enforcement of code.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction. Approval would reduce the cost of construction for facilities where quantities of flammable and combustible liquids less than the maximum allowable quantity per control are used or stored.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction. Approval would reduce the cost of construction for facilities where quantities of flammable and combustible liquids less than the maximum allowable quantity per control are used or stored.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction. Approval would reduce the cost of construction for facilities where quantities of flammable and combustible liquids less than the maximum allowable quantity per control are used or stored.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Reduces the cost of construction for facilities where quantities of flammable and combustible liquids less than the maximum allowable quantity per control are used or stored.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Aligns the aircraft paint hangar spray equipment cleaning and storage provisions with the fundamental system of classifying hazardous areas in accordance with Section 307.1 and results in more consistent application of Florida Fire Prevention Code and Florida Building Code provisions.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Has no effect on construction materials, products, or methods of construction.

Does not degrade the effectiveness of the code

Will not degrade the effective of the code, but eases restrictions where such are unnecessary for the use and occupancy of the building.

[F] 412.6.3 **Operations.** Only those flammable liquids necessary for painting operations shall be permitted in quantities less than the maximum allowable quantities per *control area* in Table 307.1(1). Spray equipment cleaning operations exceeding the maximum allowable quantities per *control area* in Table 307.1(1) shall be conducted in a liquid use, dispensing and mixing room.

[F] 412.6.4 **Storage.** Storage of flammable or combustible liquids exceeding the maximum allowable quantities per *control area* in Table 307.1(1) shall be in a liquid storage room.

Date Submitted 12/14/2018	Section 406.8.3	Proponent Tim Earl
Chapter 4	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

- 7511 (Section 406.8.3)7546 (Section 424.2)
- 7547 (Sections 804.2 and 804.3)
- 7548 (Section 35)

Summary of Modification

This change adds ASTM E648 as an option to NFPA 253, since they are equivalent tests. This is the same thing we do for Steiner Tunnel testing, where the code (throughout) requires testing to ASTM E84 or UL 723.

Rationale

ASTM E648 is technically equivalent to NFPA 253. Since the flooring industry routinely references ASTM E648, this proposal will remove confusion when test reports reference the ASTM test instead of the NFPA test. This proposal also correlates with the 2018 IBC.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Impact to building and property owners relative to cost of compliance with code

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Impact to industry relative to the cost of compliance with code

This change may result in a small costs savings to industry, since those who submit ASTM E648 test reports currently have to either ask the lab to provide another test report referencing NFPA 253, or have a code consultant explain to the code official that they are equivalent tests.

Impact to small business relative to the cost of compliance with code

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This section is about the fire performance of flooring products, which is critical to life safety. The change itself simply improves the usability of the code by recognizing two equivalent tests instead of one.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This change makes the code more complete and accurate, since ASTM E648 and NFPA 253 are the same test.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This change is material neutral, as flooring products are tested in an identical manner using ASTM E648 or NFPA 253. The only difference is what is listed on the test report.

Does not degrade the effectiveness of the code

This change makes the code more complete and accurate, since ASTM E648 and NFPA 253 are the same test.

406.8.3Floor surface.

Repair garage floors shall be of concrete or similar noncombustible and nonabsorbent materials.

Exception: Slip-resistant, nonabsorbent, *interior floor finishes* having a critical radiant flux not more than 0.45 W/cm², as determined by ASTM E648 or NFPA 253, shall be permitted.

Date Submitted 12/14/2018	Section 424.2	Proponent Tim Earl
Chapter 4	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

7511 (Section 406.8.3)
7547 (Sections 804.2 and 804.3)
7548 (Section 35)

Summary of Modification

This change adds ASTM E648 as an option to NFPA 253, since they are equivalent tests. This is the same thing we do for Steiner Tunnel testing, where the code (throughout) requires testing to ASTM E84 or UL 723.

Rationale

ASTM E648 is technically equivalent to NFPA 253. Since the flooring industry routinely references ASTM E648, this proposal will remove confusion when test reports reference the ASTM test instead of the NFPA test. This proposal also correlates with the 2018 IBC.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Impact to building and property owners relative to cost of compliance with code

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Impact to industry relative to the cost of compliance with code

This change may result in a small costs savings to industry, since those who submit ASTM E648 test reports currently have to either ask the lab to provide another test report referencing NFPA 253, or have a code consultant explain to the code official that they are equivalent tests.

Impact to small business relative to the cost of compliance with code

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This section is about the fire performance of flooring products, which is critical to life safety. The change itself simply improves the usability of the code by recognizing two equivalent tests instead of one.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This change makes the code more complete and accurate, since ASTM E648 and NFPA 253 are the same test.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This change is material neutral, as flooring products are tested in an identical manner using ASTM E648 or NFPA 253. The only difference is what is listed on the test report.

Does not degrade the effectiveness of the code

This change makes the code more complete and accurate, since ASTM E648 and NFPA 253 are the same test.

424.2 Materials. Children's play structures shall be constructed of noncombustible materials or of combustible materials that

comply with the following:

1. Fire-retardant-treated wood complying with Section 2303.2.
2. Light-transmitting plastics complying with Section 2606.
3. Foam plastics (including the pipe foam used in soft-contained play equipment structures) having a maximum heat release rate not greater than 100 kilowatts when tested in accordance with UL 1975 or when tested in accordance with NFPA 289, using the 20 kW ignition source.
4. Aluminum composite material (ACM) meeting the requirements of Class A interior finish in accordance with Chapter 8 when tested as an assembly in the maximum thickness intended for use.
5. Textiles and films complying with the fire propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, of NFPA 701.
6. Plastic materials used to construct rigid components of soft-contained play equipment structures (such as tubes, windows, panels, junction boxes, pipes, slides and decks) exhibiting a peak rate of heat release not exceeding 400 kW/m² when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m² in the horizontal orientation at a thickness of 6 mm.
7. Ball pool balls, used in soft-contained play equipment structures, having a maximum heat-release rate not greater than 100 kilowatts when tested in accordance with UL 1975 or when tested in accordance with NFPA 289, using the 20 kW ignition source. The minimum specimen test size shall be 36 inches by 36 inches (914 mm by 914 mm) by an average of 21 inches (533 mm) deep, and the balls shall be held in a box constructed of galvanized steel poultry netting wire mesh.
8. Foam plastics shall be covered by a fabric, coating or film meeting the fire propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, of NFPA 701.
9. The floor covering placed under the children's play structure shall exhibit a Class I interior floor finish classification, as described in Section 804, when tested in accordance with ASTM E648 or NFPA 253.

Date Submitted 11/29/2018	Section 401.1	Proponent Ann Russo1
Chapter 4	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The purpose of this code change is to simply formalize these terms and explain their relationship. This will assist code practitioners in properly establishing applicable code requirements and improve uniformity and continuity in the identification of appropriate provisions.

Rationale

Properly classifying the purpose of a given building or structure is the very important first step in the design or analysis process. The reason for this is that the various designations account for the inherent hazards and risks typically associated with the intended purpose. Based on those hazards and risks, appropriate limitations and controls are assigned to the building or structure. The Florida Building Code uses several specific terms to identify the purpose of the building or structure. Those are: occupancy classification, use and function. Occupancy classification and use are often confused and function is misunderstood. This proposal will inform users of the FBC of building classification and assist all concerned in the proper communication of applicable code requirements. This is related to proposed modification # 7464

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This proposal will provide clarification between the terms of 'use' and 'occupancy'. Too often they are treated to be the same when they are really distinct terms. The proposal clarifies the difference. This proposal is related to modification # 7464

Impact to building and property owners relative to cost of compliance with code

Will not increase cost of compliance with code.

Impact to industry relative to the cost of compliance with code

Will not increase cost of compliance with code.

Impact to small business relative to the cost of compliance with code

Will not increase cost of compliance with code.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Proposal simply provide clarification of current requirements.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Proposal simply provide clarification of current requirements.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Proposal simply provide clarification of current requirements.

Does not degrade the effectiveness of the code

Proposal simply provide clarification of current requirements.

Revise as follows:

**CHAPTER 4
SPECIAL DETAILED REQUIREMENTS BASED ON USE OCCUPANCY AND
OCCUPANCY USE**

401.1 Detailed use occupancy and occupancy use requirements. In addition to the occupancy and construction requirements in this code, the provisions of this chapter apply to the ~~special uses~~ occupancies and ~~occupancies~~ uses described herein.

Date Submitted 11/29/2018	Section 402.8.6.1	Proponent Ann Russo5
Chapter 4	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The purpose of this proposal is to point the user to all of the code requirements for exit passageways.

Rationale

The purpose of this proposal is to point the user to all of the code requirements for exit passageways. The 1 hour fire- resistance rating is maintained, for openings Section 1024.5 points the user to Section 716 and applying that portion of the code maintains the requirement for the 1 hour rated fire doors, (see Table 716.5), and maintains the requirement for the smoke activated closure, (see Section 716.5.9.3, Item 3).

There has been cases of confusion in that a user looks at Sections 402.8.6.1 and 402.8.7 and interprets that these are the only sections needed to be complied with for an exit passageway in this occupancy. For example, the application of Section 1024.6 for penetration limitations. With the suggest change the level of protection is unchanged and application of the exit passageway requirements are clarified.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
It eliminates conflicting interpretations by design professionals and clarifies requirements
- Impact to building and property owners relative to cost of compliance with code**
Eliminates possible conflicts allowing design professionals to properly specify requirements needed
- Impact to industry relative to the cost of compliance with code**
None as it eliminates conflicts and possible confusion
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves enforcement of life safety requirements for protection of occupants in case of emergency egress
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code with clarification as to requirements and eliminates possible contradictory requirements
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
No, it improves Code effectiveness

Revise as follows:

402.8.6.1 Exit passageways. Where *exit passageways* provide a secondary *means of egress* from a tenant space, doorways to the *exit passageway* exit passageways shall be protected by 1-hour *fire door assemblies* that are self- or automatic-closing by smoke-detection constructed in accordance with Section 716.5.9.31024.

Date Submitted 12/10/2018	Section 406.7.2	Proponent Paul Coats
Chapter 4	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

7522 and 7553, and others making the same adjustments to terminology.

Summary of Modification

This is a correlation change with other modifications that reorganize the heavy timber provisions. It does not change requirements but improves terminology to distinguish between the use of the terms "heavy timber" and "Type IV construction."

Rationale

This code change is related a reorganization of Type IV provisions in Section 602.4 and the heavy timber provisions in section 2304.11. The goal of this change (and similar changes to heavy timber terminology in other chapters) is to use the term "Type IV" or "Section 602.4" when the provisions are referring to the type of construction for the building, and "heavy timber complying with Section 2304.11" when the provisions are referring to a heavy timber element located in a building of any construction type. This and related changes are not intended to make technical changes to the code but rather to make the current requirements easier to apply.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Will make code application easier.
- Impact to building and property owners relative to cost of compliance with code**
No cost-related impact.
- Impact to industry relative to the cost of compliance with code**
No cost-related impact.
- Impact to small business relative to the cost of compliance with code**
No cost-related impact.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Will make code application easier.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves the code by making its application easier.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate.
- Does not degrade the effectiveness of the code**
Does not degrade the effectiveness of the code.

Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11 or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. 1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11;
2. 2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a smoke developed index of 450 or less when tested in the form intended for use in accordance with ASTM E84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D1929; or
3. 3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

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406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1

Proponent: Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

2015 International Building Code

Revise as follows:

406.7.2 Canopies. Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11 or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11;
2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a smoke developed index of 450 or less when tested in the form intended for use in accordance with ASTM E 84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929; or
3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls	3	2	1	0	2	2	2	1	0
Exterior ^{e, f}	3 ^a	2 ^a	1	0	1	0	1/HT	1	0
Interior									
Nonbearing walls and partitions	See Table 602								
Exterior									
Nonbearing walls and partitions	0	0	0	0	0	0	See Section 602.4.6 <u>2304.11.2</u>	0	0
Interior ^d									
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories above grade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~ 602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour fire-resistance-rated construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of ~~Type IV heavy timber~~ construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV heavy timber~~ construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.13.1.1.

1406.3 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV heavy timber~~ construction in accordance with Section ~~602.4.2~~ 2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV construction~~ heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV construction~~ heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 802.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15

Committee Action: Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Date Submitted	12/12/2018	Section	414.2.4	Proponent	Paul Coats
Chapter	4	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Adds Type IV construction in requirements for fire resistance of floors serving control areas.

Rationale

This modification was approved by the ICC committee and membership and appears in the 2018 edition of the International Building Code. The interior construction of Types IIIA and VA construction can be built of the exact same material as type IV construction so long that it is calculated or tested to be one hour fire resistance rated. Type IV construction is preferable for hazardous occupancies to Type IIIA or Type VA construction from an allowable area standpoint in the current code due to performance. Since Type IIIA and Type VA can be built out of exactly the same material as long as it is one hour, and since the control area is separated from the balance of the building by one hour construction, there is no reason to exclude type IV from this exception from two hour fire resistance rating of the floor assembly and supporting construction for the control area in buildings three stories or less and fully sprinklered with a NFPA 13 sprinkler system.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Adds flexibility to the code for this provision.

Impact to building and property owners relative to cost of compliance with code

No cost-related impact since it adds an option.

Impact to industry relative to the cost of compliance with code

No cost-related impact since it adds an option.

Impact to small business relative to the cost of compliance with code

No cost-related impact since it adds an option.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Adds an option to current provisions.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by adding an option to current provisions.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Does not degrade the effectiveness of the code.

[F] 414.2.4 Fire-resistance-rating requirements.

The required *fire-resistance rating* for *fire barriers* shall be in accordance with Table 414.2.2. The floor assembly of the *control area* and the construction supporting the floor of the *control area* shall have a *fire-resistance rating* of not less than 2 hours.

Exception: The floor assembly of the *control area* and the construction supporting the floor of the *control area* are allowed to be 1-hour fire-resistance rated in buildings of Types IIA, IIIA, IV and VA construction, provided that both of the following conditions exist:

1. The building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1; and
2. The building is three or fewer *stories above grade plane*.

F355-16

5003.8.3.4; IBC [F] 414.2.4

Proponent : Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

2015 International Fire Code

5003.8.3.4 (IBC [F]414.2.4) Fire-resistance-rating requirements. The required *fire-resistance rating* for *fire barriers* shall be in accordance with Table 5003.8.3.2. The floor assembly of the *control area* and the construction supporting the floor of the *control area* shall have a *fire-resistance rating* of not less than 2 hours.

Exception: The floor assembly of the *control area* and the construction supporting the floor of the *control area* is allowed to be 1-hour *fire-resistance* rated in buildings of Type IIA, IIIA, IV and VA construction, provided that both of the following conditions exist:

1. The building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
2. The building is three stories or less above grade plane.

Reason: The interior construction of Types IIIA and VA construction, can be built of the exact same material as type IV construction so long that it is calculated or tested to be one hour fire resistance rated. Type IV construction is preferable for hazardous occupancies to Type IIIA or Type VA construction from an allowable area standpoint in the current code due to performance. Since Type IIIA and Type VA can be built out of exactly the same material as long as it is one hour, and since the control area is separated from the balance of the building by one hour construction, there is no reason to exclude type IV from this exception from two hour fire resistance rating of the floor assembly and supporting construction for the control area in buildings three stories or less and fully sprinklered with a NFPA 13 sprinkler system.

Cost Impact: Will not increase the cost of construction
This code proposal provides more options to the existing exception and will not increase cost.

F355-16 : 5003.8.3.4-
RICHARDSON12356

Final Action: AS (Approved as Submitted)

F355-16

Committee Action:

Approved as Submitted

Committee Reason: The addition of Type IV construction to the exception to the rating of floors for control areas was felt to be a reasonable approach and would be consistent with the protection provided for other construction types.

Assembly Action:

None

Date Submitted	11/29/2018	Section	602.4	Proponent	Paul Coats
Chapter	6	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

#7553 for Section 2304.11 is a duplicate of this proposal which takes provisions from Chapter 6 and moves them to Chapter 23, necessitating review by both the Fire Safety and Structural TACs.

Summary of Modification

This proposed modification takes the details for heavy timber construction out of Chapter 6 and consolidates them in Chapter 23.

Rationale

The proposed modifications were approved by the ICC membership and appear in the 2018 IBC. They do not change the technical requirements for heavy timber but improve their usability. The changes shown reflect ICC code changes G179-15 (primarily), G178-15, and G175-18, which were all Approved as Submitted by the General Code Development Committee and subsequently the ICC membership (files are attached). The IBC General Code Development Committee made the following statement in the 2015 ICC Report of Committee Action Hearing, for G179-15: "The proposal provides necessary consolidation and eliminates duplicative text between Chapters 6 and 23. The revised table is sorely needed to make help the users of the code. Moving the table to Chapter 23 is totally appropriate. The was comfort that with a detailed comparision this is a good clean up with no technical changes. As with any major revision, there remained concerns that all pieces have been maintained and there might be some unintended consequences. The new organization provides better logic for the requirements." See the uploaded file for the complete rationale for G179-15, the primary code change, and a table comparing the locations of sections in the current code and what is proposed. Reason statements for G175 and G178 can also be seen in the uploaded support files for the proposed text.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Enforcement of provisions may be easier.

Impact to building and property owners relative to cost of compliance with code

There is no cost impact.

Impact to industry relative to the cost of compliance with code

There is not cost impact.

Impact to small business relative to the cost of compliance with code

There is no cost impact.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This reorganization and consolidation of heavy timber provisions in one location will promote better compliance and better enforcement and therefore affects the safety and welfare of the general public positively.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This reorganization and consolidation of heavy timber provisions in one location will improve the usability and application of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate in any way.

Does not degrade the effectiveness of the code

Retains the current effectiveness of the code and improves it.

602.4 Type IV. Type IV construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid wood, or laminated wood, heavy timber (HT) or structural composite lumber (SCL) without concealed spaces. The minimum dimensions for permitted materials including solid timber, glued-laminated timber, structural composite lumber (SCL), and cross-laminated timber and The details of Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying with Section 602.4.1 or 602.4.2 shall be permitted. Interior walls and partitions not less than 1-hour fire-resistance rating or heavy timber complying with Section 2304.11.2.2 shall be permitted. Minimum solid-sawn nominal dimensions are required for structures built using Type IV construction (HT). For glued-laminated members and structural composite lumber (SCL) members, the equivalent net finished width and depths corresponding to the minimum nominal width and depths of solid-sawn lumber are required as specified in Table 602.4. Cross-laminated timber (CLT) dimensions used in this section are actual dimensions.

602.4.1 Fire-retardant-treated wood in exterior walls. Fire-retardant-treated wood framing and sheathing complying with Section 2303.2 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less.

602.4.2 Cross-laminated timber in exterior walls. Cross-laminated timber complying with Section 2303.1.4 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one the following:

1. Fire-retardant-treated wood sheathing complying with Section 2303.2 and not less than 15/32 inch (12 mm) thick;
2. Gypsum board not less than 1/2 inch (12.7 mm) thick; or
3. A noncombustible material.

602.4.3 Columns. Wood columns shall be sawn or glued laminated and shall be not less than 8 inches (203 mm), nominal, in any dimension where supporting floor loads and not less than 6 inches (152 mm) nominal in width and not less than 8 inches (203 mm) nominal in depth where supporting roof and ceiling loads only. Columns shall be continuous or superimposed and connected in an approved manner. Protection in accordance with Section 704.2 is not required.

602.4.4 Floor framing. Wood beams and girders shall be of sawn or glued-laminated timber and shall be not less than 6 inches (152 mm) nominal in width and not less than 10 inches (254 mm) nominal in depth. Framed sawn or glued-laminated timber arches, which spring from the floor line and support floor loads, shall be not less than 8 inches (203 mm) nominal in any dimension. Framed timber trusses supporting floor loads shall have members of not less than 8 inches (203 mm) nominal in any dimension.

602.4.5 Roof framing. Wood frame or glued-laminated arches for roof construction, which spring from the floor line or from grade and do not support floor loads, shall have members not less than 6 inches (152 mm) nominal in width and have not less than 8 inches (203 mm) nominal in depth for the lower half of the height and not less than 6 inches (152 mm) nominal in depth for the upper half. Framed or glued-laminated arches for roof construction that spring from the top of walls or wall abutments, framed timber trusses and other roof framing, which do not support floor loads, shall have members not less than 4 inches (102 mm) nominal in width and not less than 6 inches (152 mm) nominal in depth. Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice plates shall be not less than 3 inches (76 mm) nominal in thickness. Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.

602.4.9 602.4.3 Exterior structural members. Where a horizontal separation of 20 feet (6096 mm) or more is provided, wood columns and arches conforming to heavy timber sizes complying with 2304.11 shall be permitted to be used externally.

2304.11 Heavy timber construction. Where a structure or a portion thereof is, or individual structural elements are required to be of Type IV construction heavy timber by other provisions of this code, the building elements therein shall comply with the applicable provisions of Sections 2304.11.1 through 2304.11.5 2304.11.4. Minimum dimensions of heavy timber shall comply as applicable in Table 2304.11 based on roofs or floors supported and the configuration of each structural element, or as applicable in Sections 2304.11.2 through 2304.11.4.

2304.11.1 ColumnsDetails of heavy timber structural members. Columns

Heavy timber structural members shall be continuous or superimposed throughout all stories by means of reinforced concrete or metal caps detailed and constructed in accordance with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other *approved* methods. Sections 2304.11.1.1 through 2304.11.1.3.

2304.11.1.1 Column connectionsColumns. Minimum dimensions of columns shall be in accordance with Table 2304.11. Columns shall be continuous or superimposed throughout all stories and connected in an *approved* manner. Girders and beams at column connections shall be closely fitted around columns and adjoining ends shall be cross tied to each other, or intertied by caps or ties, to transfer horizontal loads across joints. Wood bolsters shall not be placed on tops of columns unless the columns support roof loads only. Where traditional heavy timber detailing is used, connections shall be permitted to be by means of reinforced concrete or metal caps with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other *approved* methods.

2304.11.2 2304.11.1.2 Floor framing. Minimum dimensions of floor framing shall be in accordance with Table 2304.11. *Approved* wall plate boxes or hangers shall be provided where wood beams, girders or trusses rest on masonry or concrete walls. Where intermediate beams are used to support a floor, they shall rest on top of girders, or shall be supported by ledgers or blocks securely fastened to the sides of the girders, or they shall be supported by an *approved* metal hanger into which the ends of the beams shall be closely fitted. Where traditional heavy timber detailing is used, these connections shall be permitted to be supported by ledgers or blocks securely fastened to the sides of the girders.

2304.11.3 2304.11.1.3 Roof framing. Minimum dimensions of roof framing shall be in accordance with Table 2304.11. Every roof girder and at least every alternate roof beam shall be anchored to its supporting member; and every monitor and every sawtooth construction shall be anchored to the main roof construction. Such anchors shall consist of steel or iron bolts of sufficient strength to resist vertical uplift of the roof forces as required in Chapter 16.

602.4.8 2304.11.2 Partitions and walls. Partitions and walls shall comply with Section 602.4.8.1 2304.11.2.1 or 602.4.8.2 2304.11.2.2.

602.4.8.2 2304.11.2.1 Exterior walls. Exterior walls shall permitted to be of one of the following:

1. Noncombustible materials.
1. Not less than 6 inches (152 mm) in thickness and constructed of one of the following:
 - 1.1. *Fire retardant treated wood* in accordance with Section 2303.2 and complying with Section 602.4.1.
 - 1.1. *Cross-laminated timber* complying with meeting the requirements of Section 602.4.2 2303.1.4.

602.4.8.1 2304.11.2.2 Interior walls and partitions. *No change to text.*

602.4.6 2304.11.3 Floors. Floors shall be without concealed spaces. Wood floors shall be constructed in accordance with Section 602.4.6-1 2304.11.3.1 or 602.4.6-2 2304.11.3.2.

602.4.6.2 2304.11.3.1 Cross-laminated timber floors. *Cross-laminated timber* shall be not less than 4 inches (102 mm) in actual thickness. *Cross-laminated timber* shall be continuous from support to support and mechanically fastened to one another. *Cross-laminated timber* shall be permitted to be connected to walls without a shrinkage gap providing swelling or shrinking is considered in the design. Corbelling of masonry walls under the floor shall be permitted to be used.

602.4.6.1 2304.11.3.2 Sawn or glued-laminated plank floors. *No change to text.*

Delete without substitution:

2304.11.4 Floor decks. Floor decks and covering shall not extend closer than 1/2-inch (12.7 mm) to walls. Such 1/2-inch (12.7 mm) spaces shall be covered by a molding fastened to the wall either above or below the floor and arranged such that the molding will not obstruct the expansion or contraction movements of the floor. Corbelling of masonry walls under floors is permitted in place of such molding.

Revise as follows:

2304.11.5 2304.11.4 Roof decks. Roofs shall be without concealed spaces and roof decks shall be constructed in accordance with Section 2304.11.4.1 or 2304.11.4.2. Other types of decking shall be permitted to be used where equivalent fire resistance and structural properties are being provided. Where supported by a wall, roof decks shall be anchored to walls to resist uplift forces determined in accordance with Chapter 16. Such anchors shall consist of steel bolts, lags, screws or iron bolts approved hardware of sufficient strength to resist vertical uplift of the roof. prescribed forces.

602.4.7 2304.11.4.1 Roofs Cross-laminated timber roofs. Roofs shall be without concealed spaces and wood roof decks shall be sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness; 1 1/8-inch-thick (32 mm) wood structural panel (exterior glue); planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors; or of cross-laminated timber. Other types of decking shall be permitted to be used if providing equivalent fire resistance and structural properties.

Cross-laminated timber roofs shall be not less than 3 inches (76 mm) nominal in in actual thickness and shall be continuous from support to support and mechanically fastened to one another.

Add new text as follows:

2304.11.4.2 Sawn, wood structural panel, or glued-laminated plank roofs.

Sawn, wood structural panel, or glued-laminated plank roofs shall be one of the following:

1. Sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness;
2. 1 1/8-inch-thick (32mm) wood structural panel (exterior glue);
3. Planks not less than 3 inches (76mm) nominal in width, set on edge close together and laid as required for floors.


Revise as follows:

**TABLE 602.4 2304.11
WOODMEMBER-SIZE EQUIVALENCIES MINIMUM DIMENSIONS OF HEAVY TIMBER STRUCTURAL MEMBERS**

		MINIMUM NOMINAL SOLID SAWN SIZE	MINIMUM GLUED- LAMINATED NETSIZE	MINIMUM STRUCTURAL COMPOSITE LUMBER NETSIZE

<u>Supporting</u>	<u>Heavy Timber Structural Element</u>	Width, inch	Depth, inch	Width, inch	Depth, inch	Width, inch	Depth, inch
<u>Floor loads only or combined floor and roof loads</u>	<u>Columns; Framed sawn or glued- laminated timber arches which spring from the floor line;</u> <u>Framed timber trusses</u>	8	8	6 3/4	8 1/4	7	7 1/2
	<u>Wood beams and girders</u>	6	10	5	10 1/2	5 1/4	9 1/2
	<u>Columns (roof and ceiling loads);</u> <u>Lower half of; Wood-frame or glued- laminated arches which spring from the floor line or from grade</u>	6	8	5	8 1/4	5 1/4	7 1/2

<u>Roof loads only</u>	<u>Upper half of; Wood-frame or glued- laminated arches which spring from the floor line or from grade</u>	6	6	5	6	5 1/4	5 1/2
	<u>Framed timber trusses and other roof framing;a Framed or glued- laminated arches that spring from the top of walls or wall abutments</u>	4 <u>b</u>	6	3 <u>b</u>	6 7/8	3 1/2 <u>b</u>	5 1/2

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For SI: 1 inch = 25.4 mm.

_____aSpaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood coverplate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice lates shall be not less than 3 inches (76mm) nominal in thickness.

_____bWhere protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches(76 mm) nominal in width.

G 175-15

602.3, 602.4.1

Proponent: Homer Maiel, PE, CBO, representing ICC Tri-Chapter (Peninsula, East Bay, Monterey Bay) (hmaiel@gmail.com)**2015 International Building Code****Revise as follows:**

602.3 Type III. Type III construction is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of any material permitted by this code. *Fire-retardant-treated wood framing and sheathing* complying with Section 2303.2 shall be permitted within exterior wall assemblies of a 2-hour rating or less.

602.4.1 Fire-retardant-treated wood in exterior walls. *Fire-retardant-treated wood framing and sheathing* complying with Section 2303.2 shall be permitted within exterior wall assemblies with a 2-hour rating or less.

Reason: The word framing creates some confusion, some have interpreted that framing does not include the sheathing utilized for lateral resistance to be framing. This has resulted in at least one interpretation that the walls cannot have FRT structural wood panel framing and yet another interpretation that the structural wood panel is permitted to be installed but unlike the studs does not need to be FRT.

ASCE considers sheathing to be part of the framing system. The ICC ES has AQ for a product equivalent to FRT plywood for use on Type III construction.

The addition of sheathing clarifies wood framing and sheathing is permitted to be within the assembly if FRT.

Cost Impact: Will not increase the cost of construction

This code change does not create a new requirement. It clarifies existing code language to prevent misinterpretation of the code.

G 175-15 : 602.3-MAI/EL4965

G 178-15**602.4**

Proponent: Sam Francis, American Wood Council, representing American Wood Council (sfrancis@awc.org)

2015 International Building Code

Revise as follows:

602.4 Type IV. Type IV construction (Heavy Timber, ~~HT~~) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid ~~or wood~~, laminated wood ~~or structural composite lumber (SCL)~~ without concealed spaces. The details of Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying with Section 602.4.1 or 602.4.2 shall be permitted. Minimum ~~solid~~ dimensions for building elements are as follows:

1. Solid sawn building elements shall be not less than the nominal dimensions are required for structures built using Type IV construction (HT) in Sections 602.4.3 through 602.4.6.

2. For ~~glued laminated~~ Glued-laminated members and structural composite lumber (SCL) members, members shall be the equivalent net finished width and ~~depth~~ depth corresponding to the minimum nominal width and ~~depth~~ depth of solid sawn lumber are required as specified in Table 602.4. ~~Cross-laminated~~

3. Cross-laminated timber (CLT) dimensions used in this section are actual dimensions and shall be not less than the dimensions required in Sections 602.4.6.2, 602.4.7, and 602.4.6.8.2, as applicable.

Reason:

In the last code cycle, the Heavy Timber section saw 5 code change proposals. The correlation of these changes was very difficult. We are submitting several changes which are intended to make this chapter more understandable. One of the issues to be clarified is the "minimum dimensions of the exterior walls. Another item is to make it absolutely clear that Structural Composite Lumber of the minimum dimensions for this chapter is, in fact, considered heavy timber. So this proposal will point the user to the proper sections to accomplish these tasks.

For a complete list of AWC code change proposals and additional information please go to <http://www.awc.org/Code-Officials/2015-IBC-Code-Changes>.

Cost Impact: Will not increase the cost of construction

This is an editorial rewrite and will have no cost impact other than to lower costs by making the minimum requirements more clear.

G 178-15 : 602.4-FRANCIS4679

G179-15

602.4, TABLE 602.4, 602.4.1, 602.4.2, 602.4.3, 602.4.4, 602.4.5, 602.4.9, 2304.11, 2304.11.1, TABLE 2304.11.1.1, 2304.11.2, 2304.11.3, 602.4.8, 602.4.8.2, 602.4.8.1, 602.4.6, 602.4.6.2, 602.4.6.1, 2304.11.4, 2304.11.5, 602.4.7, 2304.11.4.2 (New)

Proposed Change as Submitted

Proponent : Dennis Richardson, representing American Wood Council

2015 International Building Code

Revise as follows:

602.4 Type IV. Type IV construction (~~Heavy Timber, HT~~) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid or laminated wood heavy timber (HT), without concealed spaces. The minimum dimensions for permitted materials including solid timber, glued-laminated timber, structural composite lumber (SCL), and cross laminated timber (CLT) and details of Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying with Section 602.4.1 or 602.4.2 shall be permitted. ~~Minimum solid-sawn nominal dimensions are required for structures built using Type IV construction (HT). For glued-laminated members interior walls and structural composite lumber (SCL) members, the equivalent net finished width and depths corresponding to the minimum nominal width and depths partitions of solid-sawn lumber are required as specified in Table 602.4, not less than one hour.~~ Cross fire-resistance rating-laminated or heavy timber (CLT) dimensions used in this section are actual dimensions. conforming with Section 2304.11.2.2 shall be permitted.

602.4.1 Fire-retardant-treated wood in exterior walls. *Fire-retardant-treated wood framing* complying with Section 2303.2 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less.

602.4.2 Cross-laminated timber in exterior walls. *Cross-laminated timber* complying with Section 2303.1.4 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one the following:

1. *Fire-retardant-treated wood sheathing* complying with Section 2303.2 and not less than $1\frac{5}{32}$ inch (12 mm) thick;
2. *Gypsum board* not less than $\frac{1}{2}$ inch (12.7 mm) thick; or
3. A noncombustible material.

Delete without substitution:

602.4.3 Columns. ~~Wood columns shall be sawn or glued laminated and shall be not less than 8 inches (203 mm), nominal, in any dimension where supporting floor loads and not less than 6 inches (152 mm) nominal in width and not less than 8 inches (203 mm) nominal in depth where supporting roof and ceiling loads only. Columns shall be continuous or superimposed and connected in an approved manner. Protection in accordance with Section 704.2 is not required.~~

602.4.4 Floor framing. ~~Wood beams and girders shall be of sawn or glued-laminated timber and shall be not less than 6 inches (152 mm) nominal in width and not less than 10 inches (254 mm) nominal in depth. Framed sawn or glued-laminated timber arches, which spring from the floor line and support floor loads, shall be not less than 8 inches (203 mm) nominal in any dimension. Framed timber trusses supporting floor loads shall have members of not less than 8 inches (203 mm) nominal in any dimension.~~

602.4.5 Roof framing. ~~Wood frame or glued-laminated arches for roof construction, which spring from the floor line or from grade and do not support floor loads, shall have members not less than 6 inches (152 mm) nominal in width and have not less than 8 inches (203 mm) nominal in depth for the lower half of the height and not less than 6 inches (152 mm) nominal in depth for the upper half. Framed or glued-laminated arches for roof construction that spring from the top of walls or wall abutments, framed timber trusses and other roof framing, which do not support floor loads, shall have members not less than 4 inches (102 mm) nominal in width and not less than 6 inches (152 mm) nominal in depth. Spaced members shall be permitted to be composed of two or~~

more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice plates shall be not less than 3 inches (76 mm) nominal in thickness. Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.

Revise as follows:

602.4.9 602.4.3 Exterior structural members. Where a horizontal separation of 20 feet (6096 mm) or more is provided, wood columns and arches conforming to heavy timber sizes complying with 2304.11 shall be permitted to be used externally.

2304.11 Heavy timber construction. Where a structure or a portion thereof is, or individual structural elements are required to be of Type IV construction heavy timber by other provisions of this code, the building elements therein shall comply with the applicable provisions of Sections 2304.11.1 through 2304.11.5 2304.11.4. Minimum dimensions of heavy timber shall comply as applicable in Table 2304.11 based on roofs or floors supported and the configuration of each structural element, or as applicable in Sections 2304.11.2 through 2304.11.4.

2304.11.1 Columns Details of heavy timber structural members. Columns

Heavy timber structural members shall be continuous or superimposed throughout all stories by means of reinforced concrete or metal caps detailed and constructed in accordance with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods. Sections 2304.11.1.1 through 2304.11.1.3.

2304.11.1.1 Column connections Columns. Minimum dimensions of columns shall be in accordance with Table 2304.11. Columns shall be continuous or superimposed throughout all stories and connected in an approved manner. Girders and beams at column connections shall be closely fitted around columns and adjoining ends shall be cross tied to each other, or intertied by caps or ties, to transfer horizontal loads across joints. Wood bolsters shall not be placed on tops of columns unless the columns support roof loads only. Where traditional heavy timber detailing is used, connections shall be permitted to be by means of reinforced concrete or metal caps with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods.

2304.11.2 2304.11.2 Floor framing. Minimum dimensions of floor framing shall be in accordance with Table 2304.11. Approved wall plate boxes or hangers shall be provided where wood beams, girders or trusses rest on masonry or concrete walls. Where intermediate beams are used to support a floor, they shall rest on top of girders, or shall be supported by ledgers or blocks securely fastened to the sides of the girders, or they shall be supported by an approved metal hanger into which the ends of the beams shall be closely fitted. Where traditional heavy timber detailing is used, these connections shall be permitted to be supported by ledgers or blocks securely fastened to the sides of the girders.

2304.11.3 2304.11.3 Roof framing. Minimum dimensions of roof framing shall be in accordance with Table 2304.11. Every roof girder and at least every alternate roof beam shall be anchored to its supporting member; and every monitor and every sawtooth construction shall be anchored to the main roof construction. Such anchors shall consist of steel or iron bolts of sufficient strength to resist vertical uplift of the roof. forces as required in Chapter 16.

602.4.8 2304.11.2 Partitions and walls. Partitions and walls shall comply with Section 602.4.8.1 2304.11.2.1 or 602.4.8.2 2304.11.2.2.

602.4.8.2 2304.11.2.1 Exterior walls. Exterior walls shall permitted to be of one of the following:

1. Noncombustible materials.
1. Not less than 6 inches (152 mm) in thickness and constructed of one of the following:
 - 1.1. Fire-retardant-treated wood in accordance with Section 2303.2 and complying with Section 602.4.1.
 - 1.1. Cross-laminated timber complying with meeting the requirements of Section 602.4.2 2303.1.4.

602.4.8.1 2304.11.2.2 Interior walls and partitions. *No change to text.*

602.4.6 2304.11.3 Floors. Floors shall be without concealed spaces. Wood floors shall be constructed in accordance with Section 602.4.6.1 2304.11.3.1 or 602.4.6.2 2304.11.3.2.

602.4.6.2 2304.11.3.1 Cross-laminated timber floors. *Cross-laminated timber* shall be not less than 4 inches (102 mm) in actual thickness. *Cross-laminated timber* shall be continuous from support to support and mechanically fastened to one another. *Cross-laminated timber* shall be permitted to be connected to walls without a shrinkage gap providing swelling or shrinking is considered in the design. Corbelling of masonry walls under the floor shall be permitted to be used.

602.4.6.1 2304.11.3.2 Sawn or glued-laminated plank floors. *No change to text.*

Delete without substitution:

2304.11.4 Floor decks. Floor decks and covering shall not extend closer than $\frac{1}{2}$ inch (12.7 mm) to walls. Such $\frac{1}{2}$ inch (12.7 mm) spaces shall be covered by a molding fastened to the wall either above or below the floor and arranged such that the molding will not obstruct the expansion or contraction movements of the floor. Corbelling of masonry walls under floors is permitted in place of such molding.

Revise as follows:

2304.11.5 2304.11.4 Roof decks. Roofs shall be without concealed spaces and roof decks shall be constructed in accordance with Section 2304.11.4.1 or 2304.11.4.2. Other types of decking shall be permitted to be used where equivalent fire resistance and structural properties are being provided. Where supported by a wall, roof decks shall be anchored to walls to resist uplift forces determined in accordance with Chapter 16. Such anchors shall consist of steel bolts, lags, screws or iron bolts approved hardware of sufficient strength to resist vertical uplift of the roof. prescribed forces.

602.4.7 2304.11.4.1 Roofs Cross-laminated timber roofs. Roofs shall be without concealed spaces and wood roof decks shall be sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness; $\frac{1}{8}$ inch thick (32 mm) wood structural panel (exterior glue); planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors; or of cross-laminated timber. Other types of decking shall be permitted to be used if providing equivalent fire resistance and structural properties.

Cross-laminated timber roofs shall be not less than 3 inches (76 mm) nominal in in actual thickness and shall be continuous from support to support and mechanically fastened to one another.

Add new text as follows:

2304.11.4.2 Sawn, wood structural panel, or glued-laminated plank roofs.

Sawn, wood structural panel, or glued-laminated plank roofs shall be one of the following:

1. Sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness;
2. $\frac{1}{8}$ inch-thick (32 mm) wood structural panel (exterior glue);
3. Planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors.

Revise as follows:

**TABLE 602.4 2304.11
WOOD MEMBER SIZE EQUIVALENCIES MINIMUM DIMENSIONS OF HEAVY TIMBER STRUCTURAL MEMBERS**

		MINIMUM NOMINAL SOLID SAWN SIZE	MINIMUM GLUED- LAMINATED NET SIZE	MINIMUM STRUCTURAL COMPOSITE LUMBER NET SIZE

<u>Supporting</u>	<u>Heavy Timber Structural Element</u>	<u>Width, inch</u>	<u>Depth, inch</u>	<u>Width, inch</u>	<u>Depth, inch</u>	<u>Width, inch</u>	<u>Depth, inch</u>
<u>Floor loads only or combined floor and roof loads</u>	<u>Columns; Framed sawn or glued-laminated timber arches which spring from the floor line; Framed timber trusses</u>	8	8	6 ³ / ₄	8 ¹ / ₄	7	7 ¹ / ₂
	<u>Wood beams and girders</u>	6	10	5	10 ¹ / ₂	5 ¹ / ₄	9 ¹ / ₂
<u>Roof loads only</u>	<u>Columns (roof and ceiling loads); Lower half of: Wood-frame or glued-laminated arches which spring from the floor line or from grade</u>	6	8	5	8 ¹ / ₄	5 ¹ / ₄	7 ¹ / ₂
	<u>Upper half of: Wood-frame or glued-laminated arches which spring from the floor line or from grade</u>	6	6	5	6	5 ¹ / ₄	5 ¹ / ₂
	<u>Framed timber trusses and other roof framing: ^a</u>	4 _b	6	3 _b	6 ⁷ / ₈	3 ¹ / ₂ _b	5 ¹ / ₂

	<u>Framed or glued- laminated arches that spring from the top of walls or wall abutments</u>						
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For SI: 1 inch = 25.4 mm.

^a Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice lates shall be not less than 3 inches (76 mm) nominal in thickness.

^b Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.

Reason: The cross laminated timber product standard was approved in the 2015 IBC in addition to a code change allowing this material to be utilized for the construction of 2 hour exterior walls in type IV-HT construction.

Cross Laminated Timber has been manufactured for over 30 years in Europe and has just recently caught hold on the American Continent where some major structures are under way in Canada and smaller buildings are being built in the US. In Europe buildings of 8 to 10 stories and above are regularly constructed. The following link gives examples of CLT buildings throughout the world. <http://www.rethinkwood.com/tall-wood-survey>

Because of the high level of carbon sequestration and low embodied energy, it is anticipated there will be a renewed interest in the use of type IV heavy timber as a type of construction. One bit of feedback American Wood Council received after CLT was approved in the 2015 IBC was the observation from one building department that the heavy timber and type IV provisions are confusing, sometimes redundant and spread across different sections of the building code.

This code change is an attempt to address that concern without making any change in the substance of the requirements. Currently type IV construction and heavy timber requirements are found in Sections 602.4 and 2304.11 of the IBC. The clean up and reorganization of those sections is part one of this effort. Part two is the identification and update of many references to type IV construction and heavy timber found throughout the code.

In order to pare down Section 602.4, only the provisions specific to type IV construction remain along with a list of the types of materials found in heavy timber and the reference to the requirements for those materials in Section 2304.11. Requirements specific to type IV remain in 602.4.

Section 2304.11 can best be described as "all things heavy timber". Heavy timber structural elements have long been referenced throughout other parts of the code where a specific heavy timber structural element is detailed for use incorporated in another type of construction. The most general example of this is table 601 footnote c allowing the use of heavy timber roof construction in place of one hour fire resistance rated roof construction in types IB, II, IIIA, and VA construction. The design professional may detail heavy timber as the roof structure and assembly for these different types of construction and they are treated as building elements but the type of construction for the overall structure does not change from the type IB, II, IIIA, or VA.

Heavy timber requirements removed from Section 602.4 are combined and organized with the existing content of Section 2304. Table 602.4 is moved and renamed Table 2304.11. It is updated with information placing a description of the elements that are applicable for a given size timber element based on whether the element supports roof loads and floor loads or only roof loads. Specific footnotes about the size and protection of spaced truss elements and the reduction of roof beam width for sprinklers are noted where applicable.

The non-size related detailing provisions for framing members and connections (columns, floor framing and roof framing) are coalesced into Sections 2304.11.1.1, 2304.11.1.2 and 2304.11.1.3. All of the information in table 2304.11 and the following sections are organized so that the most pertinent information for most designs is found first.

Finally, some of the detailing provisions for traditional heavy timber are identified as such and relocated later in each section while some other information that is archaic and better replaced by reference is removed. A good example of this is the removal of the requirement for the anchorage of "every monitor and every sawtooth construction" to the main roof construction in Section 2304.11.3. New Section 2304.11.1.3 requires roof girders and alternate roof beams to be anchored to their supports as required by Chapter 16.

Finally, Sections 2304.11.2 through 2304.11.4 contain pertinent thickness and detailing requirements for walls, roof and floor deck construction.

The following table gives a more detailed description of where specific requirements are moved.

Since this change is intended not to create any new requirements or delete pertinent content, there are other code changes which contain specific code changes to this information. It is intended this code change will serve as a template for the relocation of those other specific changes through the correlation process should other specific changes be approved.

Part 2 of this effort follows with the change to specific code references to: Section 602.4, type IV construction, heavy timber and Section 2304.11.

The following link provides access to additional information regarding this or other code changes proposed by American Wood Council. <http://www.awc.org/Code-Officials/2015-IBC-Code-Changes/>

Section in 2015 IBC	Location in proposed change	Comments
602.4 Type IV	602.4 (same location)	modified to direct users to news section on heavy timber details; retains essentials for Type IV construction
Table 602.4	Table 2304.11	additional content is added describing the thickness of structural elements based on loading and configuration from 602.4.3 through 602.4.5
602.4.1 Fire-retardant treated wood in exterior walls, and 602.4.2 Cross-laminated timber in exterior walls	602.4.1 and 602.4.2 (same location)	thickness of wall assembly added from 602.4.8.2 item 2.
602.4.3 Columns	2304.11, Table 2304.11, and Section 2304.11.1.1	requirements combined with existing 2304.11.1 Columns; dimensions in new Table 2304.11.1
602.4.4 Floor framing	2304.11, Table 2304.11	
602.4.5 Roof framing	2304.11, Table 2304.11	
602.4.6 Floors	2304.11.3	
602.4.6.1 Sawn or glued-laminated plank floors	2304.11.3.2	the end of proposed Section 2304.11.3.2 comes from current 2304.11.2
602.4.6.2 Cross-laminated timber floors	2304.11.3.1	
602.4.7 Roofs	2304.11.4 and subsections 2304.11.4.1 and 2304.11.4.2	the current provisions of current section 2304.11.5 are folded into these sections
602.4.8 Partitions and walls and subsections 602.4.8.1 Interior walls and partitions and 602.4.8.2 Exterior walls	602. for exterior wall thickness in type IV; heavy timber in 2304.11.2 2304.11.2.1 and 2304.11.2.2	kept essentials for a Type IV building in 602.4; essentials for heavy timber in proposed section 2304.11.2
602.4.9 Exterior structural members	602.4.3	Unchanged but references proposed heavy timber section
2304.11 Heavy timber construction	2304.11 (same location)	Modified to become charging language for all heavy timber, not just Type IV construction; adds

		changing language for proposed Table 2304.11
2304.11.1 Columns	2304.11.1.1	new section 2304.11.1.1 combines current sections 2304.11.1 and 2304.11.1.1; updates text to be more design focused; retains traditional details
2304.11.1.1 Column connections	2304.11.1.1	incorporated in 2304.11.1
2304.11.2 Floor framing	2304.11.1.2	modifies text to make lesser-used methods a permitted option
2304.11.3 Roof framing	2304.11.1.3	modifies text to refer to design for all forces, not just uplift, archaic language deleted
2304.11.4 Floor decks	2304.11.3.2	current text appears at the end of the proposed section with hardware choices updated; this section incorporates requirements for floors moved from Chapter 6
2304.11.5 Roof decks	2304.11.4	current text appears at end of proposed section, and updates language to reflect current methods and to include consideration of all forces

Cost Impact: Will not increase the cost of construction
 Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G179-15 : 602.4-RICHARDSON5194

Public Hearing Results

Committee Action:

Approved as Submitted

Committee Reason: The proposal provides necessary consolidation and eliminates duplicative text between Chapters 6 and 23. The revised table is sorely needed to make help the users of the code. Moving the table to Chapter 23 is totally appropriate. The was comfort that with a detailed comparision this is a good clean up with no technical changes. As with any major revision, there remained concerns that all pieces have been maintained and there might be some unintended consequences. The new organization provides better logic for the requirements.

Assembly Action :

None

Individual Consideration Agenda

Public Comment 1:

Proponent : Stephen Skalko, Stephen V. Skalko, P.E. & Associates, LLC, representing self requests Disapprove.

Commenter's Reason: While the General Committee is correct that G179-15 "provides the necessary consolidation and eliminates the duplicative text between Chapter 6 and 23", the proposal should have deleted the duplication of any requirements for Type IV construction from Chapter 23 and placed them in Chapter 6 where they belong. Chapter 6 is titled Types of Construction and as the scope states in Section 601.1 "the provisions of this chapter shall control the classification of buildings as to type of construction". It is the logical place where the code user would be expected to go in order to determine the requirements for the various types of construction. If the code user wants to establish what is needed to be classified as Type IV construction they would look specifically in Section 602.4. Though heavy timber is a wood material, which Chapter 23 certainly covers, the specific requirements for heavy timber types and sizes are specified in the code to meet the inherent fire resistances expected of Type IV construction, which is covered by Chapter 6. When it comes to actual materials, design, construction and quality of wood materials the user refers to Chapter 23, Wood (See scope in Section 2301.1). The proposal should have consolidated heavy timber elements critical to classifying the type of construction into Section 602.4 where these requirements belong.

Recommend DISAPPROVAL of G179-15

G179-15

Reason: The cross laminated timber product standard was approved in the 2015 IBC in addition to a code change allowing this material to be utilized for the construction of 2 hour exterior walls in type IV-HT construction.

Cross Laminated Timber has been manufactured for over 30 years in Europe and has just recently caught hold on the American Continent where some major structures are under way in Canada and smaller buildings are being built in the US. In Europe buildings of 8 to 10 stories and above are regularly constructed. The following link gives examples of CLT buildings throughout the world. <http://www.rethinkwood.com/tall-wood-survey>

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Section 2304.11 can best be described as "all things heavy timber". Heavy timber structural elements have long been referenced throughout other parts of the code where a specific heavy timber structural element is detailed for use incorporated in another type of construction. The most general example of this is table 601 footnote c allowing the use of heavy timber roof construction in place of one hour fire resistance rated roof construction in types IB, II, IIIA, and VA construction. The design professional may detail heavy timber as the roof structure and assembly for these different types of construction and they are treated as building elements but the type of construction for the overall structure does not change from the type IB, II, IIIA, or VA.

Heavy timber requirements removed from Section 602.4 are combined and organized with the existing content of Section 2304. Table 602.4 is moved and renamed Table 2304.11. It is updated with information placing a description of the elements that are applicable for a given size timber element based on whether the element supports roof loads and floor loads or only roof loads. Specific footnotes about the size and protection of spaced truss elements and the reduction of roof beam width for sprinklers are noted where applicable.

The non-size related detailing provisions for framing members and connections (columns, floor framing and roof framing) are coalesced into Sections 2304.11.1.1, 2304.11.1.2 and 2304.11.1.3. All of the information in table 2304.11 and the following sections are organized so that the most pertinent information for most designs is found first.

Finally, some of the detailing provisions for traditional heavy timber are identified as such and relocated later in each section while some other information that is archaic and better replaced by reference is removed. A good example of this is the removal of the requirement for the anchorage of "every monitor and every sawtooth construction" to the main roof construction in Section 2304.11.3. New Section 2304.11.1.3 requires roof girders and alternate roof beams to be anchored to their supports as required by Chapter 16.

Finally, Sections 2304.11.2 through 2304.11.4 contain pertinent thickness and detailing requirements for walls, roof and floor deck construction.

The following table gives a more detailed description of where specific requirements are moved.

Since this change is intended not to create any new requirements or delete pertinent content, there are other code changes which contain specific code changes to this information. It is intended this code change will serve as a template for the relocation of those other specific changes through the correlation process should other specific changes be approved.

Part 2 of this effort follows with the change to specific code references to: Section 602.4, type IV construction, heavy timber and Section 2304.11.

Section in 2015 IBC	Location in proposed change	Comments
602.4 Type IV	602.4 (same location)	modified to direct users to news section on heavy timber details; retains essentials for Type IV construction
Table 602.4	Table 2304.11	additional content is added describing the thickness of structural elements based on loading and configuration from 602.4.3 through 602.4.5
602.4.1 Fire-retardant treated wood in exterior walls, and 602.4.2 Cross-laminated timber in exterior walls	602.4.1 and 602.4.2 (same location)	thickness of wall assembly added from 602.4.8.2 item 2.
602.4.3 Columns	2304.11, Table 2304.11, and Section 2304.11.1.1	requirements combined with existing 2304.11.1 Columns; dimensions in new Table 2304.11.1
602.4.4 Floor framing	2304.11, Table 2304.11	
602.4.5 Roof framing	2304.11, Table 2304.11	
602.4.6 Floors	2304.11.3	
602.4.6.1 Sawn or glued-laminated plank floors	2304.11.3.2	the end of proposed Section 2304.11.3.2 comes from current 2304.11.2
602.4.6.2 Cross-laminated timber floors	2304.11.3.1	
602.4.7 Roofs	2304.11.4 and subsections 2304.11.4.1 and 2304.11.4.2	the current provisions of current section 2304.11.5 are folded into these sections
602.4.8 Partitions and walls and subsections 602.4.8.1 Interior walls and partitions and 602.4.8.2 Exterior walls	602.for exterior wall thickness in type IV; heavy timber in 2304.11.2 2304.11.2.1 and 2304.11.2.2	kept essentials for a Type IV building in 602.4; essentials for heavy timber in proposed section 2304.11.2
602.4.9 Exterior structural members	602.4.3	Unchanged but references proposed heavy timber section
2304.11 Heavy timber construction	2304.11 (same location)	Modified to become charging language for all heavy timber, not just Type IV construction; adds

		changing language for proposed Table 2304.11
2304.11.1 Columns	2304.11.1.1	new section 2304.11.1.1 combines current sections 2304.11.1 and 2304.11.1.1; updates text to be more design focused; retains traditional details
2304.11.1.1 Column connections	2304.11.1.1	incorporated in 2304.11.1
2304.11.2 Floor framing	2304.11.1.2	modifies text to make lesser-used methods a permitted option
2304.11.3 Roof framing	2304.11.1.3	modifies text to refer to design for all forces, not just uplift, archaic language deleted
2304.11.4 Floor decks	2304.11.3.2	current text appears at the end of the proposed section with hardware choices updated; this section incorporates requirements for floors moved from Chapter 6
2304.11.5 Roof decks	2304.11.4	current text appears at end of proposed section, and updates language to reflect current methods and to include consideration of all forces

Date Submitted	12/13/2018	Section	604	Proponent	Ann Russo5
Chapter	6	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications**Summary of Modification**

his proposal is intended to require fuel lines supplying a generator set inside a building to be separated with fire-resistance-rated construction from areas of the building other than in the room in which the generator is located.

Rationale

This proposal is intended to require fuel lines supplying a generator set inside a building to be separated with fire-resistance-rated construction from areas of the building other than in the room in which the generator is located. It mirrors the text in Section 403.4.8.2 for high-rises. This proposal extends the requirement to any building that has a generator that is separated from the rest of the building. It is common for diesel-fueled generators to supply the generators with a day tank and resupply the day tank via remote fuel oil tanks. The fuel line piping from those remote tanks to the generator can be exposed to the same fire incident that the generator has been protected against. Loss of the fuel line due to fire exposure has the same impact as loss of the generator itself. The wording only refers to "fuel lines" to also provide protection in those cases where a gaseous fuel supply is approved for use.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Improves design, definition plan review criteria and enforcement

Impact to building and property owners relative to cost of compliance with code

Minimal

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Improves safety for occupants

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves requirements for safety strengthening Code

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Add new section:

604 Fuel line piping protection. Fuel lines supplying a generator set inside a building shall be separated from areas of the building other than the room the generator is located in by an approved method, or an assembly that has a fire-resistance rating of not less than 2 hours. Where the building is protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, the required fire-resistance rating shall be reduced to 1 hour.

Date Submitted 12/14/2018	Section 601	Proponent Paul Coats
Chapter 6	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

7522, 7553, 7826

Summary of Modification

This is a correlation change with other modifications that reorganize the heavy timber provisions. It does not change requirements but improves terminology to distinguish between the use of the terms "heavy timber" and "Type IV construction."

Rationale

This code change is related a reorganization of Type IV provisions in Section 602.4 and the heavy timber provisions in section 2304.11. The goal of this change (and similar changes to heavy timber terminology in other chapters) is to use the term "Type IV" or "Section 602.4" when the provisions are referring to the type of construction for the building, and "heavy timber complying with Section 2304.11" when the provisions are referring to a heavy timber element located in a building of any construction type. This and related changes are not intended to make technical changes to the code but rather to make the current requirements easier to apply.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Will make code application easier.
- Impact to building and property owners relative to cost of compliance with code**
No cost-related impact.
- Impact to industry relative to the cost of compliance with code**
No cost-related impact.
- Impact to small business relative to the cost of compliance with code**
No cost-related impact.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Will make code application easier.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves the code by making its application easier.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate.
- Does not degrade the effectiveness of the code**
Does not degrade the effectiveness of the code.

Revise the Nonbearing walls and partitions row of Table 601 as follows:

Nonbearing walls and partitions	Interior	0	0	0	0	0
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Revise footnote c to Table 601 as follows:

c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls									
Exterior ^{e, f}	3	2	1	0	2	2	2	1	0
Interior	3 ^a	2 ^a	1	0	1	0	1/HT	1	0
Nonbearing walls and partitions	See Table 602								
Exterior	See Table 602								
Nonbearing walls and partitions									
Interior ^d	0	0	0	0	0	0	See Section 602.4.62304.11.2	0	0
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories abovegrade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV construction~~ heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV construction~~ heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 802.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15

Committee Action: Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Final Action: AS (Approved as Submitted)

G 180-15

406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1

Proponent: Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

2015 International Building Code

Revise as follows:

406.7.2 Canopies. Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11 or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11;
2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a smoke developed index of 450 or less when tested in the form intended for use in accordance with ASTM E 84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929; or
3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls	3	2	1	0	2	2	2	1	0
Exterior ^{e, f}	3 ^a	2 ^a	1	0	1	0	1/HT	1	0
Interior									
Nonbearing walls and partitions	See Table 602								
Exterior									
Nonbearing walls and partitions	0	0	0	0	0	0	See Section 602.4.6 <u>2304.11.2</u>	0	0
Interior ^d									
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories abovegrade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour fire-resistance-rated construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustibile projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of ~~Type IV heavy timber~~ construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV heavy timber~~ construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.13.1.1.

1406.3 Balconies and similar projections. Balconies and similar projections of combustibile construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV heavy timber~~ construction in accordance with Section ~~602.4~~2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV~~ heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV~~ heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 802.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15

Committee Action: Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Date Submitted 12/14/2018	Section 603	Proponent Paul Coats
Chapter 6	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

7522, 7553, 7826, 8265

Summary of Modification

This is a correlation change with other modifications that reorganize the heavy timber provisions. It does not change requirements but improves terminology to distinguish between the use of the terms "heavy timber" and "Type IV construction."

Rationale

This modification was approved by the ICC committee and membership and appears in the 2018 edition of the International Building Code. This code change is related a reorganization of Type IV provisions in Section 602.4 and the heavy timber provisions in section 2304.11. The goal of this change (and similar changes to heavy timber terminology in other chapters) is to use the term "Type IV" or "Section 602.4" when the provisions are referring to the type of construction for the building, and "heavy timber complying with Section 2304.11" when the provisions are referring to a heavy timber element located in a building of any construction type. This and related changes are not intended to make technical changes to the code but rather to make the current requirements easier to apply.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Will make code application easier.
- Impact to building and property owners relative to cost of compliance with code**
No cost-related impact.
- Impact to industry relative to the cost of compliance with code**
No cost-related impact.
- Impact to small business relative to the cost of compliance with code**
NO cost-related impact.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Will make code application easier.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves the code by making its application easier.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate.
- Does not degrade the effectiveness of the code**
Does not degrade the effectiveness of the code.

Revise item 19 of 603.1 as follows:

603.1 Allowable materials.

Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. 19. Heavy timber as permitted by Note c to Table 601 and Sections 602.4.7 602.4.3 and 1406.3.
- 2.

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls Exterior ^{e, f} Interior	3 3 ^a	2 2 ^a	1 1	0 0	2 1	2 0	2 1/HT	1 1	0 0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior ^d	0	0	0	0	0	0	See Section 602.4.62304.11.2	0	0
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- Not less than the fire-resistance rating required by other sections of this code.
- Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories abovegrade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV construction~~ heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV construction~~ heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 602.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15
Committee Action: Approved as Submitted
Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Final Action: AS (Approved as Submitted)

G 180-15

406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1

Proponent: Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

2015 International Building Code

Revise as follows:

406.7.2 Canopies. Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11 or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11;
2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a *smokedeveloped index* of 450 or less when tested in the form intended for use in accordance with ASTM E 84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929; or
3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls	3	2	1	0	2	2	2	1	0
Exterior ^{e, f}	3 ^a	2 ^a	1	0	1	0	1/HT	1	0
Interior									
Nonbearing walls and partitions	See Table 602								
Exterior									
Nonbearing walls and partitions	0	0	0	0	0	0	See Section 602.4.6 <u>2304.11.2</u>	0	0
Interior ^d									
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories above grade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour fire-resistance-rated construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of ~~Type IV heavy timber~~ construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV heavy timber~~ construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.13.1.1.

1406.3 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV heavy timber~~ construction in accordance with Section ~~602.4~~2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV~~ heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV~~ heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 802.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15

Committee Action: Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Date Submitted 11/28/2018	Section 705.2	Proponent Ann Russo3
Chapter 7	Affects HVHZ Yes	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Restores language from the previous editions (2012 IBC) and eliminates an anomaly that was in the earlier editions.

Rationale

This table was changed over the last two code cycles. The intent was to simplify the projection distance requirements by putting the requirements in a table. The change in the 2015 edition of the International Code and adopted in Florida attempted to address an anomaly within the table. However, that change created a much more restrictive requirement than what was in the 2012 IBC and earlier editions. There was no technical justification for this more restrictive requirement. In previous codes, the maximum distance that a projection would be required was 40 inches. In the current edition, a building that has a fire separation distance of 30 feet would be required to hold the projection back from the lot line by a minimum of 20 feet. This is considered over-restrictive. This change puts the requirement back to what was permitted in previous codes and eliminates the anomaly that was present in the 2012 edition.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Will not increase the cost of construction
This change will most likely reduce the cost of construction by providing clarity to the code.
- Impact to building and property owners relative to cost of compliance with code**
Will not increase the cost of construction
This change will most likely reduce the cost of construction by providing clarity to the code.
- Impact to industry relative to the cost of compliance with code**
Will not increase the cost of construction
This change will most likely reduce the cost of construction by providing clarity to the code.
- Impact to small business relative to the cost of compliance with code**
Will not increase the cost of construction
This change will most likely reduce the cost of construction by providing clarity to the code.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Will not increase the cost of construction
This change will most likely reduce the cost of construction by providing clarity to the code.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Will not increase the cost of construction
This change will most likely reduce the cost of construction by providing clarity to the code.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Will not increase the cost of construction
This change will most likely reduce the cost of construction by providing clarity to the code.
- Does not degrade the effectiveness of the code**
Will not increase the cost of construction
This change will most likely reduce the cost of construction by providing clarity to the code.

**TABLE 705.2 (705.2)
MINIMUM DISTANCE
OF PROJECTION**

FIRE SEPARATION DISTANCE - <u>FSD</u> (<u>FSD feet</u>)	MINIMUM DISTANCE FROM LINE USED TO DETERMINE FSD
0 feet to <u>less than 2 feet</u>	Projections not permitted
<u>Greater than 2 feet</u> to less than 3 feet	24 inches
<u>Greater than 3 feet</u> to less than <u>30 5 feet</u>	24 inches plus 8 inches for every foot of FSD beyond 3 feet or fraction thereof
<u>30 feet</u> 5 or greater	<u>20 feet</u> <u>40 inches</u>

For SI: 1 foot = 304.8 mm; 1 inch = 25.4 mm.

Date Submitted	11/28/2018	Section	721.1	Proponent	Paul Coats
Chapter	7	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications

There is a related modification doing the same correction to row 27 of Table 721.1 (3)

Summary of Modification

Corrects an assembly description error in Table 721.1(3)

Rationale

The current text entry as published in the 2015 IBC is not correctly shown as the current code does not specify the resilient channel requirement as shown in the following link and the figure shown in the reason. This figure was referenced in the AWC code proposal submitted in a previous ICC code cycle and approved by the membership. The correct description and associated diagram can be found at the following location: <https://awc.org/pdf/codes-standards/publications/dca/AWC-DCA3-FRR-Assemblies-1802.pdf>

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact since it is a correction of a detail.

Impact to building and property owners relative to cost of compliance with code

No impact since it a correction of a detail.

Impact to industry relative to the cost of compliance with code

No impact since it is a correction of a detail.

Impact to small business relative to the cost of compliance with code

No impact since it is a correction of a detail.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Having the correct description in the code will prevent confusion and consistent compliance.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

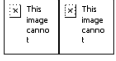
Corrects an incorrect detail.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Improves effectiveness of code.



FS 129-15

Table 721.1 (3)

Proponent: David Tyree, representing American Wood Council (dtyree@awc.org)

2015 International Building Code

Revise as follows:

**TABLE 721.1 (3)
MINIMUM PROTECTION FOR FLOOR AND ROOF SYSTEMS^{a, q}**

			THICKNESS OF FLOOR OR ROOF SLAB (inches)				MINIMUM THICKNESS OF CEILING (inches)			
			4 hours	3 hours	2 hours	1 hour	4 hours	3 hours	2 hours	1 hour
FLOOR OR ROOF CONSTRUCTION	ITEM NUMBER	CEILING CONSTRUCTION								

<p>30. Wood I-joist (minimum I-joist depth 9 1/2" with a minimum flange depth of 1 1/2" and a minimum flange cross-sectional area of 2.25 square inches; minimum web thickness of 3/8") @ 24" o.c. Fiberglass insulation placed between I-joists supported by the resilient channels.</p>	<p>30-1.1</p>	<p>Minimum 0.019" thick resilient channel 16" o.c. (channels doubled at wallboard end joints), placed perpendicular to the joists and attached to each joist by 1 1/4" Type S drywall screws. Two layers of 1/2" Type X gypsum wallboard applied with the long dimension perpendicular to the joists. I-joist resilient channels with end joints staggered. The base layer is fastened with 1 1/4" Type S drywall screws spaced 12" o.c. and the face layer is fastened with 1 5/8" Type S drywall screws spaced 12" o.c. Face layer end joints shall not occur on the same I-joist as base layer end joints and edge joints shall be offset 24" from base layer joints. Face layer to be attached to base layer with 1 1/2" Type G drywall screws spaced 8" o.c. placed 6" from face layer end joints. Face layer wallboard joints to be taped and covered with joint compound.</p>	<p>—</p>	<p>—</p>	<p>—</p>	<p>Varies</p>	<p>—</p>	<p>—</p>	<p>—</p>	<p>1</p>
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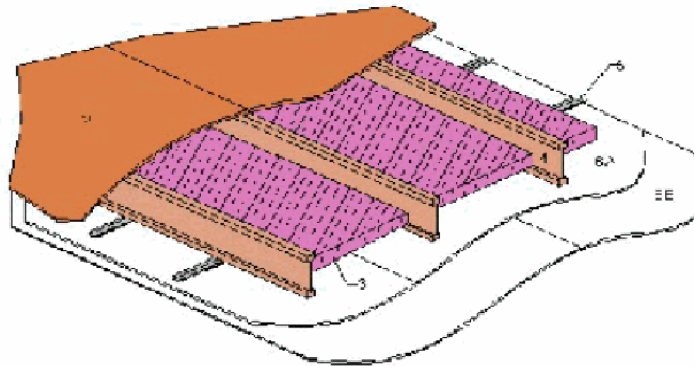
(Portions of table and footnotes not shown remain unchanged)

Reason: This proposal, in our opinion, is an editorial change as it simply is provided to correct what is currently specified in the 2015 IBC. The current text entry as published in the 2015 IBC is not correctly shown as the current code does not specify the resilient channel requirement as shown in the following link and the figure shown in the reason. This figure was referenced in the AWC code proposal submitted last code cycle and approved by the membership. (http://www.awc.org/publications/dca/dca3/WJ-1.7.1-joist_2-layers_with_RCs.htm)
 The reason statement for including this proposal previously in the 2015 IBC stated:

Many code officials have come to rely upon Table 720 as the preferred source of information regarding fire resistance rated assemblies. Because of its importance, we believe that the table should offer the most common generic assemblies. Floor systems utilizing I-joists have increased from less than 10 percent in 1990 to more than 50 percent. With the increased prevalence of I-joist floor/ceiling assemblies, including this assembly in the table will make the IBC more complete and it will be more useful to code officials. It is also expected that the document will be "user friendly", particularly for designers. In an effort to fulfill this expectation, we propose this common assembly for incorporation into Table 720.1(3). It is supported by ASTM E-119 test results as shown on the attached page. The following information and test results are provided with the understanding that their inclusion does not place them within the copyright release requirements of the signature statement.

For a complete list of AWC code change proposals and additional information please go to <http://www.awc.org/Code-Officials/2015-IBC-Code-Changes>.

WJ-1.7 One-Hour Fire-Resistive Ceiling Assembly Floor^a/Ceiling - 100% Design Load - 1 Hour Rating - ASTM E 119 / NFPA 251



1. **Floor Topping (optional, not shown):** Gypsum concrete, lightweight or normal concrete topping.
2. **Floor Sheathing:** Minimum 23/32 inch thick tongue-and-groove wood sheathing (Exposure 1). Installed per code requirements with minimum 8d common nails.
3. **Insulation:** Fiberglass insulation placed between I-joists supported by the resilient channels.
4. **Structural Members:** Wood I-joists spaced a maximum of 24 inches on center.
 - Minimum I-joist flange depth: 1-1/2 inches
 - Minimum I-joist web thickness: 3/8 inch
 - Minimum I-joist flange area: 2.25 inches²
 - Minimum I-joist depth: 9-1/2 inches

See ASTM D 5055-07 for qualification requirements.

5. **Resilient Channels:** Minimum 0.019 inch thick galvanized steel resilient channel attached perpendicular to the bottom flange of the I-joists with one 1-1/4 inch drywall screw. Channels spaced a maximum of 16 inches on center [24 inches on center when I-joists are spaced a maximum of 16 inches on center].
6. **Gypsum Wallboard:** Two layers of minimum 1/2 inch Type X gypsum wallboard attached with the long dimension perpendicular to the resilient channels as follows:
 - 6a. **Wallboard Base Layer:** Base layer of wallboard attached to resilient channels using 1-1/4 inch Type S drywall screws at 12 inches on center.
 - 6b. **Wallboard Face Layer:** Face layer of wallboard attached to resilient channels through base layer using 1-5/8 inch Type S drywall screws spaced 12 inches on center. Edge joints of wallboard face layer offset 24 inches from those of base layer. Additionally, wallboard face layer attached to base layer with 1-1/2 inch Type G drywall screws spaced 8 inches on center, placed 1-1/2 inches from face layer end joints.
7. **Finish System (not shown):** Face layer joints covered with tape and coated with joint compound. Screw heads covered with joint compound.

Fire Test conducted at National Research Council of Canada Report No: A-4219.13.2 March 23, 1998

STC and IIC Sound Ratings for Listed Assembly							
Without Gypsum Concrete				With Gypsum Concrete			
Cushioned Vinyl		Carpet & Pad		Cushioned Vinyl		Carpet & Pad	
STC	IIC	STC	IIC	STC	IIC	STC	IIC
59	50	55 ^b	63 ^b	65	51	63 ^b	65 ^b

^a This assembly may also be used in a fire-rated roof/ceiling application, but only when constructed exactly as described.

^b STC and IIC values estimated by David L. Adams Associates, Inc

Date Submitted 11/28/2018	Section 716.1	Proponent Ann Russo3
Chapter 7	Affects HVHZ Yes	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Cleans up the language to ensure NFPA 80 is the referenced document throughout the section and correlates to changes made in the base code

Rationale

This proposal provides clarity of application of NFPA 80 and adjusts code for base line clarity.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction

This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction

This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction

This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Will not increase the cost of construction

This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Does not degrade the effectiveness of the code

This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

716.1 General. Opening protectives required by other sections of this code shall comply with the provisions of this section and shall be installed in accordance with NFPA 80.

716.5 Fire door and shutter assemblies. Approved *fire door* and fire shutter assemblies shall be constructed of any material or assembly of component materials that conforms to the test requirements of Section 716.5.1, 716.5.2 or 716.5.3 and the *fire protection rating* indicated in Table 716.5. *Fire door* frames with transom lights, sidelights or both shall be permitted in accordance with Section 716.5.6. Fire door assemblies and shutters shall be installed in accordance with the provisions of this section and NFPA 80.

716.6 Fire-protection-rated glazing. Glazing in fire window assemblies shall be fire protection rated in accordance with this section and Table 716.6. Glazing in fire door assemblies shall comply with Section 716.5.8. Fire-protection rated glazing in fire window assemblies shall be tested in accordance with and shall meet the acceptance criteria of NFPA 257 or UL 9. Fire-protection-rated glazing shall comply with NFPA 80. Openings in nonfire-resistance-rated exterior wall assemblies that require protection in accordance with Section 705.3, 705.8, 705.8.5 or 705.8.6 shall have a fire protection rating of not less than 3/4 hour. Fire-protection-rated glazing in 0.5-hour fire-resistance-rated partitions is permitted to have an 0.33-hour fire protection rating.

Date Submitted	11/29/2018	Section	705.8.5	Proponent	Ann Russo3
Chapter	7	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Revises table 708.5 "Vertical section of openings" to allow temperature rise limitations to not apply to vertical separations as this is a different fire exposure condition than the flame barriers that project beyond the exterior wall.

Rationale

The current Code text is contradictory. It requires an ASTM E119 or UL 723 fire resistance rating from both sides, but then waives one of the most critical aspects. This proposal creates the intended level of safety.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Cost Impact: Will increase the cost of construction. The current Code text is contradictory. It requires an ASTM E119 or UL 723 fire resistance rating from both sides, but then waives one of the most critical aspects. This proposal creates the intended level of safety.

Impact to building and property owners relative to cost of compliance with code

Cost Impact: Will increase the cost of construction. The current Code text is contradictory. It requires an ASTM E119 or UL 723 fire resistance rating from both sides, but then waives one of the most critical aspects. This proposal creates the intended level of safety.

Impact to industry relative to the cost of compliance with code

Cost Impact: Will increase the cost of construction. The current Code text is contradictory. It requires an ASTM E119 or UL 723 fire resistance rating from both sides, but then waives one of the most critical aspects. This proposal creates the intended level of safety.

Impact to small business relative to the cost of compliance with code

Cost Impact: Will increase the cost of construction. The current Code text is contradictory. It requires an ASTM E119 or UL 723 fire resistance rating from both sides, but then waives one of the most critical aspects. This proposal creates the intended level of safety.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Cost Impact: Will increase the cost of construction. The current Code text is contradictory. It requires an ASTM E119 or UL 723 fire resistance rating from both sides, but then waives one of the most critical aspects. This proposal creates the intended level of safety.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Cost Impact: Will increase the cost of construction. The current Code text is contradictory. It requires an ASTM E119 or UL 723 fire resistance rating from both sides, but then waives one of the most critical aspects. This proposal creates the intended level of safety.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Cost Impact: Will increase the cost of construction. The current Code text is contradictory. It requires an ASTM E119 or UL 723 fire resistance rating from both sides, but then waives one of the most critical aspects. This proposal creates the intended level of safety.

Does not degrade the effectiveness of the code

Cost Impact: Will increase the cost of construction. The current Code text is contradictory. It requires an ASTM E119 or UL 723 fire resistance rating from both sides, but then waives one of the most critical aspects. This proposal creates the intended level of safety.

705.8.5 Vertical separation of openings.

Openings in exterior walls in adjacent stories shall be separated vertically to protect against fire spread on the exterior of the buildings where the openings are within 5 feet (1524 mm) of each other horizontally and the opening in the lower story is not a protected opening with a fire protection rating of not less than $\frac{3}{4}$ hour. Such openings shall be separated vertically not less than 3 feet (914 mm) by spandrel girders, exterior walls or other similar assemblies that have a fire-resistance rating of not less than 1 hour, rated for exposure to fire from both sides, or by flame barriers that extend horizontally not less than 30 inches (762 mm) beyond the exterior wall. Flame barriers shall have a fire-resistance rating of not less than 1 hour. The unexposed surface temperature limitations specified in ASTM E119 or UL 263 shall not apply to the flame barriers ~~or vertical separation~~ unless otherwise required by the provisions of this code.

Exceptions:

1. This section shall not apply to buildings that are three stories or less above grade plane.
2. This section shall not apply to buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
3. Open parking garages.

Date Submitted 11/30/2018	Section 714.2	Proponent Ann Russo3
Chapter 7	Affects HVHZ Yes	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

This modification is meant to remove redundant wording, cover all listed penetration fire-stop penetration systems, and require installation in accordance with the manufacturer's instructions.

Rationale

These listed systems need to be installed in accordance with the manufacturer's installation instructions. The modification ensures this requirement is applicable to all types of listed penetration systems.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Cost Impact: Will not increase the cost of construction
Listed systems should already be installed in accordance with the manufacturer's installation instructions.

Impact to building and property owners relative to cost of compliance with code

Cost Impact: Will not increase the cost of construction
Listed systems should already be installed in accordance with the manufacturer's installation instructions.

Impact to industry relative to the cost of compliance with code

Cost Impact: Will not increase the cost of construction
Listed systems should already be installed in accordance with the manufacturer's installation instructions.

Impact to small business relative to the cost of compliance with code

Cost Impact: Will not increase the cost of construction
Listed systems should already be installed in accordance with the manufacturer's installation instructions.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This will require that all listed systems be installed in accordance with the listing. The manufacturer's instructions provide additional details that are not commonly identified in the listing criteria, including environmental conditions and tooling.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

These requirements are applicable to all types of listed penetration systems.
This requires that all listed systems be installed in accordance with the listing. The manufacturer's instructions provide details that are not commonly identified in the listing, including environmental conditions.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification does not discriminate but does require that all listed systems are to be installed in accordance with the listing criteria (including manufacturer's instructions).

Does not degrade the effectiveness of the code

This will ensure this requirement is applicable to all types of listed penetration systems.
The will require that all listed systems be installed in accordance with the listing. The manufacturer's instructions provide additional details that are not commonly identified in the listing.

- **714.2 Installation A listed penetration firestop system shall be installed in accordance with the manufacturer's installation instructions and the listing criteria.**

714.2.1 Installation details.

Where sleeves are used, they shall be securely fastened to the assembly penetrated. The space between the item contained in the sleeve and the sleeve itself and any space between the sleeve and the assembly penetrated shall be protected in accordance with this section. Insulation and coverings on or in the penetrating item shall not penetrate the assembly unless the specific material used has been tested as part of the assembly in accordance with this section.

Date Submitted	11/30/2018	Section	715.1	Proponent	Ann Russo3
Chapter	7	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications**Summary of Modification**

This modification adds an exception for fire-resistant joints. This exception clarifies that a fire-resistant joint at the intersection of exterior curtain wall assemblies and roof slabs or roof decks are not required.

Rationale

This modification will clarify that a fire-resistant joint is not required at the intersection of an exterior curtain wall and a roof slab or roof deck and will prevent misunderstandings of the code.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Cost Impact: Will not increase the cost of construction

The proposals clarifies/adds an additional exemption to the need for a fire-resistant joint system.

Impact to building and property owners relative to cost of compliance with code

Cost Impact: Will not increase the cost of construction

The proposals clarifies/adds an additional exemption to the need for a fire-resistant joint system.

Impact to industry relative to the cost of compliance with code

Cost Impact: Will not increase the cost of construction

The proposals clarifies/adds an additional exemption to the need for a fire-resistant joint system.

Impact to small business relative to the cost of compliance with code

Cost Impact: Will not increase the cost of construction

The proposals clarifies/adds an additional exemption to the need for a fire-resistant joint system.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

It is occasionally assumed and misinterpreted that some protection is required at this joint. Adding this joint to the list of joints that do not require a fire-resistant joint system will prevent such mis-application of the code.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

It is occasionally assumed and misinterpreted that some protection is required at this joint. Adding this joint to the list of joints that do not require a fire-resistant joint system will prevent such mis-application of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Cost Impact: Will not increase the cost of construction.

The proposals clarifies/adds an additional exemption to the need for a fire-resistant joint system.

Does not degrade the effectiveness of the code

Section 711.4 already exempts penetrations of roof assemblies from needing protection.

In this case, it is specifically the joint between the roof slab or roof deck and the exterior curtain wall that would be exempted in a manner similar to through penetrations of a roof slab or roof deck.

715.1 General. Joints installed in or between fire-resistance-rated walls, floor or floor/ceiling assemblies and roofs or roof/ceiling assemblies shall be protected by an approved *fire-resistant joint system* designed to resist the passage of fire for a time period not less than the required *fire-resistance rating* of the wall, floor or roof in or between which the system is installed. *Fire-resistant joint systems* shall be tested in accordance with Section 715.3.

Exception: *Fire-resistant joint systems* shall not be required for joints in all of the following locations:

1. Floors within a single *dwelling unit*.
- 2. Floors where the joint is protected by a shaft enclosure in accordance with Section 713.**
3. Floors within atriums where the space adjacent to the atrium is included in the volume of the atrium for smoke control purposes.
4. Floors within malls.
5. Floors and ramps within open and enclosed parking garages or structures constructed in accordance with Sections 406.5 and 406.6, respectively.
6. Mezzanine floors.
7. Walls that are permitted to have unprotected openings.
8. Roofs where openings are permitted.
9. Control joints not exceeding a maximum width of 0.625 inch (15.9 mm) and tested in accordance with ASTM E 119 or UL 263.
10. The intersection of exterior curtain wall assemblies and the roof slab or roofdeck.

Date Submitted 12/1/2018	Section 716.1	Proponent Ann Russo3
Chapter 7	Affects HVHZ Yes	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

This modification revises sections 716.1, 716.5, and 716.6 by removing redundant wording and clarifying the requirements of NFPA 80 for opening protectives within this code.

Rationale

The testing requirements for opening protective should be located at the beginning of the section for clarity and consistency.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Will not increase the cost of construction
 This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction
 This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction
 This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction
 This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Will not increase the cost of construction
 This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Will not increase the cost of construction
 This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Will not increase the cost of construction
 This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

Does not degrade the effectiveness of the code

Will not increase the cost of construction
 This code change is primarily editorial but clarifies that all opening protectives shall be installed to NFPA 80.

716.1 General. Opening protectives required by other sections of this code shall comply with the provisions of this section and shall be installed in accordance with NFPA 80.

716.5 Fire door and shutter assemblies. Approved *fire door* and fire shutter assemblies shall be constructed of any material or assembly of component materials that conforms to the test requirements of Section 716.5.1, 716.5.2 or 716.5.3 and the *fire protection rating* indicated in Table 716.5. *Fire door frames with transom lights, sidelights or both shall be permitted in accordance with Section 716.5.6. Fire door assemblies and shutters shall be installed in accordance with the provisions of this section and NFPA 80.*

Exceptions:

1. Labeled protective assemblies that conform to the requirements of this section or UL 10A, UL 14B and UL 14C for tin-clad *fire door* assemblies.
2. Floor *fire door* assemblies in accordance with Section 712.1.13.1.

716.6 Fire-protection-rated glazing. Glazing in fire window assemblies shall be fire protection rated in accordance with this section and Table 716.6. Glazing in fire door assemblies shall comply with Section 716.5.8. Fire-protection rated glazing in fire window assemblies shall be tested in accordance with and shall meet the acceptance criteria of NFPA 257 or UL 9. ~~Fire-protection-rated glazing shall comply with NFPA 80.~~ Openings in nonfire-resistance-rated exterior wall assemblies that require protection in accordance with Section 705.3, 705.8, 705.8.5 or 705.8.6 shall have a fire protection rating of not less than 3/4 hour. Fire-protection-rated glazing in 0.5-hour fire-resistance-rated partitions is permitted to have an 0.33-hour fire protection rating.

Date Submitted 12/1/2018	Section 716.3	Proponent Ann Russo3
Chapter 7	Affects HVHZ Yes	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Revises table 716.3 “Marking Fire-Rated Glazing Assemblies,” and revises section 2409.1 “Glass walkways” to maintain consistency in the code when dealing with fire-rated glazing products, by adding the testing and marking requirements for glass installed as part of a floor/ceiling assembly.

Rationale

This modification adds/clarifies the floor/ceiling marking for meeting the standard requirements.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
This modification only increase clarity and help eliminate code misunderstandings.
- Impact to building and property owners relative to cost of compliance with code**
This modification will not increase the cost of construction.
- Impact to industry relative to the cost of compliance with code**
This modification will not increase the cost of construction.
- Impact to small business relative to the cost of compliance with code**
This modification will not increase the cost of construction.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
This modification will not increase the cost of construction and only provides more clarity from the code.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
This modification will not increase the cost of construction and improves the code by reducing misunderstandings of the code.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
This modification helps to better reflect existing code requirements and does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.
- Does not degrade the effectiveness of the code**
This modification will not increase the cost of construction and only provides more clarity from the code.

TABLE 716.3 (716.3)

_MARKING FIRE-RATED GLAZING ASSEMBLIES

FIRE TEST STANDARD	MARKING	DEFINITION OF MARKING
ASTM E 119 or UL 263	W	Meets wall assembly criteria.
ASTM E 119 or UL 263	FC	Meets floor/ceiling criteria ^a
NFA 257 or UL 9	OH	Meets fire window assembly criteria including the hose stream test.
NFPA 252 or UL 10B or UL 10C	D H T	Meets fire door assembly criteria. Meets fire door assembly hose stream test. Meets 450°F temperature rise criteria for 30 minutes
	XXX	The time in minutes of the fire resistance or fire protection rating of the glazing assembly.

For SI: °C = [(°F) - 32]/1.8.

a. See Section 2409.1

2409.1 Glass walkways. Glass installed as a part of a floor/ceiling assembly as a walking surface and constructed with laminated glass shall comply with ASTM E 2751 or with the load requirements specified in Chapter 16. Such assemblies shall comply with the *fire-resistance rating and marking* requirements of this code where applicable.

Date Submitted	12/4/2018	Section	716.5	Proponent	Ann Russo3
Chapter	7	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications**Summary of Modification**

Addition of footnote "f" to table 716.5 to provide an appropriate reference to the additional permitted markings for fire rated glazing door vision panels found in section 716.3.1 & Table 716.3.

Rationale

Footnote f provides an appropriate reference to Table 716.3 and Section 716.3.1 resulting in easier navigation of this code section.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Allows for an additional reference to code sections related to fire rating of glazing door vision panels with no increase in cost.

Impact to building and property owners relative to cost of compliance with code

Providing footnote f to Table 716.5 provides a reference to the additional permitted marking requirements for fire rated glazing door vision panels and will not increase any costs.

Impact to industry relative to the cost of compliance with code

Providing footnote f to Table 716.5 provides a reference to the additional permitted marking requirements for fire rated glazing door vision panels and will not increase any cost

Impact to small business relative to the cost of compliance with code

Providing footnote f to Table 716.5 provides a reference to the additional permitted marking requirements for fire rated glazing door vision panels and will not increase any cost

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Providing footnote f to Table 716.5 provides a reference to the additional permitted marking requirements for fire rated glazing door vision panels and will not increase any cost.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Providing footnote f to Table 716.5 provides a reference to the additional permitted marking requirements for fire rated glazing door vision panels and will not increase any cost.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Providing footnote f to Table 716.5 provides a reference to the additional permitted marking requirements for fire rated glazing door vision panels and will not increase any cost.

Does not degrade the effectiveness of the code

Providing footnote f to Table 716.5 only provides a reference to the additional permitted marking requirements for fire rated glazing door vision panels and will not increase any cost.

- a. Two doors, each with a fire protection rating of 1 1/2 hours, installed on opposite sides of the same opening in a fire wall, shall be deemed equivalent in fire protection rating to one 3-hour fire-door.
- b. Fire-resistance-rated glazing tested to ASTM E 119 in accordance with Section 716.2 shall be permitted, in the maximum size tested.
- c. Except where the building is equipped throughout with an automatic sprinkler and the fire-rated glazing meets the criteria established in Section 716.5.5.
- d. Under the column heading "Fire-rated glazing marking door vision panel," W refers to the fire-resistance rating of the glazing, not the frame.

- e. See Section 716.5.8.1.2.1

- f. See also Section 716.3.1 and Table 716.3 for additional permitted markings.

Date Submitted 12/4/2018	Section 714	Proponent Jon Roberts
Chapter 7	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Revises language in section 714.3.1.1 and section 714.1.1

Rationale

As written, these two similar sections, covering wall assemblies and horizontal assemblies, state penetrations shall be installed as tested in the approved fire-resistance-rated assembly. By definition, a penetration is a breach in the floor, floor-ceiling or wall assembly. This proposal clarifies that it is the method of protecting the penetration, not the penetration itself, that is the subject of these sections. It also revises the title of Section 714.4.1.1 to be consistent with that of Section 714.3.1.1.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Will not increase the cost of construction This simply clarifies the existing requirements.
- Impact to building and property owners relative to cost of compliance with code**
Will not increase the cost of construction This simply clarifies the existing requirements.
- Impact to industry relative to the cost of compliance with code**
Will not increase the cost of construction This simply clarifies the existing requirements.
- Impact to small business relative to the cost of compliance with code**
Will not increase the cost of construction This simply clarifies the existing requirements.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
This increases safety and welfare by clarifying the existing requirements and making enforcement easier.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
This strengthens the code by clarifying the existing requirements.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
This clarification does not discriminate against any materials, products, methods, or systems of construction of demonstrated capabilities, it only clarifies current code requirements.
- Does not degrade the effectiveness of the code**
It actually helps to make the code more effective through enhanced clarity.

714.3.1.1 Fire-resistance-rated assemblies. ~~Penetrations~~ Through penetrations shall be protected using systems installed as tested in an ~~the~~ approved fire-resistance-rated assembly.

714.4.1.1 ~~Installation~~ Fire-resistance-rated assemblies. Through penetrations shall be protected using systems installed as tested in the approved fire-resistance-rated assembly.

Date Submitted 12/4/2018	Section 716	Proponent Jon Roberts
Chapter 7	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Adds UL10B and UL10C as additional testing standards that can be used as alternatives to the current NFPA 252 requirements.

Rationale

UL 10B and 10C have been included as comparable standards to NFPA 252 since the previous edition of the International Building Code. All other sections of the Section 716 which reference NFPA 252 also include UL 10B and 10C. This proposal revises Section 716.4 to also reference UL 10B and 10C in conjunction with NFPA 252 for consistency.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
There is no impact as this only provides alternatives to current testing requirements.
- Impact to building and property owners relative to cost of compliance with code**
There is no impact as this only provides alternatives to current testing requirements.
- Impact to industry relative to the cost of compliance with code**
There is no impact as this only provides alternatives to current testing requirements.
- Impact to small business relative to the cost of compliance with code**
There is no impact as this only provides alternatives to current testing requirements.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
This provides alternatives to current testing requirements and makes this work with all other areas of section 716 that already refer to these test methods.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
This strengthens the code because it provides alternatives to current testing requirements and makes this work with all other areas of section 716 that already refer to these test methods.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
This provides alternatives to current testing requirements and therefore makes no discrimination to what is already called out in the code currently.
- Does not degrade the effectiveness of the code**
This provides alternatives to current testing requirements and makes this work with all other areas of section 716 that already refer to these test methods and thereby enhances the effectiveness of the code.

716.3.1 Fire-rated glazing identification.

For fire-rated glazing, the label shall bear the identification required in Tables 716.3 and 716.5. "D" indicates that the glazing is permitted to be used in fire door assemblies and that the glazing meets the fire protection requirements of NFPA 252, UL 10B or UL 10C. "H" shall indicate that the glazing meets the hose stream requirements of NFPA 252, UL 10B or UL 10C. "T" shall indicate that the glazing meets the temperature requirements of Section 716.5.5.1. The placeholder "XXX" represents the fire-rating period, in minutes.

Date Submitted 12/5/2018	Section 717	Proponent Jon Roberts
Chapter 7	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

IMC 607.5.2, IMC 607.5.5

Summary of Modification

This intent of this proposal is simply to bring consistency in terminology within Section 717, which referenced "approved" dampers instead of "listed" dampers.

Rationale

Section 717.3.1 of the Building Code is very clear that all five types of dampers shall be listed and labeled. However there are two provisions within Section 717 which reference "approved" dampers instead of "listed" dampers. This intent of this proposal is simply to bring consistency in terminology within Section 717. This does not represent a technical change, as Section 717.3.1 already requires dampers to be listed and labeled.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This will make enforcement easier pertaining to dampers as it aligns with the requirements for listed dampers found throughout this section.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction This does not represent a technical change, as Section 717.3.1 already requires dampers to be listed and labeled

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction This does not represent a technical change, as Section 717.3.1 already requires dampers to be listed and labeled

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction This does not represent a technical change, as Section 717.3.1 already requires dampers to be listed and labeled

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This helps to ensure the required level of safety that accompanies the listing requirement for these devices.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This strengthens the code as it aligns with other existing sections of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This does not discriminate against other materials or methods.

Does not degrade the effectiveness of the code

This does not degrade the code, it enhances it.

717.5.2 Fire barriers.

Ducts and air transfer openings of fire barriers shall be protected with ~~approved~~ listed fire dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate enclosures for interior exit stairways and ramps and exit passageways, except as permitted by Sections 1023.5 and 1024.6, respectively.

717.5.3 Shaft enclosures.

Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with ~~approved~~ listed fire and smoke dampers installed in accordance with their listing.

Date Submitted	12/11/2018	Section	716.5.9.4	Proponent	Joseph Hetzel
Chapter	7	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Clarify vertical sliding fire doors from rolling steel fire doors.

Rationale

The "vertical" descriptor for sliding fire doors should be kept. Vertical sliding fire doors and rolling steel fire doors should be editorially separated, since rolling steel fire doors always operate vertically by definition and thus the "vertical" descriptor for those doors is redundant and unnecessary. This language was submitted to the ICC as proposal FS96-15 and was "approved as modified by public comment", which is reflected in this FBC proposal.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact.

Impact to building and property owners relative to cost of compliance with code

No impact.

Impact to industry relative to the cost of compliance with code

No impact.

Impact to small business relative to the cost of compliance with code

No impact.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Upholds health, safety, and welfare by clarifying fire door types.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthen and improves the code by clarifying fire door types.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No discrimination.

Does not degrade the effectiveness of the code

Improves the effectiveness of the code by clarifying fire door types.

716.5.9.4 Doors in pedestrian ways.

Vertical sliding fire doors or vertical-rolling steel *fire doors* in openings through which pedestrians travel shall be heat activated or activated by smoke detectors with alarm verification.

Date Submitted	12/11/2018	Section	716.5.2	Proponent	Joseph Hetzel
Chapter	7	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications**Summary of Modification**

Revision to a list of assemblies, to have rolling steel fire doors represented.

Rationale

Rolling steel fire doors should be included in the list since they have been successfully required to be tested and listed to either NFPA 252 or UL 10B for many years. The other changes are typographical for consistency within the list of door types. The proposed was submitted to the ICC as FS88-15, and was approved as submitted.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact.

Impact to building and property owners relative to cost of compliance with code

No impact.

Impact to industry relative to the cost of compliance with code

No impact.

Impact to small business relative to the cost of compliance with code

No impact.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

No negative effect on health, safety and welfare.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens and improves the code by calling attention to rolling steel fire doors.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No discrimination.

Does not degrade the effectiveness of the code

Improves the effectiveness of the code by calling attention to rolling steel fire doors.

716.5.2 Other types of assemblies.

Fire door assemblies with other types of doors, including swinging elevator doors, horizontal sliding fire doors assemblies, rolling steel fire doors, and fire shutters assemblies, bottom and side-hinged chute intake doors, and top-hinged chute discharge doors, shall be tested in accordance with NFPA 252 or UL 10B. The pressure in the furnace shall be maintained as nearly equal to the atmospheric pressure as possible. Once established, the pressure shall be maintained during the entire test period.

Date Submitted	12/11/2018	Section	716.5.9.1	Proponent	Joseph Hetzel
Chapter	7	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications**Summary of Modification**

Clarification involving side-hinged swinging fire doors.

Rationale

Clarification is needed to show that side-hinged swinging fire doors, and no other types of fire doors, are being addressed in these provisions. The proposal was submitted to the ICC as FS93-15, and was approved as submitted.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact.

Impact to building and property owners relative to cost of compliance with code

No impact.

Impact to industry relative to the cost of compliance with code

No impact.

Impact to small business relative to the cost of compliance with code

No impact.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Upholds health, safety and welfare by clarifying side-hinged swinging fire door language usage.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens and improves the code by clarifying side-hinged swinging fire door language usage.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No discrimination.

Does not degrade the effectiveness of the code

Improves the effectiveness of the code by clarifying side-hinged swinging fire door language usage.

716.5.9.1 Latch required.

Unless otherwise specifically permitted, single side-hinged swinging fire doors and both leaves of pairs of side-hinged swinging *fire doors* shall be provided with an active latch bolt that will secure the door when it is closed.

Date Submitted	12/14/2018	Section	717.3.3.1	Proponent	Amanda Hickman
Chapter	7	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

#7928
#7936
#7938

Summary of Modification

This modification revises terminology used in section 717.3.3.1

Rationale

"Primary heat responsive device" is the terminology used in UL 555 and as such, should be the phrase used in the Florida Building Code. The change in the title is consistent with the title used for smoke damper actuation.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This modification uses current terminology, which will provide clarity to code enforcement.

Impact to building and property owners relative to cost of compliance with code

This modification will have no cost impact, it is simply a change in terminology to be consistent with the UL standard.

Impact to industry relative to the cost of compliance with code

This modification will have no cost impact, it is simply a change in terminology to be consistent with the UL standard.

Impact to small business relative to the cost of compliance with code

This modification will have no cost impact, it is simply a change in terminology to be consistent with the UL standard.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This modification updates to the current terminology, which will assist in proper enforcement of fire damper inspection.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification updates to the current terminology consistent with UL test standard.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification does not discriminate, it only updates the terminology.

Does not degrade the effectiveness of the code

This modification improves the effectiveness of the code by updating to the proper technology.

Revise as follows:

717.3.3.1 Fire damper actuation-device.

The ~~fire damper actuation device~~ Primary heat responsive devices used to actuate fire dampers shall meet one of the following requirements:

1. The operating temperature shall be approximately 50°F (10°C) above the normal temperature within the duct system, but not less than 160°F (71°C).
2. The operating temperature shall be not more than 350°F (177°C) where located in a smoke control system complying with Section 909.

Date Submitted 12/14/2018	Section 717.4	Proponent Amanda Hickman
Chapter 7	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

- #7919
- #7936
- #7938

Summary of Modification

This modification revises section 717.4

Rationale

It is understood that periodic inspection and testing is typically within the scope of the IFC. However, it is not uncommon to alert interested parties to these requirements in the IBC (for example see Chapter 9). In this instance it is important for the design professional to be aware of the inspection and testing requirements since they impact the access requirements contained in the IBC. In addition, the proposal provides design professionals with an alternative of remote testing (as permitted by NFPA 80 and NFPA 105) in situations where adequate access for inspection and testing cannot be provided.

The proposed minimum size of the opening is consistent with NFPA 90A, a mandatory reference in the Florida Fire Prevention Code. If a design professional does not check the Fire Code, without the minimum size of the opening specified in the Building Code a situation could occur in which the design potentially complies with the Building Code but not the Fire Code.

In addition, the inspection and testing of dampers in health care facilities is a regular compliance item for AHCA, CMS, and Accrediting Organizations. From the facility perspective, accessing such dampers for testing raises some concerns with regard to infection control. By providing an option for remote testing, the compliance rate for damper inspection and testing should increase in health care facilities in the State of Florida.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

The proposed minimum size of the opening is consistent with NFPA 90A, a mandatory reference in the Florida Fire Prevention Code. Therefore, this modification will make code enforcement easier.

Impact to building and property owners relative to cost of compliance with code

The alternative for remote testing does not impact the cost of construction because it is not required. However, recognizing that remote testing is an option may actually decrease the cost of construction in instances where providing adequate access is challenging.

Impact to industry relative to the cost of compliance with code

The alternative for remote testing does not impact the cost of construction because it is not required. However, recognizing that remote testing is an option may actually decrease the cost of construction in instances where providing adequate access is challenging.

Impact to small business relative to the cost of compliance with code

The alternative for remote testing does not impact the cost of construction because it is not required. However, recognizing that remote testing is an option may actually decrease the cost of construction in instances where providing adequate access is challenging.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This modification will provide proper identification and access for inspection for dampers, which will ensure the proper maintenance and operation. This will promote better life safety.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification will provide proper identification and access for inspection for dampers, which will ensure the proper maintenance and operation. This will strengthen and improve the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, this modification only adds guidance on proper, testing and inspection of dampers.

Does not degrade the effectiveness of the code

This modification improves the effectiveness of the code by including the proper inspection and testing guidance for dampers.

717.4 Access and identification. Access and identification of fire and smoke dampers shall comply with sections 717.4.1 through 717.4.2

717.4.1 Access. Fire and smoke dampers shall be provided with an approved means of access that is large enough to permit inspection and maintenance of the damper and its operating parts. Dampers equipped with fusible links, internal operators, or both shall be provided with an access door that is not less than 12 inches (305 mm) square or provided with a removable duct section.

717.4.1.1 Access openings. The access shall not affect the integrity of fire-resistance-rated assemblies. The access openings shall not reduce the fire-resistance rating of the assembly. Access doors in ducts shall be tight fitting and suitable for the required duct construction.

717.4.1.2 Restricted access. Where space constraints or physical barriers restrict access to a damper for periodic inspection and testing, the damper shall be a single- or multi-blade type damper and shall comply with the remote inspection requirements of NFPA 80 or NFPA 105.

717.4.2 Identification. Access points shall be permanently identified on the exterior by a label having letters not less than 1/2 inch (12.7 mm) in height reading: FIRE/SMOKE DAMPER, SMOKE DAMPER or FIRE DAMPER. Access doors in ducts shall be tight fitting and suitable for the required duct construction.

Date Submitted	12/14/2018	Section	709.5	Proponent	John Woestman
Chapter	7	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications**Summary of Modification**

1. Update text of references to IBC 1010.1.4.3. Special purpose horizontal sliding, accordion, or folding doors as the name of this section and these products were revised for the 2017 FBC.

Rationale

This proposal updates the text of references to FBC 1010.1.4.3. Special purpose horizontal sliding, accordion or folding doors as the name of this section and these products were revised for the 2017 FBC. Most of the references to 1010.1.4.3 were updated previously. These were not.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Should improve consistency in code interpretation and enforcement.

Impact to building and property owners relative to cost of compliance with code

No cost increase and may reduce cost of compliance by improving consistency in code interpretation, application, specifications, and enforcement.

Impact to industry relative to the cost of compliance with code

No cost increase and may reduce cost of compliance by improving consistency in code interpretation, application, specifications, and enforcement.

Impact to small business relative to the cost of compliance with code

No cost increase and may reduce cost of compliance by improving consistency in code interpretation, application, specifications, and enforcement.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

With improving consistency in code interpretation, application, specifications, and enforcement, this helps with getting the appropriate doors in the appropriate locations.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves usability of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Improves the effectiveness of the code.

Revise as follows:

709.5 Openings. Openings in a *smoke barrier* shall be protected in accordance with Section 716.

Exceptions:

1. In Group I-1 Condition 2, Group I-2 and *ambulatory care facilities*, where a pair of opposite-swinging doors are installed across a corridor in accordance with Section 709.5.1, the doors shall not be required to be protected in accordance with Section 716. The doors shall be close fitting within operational tolerances, and shall not have a center mullion or undercuts in excess of 3/4 inch (19.1 mm), louvers or grilles. The doors shall have head and jamb stops, and astragals or rabbets at meeting edges. Where permitted by the door manufacturer’s listing, positive- latching devices are not required.

2. In Group I-1 Condition 2, Group I-2 and *ambulatory care facilities*, special purpose horizontal sliding, accordion or folding doors installed in accordance with Section 1010.1.4.3 and protected in accordance with Section 716.

1010.1.4.2 Power-operated doors. Where *means of egress* doors are operated or assisted by power, the design shall be such that in the event of power failure, the door is capable of being opened manually to permit *means of egress* travel or closed where necessary to safeguard *means of egress*. The forces required to open these doors manually shall not exceed those specified in Section 1010.1.3, except that the force to set the door in motion shall not exceed 50 pounds (220 N). The door shall be capable of swinging open from any position to the full width of the opening in which such door is installed when a force is applied to the door on the side from which egress is made. Power-operated swinging doors, power-operated sliding doors and power operated folding doors shall comply with BHMA A156.10. Power-assisted swinging doors and low energy power-operated swinging doors shall comply with BHMA A156.19.

Exceptions:

1. Occupancies in Group I-3.

2. Special purpose Hhorizontal sliding, accordion or folding doors complying with Section 1010.1.4.3.

3. For a biparting door in the emergency breakout mode, a door leaf located within a multiple-leaf opening shall be exempt from the minimum 32-inch (813 mm) single-leaf requirement of Section 1010.1.1, provided a minimum 32-inch (813 mm) clear opening is provided when the two biparting leaves meeting in the center are broken out.

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Special purpose Hhorizontal sliding, accordion or folding doors 1010.1.4.3, 2702.2.10

Date Submitted 12/14/2018	Section 709.5	Proponent Richard Logan
Chapter 7	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

NA

Summary of Modification

Add a sentence to the end of 709.5 Exception number 1 that reads as follows: Factory applied or field applied protective plates are not required to be labeled.

Rationale

This code change follows with the established intent of this section. Smoke barriers are intended to be substantial construction and providing protective plates provides additional protection to the doors keeping the original construction free from damage thus in a more substantial manner. They do not provide the same fire resistance rating as a true 1 hour fire barrier. A correlative change is planned for the IFC Section 1105.6.3 as part of the Group B proposals.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No Impact to local entity relative to enforcement of code (553.73(9)(b),F.S.)*

Impact to building and property owners relative to cost of compliance with code

No Impact to building and property owners relative to cost of compliance with code (553.73(9)(b),F.S.)*

Impact to industry relative to the cost of compliance with code

No Impact to industry relative to the cost of compliance with code (553.73(9)(b),F.S.)*

Impact to small business relative to the cost of compliance with code

No Impact to small business relative to the cost of compliance with code (553.73(9)(b),F.S.)*

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Has a reasonable and substantial connection with the health, safety, and welfare of the general public by providing clarification that labels are not required for protective plates on these doors under exception 1.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens or improves the code by providing clarification that labels are not required for protective plates on these doors under exception 1.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Because labels are not required for protective plates on the doors this change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not degrade the effectiveness of the code

This change improves the effectiveness of the code. Smoke barriers are intended to be substantial construction and providing protective plates provides additional protection to the doors keeping the original construction free from damage thus in a more substantial manner.

709.5 Openings.

Openings in a *smoke barrier* shall be protected in accordance with Section 716.

Exceptions:

1. In Group I-1 Condition 2, Group I-2 and ambulatory care facilities, where a pair of opposite-swinging doors are installed across a corridor in accordance with Section 709.5.1, the doors shall not be required to be protected in accordance with Section 716. The doors shall be close fitting within operational tolerances, and shall not have a center mullion or undercuts in excess of $\frac{3}{4}$ inch (19.1 mm), louvers or grilles. The doors shall have head and jamb stops, and astragals or rabbets at meeting edges. Where permitted by the door manufacturer's listing, positive-latching devices are not required. Factory applied or field applied protective plates are not required to be labeled.
2. In Group I-1 Condition 2, Group I-2 and *ambulatory care facilities*, horizontal sliding doors installed in accordance with Section 1010.1.4.3 and protected in accordance with Section 716.

Code Change No: FS44-15

Original Proposal

Section: 709.5

Proponent: John Williams, CBO, CBO, Chair, Adhoc Healthcare Committee, representing Adhoc Health Care Committee (AHC@iccsafe.org); Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

Revise as follows:

709.5 Openings. Openings in a *smoke barrier* shall be protected in accordance with Section 716.

Exceptions:

1. In Group I-1 Condition 2, Group I-2 and ambulatory care facilities, where a pair of opposite-swinging doors are installed across a corridor in accordance with Section 709.5.1, the doors shall not be required to be protected in accordance with Section 716. The doors shall be close fitting within operational tolerances, and shall not have a center mullion or undercuts in excess of ³/₁₆ inch (19.1 mm), louvers or grilles. The doors shall have head and jamb stops, and astragals or rabbets at meeting edges. Where permitted by the door manufacturer's listing, positive-latching devices are not required. Factory applied or field applied protective plates are not required to be labeled.
2. In Group I-1 Condition 2, Group I-2 and *ambulatory care facilities*, horizontal sliding doors installed in accordance with Section 1010.1.4.3 and protected in accordance with Section 716.

Reason: Smoke barrier doors are typically installed across corridors and patient treatment areas. These doors see a very high volume of gurney and bed traffic, as well as carts, wheeled equipment and transport devices. As a result they are often damaged. This proposal would allow the installation of a non-labeled protective plate, usually made of steel or other resilient material, to be installed on these doors to protect them from excessive wear and damage. Due to the size of equipment being wheeled through, these protective plates need to be allowed to be greater than 48" high. Currently NFPA 80 would require that the protective plates on rated doors be limited to 48" and that they be labeled. The doors in smoke barriers do not function as true fire doors. This section contains many special directives and requirements exempting smoke barriers doors from meeting fire door requirements. This code change follows with the established intent of this section. Smoke barriers are intended to be substantial construction and providing protective plates provides additional protection to the doors keeping the original construction free from damage thus in a more substantial manner. They do not provide the same fire resistance rating as a true 1 hour fire barrier.

A correlative change is planned for the IFC Section 1105.6.3 as part of the Group B proposals.

The ICC Ad Hoc Committee on Healthcare (AHC) has just completed its 4th year. The AHC was established by the ICC Board to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. This is a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Information on the AHC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the AHC effort can be downloaded from the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>.

The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the Care Facilities Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>.

Cost Impact: Will not increase the cost of construction
Allowing the use of non-labeled plates will be less costly than requiring labeled plates.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The committee agreed that since these doors were not required to be fire resistance rated there was no need for requiring labeling of the protective plates.

Assembly Action:

None

Final Hearing Results

FS44-15

AS

Date Submitted 12/14/2018	Section 712.1.10.1	Proponent Richard Logan
Chapter 7	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

NA

Summary of Modification

strike out the words "open and enclosed" in the middle of the sentence and the word "respectively" at the end of the sentence. The current language in the code is redundant and confusing.

Rationale

The current language in the code is redundant and confusing. The new language allows openings that may be used for other purposes including occupant mobility.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

There is no impact to local entity relative to enforcement of code (553.73(9)(b),F.S.)*

Impact to building and property owners relative to cost of compliance with code

There is no impact to building and property owners relative to cost of compliance with code (553.73(9)(b),F.S.)*

Impact to industry relative to the cost of compliance with code

This change should reduce the cost of construction as it will clarify how openings are permitted in floors of parking garages.

Impact to small business relative to the cost of compliance with code

This change should reduce the cost of construction as it will clarify how openings are permitted in floors of parking garages.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This modification has a reasonable and substantial connection with the health, safety, and welfare of the general public by clarifying how openings are permitted in floors of parking garages.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction by clarifying how openings are permitted in floors of parking garages.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not degrade the effectiveness of the code

This modification increases the effectiveness of the code

712.1.10.1 Automobile ramps.

Vertical openings for automobile ramps in ~~open and enclosed~~ parking garages shall be permitted where constructed in accordance with Sections 406.5 and 406.6, respectively.

Code Change No: FS46-15

Original Proposal

Section(s): 712.1.10.1

Proponent: David Collins, representing The American Institute of Architects (dcollins@preview-group.com)

Revise as follows:

712.1.10.1 Automobile ramps. Vertical openings for automobile ramps in ~~open and enclosed~~ parking garages shall be permitted where constructed in accordance with Sections 406.5 and 406.6, respectively.

Reason: The current language in the code is redundant and confusing. The new language allows openings that may be used for other purposes including occupant mobility.

Cost Impact: Will not increase the cost of construction
This change should reduce the cost of construction as it will clarify how openings are permitted in floors of parking garages.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The committee agreed that the current language in the code is redundant and confusing and that the new language allows openings that may be used for other purposes including occupant mobility.

Assembly Action:

None

Public Comments

Public Comment 1:

David Collins, representing The American Institute of Architects (dcollins@preview-group.com) requests Approve as Modified by this Public Comment.

Further modify as follows:

402.4.1.3 Parking garage. The *building area* and *building height* of any parking garage, ~~open or enclosed~~, shall be based on the type of construction as required by Sections 406.5 and 406.6, respectively.

402.4.2.3 Parking garages. An attached garage for the storage of passenger vehicles having a capacity of not more than nine persons and *open parking garages* shall be considered as a separate building where it is separated from the *covered or open mall building* or *anchor building* by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

Parking garages, ~~open or enclosed~~, which are separated from *covered mall buildings*, *open mall buildings* or *anchor buildings*, shall comply with the provisions of Table 602.

Pedestrian walkways and tunnels that connect garages to *mall buildings* or *anchor buildings* shall be constructed in accordance with Section 3104.

704.9 Impact protection. Where the fire protective covering of a structural member is subject to impact damage from moving vehicles, the handling of merchandise or other activity, the fire protective covering shall be protected by corner guards or by a substantial jacket of metal or other noncombustible material to a height adequate to provide full protection, but not less than 5 feet (1524 mm) from the finished floor.

Exception: Corner protection is not required on concrete columns in ~~open or enclosed~~ parking garages.

712.1.10 Parking garages. Vertical openings in parking garages for automobile ramps, elevators and duct systems shall comply with Section 712.1.10.1, 712.1.10.2 or 712.1.10.3, as applicable.

712.1.10.1 Automobile ramps. Vertical openings for automobile ramps in ~~open and enclosed~~ parking garages shall be permitted where constructed in accordance with Sections 406.5 and 406.6, respectively.

712.1.10.2 Elevators. Vertical openings for elevator hoistways in ~~open or enclosed~~ parking garages that serve only the parking garage, and complying with Sections 406.5 and 406.6, respectively, shall be permitted.

712.1.10.3 Duct systems. Vertical openings for mechanical exhaust or supply duct systems in ~~open or enclosed~~ parking garages complying with Sections 406.5 and 406.6, respectively, shall be permitted to be unenclosed where such duct system is contained within and serves only the parking garage.

715.1 General. Joints installed in or between fire-resistance-rated walls, floor or floor/ceiling assemblies and roofs or roof/ceiling assemblies shall be protected by an approved *fire-resistant joint system* designed to resist the passage of fire for a time period not less than the required *fire-resistance rating* of the wall, floor or roof in or between which the system is installed. *Fire-resistant joint systems* shall be tested in accordance with Section 715.3.

Exception: *Fire-resistant joint systems* shall not be required for joints in all of the following locations:

1. Floors within a single *dwelling unit*.
2. Floors where the joint is protected by a shaft enclosure in accordance with Section 713.
3. Floors within atriums where the space adjacent to the atrium is included in the volume of the atrium for smoke control purposes.
4. Floors within malls.
5. Floors and ramps within ~~open and enclosed~~ parking garages or structures constructed in accordance with Sections 406.5 and 406.6, ~~respectively~~.
6. Mezzanine floors.
7. Walls that are permitted to have unprotected openings.
8. Roofs where openings are permitted.
9. Control joints not exceeding a maximum width of 0.625 inch (15.9 mm) and tested in accordance with ASTM E 119 or UL 263.

722.2.2.1 Reinforced and prestressed floors and roofs. The minimum thicknesses of reinforced and prestressed concrete floor or roof slabs for *fire-resistance ratings* of 1 hour to 4 hours are shown in Table 722.2.2.1.

Exception: Minimum thickness shall not be required for floors and ramps within ~~open and enclosed~~ parking garages constructed in accordance with Sections 406.5 and 406.6, ~~respectively~~.

[P] 2902.3 Employee and public toilet facilities. Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. The number of plumbing fixtures located within the required toilet facilities shall be provided in accordance with Section 2902.1 for all users. Employees shall be provided with toilet facilities in all occupancies. Employee toilet facilities shall be either separate or combined employee and public toilet facilities.

Exception: Public toilet facilities shall not be required in:

1. ~~Open or enclosed~~ Parking garages where there are no parking attendants.
2. Structures and tenant spaces intended for quick transactions, including takeout, pickup and drop-off, having a public access area less than or equal to 300 square feet (28 m²).

Commenter's Reason: The original FS 46-15 proposal is an editorial change, cleaning up language referring to *parking garages* that was leftover from previous code changes. The code originally stated just "*open*" parking garages before "*enclosed*" was later added. For these sections of the code, those two distinctions to "(public) *parking garages*" are no longer needed.

Final Hearing Results

FS46-15

AMPC1

Date Submitted 12/14/2018	Section 713.8	Proponent Richard Logan
Chapter 7	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

NA

Summary of Modification

Membrane penetrations should be permitted on the outside of the shaft enclosure. This modification would add language at the end of the section to that effect.

Rationale

The purpose of Section 713.8 and 713.8.1 is to limit through penetrations into a shaft enclosure; however, membrane penetrations should be permitted on the outside of the shaft enclosure. As currently written, an electrical box is not permitted on the outside of the shaft enclosure. This section needs to clarify the intent of Section 713.8.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
 This modification has no impact to local entity relative to enforcement of code (553.73(9)(b),F.S.)*

Impact to building and property owners relative to cost of compliance with code
 The code change proposal will not increase the cost of construction since it will allow membrane penetrations in shaft enclosures without the need for additional construction/material on the outside of the shaft enclosure. Also, it increases net area for the building.

Impact to industry relative to the cost of compliance with code
 The code change proposal will not increase the cost of construction since it will allow membrane penetrations in shaft enclosures without the need for additional construction/material on the outside of the shaft enclosure. Also, it increases net area for the building.

Impact to small business relative to the cost of compliance with code
 The code change proposal will not increase the cost of construction since it will allow membrane penetrations in shaft enclosures without the need for additional construction/material on the outside of the shaft enclosure. Also, it increases net area for the building.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
 This modification will not negatively impact health, safety, and welfare of the general public

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
 This Modification improves the code, and provides equivalent or better products, methods, or systems of construction.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
 This Modification does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not degrade the effectiveness of the code
 This modification does not degrade the effectiveness of the code

Penetrations.

Penetrations in a shaft enclosure shall be protected in accordance with Section 714 as required for *fire barriers*. Structural elements, such as beams or joists, where protected in accordance with Section 714 shall be permitted to penetrate a shaft enclosure.

713.8.1 Prohibited penetrations.

Penetrations other than those necessary for the purpose of the shaft shall not be permitted in shaft enclosures.

Add new text as follows:**713.8.2 Membrane penetrations.**

Membrane penetrations shall be permitted on the outside of shaft enclosures. Such penetrations shall be protected in accordance with Section 714.3.2.

Code Change No: FS49-15

Original Proposal

Section(s): 713.8.2 (New)

Proponent: Matthew Davy, representing Arup (matt.davy@arup.com)

713.8 Penetrations. Penetrations in a shaft enclosure shall be protected in accordance with Section 714 as required for *fire barriers*. Structural elements, such as beams or joists, where protected in accordance with Section 714 shall be permitted to penetrate a shaft enclosure.

713.8.1 Prohibited penetrations. Penetrations other than those necessary for the purpose of the shaft shall not be permitted in shaft enclosures.

Add new text as follows:

713.8.2 Membrane penetrations. Membrane penetrations shall be permitted on the outside of shaft enclosures. Such penetrations shall be protected in accordance with Section 714.3.2.

Reason: The purpose of Section 713.8 and 713.8.1 is to limit through penetrations into a shaft enclosure; however, membrane penetrations should be permitted on the outside of the shaft enclosure. As currently written, an electrical box is not permitted on the outside of the shaft enclosure. This section needs to clarify the intent of Section 713.8.

Cost Impact: Will not increase the cost of construction
The code change proposal will not increase the cost of construction since it will allow membrane penetrations in shaft enclosures without the need for additional construction/material on the outside of the shaft enclosure. Also, it increases net area for the building.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The committee felt this was a good change based on the fact that these membrane penetrations were already allowed in exit passageways and shafts.

Assembly Action:

None

Public Comments

Public Comment 1:

Maureen Traxler, representing Seattle Dept of Planning & Development (maureen.traxler@seattle.gov) requests Approve as Modified by this Public Comment.

Modify as follows:

713.8.1 Prohibited penetrations. Penetrations other than those necessary for the purpose of the shaft shall not be permitted in shaft enclosures.

Exception: Membrane penetrations shall be permitted on the outside of shaft enclosures. Such penetrations shall be protected in accordance with Section 714.3.2.

~~**713.8.2 Membrane penetrations.** Membrane penetrations shall be permitted on the outside of shaft enclosures. Such penetrations shall be protected in accordance with Section 714.3.2.~~

Commenter's Reason: This is an editorial comment that does not change the meaning of the original proposal. The proposed new Section 713.8.2 functions as an exception to the prohibition on penetrations in existing Section 713.8.1.

Date Submitted	12/14/2018	Section	716.5.9.3	Proponent	John Woestman
Chapter	7	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications**Summary of Modification**

The FBC is silent regarding delayed action closers. This proposal includes a definition and requirements for where delayed action closers may be installed.

Rationale

The FBC is silent regarding allowing delayed action closers, and applicable requirements.

Delayed action closer functionality is commonly required and / or desired for closers installed on doors. Example: delayed action closers are frequently used in schools to allow a teacher to lead a group of students from one area of the building to another. A door with a delayed action closer allows the teacher with a group of students to pass through the door before it closes, helping to keep the group intact.

Unlike automatic-closing doors which are commonly held in an open position, self-closing doors which are not automatic-closing doors are normally in a closed position unless being used. Thus, in a fire situation, the doors within the scope of this proposal would be closed except when being used and during the relatively brief delay caused by the delayed action closer.

Costs: None. Delayed action closers are not currently required or prohibited by the code. This proposal provides appropriate guidance where delayed action closers are installed.

For reference; FBC definition:

SELF-CLOSING. As applied to a fire door or other opening protective, means equipped with a device that will ensure closing after having been opened.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Minor implications to code enforcement by defining delayed action closers and identifying where delayed action closers are permitted to be installed.

Impact to building and property owners relative to cost of compliance with code

Costs: None. Delayed action closers are not currently required or prohibited by the code. This proposal provides appropriate guidance where delayed action closers are installed.

Impact to industry relative to the cost of compliance with code

Costs: None. Delayed action closers are not currently required or prohibited by the code. This proposal provides appropriate guidance where delayed action closers are installed.

Impact to small business relative to the cost of compliance with code

Costs: None. Delayed action closers are not currently required or prohibited by the code. This proposal provides appropriate guidance where delayed action closers are installed.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Provides appropriate guidance for delayed action closers on doors in the means of egress.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens the code by addressing a topic where the code has been silent.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Improves the effectiveness of the code.

Add definition to Chapter 2:

Delayed action closers. Self-closing device that incorporates a delay prior to the initiation of closing. Delayed action closers are mechanical devices with an adjustable delay.

Revise as follows:

716.5.9 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 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.

716.5.9.1 Latch required. Unless otherwise specifically permitted, single *fire doors* and both leaves of pairs of side-hinged swinging *fire doors* shall be provided with an active latch bolt that will secure the door when it is closed.

716.5.9.1.1 Chute intake door latching. Chute intake doors shall be positive latching, remaining latched and closed in the event of latch spring failure during a fire emergency.

716.5.9.2 Automatic-closing fire door assemblies. Automatic-closing *fire door* assemblies shall be *self-closing* in accordance with NFPA 80.

716.5.9.3 Delayed action closers. Doors required to be self-closing and not required to be automatic closing shall be permitted to be equipped with delayed action closers.

Renumber subsequent sections

Date Submitted 12/14/2018	Section 705.2.3	Proponent Paul Coats
Chapter 7	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

7522, 7553, 7826, 8265, 8267

Summary of Modification

This is a correlation change with other modifications that reorganize the heavy timber provisions. It does not change requirements but improves terminology to distinguish between the use of the terms "heavy timber" and "Type IV construction."

Rationale

This modification was approved by the ICC committee and membership and appears in the 2018 edition of the International Building Code. This code change is related a reorganization of Type IV provisions in Section 602.4 and the heavy timber provisions in section 2304.11. The goal of this change (and similar changes to heavy timber terminology in other chapters) is to use the term "Type IV" or "Section 602.4" when the provisions are referring to the type of construction for the building, and "heavy timber complying with Section 2304.11" when the provisions are referring to a heavy timber element located in a building of any construction type. This and related changes are not intended to make technical changes to the code but rather to make the current requirements easier to apply.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Will make code application easier.
- Impact to building and property owners relative to cost of compliance with code**
No cost-related impact.
- Impact to industry relative to the cost of compliance with code**
No cost-related impact.
- Impact to small business relative to the cost of compliance with code**
No cost-related impact.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Will make code application easier.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves the code by making its application easier.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate.
- Does not degrade the effectiveness of the code**
Does not degrade the effectiveness of the code.

1. **705.2.3 Combustible projections.**

Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour *fire-resistance-rated* construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, *fire-retardant-treated* wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

G 180-15

406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1

Proponent: Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

2015 International Building Code

Revise as follows:

406.7.2 Canopies. Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11 or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11;
2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a *smokedeveloped index* of 450 or less when tested in the form intended for use in accordance with ASTM E 84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929; or
3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls	3	2	1	0	2	2	2	1	0
Exterior ^{e, f}	3 ^a	2 ^a	1	0	1	0	1/HT	1	0
Interior									
Nonbearing walls and partitions	See Table 602								
Exterior									
Nonbearing walls and partitions	0	0	0	0	0	0	See Section 602.4.6 <u>2304.11.2</u>	0	0
Interior ^d									
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories above grade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour fire-resistance-rated construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of ~~Type IV heavy timber~~ construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV heavy timber~~ construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.13.1.1.

1406.3 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV heavy timber~~ construction in accordance with Section ~~602.4~~2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV~~ heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV~~ heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 802.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15

Committee Action: Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Date Submitted 12/15/2018	Section 713.13	Proponent Richard Logan
Chapter 7	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

NA

Summary of Modification

The code section as published is in error. Chapter 5 of NFPA 82 includes requirements for incinerators however Ch 6 includes requirement for waste and linen chutes.

Rationale

The code section as published is in error. Chapter 5 of NFPA 82 includes requirements for incinerators however Ch 6 includes requirement for waste and linen chutes. Section 713.13.5 appropriately references a section in Ch 5 of NFPA 82 for incinerator rooms. This corrected reference will result in correct code application.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This will have a positive impact to local entity relative to enforcement of code as it corrects a mistaken reference in the code.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners relative to cost of compliance with code. Will not increase the cost of construction No cost impact editorial code change.

Impact to industry relative to the cost of compliance with code

No impact to industry relative to the cost of compliance with code. Will not increase the cost of construction No cost impact editorial code change.

Impact to small business relative to the cost of compliance with code

No impact to small business relative to the cost of compliance with code. Will not increase the cost of construction No cost impact editorial code change.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves the health, safety, and welfare of the general public by correcting a code reference.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction by correcting a code reference.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities. This is a code reference correction.

Does not degrade the effectiveness of the code

Increases the effectiveness of the code by correcting a code reference.

713.13 Waste and linen chutes and incinerator rooms.

Waste and linen chutes shall comply with the provisions of NFPA 82, Chapter ~~5~~ 6 and shall meet the requirements of Sections 713.13.1 through 713.13.6. Incinerator rooms shall meet the provisions of Sections 713.13.4 through 713.13.5.

Exception: Chutes serving and contained within a single dwelling unit.

Back

Code Change No: **FS50-15**

Original Proposal

Section: 713.13

Proponent: Ali Fattah, City of San Diego Development Services, representing SD Area Chapter ICC

Revise as follows:

713.13 Waste and linen chutes and incinerator rooms. Waste and linen chutes shall comply with the provisions of NFPA 82, Chapter 6 and shall meet the requirements of Sections 713.13.1 through 713.13.6. Incinerator rooms shall meet the provisions of Sections 713.13.4 through 713.13.5.

Exception: Chutes serving and contained within a single dwelling unit.

Reason: The code section as published is in error. Chapter 5 of NFPA 82 includes requirements for incinerators however Ch 6 includes requirement for waste and linen chutes. Section 713.13.5 appropriately references a section in Ch 5 of NFPA 82 for incinerator rooms. This corrected reference will result in correct code application.

Bibliography: 2014 edition of NFPA 82 "STANDARD ON INCINERATORS AND WASTE AND LINEN HANDLING SYSTEMS AND EQUIPMENT"

Cost Impact: Will not increase the cost of construction
No cost impact editorial code change.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The committee agreed that Chapter 6 of NFPA 82 was the correct reference for Waste and linen chutes.

Assembly Action:

None

Final Hearing Results

FS50-15

AS

Date Submitted 12/15/2018	Section 713.13.1	Proponent Richard Logan
Chapter 7	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

NA

Summary of Modification

Insert wording that permits a recycling chute to be located in the same shaft with a waste chute. Hazard associated with a recycling chute is not any different than that of a waste chute.

Rationale

Section 713.13.1 implies that a recycling chute is not permitted to be located in the same shaft with a waste chute. Hazard associated with a recycling chute is not any different than that of a waste chute. To provide two side by side shaft enclosures to enclose the recycling and the waste chute does not provide additional safety especially since chutes have specific installation requirements, sprinkler protection, ventilation and similar.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

There is no impact to local entity relative to enforcement of code as this modification only allows 2 chutes to be contained in the same shaft enclosure

Impact to building and property owners relative to cost of compliance with code

This proposal does not increase the cost of construction because the proposed revision allows one shaft to contain a recycling and a waste chute where two separate shaft enclosures might be required otherwise. This proposal reduces cost of construction.

Impact to industry relative to the cost of compliance with code

This proposal does not increase the cost of construction because the proposed revision allows one shaft to contain a recycling and a waste chute where two separate shaft enclosures might be required otherwise. This proposal reduces cost of construction.

Impact to small business relative to the cost of compliance with code

This proposal does not increase the cost of construction because the proposed revision allows one shaft to contain a recycling and a waste chute where two separate shaft enclosures might be required otherwise. This proposal reduces cost of construction.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The health, safety, and welfare of the general public will not be affected by allowing the 2 chutes to be contained within the same shaft enclosure.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification improves the code, and provides equivalent or better products, methods, or systems of construction by allowing the 2 chutes to be contained within the same shaft enclosure.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities by allowing the 2 chutes to be contained within the same shaft enclosure.

Does not degrade the effectiveness of the code

This modification does not degrade the effectiveness of the code by allowing the 2 chutes to be contained within the same shaft enclosure.

713.13.1 Waste and linen.

A shaft enclosure containing a recycling, or waste or linen chute shall not be used for any other purpose and shall be enclosed in accordance with Section 713.4. A shaft enclosure shall be permitted to contain recycling and waste chutes. Openings into the shaft, from access rooms and discharge rooms, shall be protected in accordance with this section and Section 716. Openings into chutes shall not be located in *corridors*. Doors into chutes shall be self-closing. Discharge doors shall be self- or automatic-closing upon the actuation of a smoke detector in accordance with Section 716.5.9.3, except that heat-activated closing devices shall be permitted between the shaft and the discharge room.

Code Change No: **FS52-15**

Original Proposal

Section: 713.13.1

Proponent: Masoud Sabounchi, Representing Colorado Chapter of ICC, representing masoud sabounchi (masoud@acecode.com)

Revise as follows:

713.13.1 Waste and linen. A shaft enclosure containing a recycling, or waste or linen chute shall not be used for any other purpose and shall be enclosed in accordance with Section 713.4. A shaft enclosure shall be permitted to contain recycling and waste chutes. Openings into the shaft, from access rooms and discharge rooms, shall be protected in accordance with this section and Section 716. Openings into chutes shall not be located in *corridors*. Doors into chutes shall be self-closing. Discharge doors shall be self- or automatic-closing upon the actuation of a smoke detector in accordance with Section 716.5.9.3, except that heat-activated closing devices shall be permitted between the shaft and the discharge room.

Reason: Section 713.13.1 implies that a recycling chute is not permitted to be located in the same shaft with a waste chute. Hazard associated with a recycling chute is not any different than that of a waste chute. To provide two side by side shaft enclosures to enclose the recycling and the waste chute does not provide additional safety especially since chutes have specific installation requirements, sprinkler protection, ventilation and similar.

Cost Impact: Will not increase the cost of construction
This proposal does not increase the cost of construction because the proposed revision allows one shaft to contain a recycling and a waste chute where two separate shaft enclosures might be required otherwise. This proposal reduces cost of construction.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The committee agreed that a recycling chute should be permitted to be located in the same shaft with a waste chute based on the similar hazards associated with each.

Assembly Action:

None

Final Hearing Results

FS52-15

AS

Date Submitted 12/15/2018	Section 716.5.8.1.2.1	Proponent Richard Logan
Chapter 7	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

NA

Summary of Modification

Modify this section to limit the area of the glazing to be 100 square inches in lieu of limiting any dimension to be 10 inches.

Rationale

This code change deletes the 10 inch maximum dimension applied to 100 square inch vision panels limits for swinging doors in horizontal exits. The 10 inch dimension limit is not applied to any other 100 square inch maximum glazing size references in Section 716. The 10 inch dimension limit may also result in a conflict with ADA Standards for Accessible Design, which specifies glazing height requirements for doors and sidelights adjacent to doors. Deleting the 10 inch maximum dimension limit for horizontal exits will allow for a fire door vision panel that meets ADA 43 inch height limits and the goal of accessible design.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This modification has no impact to local entity relative to enforcement of code. It only provides greater construction options.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction. If anything this proposal allows greater construction options.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction. If anything this proposal allows greater construction options.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction. If anything this proposal allows greater construction options.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This modification has a reasonable and substantial connection with the health, safety, and welfare of the general public by allowing greater construction options.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction by allowing greater construction options.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities by allowing greater construction options.

Does not degrade the effectiveness of the code

This modification does not degrade the effectiveness of the code by allowing greater construction options.

716.5.8.1.2.1 Horizontal exits.

Fire-protection-rated glazing shall be permitted as vision panels in *self-closing* swinging *fire door* assemblies serving as horizontal exits in *fire walls* where limited to 100 square inches (0.065 m²) ~~with no dimension exceeding 10 inches (0.3 mm).~~

Code Change No: FS92-15

Original Proposal

Section: 716.5.8.1.2.1

Proponent: Michael O'Brian, representing Fire Code Action Committee (fcac@iccsafe.org)

Revise as follows:

716.5.8.1.2.1 Horizontal exits. Fire-protection-rated glazing shall be permitted as vision panels in *self-closing swinging fire door* assemblies serving as horizontal exits in *fire walls* where limited to 100 square inches (0.065 m²) with no dimension exceeding 10 inches (0.3 mm).

Reason: This proposal is submitted by the ICC Fire Code Action Committee (FCAC). This ICC committee was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned International Codes or portions thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. The Fire-CAC has held 10 open meetings and numerous Regional Work Group and Task Group meetings and conference calls for the current code development cycle which included members of the committees as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the FAC website at: <http://www.iccsafe.org/cs/CAC/Pages/default.aspx?usertoken={token}&Site=icc>

This code change deletes the 10 inch maximum dimension applied to 100 square inch vision panels limits for swinging doors in horizontal exits. The 10 inch dimension limit is not applied to any other 100 square inch maximum glazing size references in Section 716, including Sections 716.5.5.1, 716.5.8.1.2.2 and Table 716.5. The 10 inch dimension limit may also result in a conflict with ADA Standards for Accessible Design, which specifies glazing height requirements for doors and sidelights adjacent to doors. Deleting the 10 inch maximum dimension limit for horizontal exits will allow for a fire door vision panel that meets ADA 43 inch height limits and the goal of accessible design.

The FCAC opening protective work group included interested industry and testing lab representatives working together to make this section more user friendly. The work group unanimously agreed on a number of proposed changes to IBC Section 716, including this one.

Cost Impact: Will not increase the cost of construction
If anything this proposal allows greater construction options.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The committee agreed that deleting the 10 inch maximum dimension limit for horizontal exits will allow for a fire door vision panel that meets ADA 43 inch height limits and the goal of accessible design.

Assembly Action:

None

Final Hearing Results

FS92-15

AS

Date Submitted 12/15/2018	Section 716.5.9.1	Proponent Richard Logan
Chapter 7	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

NA

Summary of Modification

Modify the section to clarify that single fire doors shall be side-hinged swinging also.

Rationale

Clarification is needed to show that side-hinged swinging fire doors, and no other types of fire doors, are being addressed in these provisions.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

There is no impact to local entity relative to enforcement of code. This modification is just a clarification of the intent of the code.

Impact to building and property owners relative to cost of compliance with code

There is no impact to building and property owners relative to cost of compliance with code. This modification is just a clarification of the intent of the code. Will not increase the cost of construction.

Impact to industry relative to the cost of compliance with code

There is no impact to industry relative to the cost of compliance with code. This modification is just a clarification of the intent of the code. Will not increase the cost of construction.

Impact to small business relative to the cost of compliance with code

There is no impact to small business relative to the cost of compliance with code. This modification is just a clarification of the intent of the code. Will not increase the cost of construction.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This modification has a reasonable and substantial connection with the health, safety, and welfare of the general public as it relates to the types of doors requiring latches.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction as it relates to the types of doors requiring latches.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities as it relates to the types of doors requiring latches.

Does not degrade the effectiveness of the code

This modification improves the effectiveness of the code as it relates to the types of doors requiring latches.

716.5.9.1 Latch required.

Unless otherwise specifically permitted, single *side-hinged swinging fire doors* and both leaves of pairs of side-hinged swinging fire doors shall be provided with an active latch bolt that will secure the door when it is closed.

Date Submitted 12/15/2018	Section 716.5.9.3	Proponent Richard Logan
Chapter 7	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

NA

Summary of Modification

Delete items which are addressed in the items specific to smoke barriers, shaft enclosures, fire & smoke barriers. Items are reworded & renumbered to be correct. Fire barriers were added to the list for doors that protect openings in exit enclosures, vertical shafts, incidental uses, etc.

Rationale

The intent of this proposal is clarification. Current items 1, 2, 3, 10 and 11 are addressed in the items specific to smoke barriers, shaft enclosures, fire barriers and smoke barriers respectively. They should be deleted as redundant. Current items 4 through 9 and 12 are reworded to be consistent and to be technically correct. Fire barriers were added to the list to address doors that protect openings in exit enclosures, vertical shafts, incidental uses, etc. Items are proposed to be renumbered to be in the same order as they are found in the code.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This modification is only a clarification of requirements and therefore has no impact to local entity relative to enforcement of code

Impact to building and property owners relative to cost of compliance with code

This modification is only a clarification of requirements and therefore has no impact to building and property owners relative to cost of compliance with code. Will not increase the cost of construction.

Impact to industry relative to the cost of compliance with code

This modification is only a clarification of requirements and therefore has no impact to industry relative to the cost of compliance with code. Will not increase the cost of construction.

Impact to small business relative to the cost of compliance with code

This modification is only a clarification of requirements and therefore has no impact to small business relative to the cost of compliance with code. Will not increase the cost of construction.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This modification is a clarification of requirements and has a reasonable and substantial connection with the health, safety, and welfare of the general public

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification is a clarification of requirements and strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification is a clarification of requirements and does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

This modification is a clarification of requirements and improves the effectiveness of the code.

□

Section:**716.5.9.3 ~~□~~ Smoke-activated doors.**

Automatic-closing doors installed in the following locations shall be permitted to have hold-open devices. Doors shall automatically close ~~automatic-closing~~ by the actuation of smoke detectors installed in accordance with Section 907.3 or by loss of power to the smoke detector or hold-open device. ~~Doors that are automatic-closing by smoke detection shall not have more than a 10-~~ second delay before the door starts to close after the smoke detector is actuated. Automatic-closing doors that protect openings installed in the following locations shall comply with this section:

- ~~1. Doors installed across a corridor.~~
- ~~2. Doors installed in the enclosures of exit access stairways and ramps in accordance with Sections 1019 and 1023, respectively.~~
- ~~3. Door that protect openings in exits or corridors required to be of fire-resistance-rated construction.~~
- 1.4. Doors that protect openings in walls that are capable of resisting the passage of smoke that separate incidental uses in accordance with Section 509.4.
- ~~2.7. Doors installed in fire wall walls in accordance with Section 706.8.~~
3. In fire barriers in accordance with Section 707.6
- ~~4.6. Doors installed in fire partitions in accordance with Section 708.6.~~
- ~~5. Doors installed in smoke barriers in accordance with Section 709.5.~~
- ~~6.12. Doors installed in smoke partitions in accordance with Section 710.5.2.3.~~
- ~~7.8. Doors installed in shaft enclosures in accordance with Section 713.7.~~
- ~~8.9. Doors installed in waste and linen chutes, discharge openings and access and discharge rooms in accordance with Section 713.13. Loading doors installed in waste and linen chutes shall meet the requirements of Sections 716.5.9 and 716.5.9.1.1.~~
- ~~10. Doors installed in the walls for compartmentation of underground buildings in accordance with Section 405.4.2.~~
- ~~11. Doors installed in the elevator lobby walls of underground buildings in accordance with Section 405.4.3.~~

Code Change No: FS95-15

Original Proposal

Section: 716.5.9.3

Proponent: John Williams, CBO, Chair, representing Adhoc Health Care Committee (AHC@iccsafe.org); Adolf Zubia, Chair, representing Fire Code Action Committee (fcac@iccsafe.org)

Revise as follows:

716.5.9.3 Smoke-activated doors. Automatic-closing doors installed in the following locations shall be permitted to have hold-open devices. Doors shall automatically close automatic-closing by the actuation of smoke detectors installed in accordance with Section 907.3 or by loss of power to the smoke detector or hold-open device. Doors that are automatic-closing by smoke detection shall not have more than a 10-second delay before the door starts to close after the smoke detector is actuated. Automatic-closing doors that protect openings installed in the following locations shall comply with this section:

- ~~1. Doors installed across a corridor.~~
- ~~2. Doors installed in the enclosures of exit access stairways and ramps in accordance with Sections 4019 and 4023, respectively.~~
- ~~3. Doors that protect openings in exits or corridors required to be of fire resistance-rated construction.~~
- 1.4. Doors that protect openings in walls that are capable of resisting the passage of smoke that separate incidental uses in accordance with Section 509.4.
- ~~2.7. Doors installed in fire wall walls in accordance with Section 706.8.~~
3. In fire barriers in accordance with Section 707.6
- ~~4.6. Doors installed in fire partitions in accordance with Section 708.6.~~
- ~~5. Doors installed in smoke barriers in accordance with Section 709.5.~~
- ~~6.12. Doors installed in smoke partitions in accordance with Section 710.5.2.3.~~
- ~~7.8. Doors installed in shaft enclosures in accordance with Section 713.7.~~
- ~~8.9. Doors installed in waste and linen chutes, discharge openings and access and discharge rooms in accordance with Section 713.13. Loading doors installed in waste and linen chutes shall meet the requirements of Sections 716.5.9 and 716.5.9.1.1.~~
- ~~10. Doors installed in the walls for compartmentation of underground buildings in accordance with Section 405.4.2.~~
- ~~11. Doors installed in the elevator lobby walls of underground buildings in accordance with Section 405.4.3.~~

Reason: The intent of this proposal is clarification. Current items 1, 2, 3, 10 and 11 are addressed in the items specific to smoke barriers, shaft enclosures, fire barriers and smoke barriers respectively. They should be deleted as redundant. Current items 4 through 9 and 12 are reworded to be consistent and to be technically correct. Fire barriers were added to the list to address doors that protect openings in exit enclosures, vertical shafts, incidental uses, etc. Items are proposed to be renumbered to be in the same order as they are found in the code.

The ICC Ad Hoc Committee on Healthcare (AHC) has just completed its 4th year. The AHC was established by the ICC Board to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. This is a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Information on the AHC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the AHC effort can be downloaded from the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>.

This ICC committee was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned International Codes or portions thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the Fire-CAC has held 10 open meetings and numerous Regional Work Group and Task Group meetings and conference calls which included members of the committees as well

as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the FAC website at: <http://www.iccsafe.org/cs/CAC/Pages/default.aspx?usertoken={token}&Site=icc>

Cost Impact: Will not increase the cost of construction
This proposal is a clarification of requirements; therefore, there is no increase in cost.

Report of Committee Action Hearings

Committee Action: **Approved as Submitted**

Committee Reason: The committee agreed that the proposal editorially clarifies Section 716.5.9.3 and deletes redundant language.

Assembly Action: **None**

Final Hearing Results

FS95-15 AS

Date Submitted	11/28/2018	Section	803.3	Proponent	Paul Coats
Chapter	8	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Removes heavy timber in interior exit elements from the exception to interior finish requirements.

Rationale

Cross laminated timber may be used to form the entire interior surfaces of egress elements and should be regulated in those circumstances. The requirement is the same for any other material used in those circumstances. This change was approved by the ICC Fire Safety Code Development Committee with the following comment: "The committee agreed that when heavy timber is used to form the interior surfaces of egress elements they should be subject to the interior finish requirements for that location." The change was approved by the ICC membership and appears in the 2018 IBC.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact since compliance with interior finish requirements is routine.

Impact to building and property owners relative to cost of compliance with code

No impact since compliance with interior finish requirements is already routine.

Impact to industry relative to the cost of compliance with code

May increase costs slightly when certain materials alternatives are chosen, with minor impact.

Impact to small business relative to the cost of compliance with code

No impact.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

With CLT, solid timber walls and floors are now feasible; regulating interior finish of CLT in interior exit elements provides greater safety.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens the code by providing reasonable parameters for safety with the use of CLT in exit elements and therefore provides for flexibility of choice in materials.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Increases the effectiveness of the code.

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of Type IV construction in Section 602.4 shall not be subject to interior finish requirements, except in interior stairways, interior exit ramps, and exit passageways.

FS 132-15**803.3****Proponent:** David Tyree, representing American Wood Council (dtyree@awc.org)**2015 International Building Code****Revise as follows:**

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of Type IV construction in Section 602.4 shall not be subject to *interior finish* requirements except in interior exit stairways, interior exit ramps, and exit passageways.

Reason: Cross laminated timber may be used to form the entire interior surfaces of egress elements and should be regulated in those circumstances. The requirement is the same for any other material used in those circumstances. For a complete list of AWC code change proposals and additional information please go to <http://www.awc.org/Code-Officials/2015-IBC-Code-Changes>.

Cost Impact: Will increase the cost of construction

May increase cost of construction as a higher flamespread requirement would be required in these new areas.

FS 132-15 : 803.3-TYREE4646

Date Submitted	12/14/2018	Section	804	Proponent	Tim Earl
Chapter	8	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

7511 (Section 406.8.3)
7546 (Section 424.2)
7548 (Section 35)

Summary of Modification

This change adds ASTM E648 as an option to NFPA 253, since they are equivalent tests. This is the same thing we do for Steiner Tunnel testing, where the code (throughout) requires testing to ASTM E84 or UL 723.

Rationale

ASTM E648 is technically equivalent to NFPA 253. Since the flooring industry routinely references ASTM E648, this proposal will remove confusion when test reports reference the ASTM test instead of the NFPA test. This proposal also correlates with the 2018 IBC.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Impact to building and property owners relative to cost of compliance with code

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Impact to industry relative to the cost of compliance with code

This change may result in a small costs savings to industry, since those who submit ASTM E648 test reports currently have to either ask the lab to provide another test report referencing NFPA 253, or have a code consultant explain to the code official that they are equivalent tests.

Impact to small business relative to the cost of compliance with code

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This section is about the fire performance of flooring products, which is critical to life safety. The change itself simply improves the usability of the code by recognizing two equivalent tests instead of one.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This change makes the code more complete and accurate, since ASTM E648 and NFPA 253 are the same test.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This change is material neutral, as flooring products are tested in an identical manner using ASTM E648 or NFPA 253. The only difference is what is listed on the test report.

Does not degrade the effectiveness of the code

This change makes the code more complete and accurate, since ASTM E648 and NFPA 253 are the same test.

804.2 Classification. Interior floor finish and floor covering materials required by Section 804.4.2 to be of Class I or II materials shall be classified in accordance with ASTM E648 or NFPA 253. The classification referred to herein corresponds to the classifications determined by ASTM E648 or NFPA 253 as follows: Class I, 0.45 watts/cm² or greater; Class II, 0.22 watts/cm² or greater.

804.3 Testing and identification. Interior floor finish and floor covering materials shall be tested by an agency in accordance with ASTM E648 or NFPA 253 and identified by a hang tag or other suitable method so as to identify the manufacturer or supplier and style, and shall indicate the interior floor finish or floor covering classification in accordance with Section 804.2.

Carpet-type floor coverings shall be tested as proposed for use, including underlayment. Test reports confirming the information provided in the manufacturer's product identification shall be furnished to the building official upon request.

Date Submitted 12/14/2018	Section 803.3	Proponent Paul Coats
Chapter 8	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

7522, 7553, 7826, 8265, 8267, 8269

Summary of Modification

This is a correlation change with other modifications that reorganize the heavy timber provisions. It does not change requirements but improves terminology to distinguish between the use of the terms "heavy timber" and "Type IV construction."

Rationale

This modification was approved by the ICC committee and membership and appears in the 2018 edition of the International Building Code. This code change is related a reorganization of Type IV provisions in Section 602.4 and the heavy timber provisions in section 2304.11. The goal of this change (and similar changes to heavy timber terminology in other chapters) is to use the term "Type IV" or "Section 602.4" when the provisions are referring to the type of construction for the building, and "heavy timber complying with Section 2304.11" when the provisions are referring to a heavy timber element located in a building of any construction type. This and related changes are not intended to make technical changes to the code but rather to make the current requirements easier to apply.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Will make code application easier.
- Impact to building and property owners relative to cost of compliance with code**
No cost-related impact.
- Impact to industry relative to the cost of compliance with code**
No cost-related impact.
- Impact to small business relative to the cost of compliance with code**
No cost-related impact.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Will make code application easier.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves the code by making its application easier.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate.
- Does not degrade the effectiveness of the code**
Does not degrade the effectiveness of the code.

1. **803.3 Heavy timber exemption.**

Exposed portions of building elements complying with the requirements for buildings of ~~Type IV~~ heavy timber construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction.

Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV~~ heavy timber construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fire-blocked as specified in Section 803.13.1.1.

G 180-15

406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1

Proponent: Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

2015 International Building Code

Revise as follows:

406.7.2 Canopies. Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11 or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11;
2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a smoke developed index of 450 or less when tested in the form intended for use in accordance with ASTM E 84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929; or
3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls	3	2	1	0	2	2	2	1	0
Exterior ^{e, f}	3 ^a	2 ^a	1	0	1	0	1/HT	1	0
Interior									
Nonbearing walls and partitions	See Table 602								
Exterior									
Nonbearing walls and partitions	0	0	0	0	0	0	See Section 602.4.6 <u>2304.11.2</u>	0	0
Interior ^d									
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories above grade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~ 602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour fire-resistance-rated construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of ~~Type IV heavy timber~~ construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV heavy timber~~ construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.13.1.1.

1406.3 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV heavy timber~~ construction in accordance with Section ~~602.4.2~~ 2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV heavy timber construction~~ complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV heavy timber~~ construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size heavy timber complying with Section 2304.11~~, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 802.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15

Committee Action: Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Date Submitted 11/20/2018	Section 907.2	Proponent Bryan Holland
Chapter 9	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

This proposed modification adds a mandate for an automatic smoke detection system at battery rooms and for capacitor energy storage systems with a pointer to the FFPC.

Rationale

This proposal recognizes the importance of at least providing an automatic smoke detection system for battery rooms and capacitor energy storage systems. These systems are an emerging and rapidly growing segment of the electroindustry. This proposal also harmonizes the FBC-B with the FFPC (NFPA 1 and NFPA 101).

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
 This proposed modification will not impact the local entity relative to code enforcement.

Impact to building and property owners relative to cost of compliance with code
 This proposed modification will increase the cost of compliance to building and property owners where they choose to install these energy systems.

Impact to industry relative to the cost of compliance with code
 This proposed modification will increase the cost of compliance or impact industry where consumer choose to install these energy systems.

Impact to small business relative to the cost of compliance with code
 This proposed modification will increase the cost of compliance or impact small business where they choose to install these energy systems.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
 This proposed modification is directly connected to the health, safety, and welfare of the general public by reducing the fire risk associated with these energy systems with the mandate for an automatic smoke detection system in compliance with the FFPC.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
 This proposed modification improves and strengthens the code by ensuring these energy systems are adequately protected by a FFPC regulated automatic smoke detection system.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
 This proposed modification does not discriminate against materials, products, methods, or systems of construction.
- Does not degrade the effectiveness of the code**
 This proposed modification enhances the effectiveness of the code.

~~[F] 907.2.23 Battery rooms. An automatic smoke detection system shall be installed in areas containing stationary storage battery systems with a liquid capacity of more than 50 gallons (189 L).~~

[F] 907.2.23 Battery rooms. An automatic smoke detection system shall be installed in areas containing stationary storage battery systems as required in Florida Fire Prevention Code.

[F] 907.2.24 Capacitor energy storage systems. An automatic smoke detection system shall be installed in areas containing capacitor energy storage systems as required by the Florida Fire Prevention Code.

Date Submitted	11/20/2018	Section	907.2.1	Proponent	Bryan Holland
Chapter	9	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

This proposed modification adds more criteria for when a manual fire alarm system is required in a Group A occupancy.

Rationale

This change would serve to increase the fire alarm requirement where the A occupancy is located on a level other than that of exit discharge to be at least as strenuous as that of a B occupancy, which has the same 100 occupant load criteria for such.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposed modification will not impact the local entity relative to code enforcement.

Impact to building and property owners relative to cost of compliance with code

This proposed modification will increase the cost of construction where A occupancies meet the criteria established by the change and that cost is passed on to the building or property owner.

Impact to industry relative to the cost of compliance with code

This proposed modification will increase the cost of construction where A occupancies meet the criteria established by the change.

Impact to small business relative to the cost of compliance with code

This proposed modification will increase the cost of construction where A occupancies meet the criteria established by the change for a small business.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This proposed modification is directly connected to the health, safety, and welfare of the general public by increasing the criteria where a manual fire alarm system is required in Group A occupancies.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposed modification improves and strengthens the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposed modification does not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposed modification enhances the effectiveness of the code.

[F] 907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies where the occupant load due to the assembly occupancy is 300 or more, or where the Group A occupant load is more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Date Submitted 11/20/2018	Section 907.5.2.3	Proponent Bryan Holland
Chapter 9	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

This proposed modification is a mostly editorial revision of the visible alarm requirements in I-1, R-1 and R-2 occupancy types.

Rationale

This proposal is an attempt to clarify specifically where the visible notification appliances shall be located in newly constructed Group R-1 and I-1 dwelling and sleeping units and make sure that visible alarm notification is provided such that timely notification to guests with hearing impairments will occur and will save construction costs and provide clear direction for designers, owners and installers for similar rules in R-2 buildings.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
This proposed modification will not impact the local entity relative to code enforcement.
- Impact to building and property owners relative to cost of compliance with code**
This proposed modification will not change the cost of compliance to building and property owners.
- Impact to industry relative to the cost of compliance with code**
This proposed modification will not change the cost of compliance or impact industry.
- Impact to small business relative to the cost of compliance with code**
This proposed modification will not change the cost of compliance or impact small business.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
This proposed modification is directly connected to the health, safety, and welfare of the general public by clarifying rules of visible alarms in I-1, R-1, and R-2 occupancies.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
This proposed modification improves and strengthens the code by adding clarity to the requirements.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
This proposed modification does not discriminate against materials, products, methods, or systems of construction.
- Does not degrade the effectiveness of the code**
This proposed modification enhances the effectiveness of the code.

[F] 907.5.2.3.2 Groups I-1 and R-1. Group I-1 and R-1 dwelling units or sleeping units in accordance with Table 907.5.2.3.2 shall be provided with a visible alarm notification appliance, activated by both the in-room smoke alarm and the building fire alarm system.

[F] 907.5.2.3.2 Groups I-1 and R-1. Habitable spaces in dwelling units and sleeping units in Group I-1 and R-1 occupancies in accordance with Table 907.5.2.3.2 shall be provided with visible alarm notification. Visible alarms shall be activated by the in-room smoke alarm and the building fire alarm system.

[F] 907.5.2.3.3 Group R-2. In Group R-2 occupancies required by Section 907 to have a fire alarm system, all dwelling units and sleeping units shall be provided with the capability to support visible alarm notification appliances in accordance with Chapter 10 of ICC A117.1. Such capability shall be permitted to include the potential for future interconnection of the building fire alarm system with the unit smoke alarms, replacement of audible appliances with combination audible/visible appliances, or future extension of the existing wiring from the unit smoke alarm locations to required locations for visible appliances.

[F] 907.5.2.3.3 Group R-2. In Group R-2 occupancies required by Section 907 to have a fire alarm system, each story that contains dwelling units and sleeping units shall be provided with the capability to support visible alarm notification appliances in accordance with Chapter 11 of ICC A117.1. Such capability shall accommodate wired or wireless equipment. The future capability shall include one of the following:

1. The interconnection of the building fire alarm system with the unit smoke alarms.
2. The replacement of audible appliances with combination audible/visible appliances.
3. The future extension of the existing wiring from the unit smoke alarm locations to required locations for visible appliances.

Date Submitted 12/13/2018	Section 901.6.1	Proponent George Wiggins (BOAF)
Chapter 9	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

None

Summary of Modification

This proposal corrects an exception made in a previous code edition to prevent having a conflict between this section and Section 903.4 in order to be consistent.

Rationale

This proposal corrects an exception made in a previous code edition to prevent having a conflict between this section and Section 903.4 in order to be consistent.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None

Impact to building and property owners relative to cost of compliance with code

None

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Making this section consistent with Section 903.4 fulfills a connection health, safety & welfare of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by removing a conflict.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate by providing consistency of a code provision.

Does not degrade the effectiveness of the code

Does not degrade effectiveness by providing consistency of a code provision.

Automatic sprinkler systems. *Automatic sprinkler systems* shall be monitored by an *approved* supervising station.

Exceptions:

1. A supervising station is not required for *automatic sprinkler systems* protecting one and two family dwellings.
2. Limited area systems ~~servng fewer than 20 sprinklers~~ in accordance with Section 903.3.8.

Date Submitted 11/27/2018	Section 1015.8	Proponent Scott McAdam
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

FBC, Building 1015.8 window fall protection 36 inch sill height change to 24 inches to match FBC, Residential R312.2. the safety issue should be the same and not related to occupancy, i.e. multi family or single family.

Rationale

Fall protection for occupancy types that fall under the Building code and the residential code need to be provided the same safety criteria. If fall protection is required for a single family dwelling regulated by the Residential Code for sill height less than 24 inches then an apartment or condominium or other occupancy type regulated under the Building Code should also be 24 inches not 36 inches. These are all residential units with the same types of occupants. A child in a single family dwelling should be afforded the same level of safety if living in any other occupancy type. Both codes should require the same criteria. If testing showed a safety issue with 24 inches than the 36 inches in the Building Code needs to also be 24 inches.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
No impact just height change for fall protection to be consistent in both Building and Residential Codes.
- Impact to building and property owners relative to cost of compliance with code**
No impact just height change for fall protection to be consistent in both Building and Residential Codes.
- Impact to industry relative to the cost of compliance with code**
No impact just height change for fall protection to be consistent in both Building and Residential Codes.
- Impact to small business relative to the cost of compliance with code**
No impact just height change for fall protection to be consistent in both Building and Residential Codes.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Fall protection for windows.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens code by being consistent in both Building and Residential Codes.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate
- Does not degrade the effectiveness of the code**
Does not degrade the effectiveness of the code.

FBC, Building 1015.8 Window openings.

Windows in Group R-2 and R-3 buildings including *dwelling units*, where the top of the sill of an operable window opening is located less than ~~36~~ 24 inches above the finished floor and more than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:

1. 1. Operable windows where the top of the sill of the opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F2006.
2. 2. Operable windows where the openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.
3. 3. Operable windows where the openings are provided with window fall prevention devices that comply with ASTM F2090.
4. 4. Operable windows that are provided with window opening control devices that comply with Section 1015.8.1.

1015.8.1 Window opening control devices.

Window opening control devices shall comply with ASTM F2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1030.2.

FBC, Residential R312.2 Window fall protection.

Window fall protection shall be provided in accordance with Sections R312.2.1 and R312.2.2.

R312.2.1 Window sills.

In dwelling units, where the top of the sill of an operable window opening is located less than 24 inches (610 mm) above the finished floor and greater than 72 inches (1829 mm) above the finished *grade* or other surface below on the exterior of the building, the operable window shall comply with one of the following:

1. 1. Operable windows with openings that will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening where the opening is in its largest opened position.
2. 2. Operable windows that are provided with window fall prevention devices that comply with ASTM F2090.
3. 3. Operable windows that are provided with window opening control devices that comply with Section R312.2.2.

R312.2.2 Window opening control devices.

Window opening control devices shall comply with ASTM F2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the net clear opening area of the window unit to less than the area required by Section R310.2.1.

Date Submitted 11/20/2018	Section 1006.3	Proponent Ann Russo3
Chapter 10	Affects HVHZ Yes	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

None

Summary of Modification

Please refer to the attached file. The documentation for this proposal exceeds the 300 character limit.

Rationale

: Section 1006.3.1 currently references "independent" exits. Independent can be a vague or judgmental term. The proposed "separate and distinct" language is more specific. Also, that terminology is currently used in the definition of common path of egress travel to identify a point where two exits or access to exits would be required. Additionally, Section 1006.3 has been modified to include the qualifying requirement of "separate and distinct" as well. Conceivably, if both the entrance to an interior exit stairway at one story and the entrance to the same interior exit stairway at an adjacent story are both within the prescribed exit access travel distance limitations, it could be interpreted that the required number of exits requirement has been satisfied because the two entrances are "independent." The separate and distinct terminology would require that there be a second formal exit available within established exit access travel limitations. This proposal intends to amplify separate exit requirements. It is also intended to clarify that although required exits from a given story may be located at different building levels, the same interior exit stairway may not serve as satisfying multiple exit requirements. Obviously, if such interior exit stairway was compromised, the opportunity for a true alternate exit would be lost. Approval of this proposal increases occupant safety within the means of egress system.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

this proposal provides clarity to egress requirements. It is intended to clarify the the number of exit provisions currently required.

Impact to building and property owners relative to cost of compliance with code

This will not increase the cost of construction. It merely clarifies the intent of the code and makes it more understandable for application.

Impact to industry relative to the cost of compliance with code

This will not increase the cost of construction. It merely clarifies the intent of the code and makes it more understandable for application.

Impact to small business relative to the cost of compliance with code

This will not increase the cost of construction. It merely clarifies the intent of the code and makes it more understandable for application.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The purpose of egress is safety. The Code is not concerned with how we get people into a building, that is the duty if the designer. The Code is responsible to get people out. This clarification provides information related to the number of exit provisions in clear and understandable language.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal does not strengthen the Code, it provides clarity of an existing rule that will assist in better, more consistent and easier to understand enforcement.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The proposal makes no mention of the specific materials as they are already used and in place. No change of materials is proposed.

Does not degrade the effectiveness of the code

This proposal helps the effectiveness of the code by providing clarity of the requirement

1006.3 Egress from stories or occupied roofs. The *means of egress* system serving any *story* or occupied 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. The *path of egress travel* to an *exit* shall not pass through more than one adjacent *story*.

1006.3.1 Egress based on occupant load. Each *story* and occupied roof shall have the minimum number of independent separate and distinct exits, or access to *exits*, as specified in Table 1006.3.1. A single *exit* or access to a single *exit* shall be permitted in accordance with Section 1006.3.2. 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*.

Code Change No: E25-15

Original Proposal

Section(s): 1006.3, 1006.3.1; (IFC[BE] 1006.3, 1006.3.1)

Proponent: Gregory Keith, Professional heuristic Development, representing The Boeing Company (grkeith@mac.com); Stephen Thomas (stthomas@coloradocode.net)

Revise as follows:

1006.3 Egress from stories or occupied roofs. The *means of egress* system serving any story or occupied 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. Where an exit access stairway provides access to an exit at another story, a single interior or exterior exit stairway having entrances at each story shall not serve as both required exits for a single story. The *path of egress travel* to an *exit* shall not pass through more than one adjacent story.

1006.3.1 Egress based on occupant load. Each story and occupied roof shall have the minimum number of ~~independent~~ separate and distinct exits, or access to *exits*, as specified in Table 1006.3.1. A single *exit* or access to a single *exit* shall be permitted in accordance with Section 1006.3.2. 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*.

Reason: Section 1006.3.1 currently references "independent" exits. Independent can be a vague or judgmental term. The proposed "separate and distinct" language is more specific. Also, that terminology is currently used in the definition of common path of egress travel to identify a point where two exits or access to exits would be required.

Additionally, Section 1006.3 has been modified to include the qualifying requirement of "separate and distinct" as well. Conceivably, if both the entrance to an interior exit stairway at one story and the entrance to the same interior exit stairway at an adjacent story are both within the prescribed exit access travel distance limitations, it could be interpreted that the required number of exits requirement has been satisfied because the two entrances are "independent." To clarify the intent, a sentence has been added stating that a single interior exit stairway cannot serve as both exits from a given story. The separate and distinct terminology would require that there be a second formal exit available within established exit access travel limitations.

This proposal intends to amplify separate exit requirements. It is also intended to clarify that although required exits from a given story may be located at different building levels, the same interior exit stairway may not serve as satisfying multiple exit requirements. Obviously, if such interior exit stairway was compromised, the opportunity for a true alternate exit would be lost. Approval of this proposal increases occupant safety within the means of egress system.

Cost Impact: Will not increase the cost of construction
This proposal is intended to clarify current numbers of exits provisions.

Staff note: There is a published errata to Section 1006.3 and 1006.3.1. The errata is incorporated into this proposal as existing text.

Report of Committee Action Hearings

Committee Action:

Approved as Modified

Modify proposal as follows:

1006.3 Egress from stories or occupied roofs. The means of egress system serving any story or occupied 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. ~~Where an exit access stairway provides access to an exit at another story, a single interior or exterior exit stairway having entrances at each story shall not serve as both required exits for a single story.~~ The *path of egress travel* to an *exit* shall not pass through more than one adjacent story.

Committee Reason: The modification is to delete the new sentence. This new sentence is commentary language and is not needed in code text.

Date Submitted 11/20/2018	Section 1026.4	Proponent Ann Russo3
Chapter 10	Affects HVHZ Yes	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The proposed language clarifies requirement for when the actual occupant load is less than the capacity of the exit. This reflects actual conditions.

Rationale

If the total occupant load of the compartment egressing through the horizontal exit is less than the capacity of the horizontal exit door, the maximum capacity of the refuge area should not be more than the legal capacity of the compartment egressing. For example, a standard 36-inch-wide door has a clear width of 33 inches. At 0.20 per occupant, the capacity of the door is 165 occupants. For sprinklered buildings at 0.15 per occupant, the load is even greater at 220 occupants. So, if the total occupant load on one side of the horizontal exit door is less than 165 for a nonsprinklered building, or less than 220 occupants for a sprinklered building, then the refuge area on the other side should only be required to accommodate the design occupant load and not the capacity of the door in the horizontal exit.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
This change will impact enforcement from the standpoint of only requiring these areas to be sized based on the the load they are capable of handling based on the entrance to them. Complete explanation is provided in the rationale statement.
- Impact to building and property owners relative to cost of compliance with code**
The proposed change will actually relax the requirement. Thus, building owners can maximize the use of the floor area for their buildings without having to make floor areas usable for refuge areas in order to accommodate more occupants than the area is legally permitted to have. No increase
- Impact to industry relative to the cost of compliance with code**
The proposed change will actually relax the requirement. Thus, building owners can maximize the use of the floor area for their buildings without having to make floor areas usable for refuge areas in order to accommodate more occupants than the area is legally permitted to have. No increase
- Impact to small business relative to the cost of compliance with code**
The proposed change will actually relax the requirement. Thus, building owners can maximize the use of the floor area for their buildings without having to make floor areas usable for refuge areas in order to accommodate more occupants than the area is legally permitted to have. No increase

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Building owners can maximize the use of the floor area for their buildings without having to make floor areas usable for refuge areas in order to accommodate more occupants than the area is legally permitted to have without reducing safety.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves the code. The proposed change relaxes the requirement. Thus, building owners can maximize the use of the floor area for their buildings without having to make floor areas usable for refuge areas in order to accommodate more occupants than the area is legally permitted to have.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
No materials, methods, products or systems are proposed to be changed.
- Does not degrade the effectiveness of the code**
Egress doors are sized based on accepted science. This proposal used the code requirement for access to size the other components, thus, not degrading effectiveness.

1026.4 Refuge area. The refuge area of a *horizontal exit* shall be a space occupied by the same tenant or a public area and each such refuge area shall be adequate to accommodate the original *occupant load* of the refuge area plus the *occupant load* anticipated from the adjoining compartment. The anticipated *occupant load* from the adjoining compartment shall be based on the capacity of the *horizontal exit doors* entering the refuge area, but not more than the total occupant load of the adjoining compartment.

Code Change No: E123-15

Original Proposal

Section: 1026.4; (IFC[BE] 1026.4)

Proponent: Ronald Geren, RLG Technical Services, LLC, representing Self
(ron@specsandcodes.com)

Revise as follows:

1026.4 Refuge area. The refuge area of a *horizontal exit* shall be a space occupied by the same tenant or a public area and each such refuge area shall be adequate to accommodate the original *occupant load* of the refuge area plus the *occupant load* anticipated from the adjoining compartment. The anticipated *occupant load* from the adjoining compartment shall be based on the capacity of the *horizontal exit doors* entering the refuge area, but not more than the total occupant load of the adjoining compartment.

Reason: If the total occupant load of the compartment egressing through the horizontal exit is less than the capacity of the horizontal exit door, the maximum capacity of the refuge area should not be more than the legal capacity of the compartment egressing.

For example, a standard 36-inch-wide door has a clear width of 33 inches. At 0.20" per occupant, the capacity of the door is 165 occupants. For sprinklered buildings at 0.15" per occupant, the load is even greater at 220 occupants. So, if the total occupant load on one side of the horizontal exit door is less than 165 for a nonsprinklered building, or less than 220 occupants for a sprinklered building, then the refuge area on the other side should only be required to accommodate the design occupant load and not the capacity of the door in the horizontal exit.

Cost Impact: Will not increase the cost of construction
The proposed change will actually relax the requirement. Thus, building owners can maximize the use of the floor area for their buildings without having to make floor areas usable for refuge areas in order to accommodate more occupants than the area is legally permitted to have.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The proposed language clarifies requirement for when the actual occupant load is less than the capacity of the exit. This reflects actual conditions. This proposal needs to be coordinated with the language approved in E6-15 as modified.

Assembly Action:

None

Final Hearing Results

E123-15

AS

Date Submitted 11/21/2018	Section 1010.3	Proponent Ann Russo1
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

1010.3.2 (New), 1010.3.1, 1010.3.2; (IFC[BE] 1010.3, 1010.3.2 (New), 1010.3.1, 1010.3.2)

Summary of Modification

Manufacturers of turnstile devices have expanded into the security access control market and currently have products that have physical barrier leaves that restrict access into and out of buildings.

Rationale

Reason: Manufacturers of turnstile devices have expanded into the security access control market and currently have products that have physical barrier leaves that restrict access into and out of buildings. These devices can vary in height and sophistication to address building security concerns that may not meet safety requirements related to the means of egress. Typically, these turnstile devices are located at building entrances and elevator lobbies. The current requirements for turnstiles apply historically to the "three arm" waist-high turnstiles for entertainment or transportation venues and do not apply to the new installations. Currently, the building official is left to evaluate these new modern turnstiles to determine compliance with the egress requirements in the IBC. The intent of the revision is to provide guidance on evaluating these new modern turnstiles. Turnstiles on the market can be as narrow as 22 inches. For turnstiles that are less than 32 inches, there are additional capacity issues that need to be considered. The fail safe provisions for overriding the turnstile access restrictions are derived from existing code provisions (e.g., delayed egress locks and forces to open doors).

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

These revisions will provide the Building Official guidance on evaluating these new modern turnstiles without going through the alternative material, mean and method process.

Impact to building and property owners relative to cost of compliance with code

Minimal - the code change will probably increase construction costs due to these new requirements; HOWEVER, the new requirements will enhance overall building safety when these new security access turnstiles are installed in buildings.

Impact to industry relative to the cost of compliance with code

Minimal - the code change will probably increase construction costs due to these new requirements; HOWEVER, the new requirements will enhance overall building safety when these new security access turnstiles are installed in buildings.

Impact to small business relative to the cost of compliance with code

Minimal - the code change will probably increase construction costs due to these new requirements; HOWEVER, the new requirements will enhance overall building safety when these new security access turnstiles are installed in buildings.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This will enhance the overall building safety when these new security turnstiles are installed.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Makes code compliance easier for design professionals and Building Officials to understand and enforce without going through the alternative process.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This will allow new security turnstiles that meets or exceeds the safety requirements to be installed without going through the alternative process.

Does not degrade the effectiveness of the code

This will enhance the overall building safety when these new security turnstiles are installed.

Revise as follows:

1010.3 Turnstiles and Similar Devices. Turnstiles or similar devices that restrict travel to one direction shall not be placed so as to obstruct any required means of egress, except where permitted in accordance with Sections 1010.3.1, 1010.3.2 and 1010.3.3.

Exception: 1010.3.1 Capacity. Each turnstile or similar device shall be credited with a capacity based on not more than a 50-person *occupant load* where all of the following provisions are met:

1. Each device shall turn free in the direction of egress travel when primary power is lost and on the manual release by an employee in the area.
2. Such devices are not given credit for more than 50 percent of the required egress capacity or width.
3. Each device is not more than 39 inches (991 mm) high.
4. Each device has not less than 16½ inches (419 mm) clear width at and below a height of 39 inches (991 mm) and not less than 22 inches (559 mm) clear width at heights above 39 inches (991 mm).

1010.3.1.1 Clearwidth. Where located as part of an *accessible route*, turnstiles shall have not less than 36 inches (914 mm) clear at and below a height of 34 inches (864 mm), not less than 32 inches (813 mm) clear width between 34 inches (864 mm) and 80 inches (2032 mm) and shall consist of a mechanism other than a revolving device.

Add new text as follows:

1010.3.2 Security access turnstiles. Security access turnstiles that inhibit travel in the direction of egress utilizing a physical barrier shall be permitted to be considered as a component of the means of egress, provided that all of the following criteria are met:

1. The building is protected throughout by an approved supervised automatic sprinkler system in accordance with Section 903.3.1.1.
 2. Each security access turnstile lane configuration has a minimum clear passage width of 22 inches (560 mm).
 3. Any security access turnstile lane configuration providing clear passage width of less than 32 inches (810 mm) shall be credited with a maximum egress capacity of 50 persons.
 4. Any security access turnstile lane configuration providing a clear passage width of 32 inches (810 mm) or more shall be credited with a maximum egress capacity as calculated in accordance with Section 1005.
 5. Each secured physical barrier shall automatically retract or swing to unobstructed open position in the direction of egress, under each of the following conditions:
 - 5.1 Upon loss of power to the turnstile or any part of the access control system that secures the physical barrier.
 - 5.2 Upon actuation of a readily accessible and clearly identified manual release device that results in direct interruption of power to each secured physical barrier, remains in the open position for not less than 30 seconds. The manual release device shall be positioned at one of the following locations:
 - 5.2.1 The manual release device is located on the egress side of each security access turnstile lane.
 - 5.2.2 The manual release device is located at an approved location where it can be actuated by an employee assigned to the area at all times that the building is occupied.
 - 5.3 Upon actuation of the building fire alarm system, if provided, the physical barrier remains in the open position until the fire alarm system is manually reset.
- Exception:** Actuation of manual fire alarm boxes.
- 5.4 Upon actuation of the building automatic sprinkler of fire detection system, and for which the physical barrier remains in the open position until the fire alarm system is manually reset.

Revise as follows:

~~1010.3.1~~**1010.3.3 Highturnstile.** Turnstiles more than 39 inches (991 mm) high shall meet the requirements for revolving doors or the requirements of Section 1010.3.2 for security access turnstiles.

~~1010.3.2~~**1010.3.4 Additional door.** Where serving an *occupant load* greater than 300, each turnstile that is not portable shall have a side-hinged swinging door that conforms to Section 1010.1 within 50 feet (15240 mm).

Exception: A side-hinged swinging door is not required at security access turnstiles that comply with Section 1010.3.2.

Date Submitted	11/20/2018	Section	1013.6.3	Proponent	Bryan Holland
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications**Summary of Modification**

This proposed modification simply moves a rule in the exception up to the main charging paragraph of the Section.

Rationale

This proposed modification places the rule that is currently in Exception 2 up into the main charging paragraph for added clarity to the Section. The requirement is less of an exception to the main rule and should be viewed as a supplement to the main rule.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposed modification will not impact the local entity relative to code enforcement.

Impact to building and property owners relative to cost of compliance with code

This proposed modification will not change the cost of compliance to building and property owners

Impact to industry relative to the cost of compliance with code

This proposed modification will not change the cost of compliance or impact industry.

Impact to small business relative to the cost of compliance with code

This proposed modification will not change the cost of compliance or impact small business.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This proposed modification is directly connected to the health, safety, and welfare of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposed modification improves and strengthens the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposed modification does not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposed modification enhances the effectiveness of the code.

1013.6.3 Power source. Exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27. Group I-2, Condition 2 exit sign illumination shall not be provided by unit equipment batteries only.

Exceptions:

1. Approved exit sign illumination means that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency electrical system.
2. ~~Group I-2 Condition 2 exit sign illumination shall not be provided by unit equipment battery only.~~

Date Submitted	11/27/2018	Section	1004.3	Proponent	Ann Russo1
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Add verbiage to the current language of the code in order to help the Fire Marshal verify the posting of appropriate occupancy, occupant load and "intended configuration" of the assembly rooms or spaces.

Rationale

Many jurisdictions have started to require multiple postings for rooms having multiple configurations. Unfortunately that is not currently in the code and may become confusing. By adding for the "intended configuration" in the code it would confirm that the code enforcement official could require that correct signage was posted.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No negative impact to local entity relative to enforcement of code.

Impact to building and property owners relative to cost of compliance with code

No negative impact to local entity relative to enforcement of code.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of compliance with the code.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of compliance with the code.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This proposal will simply provide clarity for application of the code and improve the overall health, safety and welfare of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal will provide clarity and improve the application of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal will not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposal will improve the effectiveness of the code.

Revise as follows:

1004.3 Posting of occupant load. Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space, for the intended configurations. Posted signs shall be an approved legible permanent design and shall be maintained by the owner or the owner's authorized agent.

Date Submitted 11/27/2018	Section 1004.5	Proponent Ann Russo1
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Occupied roof will also need to meet the means of egress requirements.

Rationale

This proposal will add the language "occupied roofs" to this section which will allow the code user to understand that occupied roofs which are open to the sky will also need to meet means of egress requirements.
 This proposal will also help tie this section to the language that already exist in Section 1006.3.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
 This will help eliminate confusion among code officials and designers on means of egress requirements for occupied roofs.
- Impact to building and property owners relative to cost of compliance with code**
 Will not increase cost of compliance with code.
- Impact to industry relative to the cost of compliance with code**
 Will not increase cost of compliance with code.
- Impact to small business relative to the cost of compliance with code**
 Will not increase cost of compliance with code.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
 This proposal is only to help clarify the existing code requirements found in Section 1006.3.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
 This proposal is only to help clarify the existing code requirements found in Section 1006.3.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
 This proposal is only to help clarify the existing code requirements found in Section 1006.3.
- Does not degrade the effectiveness of the code**
 This proposal is only to help clarify the existing code requirements found in Section 1006.3.

Revise as follows:

1004.5 Outdoor areas. *Yards, patios, occupied 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.

Date Submitted	11/28/2018	Section	1006.2.1	Proponent	Ann Russo1
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

1006.3

Summary of Modification

This modification is to improve the consistency in the determination and application of fundamental FBC means of egress provisions.

Rationale

This proposal is intended to enhance the functionality of these requirements by placing them in context with the applicable means of egress design requirements. For example, Section 1004.1.1.1 states, "Design of egress path capacity shall be based on the cumulative portion of the occupant loads of all rooms, areas or spaces to that point along the path of egress travel." This proposal places the same requirement at Section 1006.2.1 in the context of using capacity to determine the required number of exits or access to exits.

A new Exception 1 to Section 1006.2.1 has been added. It is a logical concern. Literally interpreted, a building with an occupant load of 4,000 and having four required exits with one of those exits having a foyer, lobby, vestibule or similar space would require four exits from such space based on the cumulative occupant load of 1,000. The number of exits from such space would be based on the occupant load of the space; however, the capacity of that exit(s) would be based on the cumulative occupant load served. Perhaps the most important feature of the 6th Edition code change was that it clarified that cumulative occupant loads are not considered when calculating the required number of exits or access to exits serving an adjacent story. An exception clarifies that occupant loads from isolated mezzanines will be considered in determining the number of required exits from the adjacent story.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Approval of this proposal will improve the consistency in the determination and application of fundamental FBC means of egress provisions.

Impact to building and property owners relative to cost of compliance with code

Will not increase cost.

Impact to industry relative to the cost of compliance with code

Will not increase cost.

Impact to small business relative to the cost of compliance with code

Will not increase cost.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This modification will simply provide clarification of current requirements and will help designers and code officials in the consistent enforcement of the code.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification will simply provide clarification of current requirements and will not weaken the current provisions of the code

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification will simply provide clarification of current requirements and will not discriminate against materials, product, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

This modification will simply provide clarification of current requirements and will improve the effectiveness of code enforcement.

Revise as follows:**1006.2.1 Egress based on occupant load and common path of egress travel distance.**

Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. The cumulative occupant load from adjacent rooms, areas or spaces shall be determined in accordance with Section 1004.2.

Exceptions:

1. ~~Reserved.~~ The number of exits from foyers, lobbies, vestibules or similar spaces need not be based on cumulative occupant loads for areas discharging through such spaces, but the capacity of the exits from such spaces shall be based on applicable cumulative occupant loads.
2. Care suites in Group I-2 occupancies complying with Section 407.4.

1006.3 Egress from stories or occupied roofs.

The means of egress system serving any story or occupied 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. The path of egress travel to an exit shall not pass through Where stairways serve more than one adjacent story-, only the occupant load of each story considered individually shall be used in calculating the required number exits or access to exits serving that story.

Date Submitted	11/29/2018	Section	1006.2.2	Proponent	Ann Russo1
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

The intent of this proposal is to regulate exit and exit access doors.

Rationale

The proposed revision clarifies of how the code should currently be applied. The intent of this section is limited to regulating exit and exit access doors, but as currently written, the code incorrectly suggests that any door, even a door to an auxiliary space that doesn't lead to an exit, must swing in the direction of egress.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

The code change proposal simply seeks to provide clearer code language and with no intended changes in requirements. Therefore, no negative impact to local entity relative to enforcement of code.

Impact to building and property owners relative to cost of compliance with code

This proposal will not increase the cost of compliance with code.

Impact to industry relative to the cost of compliance with code

This proposal will not increase the cost of compliance with code.

Impact to small business relative to the cost of compliance with code

This proposal will not increase the cost of compliance with code.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The proposed revision clarifies of how the code should currently be applied.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The proposed revision clarifies of how the code should currently be applied. This will not weaken the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The proposed revision clarifies of how the code should currently be applied. This will not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

The proposed revision clarifies of how the code should currently be applied. This will not degrade the effectiveness of the code.

Revise as follows:

1006.2.2.2. Refrigeration machinery rooms.

Machinery rooms larger than 1,000 square feet (93 m²) shall have not less than two *exits* or *exit access doorways*. Where two *exit access doorways* are required, one such doorway is permitted to be served by a fixed ladder or an *alternating tread device*. *Exit access doorways* shall be separated by a horizontal distance equal to one-half the maximum horizontal dimension of room.

All portions of machinery rooms shall be within 150 feet (45720 mm) of an *exit* or *exit access doorway*. An increase in travel distance is permitted in accordance with Section 1016.1.

~~Doors~~ *Exit or exit access doorways* shall swing in the direction of egress travel, regardless of the occupant load served. ~~Doors~~ *Exit or exit access doorways* shall be tight fitting and self-closing.

Date Submitted	11/29/2018	Section	1004.1.2	Proponent	Ann Russo1
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

1006.7

Summary of Modification

Code change proposal is to revise the current maximum floor area allowance per occupant in Table 1004.1.2 for business occupancies from 100 ft²/occupant (gross) to 150 ft²/occupant (gross) for determining the means of egress requirements in business areas.

Rationale

Based on several past research studies that have concluded that the 100 ft²/occupant (gross) occupant load factor for business occupancies is very conservative which has led to requiring Group B occupancies and office buildings in general to have additional egress capacity and a greater number of exits to accommodate an "over-estimated" building population. We believe the increase from 100 ft²/occupant (gross) to 150 ft²/occupant (gross) for business occupancies is still a conservative figure; yet reasonable, based on recent changes in office building design as well as changes in the North American workplace and work style trends; such as work station configurations, flexible work schedules, telecommuting, work at home, etc.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This code modification will be consistent with the changes in the 2018 Florida Fire Prevention Code - NFPA 101.

Impact to building and property owners relative to cost of compliance with code

Overall, the proposal seeks to lessen the occupant load, thus reducing the required means of egress capacity, and the number of plumbing fixtures required for business use occupancies unless the occupant load factor for concentrated business area is applied.

Impact to industry relative to the cost of compliance with code

Overall, the proposal seeks to lessen the occupant load, thus reducing the required means of egress capacity, and the number of plumbing fixtures required for business use occupancies unless the occupant load factor for concentrated business area is applied.

Impact to small business relative to the cost of compliance with code

Overall, the proposal seeks to lessen the occupant load, thus reducing the required means of egress capacity, and the number of plumbing fixtures required for business use occupancies unless the occupant load factor for concentrated business area is applied.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

There were concerns raised about areas where high costs of space would result in a higher density in an office as well as maintain the occupant load during the life of a building as different tenants change. This proposed modification will address the concerns.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal will strengthen/improve the application of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal will not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposal will improve the effectiveness of the code.

Revise as follows:

TABLE 1004.1.2

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR ^a
Business area Concentrated business use areas	100/150 gross See Section 1004.7

(Portions of table not shown remain unchanged)

For SI: 1 square foot = 0.0929 m², 1 foot = 304.8 mm.

- a. Floor area in square feet per occupant.

Add new text as follows:

1004.7 Concentrated business use areas. The occupant load factor for concentrated business use shall be applied to telephone call centers, trading floors, electronic data processing centers and similar business use areas with a higher density of occupants than would normally be expected in a typical business occupancy environment. Where approved by the building official, the occupant load for concentrated business use areas shall be the actual occupant load, but not less than one occupant per 50 square foot (4.65 m²) of gross occupiable floor space.

Date Submitted 12/4/2018	Section 1006.3	Proponent Ann Russo1
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

1006.3.1, 1006.3.2, 1006.3.3, 1006.3.3.1, 1030.1

Summary of Modification

Expanding the provisions for the required egress from stories or occupied roofs.

Rationale

This proposal provides needed correlation with Section 1019.3 for single exit buildings that allow for open stairways to serve as the means of egress for more than one story.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This is for clarification, therefore, there will be no additional requirements.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This proposal provides consistency with the provisions found in Section 1019.3.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal will improve the enforcement of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal will not discriminate against materials, products, methods or systems of construction.

Does not degrade the effectiveness of the code

This proposal will improve the enforcement of the code.

Revised as follows:**1006.3 Egress from stories or occupied roofs.**

The means of egress system serving any story or occupied 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. ~~The path of egress travel to an exit shall not pass through more than one adjacent story. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required number of exits or access to exits serving that story.~~

Add text as follows:**1006.3.1 Adjacent story.**

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 or sleeping unit or live/workunit.
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 in open parking garages that serve only the parking garage.
4. Exit access stairways and ramps serving open-air assembly seating complying with the exit access travel distance requirements of Section 1029.7.
5. 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.

Date Submitted 12/4/2018	Section 1008.2.2	Proponent Ann Russo1
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

1008.2.3 (add)

Summary of Modification

Provides specific means of egress illumination requirements for Group I-2 and adding a code section of exit discharge illumination.

Rationale

The proposal would provide an appropriate allowance for large campuses that do not have the typical streets around buildings, but may have large open areas. Examples would be office complexes, or college campuses. Section 1028.5 allows a safe dispersal area, therefore adequate lighting requirement is necessary.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This proposal will provide additional lighting requirement for safety.

Impact to building and property owners relative to cost of compliance with code

Cost may be increase but will provide additional safety.

Impact to industry relative to the cost of compliance with code

Cost may be increase but will provide additional safety.

Impact to small business relative to the cost of compliance with code

Cost may be increase but will provide additional safety.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This proposal will have reasonable improvement to safety of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal will improve the safety requirements of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal will not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposal will not degrade the effectiveness of the code.

Revise as follows:

1008.2.2 Exit discharge Group I-2.

(no change in the text)

Add new test as follows:

1008.2.3 Exit discharge.

Illumination shall be provided along the path of travel for the exit discharge from each exit to the public way.

Exception: Illumination shall not be required where the path of exit discharge meets both of the following requirements:

1. The path of exit discharge is illuminated from the exit to a safe dispersal area complying with Section 1028.5.
2. A dispersal area shall be illuminated to a level not less than 1 footcandle (11 lux) at the walking surface.

Date Submitted	12/4/2018	Section	1006.2.2.4	Proponent	Ann Russo1
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

The proposal will correlate the provisions for day care facilities to the proper occupancy Group I-4.

Rationale

This is coordination and correlation of requirements in the 6th Edition of FBC. Day care facilities can be found in two occupancy classification - Groups E and I-4. The proposal will provide guidance to design professional and code officials on the applicability of this code section for day care facilities under Group I-4.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposal will provide guidance to design professionals and code officials for the applicability of the code section.

Impact to building and property owners relative to cost of compliance with code

Will not increase cost.

Impact to industry relative to the cost of compliance with code

Will not increase cost.

Impact to small business relative to the cost of compliance with code

Will not increase cost.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This purpose of this proposal is only to clarify the application of the code.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal will improve the application of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal will not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposal will improve the effectiveness of the code.

Revise as follows:

1006.2.2.4 Day care Group I-4 means of egress.

Day care facilities, rooms or spaces where care is provided for more than 10 children that are 2 1/2 years of age or less, shall have access to not less than two *exits* or *exit access doorways*.

Date Submitted 12/5/2018	Section 1019.3	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Correct possible misinterpretation of definition on egress stairway and access ramp

Rationale

This exception previously read as follows. "Stairways are permitted to be open 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." The revision last cycle had an unintended consequence. The current text can be read differently without "between". It could be read to allow open stairways serving the main assembly floor to be open exit access stairways.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Clarifies and eliminates possible issues
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Increases compliance with and protected safety and welfare of occupants in ease of egress
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Clarification strengthens Code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

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* that do not comply with one of the conditions listed in this section shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

1. 1.*Exit access stairways* and *ramps* that serve or atmospherically communicate between only two stories. Such interconnected stories shall not be open to other stories.
2. 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. 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. 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. 5.*Exit access stairways* and *ramps* within an *atrium* complying with the provisions of Section 404.
6. 6.*Exit access stairways* and *ramps* in *open parking garages* that serve only the parking garage.
7. 7.*Exit access stairways* and *ramps* serving open-air seating complying with the *exit access* travel distance requirements of Section 1029.7.
8. 8.*Exit access stairways* and *ramps* serving 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.

Date Submitted 12/6/2018	Section 1020.4	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Remove reference to dead end corridor egress and update R-4 exit allowances for single exit

Rationale

Single exit building do not have dead end corridors, therefore this should be removed. Group R-4 are permitted to have single exits per Section 1006.3.2 Item 4.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Improves and clarifies
- Impact to building and property owners relative to cost of compliance with code**
None
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves safety by clarifying requirements
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Clarification strengthens Code enforcement and compliance
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:**1020.4 Dead ends.**

Where more than one *exit* or *exit access doorway* is required, the *exit access* shall be arranged such that there are no dead ends in *corridors* more than 20 feet (6096 mm) in length.

Exceptions:

1. 1. In occupancies in Group I-3 of Condition 2, 3 or 4, the dead end in a *corridor* shall not exceed 50 feet (15 240 mm).
2. 2. In occupancies in Groups B, E, F, I-1, M, R-1, R-2, R-4, S and U, where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the length of the dead-end *corridors* shall not exceed 50 feet (15 240 mm).
3. 3. A dead-end *corridor* shall not be limited in length where the length of the dead-end *corridor* is less than 2.5 times the least width of the dead-end *corridor*.

Date Submitted 12/6/2018	Section 1023.3.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Clarify pressurization in exit stairways

Rationale

Pressurized stairs often discharge through an exit passageway. The exit passageway is also typically required to be pressurized since it is a continuation of the pressurized stair enclosure. The system providing pressurization of the stair and passageway is typically the same system. Technical compliance would require separate systems if a separation is required to be maintained. The introduction of a door and fire barrier between the exit passageway and the stair creates an obstruction to airflow which inhibits the pressurization of the stair and passageway. The provision of a separation does not provide any added safety and could also impede egress.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Improves enforcement, plan review and conformance to life safety requirements
- Impact to building and property owners relative to cost of compliance with code**
No negative impact
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves safety aspects of design for egress by occupants
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens Code application, conformance and enforcement
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
No
- Does not degrade the effectiveness of the code**
No

Revise as follows:

1023.3.1 Extension.

Where *interior exit stairways* and *ramps* are extended to an *exit discharge* or a *public way* by an *exit passageway*, the *interior exit stairway* and *ramp* shall be separated from the *exit passageway* by a *fire barrier* constructed in accordance with Section 707 or a *horizontal assembly* constructed in accordance with Section 711, or both. The *fire-resistance rating* shall be not less than that required for the *interior exit stairway* and *ramp*. A *fire door* assembly complying with Section 716.5 shall be installed in the *fire barrier* to provide a *means of egress* from the *interior exit stairway* and *ramp* to the *exit passageway*. Openings in the *fire barrier* other than the *fire door* assembly are prohibited. Penetrations of the *fire barrier* are prohibited.

Exceptions:

1. 1. Penetrations of the *fire barrier* in accordance with Section 1023.5 shall be permitted.
2. 2. Separation between an *interior exit stairway* or *ramp* and the *exit passageway* extension shall not be required where there are no openings into the *exit passageway* extension.
3. Separation between an *interior exit stairway* or *ramp* and the *exit passageway* extension shall not be required when the interior exit stair and the exit passageway extension are pressurized in accordance with Section 909.20.5.

Date Submitted 12/6/2018	Section 1023.5	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Improves penetration protection for security wiring applications

Rationale

Building security systems, including cameras in stairways, are becoming more prevalent. If properly protected, a limited number of penetrations for security systems will not result in an unacceptable level of safety. NFPA 101-2015 requires stairway video monitoring in high-rise buildings having an occupant load of 4,000 or more persons.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Improves design conformance and enforcement
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Addresses conformance and improves life safety aspects for occupants
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens Code enforcement
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:**1023.5 Penetrations.**

Penetrations into or through *interior exit stairways* and *ramps* are prohibited except for equipment and ductwork necessary for independent ventilation or pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication and security systems, and electrical race-way serving the *interior exit stairway* and *ramp* and terminating at a steel box not exceeding 16 square inches (0.010 m²). Such penetrations shall be protected in accordance with Section 714. There shall not be penetrations or communication openings, whether protected or not, between adjacent *interior exit stairways* and *ramps*.

Exception: Membrane penetrations shall be permitted on the outside of the *interior exit stairway* and *ramp*. Such penetrations shall be protected in accordance with Section 714.3.2.

Date Submitted 12/6/2018	Section 1024.6	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Improves definition of systems under reference

Rationale

The modification is to maintain the exceptions and is coordination with other sections. The exceptions are needed to allow for outlets, light switches, fire alarm pull stations and exit signs. In the main text, the change from ‘sprinkler piping and standpipes’ to ‘fire protection systems’ would allow for all systems used for fire fighting. The addition of the ‘two-way communication system’ allows for requirements associated with the fire fighters communication, the requirements in high rises for systems in the stairway every five floors, and areas of refuge.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Clarifies requirements improving plan review and enforcement of Code for life safety
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves definition of life safety equipment in support of fire and rescue requirements improving safety of building occupants
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Does improve enforcement by better definition and inclusion of systems required
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

1024.6 Penetrations.

Penetrations into or through an *exit passageway* are prohibited except for equipment and ductwork necessary for independent pressurization, ~~sprinkler piping~~ fire protection systems, standpipes twoway communication systems, electrical raceway for fire department communication and electrical raceway serving the *exit passageway* and terminating at a steel box not exceeding 16 square inches (0.010 m²). Such penetrations shall be protected in accordance with Section 714. There shall not be penetrations or communicating openings, whether protected or not, between adjacent *exit passageways*.

Exception: Membrane penetrations shall be permitted on the outside of the *exit passageway*. Such penetrations shall be protected in accordance with Section 714.3.2.

Date Submitted 12/6/2018	Section 1023.11	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted	Commission Action Pending Review	

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Improved coordination between sections on requirements

Rationale

Section 412.3.2 requires smokeproof enclosures for air traffic control tower stairs and refers to section 1023.11 but section 1023.11 does not reference back to 412.3.2 as it does for high-rise buildings (403.5.4) and underground buildings (405.7.2). This change is proposed to reduce potential confusion from the lack of the reference statement in 1023.11.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Improves coordination and limits confusion during plan review and field enforcement
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves safety of enclosure and occupants
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code by clarifying requirements and coordination between sections
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

1023.11 Smokeproof enclosures.

Where required by Section 403.5.4 ~~or~~, 405.7.2 or 412.3.2, *interior exit stairways and ramps* shall be *smokeproof enclosures* in accordance with Section 909.20.

Date Submitted	12/7/2018	Section	1010.1.1	Proponent	John Woestman
Chapter	10	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

This proposal combines approved revisions to the 2018 IBC by proposals E47-15 and E49-15. which were approved "As Modified". The intent of a large portion of this change is consistent use of the terminology (e.g., minimum clear opening width/height) throughout this section.

Rationale

This proposal combines approved revisions to the 2018 IBC by proposals E47-15 and E49-15. Both E47-15 and E49-15 were approved "As Modified" by the ICC Means of Egress Code Committee, and received final approval via the consent agenda during the Public Comment Hearing.

Reason: The intent of a large portion of this change is consistent use of the terminology (e.g., minimum clear opening width/height) throughout this section. There is also the intent of putting the modifier first within the specific requirements (Group I-2, ambulatory care) and the exceptions. The maximum door width sentence is relocated to be after all the minimum door width requirements. Exceptions 1, 2, 6 and 7 cannot be used in Accessible, Type A or Type B units; that would conflict with ICC A117.1, ADA and FHA. Also in Exception 7: dwelling units and sleeping units in Group I-2 and I-3 have specific criteria elsewhere in this section, and the ADA does not allow Group R-1 units to use this exception, therefore, the more specific limitation to allow this in Group I-1, R-2, R-3 and R-4. Exception 8 is revised to be consistent with the language used for Type B dwelling units in ICC A117.1. Code change E52-12 added exception 12 as part of the coordination with ADA 224.1.2. Questions that have risen are: Is the intent to require "clear width shower stall doors in all showers Group I-1, R-2, R-3 and R-4 or multi-stall shower rooms? Is the intent to require "clear width shower doors in the 2nd bathrooms in Accessible units that are not required to have clearances? Elimination first part of the sentence would not change the allowances for Accessible hotel rooms, and would eliminate the question. Exception 13 is proposed to be added to address a similar question for doors on toilet stalls. The width of "clear width" is especially a problem with IPC since the stall is only required to be 30" wide.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This section of the FBC should be clearer, easier to understand, more consistently interpreted, applied, and enforced.

Impact to building and property owners relative to cost of compliance with code

A code that is clearer, easier to understand, more consistently interpreted, applied, and enforced, and removes several ambiguities, but does not introduce new requirements, should not increase cost, and may result in reductions in cost.

Impact to industry relative to the cost of compliance with code

A code that is clearer, easier to understand, more consistently interpreted, applied, and enforced, may result in reductions in the cost of doing business, especially if differences in code interpretation and enforcement are reduced or eliminated.

Impact to small business relative to the cost of compliance with code

A code that is clearer, easier to understand, more consistently interpreted, applied, and enforced, may result in reductions in the cost of doing business, especially if differences in code interpretation and enforcement are reduced or eliminated.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The proposed revisions provide easier to understand requirements for the size of doors. Door size affects egress and accessibility, both of which have a direct connection to health, safety, and welfare of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

A code that is clearer, easier to understand, more consistently interpreted, applied, and enforced, may result in reductions in the cost of doing business, especially if differences in code interpretation and enforcement are reduced or eliminated.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Proposed revisions to discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

Proposed revisions do not degrade the effectiveness of the code.

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). ~~Clear openings~~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). ~~The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. In Group I-2, doors serving as means of egress doors in a Group I-2 occupancy where used for the movement of beds shall provide a minimum clear opening width not less than of 41 1/2 inches (1054 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. The minimum clear opening height of door openings~~ 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 in Group R-2 and R-3 occupancies.
2. In Group I-3, door openings to resident sleeping units in Group I-3 occupancies that are not required to be an Accessible unit shall have a minimum clear opening width of not less than 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 width of door leaves in revolving doors that comply with Section 1010.1.4.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall be not less than 78 inches (1981 mm) in height. The maximum width of door leaves in power-operated doors that comply with Section 1010.1.4.2 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 other than Group R-1 occupancies in dwelling and sleeping units that are not required to be Accessible, Type A or Type B units, exterior door openings in dwelling units and sleeping units, other than the required exit door, shall be not less than have a minimum clear opening height of 76 inches (1930 mm) in height.
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 within a dwelling unit or sleeping unit that is not required to be an Accessible unit.
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. Buildings that are 400 square feet (37 m²) or less and that are intended for use in conjunction with one- and two-family residences are not subject to the door height and width requirements of this code.
11. 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.
10. In Group R-1 dwelling units or sleeping units not required to be Accessible units, the minimum
12. The minimum clear opening width shall not apply to doors for showers or saunas nonaccessible shower or sauna compartments.
13. The minimum clear opening width shall not apply to the doors for nonaccessible toilet stalls.

2020 FBC Proposal E47-15 and E49-15 Size of Doors.

John Woestman, BHMA, Dec. 7, 2018

Revise as follows:

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). ~~Clear openings.~~ 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). ~~The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal.~~ In Group I-2, doors serving as means of egress doors in a Group I-2 occupancy where used for the movement of beds shall provide a minimum clear opening width not less than 41 1/2 inches (1054 mm). ~~The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal.~~ The minimum clear opening height of door openings 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 in Group R-2 and R-3 occupancies.
2. In Group I-3, door openings to resident sleeping units in Group I-3 occupancies that are not required to be an Accessible unit shall have a minimum clear opening width of not less than 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 width of door leaves in revolving doors that comply with Section 1010.1.4.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall be not less than 78 inches (1981 mm) in height. The maximum width of door leaves in power-operated doors that comply with Section 1010.1.4.2 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 other than Group R-1 occupancies in dwelling and sleeping units that are not required to be Accessible, Type A or Type B units, exterior door openings in dwelling units and sleeping units, other than the required exit door, shall be not less than have a minimum clear opening height of 76 inches (1930 mm) in height.
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 within a dwelling unit or sleeping unit that is not required to be an Accessible unit.
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. Buildings that are 400 square feet (37 m²) or less and that are intended for use in conjunction with one- and two-family residences are not subject to the door height and width requirements of this code.
11. 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.
10. In Group R-1 dwelling units or sleeping units not required to be Accessible units, the minimum
12. The minimum clear opening width shall not apply to doors for showers or saunas nonaccessible shower or sauna compartments.
13. The minimum clear opening width shall not apply to the doors for nonaccessible toilet stalls.

Commented [WJ1]: Florida specific text - retained.

This proposal combines approved revisions to the 2018 IBC by proposals E47-15 and E49-15.

Both E47-15 and E49-15 were approved "As Modified" by the ICC Means of Egress Code Committee, and received final approval via the consent agenda during the Public Comment Hearing.

E47-15 info, reasons, and committee action:

Proponent: Edward Kulik, Chair, representing Building Code Action Committee (bcac@iccsafe.org)

Reason: In July/2014 the ICC Board decided to sunset the activities of the Code Technology Committee

The intent of a large portion of this change is consistent use of the terminology (e.g., minimum clear opening width/height) throughout this section. There is also the intent of putting the modifier first within the specific requirements (Group I-2, ambulatory care) and the exceptions. The maximum door width sentence is relocated to be after all the minimum door width requirements.

Exceptions 1, 2, 6 and 7 cannot be used in Accessible, Type A or Type B units; that would conflict with ICC A117.1, ADA and FHA. Also in Exception 7, dwelling units and sleeping units in Group I-2 and I-3 have specific criteria elsewhere in this section, and the ADA does not allow Group R-1 units to use this exception, therefore, the more specific limitation to allow this in Group I-1, R-2, R-3 and R-4.

Exception 8 is revised to be consistent with the language used for Type B dwelling units in ICC A117.1.

Code change E52-12 added exception 12 as part of the coordination with ADA 224.1.2. Questions that have risen are: Is the intent to require 32" clear width shower stall doors in all showers Group I-1, R-2, R-3 and R-4 or multi-stall shower rooms? Is the intent to require 32" clear width shower doors in the 2nd bathrooms in Accessible units that are not required to have clearances? Elimination first part of the sentence would not change the allowances for Accessible hotel rooms, and would eliminate the question.

Exception 13 is proposed to be added to address a similar question for doors on toilet stalls. The width of 32" is especially a problem with IPC since the stall is only required to be 30" wide.

Committee Action: Approved as Modified (modifications incorporated in proposal)

Committee Reason: The proposal is a good clean up and provides consistency in terminology.

E49-15 info, reasons, and committee action:

Proponent: Edward Kulik, Chair, representing Building Code Action Committee (bcac@iccsafe.org)

Reason: The proposed revisions are intended to improve clarity and consistency of the language of these sections of the code, and appear to be essentially editorial. The maximum width of power-operated doors which comply with IBC Section 1010.1.4.2 should not be limited as these doors are either fully automatic or power-assisted, and must comply with all the requirements of Section 1010.1.4.2 including the safety requirements incorporated in the BHMA standards referenced in 1010.1.4.2. This revision addresses a potential conflict between the IBC and the relatively few power-operated swinging doors currently being installed which exceed 48" inches in width.

Committee Action: Approved as Modified (modifications incorporated in proposal)

Committee Reason: Power doors provide a higher level of accessibility and access. The maximum width on power doors is not an issue for means of egress.

Date Submitted 12/7/2018	Section 1023.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

New section

Summary of Modification

Better coordination and references to standpipe requirements

Rationale

Placing references to Sections 905.3 and 905.4 standpipe requirements for interior exit stairways & ramps (Section 1023), exit passageways (Section 1024) and horizontal exits (Section 1026) will help designers and reviewers to include this requirement early in the building design process. During the means of egress design process, the requirement for standpipes for interior exit stairways/ramps, exit passageways and horizontal exits are frequently overlooked and may have significant cost impacts to correct later during construction. Including the standpipe references will make the design team aware of the requirement early in the design process and help insure cost impacts are considered at the appropriate time.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Assist in plan review and coordination

Impact to building and property owners relative to cost of compliance with code

None

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves coordination and safety of occupants in building

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Increases Code compliance in design stages as well as construction

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Add following section:

1023.12 Standpipes. Standpipes and standpipe hose connections shall be provided in accordance with Sections 905.3 and 905.4.

Date Submitted 12/7/2018	Section 1024.8	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

New section

Summary of Modification

Better coordination and references to standpipe requirements

Rationale

Placing references to Sections 905.3 and 905.4 standpipe requirements for interior exit stairways & ramps (Section 1023), exit passageways (Section 1024) and horizontal exits (Section 1026) will help designers and reviewers to include this requirement early in the building design process. During the means of egress design process, the requirement for standpipes for interior exit stairways/ramps, exit passageways and horizontal exits are frequently overlooked and may have significant cost impacts to correct later during construction. Including the standpipe references will make the design team aware of the requirement early in the design process and help insure cost impacts are considered at the appropriate time.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Assist in plan review and coordination

Impact to building and property owners relative to cost of compliance with code

None

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves coordination and safety of occupants in building

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Increases Code compliance in design stages as well as construction

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No

Does not degrade the effectiveness of the code

No

Add following section:

1024.8 Standpipes. Standpipes and standpipe hose connections shall be provided in accordance with Sections 905.3 and 905.4.

Date Submitted 12/7/2018	Section 1026.5	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

New section

Summary of Modification

Better coordination and references to standpipe requirements

Rationale

Placing references to Sections 905.3 and 905.4 standpipe requirements for interior exit stairways & ramps (Section 1023), exit passageways (Section 1024) and horizontal exits (Section 1026) will help designers and reviewers to include this requirement early in the building design process. During the means of egress design process, the requirement for standpipes for interior exit stairways/ramps, exit passageways and horizontal exits are frequently overlooked and may have significant cost impacts to correct later during construction. Including the standpipe references will make the design team aware of the requirement early in the design process and help insure cost impacts are considered at the appropriate time.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Assist in plan review and coordination

Impact to building and property owners relative to cost of compliance with code

None

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves coordination and safety of occupants in building

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Increases Code compliance in design stages as well as construction

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No

Does not degrade the effectiveness of the code

No

Add following section:

1026.5 Standpipes. Standpipes and standpipe hose connections shall be provided in accordance with Sections 905.3 and 905.4.

Date Submitted 12/7/2018	Section 1025.2.5	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Include exception to marking

Rationale

1025.2.1 steps, 1025.2.3 handrails, and 1025.2.4 perimeter demarcation lines, all provide an exception to the minimum width of 1 inch when the step, handrail and perimeter demarcation lines are listed in accordance with UL 1994, a performance standard. This exception should also apply to Section 1025.2.5 for obstacle markings as the performance has been evaluated and validated by UL 1994.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
None
- Impact to building and property owners relative to cost of compliance with code**
None
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Coordinates safety requirements among sections on safety aspects
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code in plan review and coordinated enforcement
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
No
- Does not degrade the effectiveness of the code**
No

Revise as noted:

1025.2.5 Obstacles.

Obstacles at or below 6 feet 6 inches (1981 mm) in height and projecting more than 4 inches (102 mm) into the egress path shall be outlined with markings not less than 1 inch (25 mm) in width comprised of a pattern of alternating equal bands, of luminous material and black, with the alternating bands not more than 2 inches (51 mm) thick and angled at 45 degrees (0.79 rad). Obstacles shall include, but are not limited to, standpipes, hose cabinets, wall projections and restricted height areas. However, such markings shall not conceal any required information or indicators including but not limited to instructions to occupants for the use of standpipes.

Exception: The minimum width of 1 inch (25 mm) shall not apply to markings listed in accordance with UL 1994.

Date Submitted 12/7/2018	Section 1026.4.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Clarifies capacity requirement for horizontal egress refuge areas

Rationale

This proposal clarifies the capacity requirements for horizontal exit refuge areas for defend in place occupancies. Currently, the requirements for defend in place occupancies are located in the exception, rather than being located in the body of the text. Since the exception would be more restrictive than the section, we are suggesting moving the requirements by reference into the main body of the text. In addition, by a reference back to the refuge area capacities in Chapter 4, the provisions will always stay coordinated.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
None expected
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves efficiency and clarifies Code egress refuge approach improving life safety
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens Code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:**1026.4.1 Capacity.**

The capacity of the refuge area shall be computed based on a *net floor area* allowance of 3 square feet (0.2787 m²) for each occupant to be accommodated therein. Where the horizontal exit also forms a smoke compartment, the capacity of the refuge area for Groups I-1, I-2 and I-3 occupancies and Group B ambulatory care facilities shall comply with Section 407.5.1, 408.6.2, 420.4.1 and 422.3.2 as applicable.

Exceptions: The *net floor area* allowable per occupant shall be as follows for the indicated occupancies:

1. ~~1. Six square feet (0.6 m²) per occupant for occupancies in Group I-3.~~
2. ~~2. Fifteen square feet (1.4 m²) per occupant for ambulatory occupancies in Group I-2.~~
3. ~~3. Thirty square feet (2.8 m²) per occupant for nonambulatory occupancies in Group I-2.~~

Date Submitted 12/7/2018	Section 1010.1.4.1.2	Proponent John Woestman
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The requirements for revolving doors were revised / updated for the 2015 IBC, including a definition of “breakout” and the use of that term which took the place of the term “collapsing”. I missed this revision during the code development cycle for the 2015 IBC. Hence this proposal.

Rationale

Fix a missed clarification of replacing “collapsing” with “breakout”.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
None. Proposal is a clarification of the code text.
- Impact to building and property owners relative to cost of compliance with code**
None. Proposal is a clarification of the code text.
- Impact to industry relative to the cost of compliance with code**
None. Proposal is a clarification of the code text.
- Impact to small business relative to the cost of compliance with code**
None. Proposal is a clarification of the code text.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Proposal is a clarification of the code text regarding egress through revolving doors.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Proposal is a clarification of the code text regarding egress through revolving doors. Improves the code.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate. Proposal is a clarification of the code text regarding egress through revolving doors.
- Does not degrade the effectiveness of the code**
Does not degrade the effectiveness of the code. Proposal is a clarification of the code text regarding egress through revolving doors.

1010.1.4.1.2 Other than egress component. A revolving door used as other than a component of a *means of egress* shall comply with Section 1010.1.4.1. The *breakout* force of a revolving door not used as a component of a *means of egress* shall not be more than 180 pounds (801 N).

Exception: A *breakout* force in excess of 180 pounds (801 N) is permitted if the collapsing ~~*breakout*~~ force is reduced to not more than 130 pounds (578 N) when not less than one of the following conditions is satisfied:

Date Submitted 12/7/2018	Section 1010.1.4.2	Proponent John Woestman
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The Builders Hardware Manufacturers Association (BHMA), an ANSI accredited SDO, received ANSI approval of A156.38-2014 Low Energy Power Operated Sliding and Folding Doors, with mandatory performance and safety requirements for low energy power operated sliding and folding doors.

Rationale

The Builders Hardware Manufacturers Association (BHMA), an ANSI accredited standard development organization, received ANSI approval of A156.38-2014 Low Energy Power Operated Sliding and Folding Doors. This new standard has mandatory performance and safety requirements for low energy power operated sliding and folding doors, and “rounds out” this section of the FBC to now include most types of power operated doors. The standards currently referenced in this section are BHMA A156.10 Power Operated Pedestrian Doors (for swinging, sliding, and folding doors) and BHMA A156.19 Standard for Power Assist and Low Energy Operated Doors (for swinging doors).

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
This new standard has mandatory performance and safety requirements for low energy power operated sliding and folding doors. Manufacturers of these doors voluntarily comply with this standard. The standard provides a technical basis for code compliance, which should facilitate code enforcement.
- Impact to building and property owners relative to cost of compliance with code**
Streamlines specifications for these types of low energy power operated doors. Should not add cost as manufacturers comply voluntarily with this standard.
- Impact to industry relative to the cost of compliance with code**
Should not add cost as manufacturers comply voluntarily with this standard.
- Impact to small business relative to the cost of compliance with code**
Should not add cost as manufacturers comply voluntarily with this standard.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
This new standard has mandatory performance and safety requirements for low energy power operated sliding and folding doors.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens the code as this new standard has mandatory performance and safety requirements for low energy power operated sliding and folding doors,
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
The standard has mandatory performance and safety requirements for low energy power operated sliding and folding doors and does not discriminate against material, products, methods, or systems.
- Does not degrade the effectiveness of the code**
No, increases the effectiveness of the code.

Revise definition

LOW-ENERGY POWER-OPERATED DOOR. Swinging, sliding, or folding door which opens automatically upon an action by a pedestrian such as pressing a push plate or waving a hand in front of a sensor. The door closes automatically, and operates with decreased forces and decreased speeds (see “Power-assisted door” and “Power-operated door”).

Revise as follow:

1010.1.4.2 Power-operated doors. Where *means of egress* doors are operated or assisted by power, the design shall be such that in the event of power failure, the door is capable of being opened manually to permit *means of egress* travel or closed where necessary to safeguard *means of egress*. The forces required to open these doors manually shall not exceed those specified in Section 1010.1.3, except that the force to set the door in motion shall not exceed 50 pounds (220 N). The door shall be capable of ~~swinging~~opening from any position to the full width of the opening in which such door is installed when a force is applied to the door on the side from which egress is made. Power-operated swinging doors, power-operated sliding doors and power operated folding doors shall comply with BHMA A156.10. Power-assisted swinging doors and low energy power-operated swinging doors shall comply with BHMA A156.19. Low energy power-operated sliding doors and low energy power-operated folding doors shall comply with BHMA A156.38.

Exceptions:

1. Occupancies in Group I-3.
2. Horizontal sliding doors complying with Section 1010.1.4.3.
3. For a biparting door in the emergency breakout mode, a door leaf located within a multiple-leaf opening shall be exempt from the minimum 32-inch (813 mm) single-leaf requirement of Section 1010.1.1, provided a minimum 32-inch (813 mm) clear opening is provided when the two biparting leaves meeting in the center are broken out.

Add standard reference to Chapter 35:

A156.38—2014 Low Energy Power Operated Sliding and Folding Doors.1010.1.4.2

Date Submitted 12/8/2018	Section 1027.5	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Addresses egress stair requirements for Group R-3 requirements

Rationale

The proposed code change to Section 1027.5 adds an exception to limit the fire separation distance to 5 ft for an R-3 occupancy. The proposed exception # 4 to Section 1027.6 exempts an exterior exit stairway on up to a 4 story R-3 from being separated from the interior of a building. A four story R-3 should be the upper limit since the type of construction will have to be increased from type if more than 4 stories in height.

The FBC regulates Group R-3 occupancies, typically one dwelling or two dwellings units located within the same building when the building configuration is not within the scope of the Residential Code. So Group R-3 occupancies more than three stories above grade plane and group R-3 occupancies with 2 units using a common means of egress are required to comply with the FBC. Additionally, Townhouses that have a height of more than three stories above grade plane, and townhouses with only one side open to a public way also need to comply with the FBC.

The FBC in many instances exempts R-3 occupancies from means of egress requirements more appropriate for buildings with larger occupant loads and buildings with multiple tenant spaces/units sharing a common means of egress system.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Simplifies and improves enforcement

Impact to building and property owners relative to cost of compliance with code

None expected

Impact to industry relative to the cost of compliance with code

None expected

Impact to small business relative to the cost of compliance with code

None expected

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves plan review and enforcement with regards to occupant safety and welfare

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves Code application and enforcement

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Revise as follows:**1027.5 Location.**

Exterior exit stairways and *ramps* shall have a minimum fire separation distance of 10 feet (3048 mm) measured at right angles from the exterior edge of the *stairway* or *ramps*, including landings, to:

1. 1. *Adjacent lot lines*.
2. 2. Other portions of the building.
3. 3. Other buildings on the same lot unless the adjacent building *exterior walls* and openings are protected in accordance with Section 705 based on *fire separation distance*.

For the purposes of this section, other portions of the building shall be treated as separate buildings.

Exception: Exterior exit stairways and ramps serving individual dwelling units of Group R-3 shall have a minimum fire separation distance of 5 feet.

Date Submitted 12/8/2018	Section 1027.6	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Addresses egress stair requirements for Group R-3 requirements

Rationale

The proposed code change to Section 1027.5 adds an exception to limit the fire separation distance to 5 ft for an R-3 occupancy. The proposed exception # 4 to Section 1027.6 exempts an exterior exit stairway on up to a 4 story R-3 from being separated from the interior of a building. A four story R-3 should be the upper limit since the type of construction will have to be increased from type if more than 4 stories in height.

The FBC regulates Group R-3 occupancies, typically one dwelling or two dwellings units located within the same building when the building configuration is not within the scope of the Residential Code. So Group R-3 occupancies more than three stories above grade plane and group R-3 occupancies with 2 units using a common means of egress are required to comply with the FBC. Additionally, Townhouses that have a height of more than three stories above grade plane, and townhouses with only one side open to a public way also need to comply with the FBC.

The FBC in many instances exempts R-3 occupancies from means of egress requirements more appropriate for buildings with larger occupant loads and buildings with multiple tenant spaces/units sharing a common means of egress system.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Simplifies and improves enforcement

Impact to building and property owners relative to cost of compliance with code

None expected

Impact to industry relative to the cost of compliance with code

None expected

Impact to small business relative to the cost of compliance with code

None expected

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves plan review and enforcement with regards to occupant safety and welfare

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves Code application and enforcement

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Revise as follows:

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. 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. 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. 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:
 1. 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.
 2. 3.2. The open-ended *corridors* comply with Section 1020.
 3. 3.3. The open-ended *corridors* are connected on each end to an *exterior exit stairway or ramp* complying with Section 1027.
 4. 3.4. The *exterior walls* and openings adjacent to the *exterior exit stairway or ramp* comply with Section 1023.7.
 5. 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 m²) 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 4-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.

Date Submitted 12/8/2018	Section 1028.4.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The proposal deletes an outdated and unused code requirement for egress courts.

Rationale

This proposal deletes an outdated and unused code requirement for egress courts. The concept of using a 36" tall guardrail to "herd" occupants toward the exit when the egress court exceeds the minimum required width is absurd and does nothing to improve the safety of occupants. Can you imagine a building owner's response when an architect shows this on a design development plan? The guard would effectively eliminate portions of the egress court exceeding the minimum required width from use by occupants. Why would anyone ever design the court to be larger than the minimum required width only to install a guardrail to prevent it's use? This is an obsolete regulation and needs to be deleted.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
None expected
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Eliminates confusion with Code requirement thus improvement occupant safety
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code in plan review and enforcement
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

1028.4.1 Width or capacity.

The required capacity of *egress courts* shall be determined as specified in Section 1005.1, but the minimum width shall be not less than 44 inches (1118 mm), except as specified herein. *Egress courts* serving Group R-3 and U occupancies shall be not less than 36 inches (914 mm) in width. The required capacity and width of *egress courts* shall be unobstructed to a height of 7 feet (2134 mm).

Exception: Encroachments complying with Section 1005.7.

~~Where an *egress court* exceeds the minimum required width and the width of such *egress court* is then reduced along the path of exit travel, the reduction in width shall be gradual. The transition in width shall be affected by a guard not less than 36 inches (914 mm) in height and shall not create an angle of more than 30 degrees (0.52 rad) with respect to the axis of the *egress court* along the path of egress travel. The width of the *egress court* shall not be less than the required capacity.~~

Date Submitted 12/8/2018	Section 1005.3.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinates section with application to open air assemblies

Rationale

Modification coordinates requirements with definition and other sections providing clarity and better focus on needs as well as enforcement based on application and use

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None expected

Impact to building and property owners relative to cost of compliance with code

None expected

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves enforcement and welfare of users

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Does

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Revise as follows:

1005.3.1 Stairways.

The capacity, in inches, of *means of egress stairways* shall be calculated by multiplying the *occupant load* served by such *stairways* by a means of egress capacity factor of 0.3 inch (7.6 mm) per occupant. Where *stairways* serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the *stairways* serving that story.

Exceptions:

1. For other than Group H and I-2 occupancies, the capacity, in inches, of *means of egress stairways* shall be calculated by multiplying the *occupant load* served by such *stairways* by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an *emergency voice/alarm communication* system in accordance with Section 907.5.2.2.
2. Facilities with *smoke-protected assembly seating* shall be permitted to use the capacity factors in Table 1029.6.2 indicated for stepped aisles for *exit access* or *exit stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is provided with a smoke control system complying with Section 909.
3. Facilities with ~~outdoor~~ *smoke-protected open-air assembly seating* shall be permitted to the capacity factors in Section 1029.6.3 indicated for stepped aisles for *exit access* or *exit stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is open to the outdoors.

Date Submitted 12/8/2018	Section 1005.3.2	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinates section with application to open air assemblies

Rationale

Modification coordinates requirements with definition and other sections providing clarity and better focus on needs as well as enforcement based on application and use

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
None expected
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves enforcement and welfare of users
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Does
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

1005.3.2 Other egress components.

The capacity, in inches, of *means of egress* components other than *stairways* shall be calculated by multiplying the *occupant load* served by such component by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant.

Exceptions:

1. For other than Group H and I-2 occupancies, the capacity, in inches, of *means of egress* components other than *stairways* shall be calculated by multiplying the *occupant load* served by such component by a means of egress capacity factor of 0.15 inch (3.8 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an *emergency voice/alarm communication* system in accordance with Section 907.5.2.2.
2. Facilities with *smoke-protected assembly seating* shall be permitted to use the capacity factors in Table 1029.6.2 indicated for level or ramped *aisles* for *means of egress* components other than *stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is provided with a smoke control system complying with Section 909.
3. Facilities with ~~outdoor-smoke-protected~~ *open-air assembly seating* shall be permitted to the capacity factors in Section 1029.6.3 indicated for level or ramped *aisles* for *means of egress* components other than *stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is open to the outdoors.

Date Submitted 12/8/2018	Section 1009.3	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinates section with application to open air assemblies

Rationale

Modification coordinates requirements with definition and other sections providing clarity and better focus on needs as well as enforcement based on application and use

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
None expected
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves enforcement and welfare of users
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Does
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

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* that do not comply with one of the conditions listed in this section shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

1. 1.*Exit access stairways* and *ramps* that serve or atmospherically communicate between only two stories. Such interconnected stories shall not be open to other stories.
2. 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. 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. 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. 5.*Exit access stairways* and *ramps* within an *atrium* complying with the provisions of Section 404.
6. 6.*Exit access stairways* and *ramps* in *open parking garages* that serve only the parking garage.
7. 7.*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.
8. 8.*Exit access stairways* and *ramps* serving the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, *places of religious worship*, auditoriums and sports facilities.

Date Submitted 12/8/2018	Section 1019.3	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinates section with application to open air assemblies

Rationale

Modification coordinates requirements with definition and other sections providing clarity and better focus on needs as well as enforcement based on application and use

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None expected

Impact to building and property owners relative to cost of compliance with code

None expected

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves enforcement and welfare of users

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Does

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Revise as follows:

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* that do not comply with one of the conditions listed in this section shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

1. 1.*Exit access stairways* and *ramps* that serve or atmospherically communicate between only two stories. Such interconnected stories shall not be open to other stories.
2. 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. 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. 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. 5.*Exit access stairways* and *ramps* within an *atrium* complying with the provisions of Section 404.
6. 6.*Exit access stairways* and *ramps* in *open parking garages* that serve only the parking garage.
7. 7.*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.
8. 8.*Exit access stairways* and *ramps* serving the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, *places of religious worship*, auditoriums and sports facilities.

Date Submitted 12/8/2018	Section 1029.6	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinates section with application to open air assemblies

Rationale

Modification coordinates requirements with definition and other sections providing clarity and better focus on needs as well as enforcement based on application and use

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None expected

Impact to building and property owners relative to cost of compliance with code

None expected

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves enforcement and welfare of users

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Does

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Revise as follows:

1029.6 Capacity of aisle for assembly.

The required capacity of *aisles* shall be not less than that determined in accordance with Section 1029.6.1 where *smoke-protected assembly seating* is not provided and with Section 1029.6.2 or ~~1029.6.3~~ where *smoke-protected assembly seating* is provided and with section 1029.6.3 where open-air assembly seating is provided.

Date Submitted 12/8/2018	Section 1029.6.3	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinates section with application to open air assemblies

Rationale

Modification coordinates requirements with definition and other sections providing clarity and better focus on needs as well as enforcement based on application and use

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None expected

Impact to building and property owners relative to cost of compliance with code

None expected

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves enforcement and welfare of users

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Does

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Revise as follows:

1029.6.3 ~~Outdoor smoke-protected~~Open-air assembly seating.

The In open-air assembly seating, the required capacity in inches (mm) of *aisles* shall be not less than the total *occupant load* served by the egress element multiplied by 0.08 (2.0 mm) where egress is by stepped *aisle* and multiplied by 0.06 (1.52 mm) where egress is by level *aisles* and ramped *aisles*.

Exception: The required capacity in inches (mm) of *aisles* shall be permitted to comply with Section 1029.6.2 for the number of seats in the outdoor open-air smoke-protected assembly seating where Section 1029.6.2 permits less capacity.

Date Submitted 12/8/2018	Section 1029.7	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinates section with application to open air assemblies

Rationale

Modification coordinates requirements with definition and other sections providing clarity and better focus on needs as well as enforcement based on application and use

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None expected

Impact to building and property owners relative to cost of compliance with code

None expected

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves enforcement and welfare of users

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Does

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Revise as follows:

1029.7 Travel distance.

Exits and aisles shall be so located that the The exit access travel distance to an *exit* door shall be not greater than 200 feet (60 960 mm) measured along the line of travel in nonsprinklered buildings. Travel distance shall be not more than 250 feet (76 200 mm) in sprinklered buildings shall comply with Section 1017. Where *aisles* are provided for seating, the distance shall be measured along the *aisles* and *aisle accessways* without travel over or on the seats.

Exceptions:

1. ~~1.~~ *Smoke-protected assembly seating*: The travel distance from each seat to the nearest entrance to a vomitory or concourse shall not exceed 200 feet (60 960 mm). The travel distance from the entrance to the vomitory or concourse to a *stairway*, *ramp* or walk on the exterior of the building shall not exceed 200 feet (60 960 mm).
2. ~~2.~~ Open-air seating: The travel distance from each seat to the building exterior shall not exceed 400 feet (122 m). The travel distance shall not be limited in facilities of Type I or II construction.

1. In facilities with *smoke-protected assembly seating* the total exit access travel distance shall be not greater than 400 feet (122 m). That portion of the total permitted exit access travel distance from each seat to the nearest entrance to a vomitory or concourse shall not exceed 200 feet (60 960 mm). The portion of the total permitted exit access travel distance from the entrance to the vomitory or concourse to one of the following shall not exceed 200 feet (60 960mm):

1.1 The closest riser of an exit accessstairway.

1.2 The closest slope of an exit access ramp.

1.3 An exit.

2. In facilities with open-air assembly seating of Type III, IV or V construction, the exit access travel distance to one of the following shall not exceed 400 feet (122m):

2.1 The closest riser of an exit accessstairway.

2.2 The closest slope of an exit access ramp.

2.3 An exit.

3. In facilities with open-air assembly seating of Type I or II construction, the exit access travel distance shall not belimited.

Date Submitted 12/8/2018	Section 1029.8	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinates section with application to open air assemblies

Rationale

Modification coordinates requirements with definition and other sections providing clarity and better focus on needs as well as enforcement based on application and use

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
None expected
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves enforcement and welfare of users
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Does
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

1029.8 Common path of egress travel.

The *common path of egress travel* shall not exceed 30 feet (9144 mm) from any seat to a point where an occupant has a choice of two paths of egress travel to two *exits*.

Exceptions:

1. 1.For areas serving less than 50 occupants, the *common path of egress travel* shall not exceed 75 feet (22 860 mm).
2. 2.For ~~smoke-protected~~ or ~~smoke-protected~~ open-air assembly seating, the *common path of egress travel* shall not exceed 50 feet (15 240 mm).

Date Submitted 12/9/2018	Section 1029.8.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinate definition for open-air assembly related section

Rationale

Provides better definition and coordination between sections for open-air assembly seating

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
None expected

Impact to building and property owners relative to cost of compliance with code
None expected

Impact to industry relative to the cost of compliance with code
None expected

Impact to small business relative to the cost of compliance with code
None expected

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
Improves Code coordination and overall application thus safety

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
Improves Code focus and enforcement

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
Does not

Does not degrade the effectiveness of the code
Does not

Revise as follows:

1029.8.1 Path through adjacent row.

Where one of the two paths of travel is across the *aisle* through a row of seats to another *aisle*, there shall be not more than 24 seats between the two *aisles*, and the minimum clear width between rows for the row between the two *aisles* shall be 12 inches (305 mm) plus 0.6 inch (15.2 mm) for each additional seat above seven in the row between *aisles*.

Exception: For ~~smoke-protected or smoke-protected~~ *open-air assembly seating* there shall be not more than 40 seats between the two *aisles* and the minimum clear width shall be 12 inches (305 mm) plus 0.3 inch (7.6 mm) for each additional seat.

Date Submitted 12/9/2018	Section 1029.9.5	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinate definition for open-air assembly related section

Rationale

Provides better definition and coordination between sections for open-air assembly seating

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
None expected

Impact to building and property owners relative to cost of compliance with code
None expected

Impact to industry relative to the cost of compliance with code
None expected

Impact to small business relative to the cost of compliance with code
None expected

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
Improves Code coordination and overall application thus safety

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
Improves Code focus and enforcement

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
Does not

Does not degrade the effectiveness of the code
Does not

Revise as follows:**1029.9.5 Dead end aisles.**

Each end of an *aisle* shall be continuous to a cross *aisle*, foyer, doorway, vomitory, concourse or *stairway* in accordance with Section 1029.9.7 having access to an *exit*.

Exceptions:

1. 1. Dead-end *aisles* shall be not greater than 20 feet (6096 mm) in length.
2. 2. Dead-end *aisles* longer than 16 rows are permitted where seats beyond the 16th row dead-end *aisle* are not more than 24 seats from another *aisle*, measured along a row of seats having a minimum clear width of 12 inches (305 mm) plus 0.6 inch (15.2 mm) for each additional seat above seven in the row where seats have backrests or beyond 10 where seats are without backrests in the row.
3. 3. For ~~smoke-protected or smoke-protected~~ *open-air assembly seating*, the dead end *aisle* length of vertical *aisles* shall not exceed a distance of 21 rows.
4. 4. For ~~smoke-protected or smoke-protected~~ *open-air assembly seating*, a longer dead-end *aisle* is permitted where seats beyond the 21-row dead-end *aisle* are not more than 40 seats from another *aisle*, measured along a row of seats having an *aisle* accessway with a minimum clear width of 12 inches (305 mm) plus 0.3 inch (7.6 mm) for each additional seat above seven in the row where seats have backrests or beyond 10 where seats are without backrests in the row.

Date Submitted 12/9/2018	Section 1029.12.2.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinate definition for open-air assembly related section

Rationale

Provides better definition and coordination between sections for open-air assembly seating

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
None expected

Impact to building and property owners relative to cost of compliance with code
None expected

Impact to industry relative to the cost of compliance with code
None expected

Impact to small business relative to the cost of compliance with code
None expected

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
Improves Code coordination and overall application thus safety

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
Improves Code focus and enforcement

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
Does not

Does not degrade the effectiveness of the code
Does not

Revise as follows:

1029.12.2.1 Dual access.

For rows of seating served by *aisles* or doorways at both ends, there shall be not more than 100 seats per row. The minimum clear width of 12 inches (305 mm) between rows shall be increased by 0.3 inch (7.6 mm) for every additional seat beyond 14 seats where seats have backrests or beyond 21 where seats are without backrests. The minimum clear width is not required to exceed 22 inches (559 mm).

Exception: For ~~smoke-protected~~ or ~~smoke-protected~~ *open-air assembly seating*, the row length limits for a 12-inch-wide (305 mm) *aisle accessway*, beyond which the *aisle accessway* minimum clear width shall be increased, are in Table 1029.12.2.1.

Date Submitted 12/9/2018	Section 1029.12.2.2	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Coordinate definition for open-air assembly related section

Rationale

Provides better definition and coordination between sections for open-air assembly seating

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None expected

Impact to building and property owners relative to cost of compliance with code

None expected

Impact to industry relative to the cost of compliance with code

None expected

Impact to small business relative to the cost of compliance with code

None expected

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves Code coordination and overall application thus safety

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves Code focus and enforcement

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Revise as follows:

1029.12.2.2 Single access.

For rows of seating served by an *aisle* or doorway at only one end of the row, the minimum clear width of 12 inches (305 mm) between rows shall be increased by 0.6 inch (15.2 mm) for every additional seat beyond seven seats where seats have backrests or beyond 10 where seats are without back-rests. The minimum clear width is not required to exceed 22 inches (559 mm).

Exception: For ~~smoke-protected~~ or ~~smoke-protected~~ *open-air assembly seating*, the row length limits for a 12-inch-wide (305 mm) *aisle accessway*, beyond which the *aisle accessway* minimum clear width shall be increased, are in Table 1029.12.2.1.

Date Submitted 12/10/2018	Section 1010.1.9.5.1	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Delete without substitution.

Rationale

This is proposed to be deleted because it is an inconsistent requirement. If there is a concern that a person receiving custodial care might lock themselves in a bathroom or closet, this should be required in Group I-1, not just Group R-4. Also, this should not be a overall minimum code requirement, but more an option for a facility to provide where needed. Literally this would applied to storage closets that are not used by residents and closets that you would not walk into at all.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
none
- Impact to building and property owners relative to cost of compliance with code**
possibility to decrease cost.
- Impact to industry relative to the cost of compliance with code**
none
- Impact to small business relative to the cost of compliance with code**
none

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
While this might be a valid concern in some facilities for safety, the current provisions should not be applicable to just Group R-4. Free egress from occupied spaces is already required by the code. The current language could be read to apply to all closets, including reach-in closets.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
removes an unnecessary requirement
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
does not.
- Does not degrade the effectiveness of the code**
see attached pdf

~~1010.1.9.5.1 Closet and bathroom doors in Group R-4 occupancies.~~

~~In Group R-4 occupancies, closet doors that latch in the closed position shall be openable from inside the closet, and bathroom doors that latch in the closed position shall be capable of being unlocked from the ingress side.~~

Code Change No: E64-15

Original Proposal

Section(s): 1010.1.9.5.1 (IFC[BE] 1010.1.9.5.1)

Proponent: Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

Delete without substitution:

~~**1010.1.9.5.1 (IFC[BE] 1010.1.9.5.1) Closet and bathroom doors in Group R-4 occupancies.** In Group R-4 occupancies, closet doors that latch in the closed position shall be operable from inside the closet, and bathroom doors that latch in the closed position shall be capable of being unlocked from the ingress side.~~

Reason: This is proposed to be deleted because it is an inconsistent requirement. If there is a concern that a person receiving custodial care might lock themselves in a bathroom or closet, this should be required in Group I-1, not just Group R-4. Also, this should not be a overall minimum code requirement, but more an option for a facility to provide where needed. Literally this would applied to storage closets that are not used by residents and closets that you would not walk into at all.

The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the Care Facilities Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>.

Cost Impact: Will not increase the cost of construction
This is eliminating a requirement for locks.

Report of Committee Action Hearings

Committee Action:

Approve as Submitted

Committee Reason: While this might be a valid concern in some facilities for safety, the current provisions should not be applicable to just Group R-4. Free egress from occupied spaces is already required by the code. The current language could be read to apply to all closets, including reach-in closets.

Assembly Action:

None

Public Comments

Public Comment 1:

John Woestman, Kellen, representing Builders Hardware Manufacturers Association (jwoestman@kellencompany.com) requests Approve as Modified by this Public Comment.

Modify as follows:

~~**1010.1.9.5.1 Closet and bathroom doors in Group R-4 occupancies.**~~ In Group R-4 occupancies, closet doors that latch in the closed position shall be operable from inside the closet, and bathroom doors that latch in the closed position shall be capable of being unlocked from the ingress side.

Commenter's Reason: This public comment retains portions of the text proposed by the original proposal to be deleted. Closets with a door that latches are commonly large enough for a person to get inside, especially a child. To reduce the potential of a person getting trapped inside a closet, closet doors should be able to be unlatched from the inside.

This situation reminds me of the tragedies associated with (very) old refrigerators with doors equipped with mechanical latches – that's most household refrigerators manufactured prior to the Federal "Refrigerator Safety Act" of 1956 which required household refrigerators to be openable from the inside with a force of no more than 15 pounds. Too many children died when trapped inside these refrigerators. Before the use of magnetic sealing of refrigerator doors, refrigerator doors were held shut by mechanical latches. These mechanical latches usually did not have a means for unlatching the door from the inside of the refrigerator.

Final Action Results

Code Change No: E64-15

Original Proposal

Section(s): 1010.1.9.5.1 (IFC[BE] 1010.1.9.5.1)

Proponent: Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

Delete without substitution:

~~**1010.1.9.5.1 (IFC[BE] 1010.1.9.5.1) Closet and bathroom doors in Group R-4 occupancies.** In Group R-4 occupancies, closet doors that latch in the closed position shall be openable from inside the closet, and bathroom doors that latch in the closed position shall be capable of being unlocked from the ingress side.~~

Reason: This is proposed to be deleted because it is an inconsistent requirement. If there is a concern that a person receiving custodial care might lock themselves in a bathroom or closet, this should be required in Group I-1, not just Group R-4. Also, this should not be an overall minimum code requirement, but more an option for a facility to provide where needed. Literally this would apply to storage closets that are not used by residents and closets that you would not walk into at all.

The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the Care Facilities Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>.

Cost Impact: Will not increase the cost of construction
This is eliminating a requirement for locks.

Report of Committee Action Hearings

Committee Action:

Approve as Submitted

Committee Reason: While this might be a valid concern in some facilities for safety, the current provisions should not be applicable to just Group R-4. Free egress from occupied spaces is already required by the code. The current language could be read to apply to all closets, including reach-in closets.

Assembly Action:

None

Public Comments

Public Comment 1:

John Woestman, Kellen, representing Builders Hardware Manufacturers Association (jwoestman@kellencompany.com) requests Approve as Modified by this Public Comment.

Modify as follows:

~~1010.1.9.5.1 Closet and bathroom doors in Group R-4 occupancies.~~ In Group R-4 occupancies, closet ~~closet~~ doors that latch in the closed position shall be openable from inside the closet, and bathroom doors that latch in the closed position shall be capable of being unlocked from the ingress side.

Commenter's Reason: This public comment retains portions of the text proposed by the original proposal to be deleted. Closets with a door that latches are commonly large enough for a person to get inside, especially a child. To reduce the potential of a person getting trapped inside a closet, closet doors should be able to be unlatched from the inside.

This situation reminds me of the tragedies associated with (very) old refrigerators with doors equipped with mechanical latches

– that's most household refrigerators manufactured prior to the Federal "Refrigerator Safety Act" of 1956 which required household refrigerators to be openable from the inside with a force of no more than 15 pounds. Too many children died when trapped inside these refrigerators. Before the use of magnetic sealing of refrigerator doors, refrigerator doors were held shut by mechanical latches. These mechanical latches usually did not have a means for unlatching the door from the inside of the refrigerator.

Final Action Results

Date Submitted	12/13/2018	Section	1023.4	Proponent	Miguel Botello
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Revises section 1023.4 "Openings" to replace "necessary" with the word "require" for consistency within the code.

Rationale

Consistency within the code.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
None.

Impact to building and property owners relative to cost of compliance with code
Will not increase the cost of construction.

Impact to industry relative to the cost of compliance with code
Will not increase the cost of construction.

Impact to small business relative to the cost of compliance with code
Will not increase the cost of construction.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
Provides consistency within the code.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
Provides consistency within the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
No

Does not degrade the effectiveness of the code
No

1023.4 Openings.

Interior exit stairway and *ramp* opening protectives shall be in accordance with the requirements of Section 716.

Openings in *interior exit stairways* and *ramps* other than unprotected exterior openings shall be limited to those necessary required for *exit access* to the enclosure from normally occupied spaces and for egress from the enclosure.

Elevators shall not open into *interior exit stairways* and *ramps*.

Date Submitted	12/10/2018	Section	1010.1.9.7	Proponent	Lawrence Cohan
Chapter	10	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Clarify areas and number of occupants in Group E occupancies that would allow the use of delayed egress locking systems. Allow Group I-1 and I-4 occupancies to have up to 2 delayed egress locking systems in the egress path.

Rationale

The proposal for including Group E is in response to several requests to address the needs of small educational occupancies to help prevent wandering / elopement, especially for the very young, and for special needs students.

As in Group I-2, Group I-1 occupancies may need more than one delayed egress system. For example, if the Group I-1 occupancy is on the 2nd floor, or higher, in a building, a delayed egress system may be needed on the door to the exit stairway on that floor. And a second delayed egress locking system may be needed at the door to the exterior on the ground floor. In Group I-1 and I-4 an additional delayed egress locking system may be highly desirable to help reduce wandering or elopement by occupants.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

none

Impact to building and property owners relative to cost of compliance with code

there are no new requirements to install delayed egress locking mechanisms, therefore there is only increased cost if the owner elects to install the locking mechanisms.

Impact to industry relative to the cost of compliance with code

none.

Impact to small business relative to the cost of compliance with code

none.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

the use of delayed egress locks in Group E and Group I can prevent unintended wandering by occupants of the building.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

clarifies when delayed egress locks are allowed.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

does not.

Does not degrade the effectiveness of the code

does not.

1010.1.9.7 Delayed egress.

Delayed egress locking systems shall be permitted to be installed on doors serving ~~any occupancy except Group A, E and H~~ Group B, E, F, I, M, R, S and U occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907. The locking system shall be installed and operated in accordance with all of the following:

1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the automatic sprinkler system or automatic fire detection system, allowing immediate, free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The delayed egress locking system shall have the capability of being deactivated at the fire command center and other approved locations.
4. An attempt to egress shall initiate an irreversible process that shall allow such egress in not more than 15 seconds when a physical effort to exit is applied to the egress side door hardware for not more than 3 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the delay electronics have been deactivated, rearming the delay electronics shall be by manual means only.

Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. The egress path from any point shall not pass through more than one delayed egress locking system.

~~Exception:~~ Exceptions:

1. In Group I-2 or I-3 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds.
2. In Group I-1 or I-4 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

6. A sign shall be provided on the door and shall be located above and within 12 inches (305 mm) of the door exit hardware:
 1. For doors that swing in the direction of egress, the sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
 2. 6.2. For doors that swing in the opposite direction of egress, the sign shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
 3. 6.3. The sign shall comply with the visual character requirements in ICC A117.1.

Exception: Where approved, in Group I occupancies, the installation of a sign is not required where care recipients who because of clinical needs require restraint or containment as part of the function of the treatment area.

7. Emergency lighting shall be provided on the egress side of the door.
8. The delayed egress locking system units shall be listed in accordance with UL 294.

Code Change No: E68-15

Original Proposal

Section(s): 1010.1.9.7; (IFC[BE] 1010.1.9.7)

Proponent: Edward Kulik, Chair, representing Building Code Action Committee (bcac@iccsafe.org)

Revise as follows:

1010.1.9.7 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving any occupancy except Group A, E and H Groups B, F, I, M, R, S and U occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved automatic smoke or heat detection system* installed in accordance with Section 907.

Exception: Delayed egress locking systems shall be permitted to be installed on doors serving Group E occupancies that have an occupant load of 10 or fewer and that are in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907..

1010.1.9.7.1 Delayed egress locking system. The delayed egress locking system shall be installed and operated in accordance with all of the following:

1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the automatic sprinkler system or automatic fire detection system, allowing immediate, free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The delayed egress locking system shall have the capability of being deactivated at the fire command center and other approved locations.
4. An attempt to egress shall initiate an irreversible process that shall allow such egress in not more than 15 seconds when a physical effort to exit is applied to the egress side door hardware for not more than 3 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the delay electronics have been deactivated, rearming the delay electronics shall be by manual means only.

Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. The egress path from any point shall not pass through more than one delayed egresslocking system.

Exception: In Group I-2 or I-3 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds.

6. A sign shall be provided on the door and shall be located above and within 12 inches (305 mm) of the door exit hardware:
 - 6.1 For doors that swing in the direction of egress, the sign shall read: PUSH UNTILALARM SOUNDS. DOOR CAN BE OPENED IN 15[30] SECONDS.
 - 6.2 For doors that swing in the opposite direction of egress, the sign shall read: PULL UNTILALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.

6.3 The sign shall comply with the visual character requirements in ICC A117.1.



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Exception: Where approved, in Group I occupancies, the installation of a sign is not required where care recipients who because of clinical needs require restraint or containment as part of the function of the treatment area.

- 7. Emergency lighting shall be provided on the egress side of the door.
- 8. The delayed egress locking system units shall be listed in accordance with UL 294.

Reason: This proposal is in response to several requests to address the needs of small educational occupancies to help prevent wandering / elopement, especially for the very young, and for special needs students.

This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

Cost Impact: Will not increase the cost of construction
No cost impact unless the building owner chooses to install a delayed egress locking system.

Report of Committee Action Hearings

Committee Action:

Approved as Modified

Modify as follows:

1010.1.9.7 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving Group B, E, F, I, M, R, S and U occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907.

~~**Exception:** Delayed egress locking systems shall be permitted to be installed on doors serving Group E occupancies that have an occupant load of 10 or fewer and are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907.~~

Committee Reason: There were two modification to this proposal. One modification was to delete the limit of 10 occupants. The proposed text was not clear as to if this was an entire facility or just one classroom. The requirements for sprinklers or smoke or heat detection is an improvement in the level of safety that should allow for a classroom with a higher occupant load to use this option for delayed egress locking systems. The second modification was to delete the new proposed exception and include Group E in the allowances for where delayed egress locking systems can be used. The exception no longer has any additional limits for where delayed egress locking systems can be used. This could be considered editorial based on the approval of the first modification.

Splitting the section into two parts improves clarity. Changing the text to say where these types of locks are permitted is clearer than listing where it is not permitted. Allowing Group E facilities to use delayed egress locking systems helps address the security concerns associated with wandering or 'trigger events' for preschool classes or classrooms for students with special needs.

Assembly Action:

None

Public Comments

Public Comment 1:

Jonathan Siu, City of Seattle Department of Planning & Development, representing Washington Association of Building Officials Technical Code Development Committee (jon.siu@seattle.gov) requests Approve as Modified by this Public Comment.

Further modify as follows:

1010.1.9.7 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving ~~Group B, E, F, I, M, R, S and U occupancies~~ the following occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved automatic smoke or heat detection system* installed in accordance with Section 907;



- 1. Groups B, F, J, M, R, S and U occupancies. -
- 2. Group E classrooms with an occupant load of less than 50.

Commenter's Reason: This public comment limits the use of delayed egress devices in E occupancies to classrooms with an occupant load less than 50, as opposed to assembly spaces in E occupancies.

The code says that assembly areas in schools get classified as E occupancies (Section 303.1.3). This means that multi-purpose rooms, auditoriums, gymnasiums, and similar spaces associated with a school are E occupancies.

This code change proposal, as modified by the committee, allows delayed egress hardware on every door in an E occupancy, which would include these assembly-type spaces. However, the committee reason statement only talks about classrooms, where there are fewer occupants. We agree it would be appropriate to allow delayed egress hardware on classroom doors, but we do not think it is appropriate to have delayed egress hardware in assembly areas. The proposed change (as modified) also conflicts with the requirements in Section 1010.1.10 for panic hardware.

The modification proposed in this public comment would take care of the both issues by limiting the delayed egress hardware to classroom doors (as appears to have been the intent of the proponents of the original code change), but adds an additional limitation that the classrooms with this hardware must also have an occupant load of less than 50, in order to eliminate the conflict with the panic hardware requirements.

The editorial modification to move the list of occupancies from the main paragraph to a bullet list was necessitated when the E occupancies were separated from the list, in order to eliminate any confusion over whether the sprinklers and alarm systems are required for all the listed occupancies.

Final Action Results

E68-15

AMPC1



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Code Change No: E69-15

Original Proposal

Section: 1010.1.9.7; (IFC[BE] 1010.1.9.7)

Proponent: Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

Revise as follows:

1010.1.9.7 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving any occupancy except Group A, E and H in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved automatic smoke or heat detection system* installed in accordance with Section 907. The locking system shall be installed and operated in accordance with all of the following:

1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the *automatic sprinkler system* or *automatic fire detection system*, allowing immediate, free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The delayed egress locking system shall have the capability of being deactivated at the *fire command center* and other *approved* locations.
4. An attempt to egress shall initiate an irreversible process that shall allow such egress in not more than 15 seconds when a physical effort to exit is applied to the egress side door hardware for not more than 3 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the delay electronics have been deactivated, rearming the delay electronics shall be by manual means only.

Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. The egress path from any point shall not pass through more than one delayed egress locking system.

Exception-Exceptions:

1. In Group I-2 or I-3 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds.
2. In Group I-1 or I-4 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
6. A sign shall be provided on the door and shall be located above and within 12 inches (305 mm) of the door exit hardware:
 1. For doors that swing in the direction of egress, the sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.

- 2. For doors that swing in the opposite direction of egress, the sign shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
- 3. The sign shall comply with the visual character requirements in ICCA117.1.

Exception: Where approved, in Group I occupancies, the installation of a sign is not required where care recipients who because of clinical needs require restraint or containment as part of the function of the treatment area.

- 7. Emergency lighting shall be provided on the egress side of the door.
- 8. The delayed egress locking system units shall be listed in accordance with UL 294.

Reason: In Item 5, the new exception is proposed to be revised to include Group I-1 occupancies to allow up to two delayed egress systems. As in Group I-2, Group I-1 occupancies may need more than one delayed egress system. For example, if the Group I-1 occupancy is on the 2nd floor, or higher, in a building, a delayed egress system may be needed on the door to the exit stairway on that floor. And a second delayed egress locking system may be needed at the door to the exterior on the ground floor. In Group I-1 and I-4 an additional delayed egress locking system may be highly desirable to help reduce wandering or elopement by occupants. The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the Care Facilities Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>.

Cost Impact: Will increase the cost of construction
This is a design option that would allow two delayed egress locking systems in the means of egress, which would increase costs, but it is not a requirement.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The addition of Group I-1 and I-4 to the Exceptions in Item 5 provides for consistency in all Group I occupancies where there are concerns for wandering. With the total time limit staying at 30 seconds maximum, security concerns can be addressed without an increase in the level of risk for residents.

Assembly Action:

None

Final Action Results

E69-15

AS



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Date Submitted 12/10/2018	Section 1010.1.9.8	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Clarify and improve the consistency of the language in this code section.

Rationale

The changing language is proposed to eliminate redundancy in this section. With revisions to the first sentence, text late in that sentence is redundant as entrance doors to tenant spaces are commonly in the means of egress. It is uncommon that tenant doors are not in the means of egress.

The revisions to the numbered items is to clarify the required functions of the electric locking system. In Item 1, the added text describes what the sensor is required to do upon detecting an approaching occupant. The revisions in the other items clarify requirements for this electrical locking system.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
none.

Impact to building and property owners relative to cost of compliance with code
none

Impact to industry relative to the cost of compliance with code
none

Impact to small business relative to the cost of compliance with code
none

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
it clarifies the intent of the building code.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
yes

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
does not

Does not degrade the effectiveness of the code
does not

1010.1.9.8 Sensor release of electrically locked egress doors.

The electric locks on sensor released doors located in a *means of egress* in buildings with an occupancy in Electric locking systems shall be permitted on doors located in the means of egress with an occupancy in Group A, B, E, I-1, I-2, I-4, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in Group A, B, E, I-1, I-2, I-4, M, R-1 or R-2 are permitted where installed and operated in accordance with all of the following criteria:

1. The sensor shall be installed on the egress side, arranged to detect an occupant approaching the doors, and shall cause the electric locking system to unlock.
2. The electric locks ~~doors~~ shall be arranged to unlock by a signal from or loss of power to the sensor.
3. Loss of power to the lock or locking system shall automatically unlock the ~~doors~~ electric lock.
4. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016 mm to 1219 mm) vertically above the floor and within 5 feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the electric lock—independent of other electronics—and the ~~doors~~ electric lock shall remain unlocked for not less than 30 seconds.
5. Activation of the building *fire alarm system*, where provided, shall automatically unlock the ~~doors~~ electric lock, and the ~~doors~~ electric lock shall remain unlocked until the fire alarm system has been reset.
6. Activation of the building *automatic sprinkler system* or *fire detection system*, where provided, shall automatically unlock the ~~doors~~ electric lock . The ~~doors~~ electric lock shall remain unlocked until the *fire alarm system* has been reset.
7. The door locking system units shall be listed in accordance with UL 294.

Date Submitted 12/10/2018	Section 1026.4	Proponent Miguel Botello
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

Revise section 1026.4 "Refuge Area" to clarify the requirements for when the actual occupant load is less than the capacity of the exit.

Rationale

Aligns the code with industry standards.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
None

Impact to building and property owners relative to cost of compliance with code
Will not increase the cost of construction. Would allow building owners to maximize the use of the floor area for their buildings without having to make floor areas usable for refuge areas in order to accommodate more occupants than the area is legally permitted to have.

Impact to industry relative to the cost of compliance with code
Would permit flexibility in design.

Impact to small business relative to the cost of compliance with code
Will not increase the cost of construction. Would allow building owners to maximize the use of the floor area for their buildings without having to make floor areas usable for refuge areas in order to accommodate more occupants than the area is legally permitted to have.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Yes, provide occupant clarification.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Yes, provide occupant clarification.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
No
- Does not degrade the effectiveness of the code**
No, provides clarification.

1026.4 Refuge area.

The refuge area of a horizontal exit shall be a space occupied by the same tenant or a public area and each such refuge area shall be adequate to accommodate the original occupant load of the refuge area plus the occupant load anticipated from the adjoining compartment. The anticipated occupant load from the adjoining compartment shall be based on the capacity of the horizontal exit doors entering the refuge area or the total *occupant load* of the adjoining compartment, whichever is less.

Date Submitted 12/10/2018	Section 1029.9.1	Proponent Miguel Botello
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Revise section 1029.9.1 "Minimum aisle width" coordination cleanup for minimum aisle width.

Rationale

Provides clarification, defines, and coordinates minimum aisle widths.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Provides clarification of aisle widths.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction. The proposal is a clarification and coordination of current requirements; therefore, there is no impact on the cost.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction. The proposal is a clarification and coordination of current requirements; therefore, there is no impact on the cost.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction. The proposal is a clarification and coordination of current requirements; therefore, there is no impact on the cost.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, provides clarification and coordination.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No

Does not degrade the effectiveness of the code

No

1029.9.1 Minimum aisle width.

The minimum clear width for aisles shall comply with one of the following:

- 1. Forty-eight inches (1219 mm) for stepped aisles having seating on each both sides. Exception: Thirty-six inches (914 mm) where the stepped aisles serve less than 50 seats.**
- 2. Thirty-six inches (914 mm) for stepped aisles having seating on only one side. Exception: Twenty-three inches (584 mm) between a stepped aisle handrail and seating where a stepped aisle does not serve more than five rows on one side.**
- 3. Twenty-three inches (584 mm) between a stepped aisle handrail or guard and seating where the stepped aisle is subdivided by a mid-aisle handrail.**
- 4. Forty-two inches (1067 mm) for level or ramped aisles having seating on both sides. Exceptions:**
 - 1. Thirty-six inches (914 mm) where the aisle serves less than 50 seats.**

2. ~~Thirty inches (762 mm) where the aisle does not serve more than 14 seats~~ services less than 15 seats and does not serve as part of an accessible route.

5. Thirty-six inches (914 mm) for level or ramped aisles having seating on only one side.

Exception: ~~For other than ramped aisles that serve as part of an accessible route, 30 inches (762 mm) where the ramped aisle does not serve more than 14 seats.~~ Thirty inches (762mm) where the aisle serves fewer than 15 seats and does not serve as part of an accessible route.

Date Submitted 12/11/2018	Section 1010.1.9.10	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Permit the use of locked doors for I-1 Occupancies within correction facilities.

Rationale

Group I-1 services are provided in jails, however, they were not in this list of locking arrangements for correctional facilities. Rather than add Group I-1 to this growing list, it seems more appropriate to state that this type of locking should be allowed in all portions of a correctional facility. In addition, this list of Groups is inconsistent with how correctional facilities is defined in Section 308.5. If this system should not be allowed in certain types of jails, it should be regulated by the Condition, not a list of possible uses.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
none
- Impact to building and property owners relative to cost of compliance with code**
none
- Impact to industry relative to the cost of compliance with code**
none
- Impact to small business relative to the cost of compliance with code**
none

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
yes
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
yes
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
does not
- Does not degrade the effectiveness of the code**
does not

1010.1.9.10 Locking arrangements in buildings within correctional facilities. In occupancies in Groups A-2, A-3, A-4, B, E, F, I-2, I-3, M and S buildings within correctional and detention facilities, doors in *means of egress* serving rooms or spaces occupied by persons whose movements are controlled for security reasons shall be permitted to be locked where equipped with egress control devices that shall unlock manually and by not less than one of the following means:

1. Activation of an *automatic sprinkler system* installed in accordance with Section 903.3.1.1
2. Activation of an *approved manual fire alarm box*.
3. A signal from a *constantly attended location*.

Code Change No: **E73-15**

Section: 1010.1.9.10; (IFC[BE] 1010.1.9.10)

Proponent: Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, ICC Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org); Edward Kulik, Chair, Building Code Action Committee (bcac@iccsafe.org)

Revise as follows:

1010.1.9.10 Locking arrangements in buildings within correctional facilities. In occupancies in Groups A-2, A-3, A-4, B, E, F, I-2, I-3, M and S buildings within correctional and detention facilities, doors in means of egress serving rooms or spaces occupied by persons whose movements are controlled for security reasons shall be permitted to be locked where equipped with egress control devices that shall unlock manually and by not less than one of the following means:

1. Activation of an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. Activation of an *approved manual fire alarm box*.
3. A signal from a *constantly attended location*.

Reason: This section was brought to the attention of the CTC Care committee because Group I-1 services are provided in jails, however, they were not in this list of locking arrangements for correctional facilities. Rather than add Group I-1 to this growing list, it seems more appropriate to state that this type of locking should be allowed in all portions of a correctional facility. In addition, this list of Groups is inconsistent with how correctional facilities is defined in Section 308.5. If this system should not be allowed in certain types of jails, it should be regulated by the Condition, not a list of possible uses.

The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the Care Facilities Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>.

The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

Cost Impact: Will not increase the cost of construction
This proposal is a clarification of requirements.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: There are multiple uses within correctional and detention facilities. The current list is not all inclusive. Elimination of the lists would allow for the detention and correctional facilities to address security needs appropriately.

Assembly Action:

None

Final Action Results



INTERNATIONAL CODE COUNCIL®

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Date Submitted	12/11/2018	Section	1011.11	Proponent	Lawrence Cohan
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

1014.1

Summary of Modification

clarify that handrails are required on "flights of stairways", not "stairways". The definition of "stairways" includes landings.

Rationale

Other than required handrail extensions, handrails are not required at the outside periphery of landings. However long before we get to 1014.6 Handrail extensions, the use of the defined term "stairways" in sections 1011.11 and 1014.1, supports the interpretation that handrails are required at landings because by definition a stairway includes landings.

Stairway. One or more flights of stairs, either exterior or interior, with the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage from one level to another.

The problem becomes more apparent when we look at 1014.4 Continuity. Unlike continuity in the IRC there is no limit related to the flight. Confusion is created when 1014.4 is considered with the other handrail section references to stairways as revised in the proposal above. This is a particular problem when considering residential applications.

This proposal provides a simple solution by substituting the correct term "flights of stairways" for "stairways" and clarifies the intent of the code. The term flights of stairways is used throughout the code and in particular within 1014.6 Handrail extensions.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

none

Impact to building and property owners relative to cost of compliance with code

none

Impact to industry relative to the cost of compliance with code

none

Impact to small business relative to the cost of compliance with code

none

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

yes

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

yes

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

does not

Does not degrade the effectiveness of the code

does not

1011.11 Handrails.

~~Stairways~~ Flights of stairways shall have handrails on each side and shall comply with Section 1014. Where glass is used to provide the handrail, the handrail shall comply with Section 2407.

Exceptions:

1. ~~Stairways~~ Flights of stairways within dwelling units and flights of spiral stairways are permitted to have a handrail on one side only.
2. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require handrails.
3. In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require handrails.
4. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require handrails.

Date Submitted	12/11/2018	Section	1014.1	Proponent	Lawrence Cohan
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

1011.11

Summary of Modification

clarifies railing requirements for "flights of stairways", verses "stairways". By definition, "stairways" include landings.

Rationale

Other than required handrail extensions, handrails are not required at the outside periphery of landings. However long before we get to 1014.6 Handrail extensions, the use of the defined term "stairways" in sections 1011.11 and 1014.1, supports the interpretation that handrails are required at landings because by definition a stairway includes landings.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

none

Impact to building and property owners relative to cost of compliance with code

none

Impact to industry relative to the cost of compliance with code

none

Impact to small business relative to the cost of compliance with code

none

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

yes

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

yes

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

does not

Does not degrade the effectiveness of the code

does not

1014.1 Where required.

Handrails serving flights of stairways, ramps, stepped aisles and ramped aisles shall be adequate in strength and attachment in accordance with Section 1607.8. Handrails required for flights of stairways by Section 1011.11 shall comply with Sections 1014.2 through 1014.9. Handrails required for ramps by Section 1012.8 shall comply with Sections 1014.2 through 1014.8. Handrails for stepped aisles and ramped aisles required by Section 1029.15 shall comply with Sections 1014.2 through 1014.8.

Date Submitted 12/12/2018	Section 1011.16	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

clarifies the construction requirements for permanent ladders.

Rationale

Section 306.5 of the FBC-M provides guidance on where ladders can be used to access equipment and for the technical criteria to construct the ladder (see the reason of the original change for text). The concern is the exact wording of Section 1009.18, Item 6. The list in Section 1011.6 is locations where ladders can be used. Item 6 is revised to limit the reference to where the ladders are permitted in FBC-M Section 306.5. How ladders are to be constructed is moved to the base paragraph so it is clear what technical requirements are to be followed where a ladder is provided in any of the 6 locations.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
none
- Impact to building and property owners relative to cost of compliance with code**
none
- Impact to industry relative to the cost of compliance with code**
none
- Impact to small business relative to the cost of compliance with code**
none

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
yes
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
yes
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
does not
- Does not degrade the effectiveness of the code**
does not

1011.16 Ladders.

Permanent ladders shall not serve as a part of the means of egress from occupied spaces within a building. Permanent ladders shall be constructed in accordance with Section 306.5 of the Florida Building Code. Permanent ladders shall be permitted to provide access to the following areas:

1. Spaces frequented only by personnel for maintenance, repair or monitoring of equipment.
2. Nonoccupiable spaces accessed only by catwalks, crawl spaces, freight elevators or very narrow passageways.
3. Raised areas used primarily for purposes of security, life safety or fire safety including, but not limited to, observation galleries, prison guard towers, fire towers or lifeguard stands.
4. Elevated levels in Group U not open to the general public.
5. Nonoccupied roofs that are not required to have stairway access in accordance with Section 1011.12.1.
6. Where permitted to access equipment and appliances ~~Ladders shall be constructed in accordance with Section 306.5 of the Florida Building Code, Mechanical.~~

Code Change No: E86-15

Original Proposal

Section: 1011.16 (IFC[BE] 1011.16)

Proponent: Edward Kulik, Chair, representing Building Code Action Committee (bcac@iccsafe.org)

Revise as follows:

1011.16 Ladders. Permanent ladders shall not serve as a part of the means of egress from occupied spaces within a building. Permanent ladders shall be constructed in accordance with Section 306.5 of the International Mechanical Code. Permanent ladders shall be permitted to provide access to the following areas:

- 1. Spaces frequented only by personnel for maintenance, repair or monitoring of equipment.
2. Nonoccupiable spaces accessed only by catwalks, crawl spaces, freight elevators or very narrow passageways.
3. Raised areas used primarily for purposes of security, life safety or fire safety including, but not limited to, observation galleries, prison guard towers, fire towers or lifeguard stands.
4. Elevated levels in Group U not open to the general public.
5. Nonoccupied roofs that are not required to have stairway access in accordance with Section 1011.12.1.
6. Ladders shall be constructed where permitted to access equipment and appliances in accordance with Section 306.5 of the International Mechanical Code.

Reason: Section 306.5 of the IMC provides guidance on where ladders can be used to access equipment and for the technical criteria to construct the ladder (see the reason of the original change for text). The concern is the exact wording of Section 1009.18, Item 6. The list in Section 1011.6 is locations where ladders can be used. Item 6 is revised to limit the reference to where the ladders are permitted in IMC Section 306.5. How ladders are to be constructed is moved to the base paragraph so it is clear what technical requirements are to be followed where a ladder is provided in any of the 6 locations.

This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

Cost Impact: Will not increase the cost of construction
This proposal is a clarification of current requirements.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The construction requirements are moved to the main text. The 6 items now only list the where ladders are permitted. This improves clarity in the code..

Assembly Action:

None

Final Action Results

E86-15

AS



Back

Code Change No: **E86-15**



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Date Submitted 12/12/2018	Section 1029.9.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The intent of this proposal is consistency in language and consistency in exceptions to other sections.

Rationale

The intent of this proposal is consistency in language. Added the language as a reminder for the accessible route to the exception for Item 5, but missed the same concern in Item 4 exception 2. The accessible route provisions require "width and are required by Section 1009 and 1104 to the wheelchair spaces for ingress and egress. The reminder should be in both locations. If it is felt that this is already addressed, it should be removed from the exception in Item 5. The strike out of "ramped" in the exception to item 5 is because this item deals with both ramped and level aisles. The limitation of this option to "ramped" aisles was a mistake. Level aisles are less hazardous than ramped aisles. Changing the language to "serve less than 15 seats" instead of "does not serve more than 14 seats" is not a technical change. It is for consistency with the language in the other exceptions.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Clarifies and improves enforcement
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves application of access increasing safety and welfare for the public
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code and has no impact on products or related construction
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

1029.9.1 Minimum aisle width.

The minimum clear width for *aisles* shall comply with one of the following:

1. ~~Forty-eight inches (1219 mm) for stepped *aisles* having seating on each side both sides.~~

Exception: ~~Thirty-six inches (914 mm) where the stepped *aisles* serve less than 50 seats.~~

2. ~~Thirty-six inches (914 mm) for stepped *aisles* having seating on only one side.~~

Exception: ~~Twenty-three inches (584 mm) between a stepped *aisle handrail* and seating where a stepped *aisle* does not serve more than five rows on one side.~~

3. ~~Twenty-three inches (584 mm) between a stepped *aisle handrail* or *guard* and seating where the stepped *aisle* is subdivided by a mid-aisle *handrail*.~~

4. ~~Forty-two inches (1067 mm) for level or ramped *aisles* having seating on both sides.~~

Exceptions:

1. ~~Thirty-six inches (914 mm) where the *aisle* serves less than 50 seats.~~

2. ~~Thirty inches (762 mm) where the *aisle serves less than 15 seats and* does not serve more than 14 seats as part of an accessible route.~~

5. ~~Thirty-six inches (914 mm) for level or ramped *aisles* having seating on only one side.~~

Exception: ~~For other than ramped *aisles* that serve as part of an accessible route, 30~~Thirty inches (762 mm) where the ramped *aisle serves less than 15 seats and* does not serve more than 14 seats as part of an accessible route.

Date Submitted 12/12/2018	Section 1029.14.3	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

1029.14.1, 1029.14.2

Summary of Modification

New definitions to deal with vomitories specific needs

Rationale

The intent of this proposal is to provide language addressing the most common concerns with stepped aisles around vomitories

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Addresses specific condition not addressed in Code giving direction and basis for design guidance and enforcement

Impact to building and property owners relative to cost of compliance with code

Minor and minimizes issues for access

Impact to industry relative to the cost of compliance with code

Minor

Impact to small business relative to the cost of compliance with code

Minor

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

By addressing specific need of use increases safety of users

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves Code by clarifying specific needs and design criteria

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Add new section:

1029.14.3 Stepped aisles at vomitories. Stepped aisles that change direction at vomitories shall comply with 1029.14.1
Transitions between a stepped aisle above a vomitory and stepped aisle to the side of vomitory shall comply with
1029.14.2.

Date Submitted 12/12/2018	Section 1029.14.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

1029.14, 1029.14.2

Summary of Modification

New definitions to deal with vomitories specific needs

Rationale

The intent of this proposal is to provide language addressing the most common concerns with stepped aisles around vomitories

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Addresses specific condition not addressed in Code giving direction and basis for design guidance and enforcement

Impact to building and property owners relative to cost of compliance with code

Minor and minimizes issues for access

Impact to industry relative to the cost of compliance with code

Minor

Impact to small business relative to the cost of compliance with code

Minor

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

By addressing specific need of use increases safety of users

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves Code by clarifying specific needs and design criteria

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Add new section:

1029.14.1 Stepped aisles that change direction at vomitories. Stepped aisle treads where the stepped aisle changes direction at a vomitory shall have a minimum depth of 11 inches (280 mm) or the stepped aisle tread depth, whichever is greater. The height of a stepped aisle tread above a transition at a vomitory shall comply with Section 1029.13.2.2.

Date Submitted 12/12/2018	Section 1029.14.2	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

1029.14, 1029.14.1

Summary of Modification

New definitions to deal with vomitories specific needs

Rationale

The intent of this proposal is to provide language addressing the most common concerns with stepped aisles around vomitories

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Addresses specific condition not addressed in Code giving direction and basis for design guidance and enforcement

Impact to building and property owners relative to cost of compliance with code

Minor and minimizes issues for access

Impact to industry relative to the cost of compliance with code

Minor

Impact to small business relative to the cost of compliance with code

Minor

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

By addressing specific need of use increases safety of users

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves Code by clarifying specific needs and design criteria

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not

Add new section:

1029.14.2 Stepped aisle transitions at the top of vomitories. Transitions between the stepped aisle above a vomitory and stepped aisles to the side of a vomitory shall have a minimum depth of 11 inches (280mm) or the stepped aisle depth, whichever is greater.

Date Submitted 12/12/2018	Section 1029.10.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways.

Rationale

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Improves definition and provides clarity
- Impact to building and property owners relative to cost of compliance with code**
None
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves enforcement and safety of users
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens by clarifying Code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

1029.10.1 Transitions ~~and~~ to stairways that maintain stepped aisle riser and tread dimensions.

Stepped *aisles*, transitions and *stairways* that maintain the stepped aisle riser and tread dimensions shall comply with Section 1029.13 as one *exit access* component.

Date Submitted 12/12/2018	Section 1029.10.2	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways.

Rationale

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Improves definition and provides clarity
- Impact to building and property owners relative to cost of compliance with code**
None
- Impact to industry relative to the cost of compliance with code**
None
- Impact to small business relative to the cost of compliance with code**
None

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves enforcement and safety of users
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens by clarifying Code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

1029.10.2 Transitions to stairways that do not maintain stepped aisle riser and tread dimensions.

Transitions to between stairways from and stepped aisles with having different riser and tread dimensions that differ from the ~~stairways~~ shall comply with Sections 1029.10.2.1 through 1029.10.3.

Date Submitted 12/12/2018	Section 1029.10.2.1	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways.

Rationale

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Improves definition and provides clarity
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves enforcement and safety of users
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens by clarifying Code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:**1029.10.2.1 Stairways and stepped aisles in a straight run.**

~~Transitions where the *stairway* is~~ Where stairways and stepped aisles are in a straight run from the stepped *aisle* the transition shall have one of the following:

1. ~~a~~ A minimum depth of 22 inches (559 mm) where the treads on the descending side of the transition have greater depth ~~and~~
2. A minimum depth of 30 inches (762 mm) where the treads on the descending side of the transition have lesser depth.

Date Submitted 12/12/2018	Section 1029.10.2.2	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways.

Rationale

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Improves definition and provides clarity
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves enforcement and safety of users
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens by clarifying Code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:

1029.10.2.2 Stairways and ~~stepped aisles~~ that change direction from stepped aisles.

Transitions where the *stairway* changes direction from the stepped *aisle* shall have a minimum depth of 11 inches (280 mm) or the stepped *aisle* tread depth, whichever is greater, between the stepped *aisle* and *stairway*.

Date Submitted 12/12/2018	Section 1029.10.3	Proponent Ann Russo5
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications

Summary of Modification

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways.

Rationale

The intent of this proposal is to provide minor revisions to clarify the language relating to the transitions between stepped aisle and stairways

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Improves definition and provides clarity
- Impact to building and property owners relative to cost of compliance with code**
None expected
- Impact to industry relative to the cost of compliance with code**
None expected
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves enforcement and safety of users
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens by clarifying Code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Does not

Revise as follows:**1029.10.3 Transition marking.**

A distinctive marking stripe shall be provided at each *nosing* or leading edge adjacent to the transition. Such stripe shall be ~~not less than~~ a minimum of 1 inch (25 mm), and ~~not more than~~ a maximum of 2 inches (51 mm), wide. The edge marking stripe shall be distinctively different from the stepped *aisle* contrasting marking stripe.

Date Submitted	12/12/2018	Section	1013.2	Proponent	Lawrence Cohan
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

allow more flexibility in the height of low-level exit signs

Rationale

The base code provides just a 2-inch tolerance for where the bottom of required low-energy exit signs must be located. This 2-inch window is often challenging for designers and property owners due to field conditions or desired interior finish and trim. For example, several high-end resort properties have installed 12-inch tall base boards in the exit access corridors of the hotels. The base code requirement that the bottom of the sign be located within 10- to 12- inches above the floor level would create issues for these facilities.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

none

Impact to building and property owners relative to cost of compliance with code

none

Impact to industry relative to the cost of compliance with code

none

Impact to small business relative to the cost of compliance with code

none

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This proposal is consistent with the upper bounds permitted by another national code (NFPA 101 Life Safety Code).

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

There is no impact on the level of life safety of the occupants of the Group R-1 occupancies since the low-level exit signs will still be visible below a smoke layer from a fire (in the zone in which the occupants would presumably be crawling.)

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

does not

Does not degrade the effectiveness of the code

does not

1013.2 Floor-level exit signs in Group R-1.

Where exit signs are required in Group R-1 occupancies by Section 1013.1, additional low-level exit signs shall be provided in all areas serving guest rooms in Group R-1 occupancies and shall comply with Section 1013.5.

The bottom of the sign shall be not less than 10 inches (254 mm) nor more than ~~42~~ 18 inches (~~305~~ 455 mm) above the floor level. The sign shall be flush mounted to the door or wall. Where mounted on the wall, the edge of the sign shall be within 4 inches (102 mm) of the door frame on the latch side.

Date Submitted 12/12/2018	Section 1013.4	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

1111.3

Summary of Modification

clarify code language to require tactile signage only for doors in areas of refuge that lead to the stairway (not to elevator lobbies).

Rationale

The point of the tactile exit signage is to let a visually impaired person know what door they should enter to exit the building. When a stairway is accessed through an area of refuge, this signage is appropriate. Where the area of refuge is at the front of an elevator with standby power, this is not appropriate. Many lobbies have double doors with hold open devices, so there is also the question about where would be the correct location for this signage. This change in language will effectively not require the tactile exit signage at an elevator lobby.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
none

Impact to building and property owners relative to cost of compliance with code
possible reduction in cost.

Impact to industry relative to the cost of compliance with code
possible reduction in cost.

Impact to small business relative to the cost of compliance with code
possible reduction in cost

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
yes

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
yes, less possible confusion

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
does not

Does not degrade the effectiveness of the code
does not

1013.4 Raised character and braille exit signs.

A sign stating EXIT in visual characters, raised characters and braille and complying with the Florida Building Code, Accessibility shall be provided adjacent to each door to an area of refuge providing direct access to a stairway, an exterior area for assisted rescue, an exit stairway or ramp, an exit passageway and the exit discharge.

Code Change No: E89-15

Original Proposal

Section: 1013.4, 1111.3; (IFC[BE] 1013.4)

Proponent: Dominic Marinelli, representing United Spinal Association (DMarinelli@accessibility-services.com)

Revise as follows:

1013.4 Raised character and braille exit signs. A sign stating EXIT in visual characters, raised characters and braille and complying with *ICCA 117.1* shall be provided adjacent to each door to an *area of refuge providing direct access to a stairway*, an exterior area for assisted rescue, an *exit stairway* or ramp, an *exit passageway* and the *exit discharge*.

1111.3 Other signs. Signage indicating special accessibility provisions shall be provided as shown.

1. Each assembly area required to comply with Section 1108.2.7 shall provide a sign notifying patrons of the availability of assistive listening systems. The sign shall comply with ICCA 117.1 requirements for visual characters and include the International Symbol of Access for Hearing Loss.

Exception: Where ticket offices or windows are provided, signs are not required at each assembly area provided that signs are displayed at each ticket office or window informing patrons of the availability of assistive listening systems.

2. At each door to an *area of refuge providing direct access to the stairway*, an exterior area for assisted rescue, an *egress exit stairway*, *exit passageway* and *exit discharge*, signage shall be provided in accordance with Section 1013.4.
3. At *areas of refuge*, signage shall be provided in accordance with Section 1009.11.
4. At exterior areas for assisted rescue, signage shall be provided in accordance with Section 1009.11.
5. At two-way communication systems, signage shall be provided in accordance with Section 1009.8.2.
6. In *interior exit stairways* and *ramps*, floor level signage shall be provided in accordance with Section 1023.9.
7. Signs identifying the type of access provided on amusement rides required to be *accessible* by Section 1110.4.8 shall be provided at entries to queues and waiting lines. In addition, where *accessible* unload areas also serve as *accessible* load areas, signs indicating the location of the *accessible* load and unload areas shall be provided at entries to queues and waiting lines. These directional sign characters shall meet the visual character requirements in accordance with ICC A117.1.

Reason: The intent is coordination with the a revision to the next edition of the ICC A117.1 standard for tactile exit signage, Section 504.10.

The point of the tactile exit signage is to let a visually impaired person know what door they should enter to exit the building. When a stairway is accessed through an area of refuge, this signage is appropriate. Where the area of refuge is at the front of an elevator with standby power, this is not appropriate. Many lobbies have double doors with hold open devices, so there is also the question about where would be the correct location for this signage. This change in language will effectively not require the tactile exit signage at an elevator lobby.

Cost Impact: Will not increase the cost of construction
This is a possible reduction in signage.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: This proposal will coordinate with the ICC A117.1 revision to tactile exit signage that will be in the next edition. Tactile 'exit' signage is an important part of way finding for persons with vision impairments. Therefore, providing a tactile 'exit' signage at an area of refuge in front of an elevator that does not have direct access to an exit stairway is not good direction.

Assembly Action:

None

Final Action Results

E89-15

AS

INTERNATIONAL CODE COUNCIL®

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IBC-111

Date Submitted 12/12/2018	Section 1015.3	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments	No	Alternate Language	No
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Related Modifications

Summary of Modification

eliminate height of rail requirement to be taken from top of seat in Group R-3 not more than 3 story occupancies and individual dwellings in Group R-2 not more than 3 stories above grade.

Rationale

The purpose of this proposal is coordination between the IBC and IRC. The phrase “or adjacent fixed seating” was in exception 1 to coordinate with the provisions for guard height in the IRC. Previous edition of the IBC and IRC required guards to be placed adjacent to fixed seating that occurs on areas such as decks where the seat and guard are built integral with the deck. At those locations the guard height was measured from that seat. The requirement to measure from the fixed seating has been removed from the IBC and IRC.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
none
- Impact to building and property owners relative to cost of compliance with code**
possible reduction in cost
- Impact to industry relative to the cost of compliance with code**
possible reduction in cost
- Impact to small business relative to the cost of compliance with code**
possible reduction in cost

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
yes
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
improves the code by providing continuity with IBC and IRC
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
does not
- Does not degrade the effectiveness of the code**
does not

1015.3 Height.

Required *guards* shall be not less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces.
2. On *stairways* and stepped *aisles*, from the line connecting the leading edges of the tread *nosings*.
3. On *ramps* and ramped *aisles*, from the *ramp* surface at the *guard*.

Exceptions:

1. For occupancies in Group R-3 not more than three stories above grade in height and within individual *dwelling units* in occupancies in Group R-2 not more than three stories above grade in height with separate *means of egress*, required *guards* shall be not less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces or adjacent *fixed seating*.
 2. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, *guards* on the open sides of *stairs* shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
 3. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, where the top of the *guard* also serves as a *handrail* on the open sides of *stairs*, the top of the *guard* shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
-
1. The *guard* height in assembly seating areas shall comply with Section 1029.16 as applicable.
-
5. Along *alternating tread devices* and ships ladders, *guards* where the top rail also serves as a *handrail* shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread *nosing*.

Code Change No: E92-15

Original Proposal

Section: 1015.3 (IFC[BE] 1015.3)

Proponent: Edward Kulik, Chair, representing Building Code Action Committee (bcac@iccsafe.org)

Revise as follows:

1015.3 Height. Required *guards* shall be not less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces.
2. On *stairways* and stepped *aisles*, from the line connecting the leading edges of the tread *nosings*.
3. On *ramps* and ramped *aisles*, from the *ramps* surface at the *guard*.

Exceptions:

1. For occupancies in Group R-3 not more than three stories above grade in height and within individual *dwelling units* in occupancies in Group R-2 not more than three stories above grade in height with separate *means of egress*, required *guards* shall be not less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces ~~or adjacent fixed seating.~~
2. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, *guards* on the open sides of *stairs* shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
3. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, where the top of the *guard* also serves as a *handrail* on the open sides of *stairs*, the top of the *guard* shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
4. The *guard* height in assembly seating areas shall comply with Section 1029.16 as applicable.
5. Along *alternating tread devices* and ship ladders, *guards* where the top rail also serves as a *handrail* shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread *nosings*.

Reason: The purpose of this proposal is coordination between the IBC and IRC. The phrase 'or adjacent fixed seating' was an exception to coordinate with the provisions for guard height in the IRC. Previous edition of the IBC and IRC required guards to be placed adjacent to fixed seating that occurs on areas such as decks where the seat and guard are built integral with the deck. At those locations the guard height was measured from that seat. The requirement to measure from the fixed seating has been removed from the IBC and IRC.

In July 2014 the ICC Board decided to sunset the activities of the Code Technology Committee (CTC). This is being accomplished by re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). This proposal falls under the CTC Area of Study entitled Climbable Guards. Information on the CTC, including the sunset plan, meeting agendas, minutes, reports, resource documents, presentations, and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website.

This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

Cost Impact: Will increase the cost of construction

This proposal could result in a reduction of the required guard height. This is coordination with the IRC.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: Deletion of 'or adjacent fixed seating' in Exception 1 is a coordination with revisions that occurred in the IRC last cycle.

Assembly Action:

None

Final Action Results

E92-15

AS

INTERNATIONAL CODE COUNCIL®

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18 Codes: Successful Changes with Public Comments

IBC-115

Date Submitted 12/12/2018	Section 202	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

1017.3

Summary of Modification

modifies definition of "common path"

Rationale

The definition of "common path of egress travel" was modified for the 2015 Edition of the IBC. The intent of the change was to clarify the common path of egress travel and exit access travel distance are measured in the same way. The terminus of each is different, but the route is the same. This logic was based on the last sentence of the 2012 IBC definition, "Common paths of travel shall be included within the permitted travel distance." and the language in 2012 Section 1016.3, "Exit access travel distance shall be measured from the most remote point within a story..."

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
none
- Impact to building and property owners relative to cost of compliance with code**
none
- Impact to industry relative to the cost of compliance with code**
none
- Impact to small business relative to the cost of compliance with code**
none

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
yes
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
yes
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
does not
- Does not degrade the effectiveness of the code**
does not

COMMONPATHOFEGRESSTRAVEL. That portion of the exit access travel distance measured from the most remote point within a story of each room, area or space to that point where the occupants have separate and distinct access to two exits or exit access doorways.

Code Change No: E100-15

Original Proposal

Section: 202, 1017.3; (IFC[BE] 1017.3)

Proponent: Edward Kulik, Chair, representing Building Code Action Committee (bcac@iccsafe.org)

Revise as follows:

SECTION 202 DEFINITIONS

COMMON PATH OF EGRESS TRAVEL. That portion of the *exit access* travel distance measured from the most remote point ~~within a story of each room, area or space~~ to that point where the occupants have separate and distinct access to two exits or *exit access doorways*.

1017.3 Measurement. *Exit access* travel distance shall be measured from the most remote point ~~within a story of each room, area or space~~ along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an *exit*.

Exception: In *open parking garages*, *exit access* travel distance is permitted to be measured to the closest riser of an *exit access stairway* or the closest slope of an *exit access ramp*.

Reason: This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

The definition of "common path of egress travel" was modified for the 2015 Edition of the IBC. The intent of the change was to clarify the common path of egress travel and exit access travel distance are measured in the same way. The terminus of each is different, but the route is the same. This logic was based on the last sentence of the 2012 IBC definition, "Common paths of travel shall be included within the permitted travel distance," and the language in 2012 Section 1016.3, "Exit access travel distance shall be measured from the most remote point within a story..."

If applied literally, it could be interpreted such that the common path of egress travel need be considered from only one point (the most remote) on a given story. Obviously, all potential paths of egress travel need to be considered when establishing occupant remoteness for the purposes of determining multiple exit or exit access doorway requirements. Clarifying that the path of travel originating from any room, area or space should be evaluated when determining common paths of egress travel will eliminate literal interpretations of the current definition. Additionally, the reference to a single story has been eliminated. Section 1006.3 allows for access to exits at an adjacent level. Common path of egress travel requirements could potentially apply to a multi-level design condition.

For purposes of consistency, Section 1017.3 has been modified to indicate that exit access travel distance is measured from all remote points within the means of egress system. The "story" approach is a little simplistic and does not represent the level of detail necessary to properly design or analyze a means of egress system. Additionally, when accessing an exit at an adjacent level, the exit access travel distance at both stories, to include the exit access stairways, is calculated. The single story reference could be misleading. Approval of this modification will clarify the definition of common path of egress travel for the benefit of all users.

Cost Impact: Will not increase the cost of construction
Provisions simply provide clarification of current requirements.

Staff note: There is a published errata to the definition for Common Path of Egress Travel. The errata is incorporated into the definition as existing text.

Report of Committee Action Hearings

**Committee Action:
Submitted**

Approved as

Committee Reason: The change to the definition clarifies that the common path of egress travel can be measured both out of a room to a common corridor or down an exit access stairway to another floor at which point an occupant would have two options for continuing along the means of egress.

The change to Section 1017.3 clarifies that exit access travel distance can also be measured to an exit enclosure on the same level, or down an exit access stairway to an exit enclosure on another floor.

Assembly

**Action:
Non**

e

Final Action Results

E100-15

AS

Date Submitted 12/12/2018	Section 1017.3	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

202

Summary of Modification

modifies definition of "common path"

Rationale

The definition of "common path of egress travel" was modified for the 2015 Edition of the IBC. The intent of the change was to clarify the common path of egress travel and exit access travel distance are measured in the same way. The terminus of each is different, but the route is the same. This logic was based on the last sentence of the 2012 IBC definition, "Common paths of travel shall be included within the permitted travel distance." and the language in 2012 Section 1016.3, "Exit access travel distance shall be measured from the most remote point within a story..."

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
none
- Impact to building and property owners relative to cost of compliance with code**
none
- Impact to industry relative to the cost of compliance with code**
none
- Impact to small business relative to the cost of compliance with code**
none

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
yes
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
yes
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
does not
- Does not degrade the effectiveness of the code**
does not

1017.3 Measurement.

Exit access travel distance shall be measured from the most remote point ~~within a story~~ of each room, area or space along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit.

Exception: In open parking garages, exit access travel distance is permitted to be measured to the closest riser of an exit access stairway or the closest slope of an exit access ramp.

Code Change No: E100-15

Original Proposal

Section: 202, 1017.3; (IFC[BE] 1017.3)

Proponent: Edward Kulik, Chair, representing Building Code Action Committee (bcac@iccsafe.org)

Revise as follows:

SECTION 202 DEFINITIONS

COMMON PATH OF EGRESS TRAVEL. That portion of the *exit access* travel distance measured from the most remote point ~~within a story of each room, area or space~~ to that point where the occupants have separate and distinct access to two exits or *exit access doorways*.

1017.3 Measurement. *Exit access* travel distance shall be measured from the most remote point ~~within a story of each room, area or space~~ along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an *exit*.

Exception: In *open parking garages*, *exit access* travel distance is permitted to be measured to the closest riser of an *exit access stairway* or the closest slope of an *exit access ramp*.

Reason: This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

The definition of "common path of egress travel" was modified for the 2015 Edition of the IBC. The intent of the change was to clarify the common path of egress travel and exit access travel distance are measured in the same way. The terminus of each is different, but the route is the same. This logic was based on the last sentence of the 2012 IBC definition, "Common paths of travel shall be included within the permitted travel distance," and the language in 2012 Section 1016.3, "Exit access travel distance shall be measured from the most remote point within a story..."

If applied literally, it could be interpreted such that the common path of egress travel need be considered from only one point (the most remote) on a given story. Obviously, all potential paths of egress travel need to be considered when establishing occupant remoteness for the purposes of determining multiple exit or exit access doorway requirements. Clarifying that the path of travel originating from any room, area or space should be evaluated when determining common paths of egress travel will eliminate literal interpretations of the current definition. Additionally, the reference to a single story has been eliminated. Section 1006.3 allows for access to exits at an adjacent level. Common path of egress travel requirements could potentially apply to a multi-level design condition.

For purposes of consistency, Section 1017.3 has been modified to indicate that exit access travel distance is measured from all remote points within the means of egress system. The "story" approach is a little simplistic and does not represent the level of detail necessary to properly design or analyze a means of egress system. Additionally, when accessing an exit at an adjacent level, the exit access travel distance at both stories, to include the exit access stairways, is calculated. The single story reference could be misleading. Approval of this modification will clarify the definition of common path of egress travel for the benefit of all users.

Cost Impact: Will not increase the cost of construction
Provisions simply provide clarification of current requirements.

Staff note: There is a published errata to the definition for Common Path of Egress Travel. The errata is incorporated into the definition as existing text.

Report of Committee Action Hearings

**Committee Action:
Submitted**

Approved as

Committee Reason: The change to the definition clarifies that the common path of egress travel can be measured both out of a room to a common corridor or down an exit access stairway to another floor at which point an occupant would have two options for continuing along the means of egress.

The change to Section 1017.3 clarifies that exit access travel distance can also be measured to an exit enclosure on the same level, or down an exit access stairway to an exit enclosure on another floor.

Assembly

**Action:
Non**

e

Final Action Results

E100-15

AS

Date Submitted 12/12/2018	Section 1015.3	Proponent Ann Russo4
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

In Group F occupancies the tip of the guard can be 34" to 38" and eliminates the 42" guard if, the exit access stairways serve three stories or less, and such stairs are not open to the public, and the top of the guard also serves as handrail.

Rationale

Federal OSHA requirements restrict industrial stairway guard to a maximum of 34"; it also intends that the top rail will be used as a handrail. FBC requires a guard at 42". This proposal attempts to find a reasonable middle ground making at least one solution to the FBC and OSHA requirements for non-egress stairways in factory settings. Gives factory workers the ability to work, carry tools in tight spaces they are familiar with, to maneuver less awkwardly. It is already used in the FBC Group r-3 and in individual dwelling units of R-2.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact to local entity as this is already a code requirement

Impact to building and property owners relative to cost of compliance with code

It will be a decrease in cost to building and property owners as current code requirements adds additional rail and cost.

Impact to industry relative to the cost of compliance with code

It will be a decrease in cost to industry entity as current code requirements adds additional rail and cost.

Impact to small business relative to the cost of compliance with code

It will be a decrease in cost to industry entity as current code requirements adds additional rail and cost.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves the health, safety, and welfare of the general public y allowing workers to work more efficiently while still being safe in tight areas

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by providing a better method by finding a reasonable middle ground making at least one solution to the FBC and OSHA requirements for non-egress stairways in factory settings.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities as this is already a current code requirement that does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not degrade the effectiveness of the code

Increases the effectiveness of the code by finding a reasonable middle ground making at least one solution to the FBC and OSHA requirements for non-egress stairways in factory settings.

Revise as follows:

1015.3 Height.

Required *guards* shall be not less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces.
2. On *stairways* and stepped *aisles*, from the line connecting the leading edges of the tread *nosing*s.
3. On *ramps* and ramped *aisles*, from the *ramp* surface at the *guard*.

Exceptions:

1. For occupancies in Group R-3 not more than three stories above grade in height and within individual *dwelling units* in occupancies in Group R-2 not more than three stories above grade in height with separate *means of egress*, required *guards* shall be not less than 36 inches (914 mm) in height measured vertically above the adjacent walking surfaces or adjacent *fixed seating*.
2. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, *guards* on the open sides of *stairs* shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
3. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, where the top of the *guard* also serves as a *handrail* on the open sides of *stairs*, the top of the *guard* shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
4. The *guard* height in assembly seating areas shall comply with Section 1029.16 as applicable.
5. Along *alternating tread devices* and ships ladders, *guards* where the top rail also serves as a *handrail* shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread *nosing*.
 6. In Group F occupancies, where exit access stairways serve three stories or less and such stairs are not open to the public, where the top of the guard also serves as a handrail, the top of the guard shall be not less than the 34 inches (864 mm) and not more than 38 inches 9965 mm) measured from a line connecting the leading edges of the treads

Date Submitted 12/13/2018	Section 1010.1.9.11	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Allow the 5th and 6th floors of non-high rise buildings to use locking hardware on stairway means of egress doors - the same as currently allowed on floors 1 thru 4.

Rationale

As currently written, the 2015 IBC allows stairway doors to be locked from the side opposite egress on stories one through four in Exception 3 of Section 1010.1.9.11 and in high rise buildings (typically seven stories and higher) in Section 403.5.3. By deleting the limitation on the number of stories in this section, stair doors on the fifth and sixth stories would be allowed to be locked from the non-egress side consistent with doors on all other floors.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
none
- Impact to building and property owners relative to cost of compliance with code**
none
- Impact to industry relative to the cost of compliance with code**
none
- Impact to small business relative to the cost of compliance with code**
none

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
yes
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
yes
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
does not
- Does not degrade the effectiveness of the code**
does not

1.

1010.1.9.11 Stairway doors.

Interior *stairway means of egress* doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. *Stairway* discharge doors shall be openable from the egress side and shall only be locked from the opposite side.
2. This section shall not apply to doors arranged in accordance with Section 403.5.3.
3. In *stairways* serving not more than four stories, Stairway exit doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the *fire command center*, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.
4. *Stairway exit* doors shall be openable from the egress side and shall only be locked from the opposite side in Group B, F, M and S occupancies where the only interior access to the tenant space is from a single *exit stairway* where permitted in Section 1006.3.2.
5. *Stairway exit* doors shall be openable from the egress side and shall only be locked from the opposite side in Group R-2 occupancies where the only interior access to the *dwelling unit* is from a single *exit stairway* where permitted in Section 1006.3.2.

Code Change No: E72-15

Original Proposal

Section(s): 1010.1.9.9, 1010.1.10; (IFC [BE] 1010.1.9.9, 1010.1.10)

Proponent: Edward Kulik, Chair, representing Building Code Action Committee (bcac@iccsafe.org)

Revise as follows:

1010.1.9.9 Electromagnetically Door hardware release of electrically locked egress doors. ~~Doors~~ Door hardware release of electric locking systems shall be permitted on doors in the means of egress with any occupancy except in Group H in buildings with an occupancy in Group A, B, E, I-1, I-2, I-4, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, I-1, I-2, I-4, M, R-1 or R-2 shall be permitted to be locked with an electromagnetic locking system where equipped with hardware that incorporates a built-in switch and where installed and operated in accordance with all of the following:

1. The door hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The door hardware is capable of being operated with one hand and shall comply with Section 1010.1.9.5.
3. Operation of the door hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the electric locking system automatically unlocks the door.
5. Where *panic* or *fire exit hardware* is required by Section 1010.1.10, operation of the *panic* or *fire exit hardware* also releases the electromagnetic electric lock.
6. The locking system units shall be listed in accordance with UL 294.

1010.1.10 Panic and fire exit hardware. Doors serving a Group H occupancy and doors serving rooms or spaces with an *occupant load* of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than *panic hardware* or *fire exit hardware*.

Exceptions:

1. A main *exit* of a Group A occupancy shall be permitted to be locking in accordance with Section 1010.1.9.3, Item 2.
2. Doors serving a Group A or E occupancy shall be permitted to be electromagnetically electronically locked in accordance with Section 1010.1.9.9.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide, and that contain overcurrent devices, switching devices or control devices with *exit* or *exit access doors*, shall be equipped with *panic hardware* or *fire exit hardware*. The doors shall swing in the direction of egress travel.

Reason: This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>. This "special locking arrangement" allows for immediate egress with one-handed operation of the door hardware. Code officials and specifiers have asked why this option is allowed in only these occupancies. No reason is known other than the current allowed occupancies in Section 1010.1.9.9 match those in Section 1010.1.9.8.

Further, revisions clarify this section of the code to address required functions of all types of electrical locking systems which are operated (i.e. unlocked) by operation of the door hardware such as panic hardware, fire exit hardware, or door knobs or levers (where panic or fire exit hardware is not required or not utilized). Electromagnetic locks are the most common type of electrical locks, but not the only type of electric locking hardware which may be selected by the designer, specifier, and / or building owner or occupant.

Regardless of the type of electrical locking system, this section permits and requires the door hardware to be device which causes the electrical lock to unlock immediately, allowing egress.

Cost Impact: Will not increase the cost of construction
No cost impact unless the building owner chooses to install these shall be permitted locking systems.

Report of Committee Action Hearings

Committee Action:
Modified

Approved as

Modify proposal as follows:

1010.1.9.9 Door hardware release of electrically locked egress doors. Door hardware release of electric locking systems shall be permitted on doors in the means of egress with any occupancy except in Group H where installed and operated in accordance with all of the following:

1. The door hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The door hardware is capable of being operated with one hand and shall comply with Section 1010.1.9.5.
3. Operation of the door hardware directly interrupts the power to the ~~electromagnetic electric~~ lock and unlocks the door immediately.
4. Loss of power to the electric locking system automatically unlocks the door.
5. Where panic or fire exit hardware is required by Section 1010.1.10, operation of the panic or fire exit hardware also releases the electric lock.
6. The locking system units shall be listed in accordance with UL 294.

Committee Reason: The modification to Item 3 is for the terminology to be consistent throughout the section and is consistent with the main proposal.

There was no technical justification for not allowing these types of locking systems in occupancies that have a lower risk than those listed. The other changes correlate and clarifies terminology.

Assembly Action:

N

one

Final Action Results

Date Submitted 12/13/2018	Section 1010.1.10	Proponent Lawrence Cohan
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

limits panic hardware to swinging doors.

Rationale

UL 305 is the standard by which panic and fire exit hardware is typically listed. UL 305 applies to outward-opening doors and as such does not apply to the special doors addressed in Section 1010.1.4. However, some have interpreted the current text in 1010.1.10 to require panic hardware or fire exit hardware on special doors, such as special purpose horizontal sliding, accordian or folding doors. The proposed text clarifies that panic and fire exit hardware is required for pivoted or side-hinged swinging doors.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
none
- Impact to building and property owners relative to cost of compliance with code**
none
- Impact to industry relative to the cost of compliance with code**
none
- Impact to small business relative to the cost of compliance with code**
none

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
yes
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
clarifies the intent of code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
does not
- Does not degrade the effectiveness of the code**
does not

1010.1.10 Panic and fire exit hardware. Doors Swinging doors serving a Group H occupancy and swinging doors serving rooms or spaces with an *occupant load* of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than *panic hardware* or *fire exit hardware*.

Exceptions:

1. A main *exit* of a Group A occupancy shall be permitted to be locking in accordance with Section 1010.1.9.9
2. Doors serving a Group A or E occupancy shall be permitted to be electromagnetically locked in accordance with Section 1010.1.9.9.
- 3.3. Outdoor gates from residential and commercial swimming pools or swimming pool decks, except where the pool deck serves as a portion of the means of egress of a building or has an occupant load of 300 or greater.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide, and that contain overcurrent devices, switching devices or control devices with exit or exit access doors, shall be equipped with panic hardware or fire exit hardware. The doors shall swing in the direction of egress travel.

Code Change No. E77-15

Original Proposal

Section: 1010.1.10; (IFC[BE] 1010.1.10)

Proponent: William Koffel, representing WonDoor (wkoffel@koffel.com)

Revise as follows:

1010.1.9.11 Panic and fire exit hardware. ~~Doors~~ Swinging doors serving a Group H occupancy and swinging doors serving rooms or spaces with an *occupant load* of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than *panic hardware* or *fire exit hardware*.

Exceptions:

1. A main *exit* of a Group A occupancy shall be permitted to be locking in accordance with Section 1010.1.9.3, Item 2.
2. Doors serving a Group A or E occupancy shall be permitted to be electromagnetically locked in accordance with Section 1010.1.9.9.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide, and that contain overcurrent devices, switching devices or control devices with *exit* or *exit access doors*, shall be equipped with *panic hardware* or *fire exit hardware*. The doors shall swing in the direction of egress travel.

Reason: UL 305 is the standard by which panic and fire exit hardware is typically listed. UL 305 applies to outward-opening doors and as such does not apply to the special doors addressed in Section 1010.1.4. However, some have interpreted the current text in 1010.1.10 to require panic hardware or fire exit hardware on special doors, such as special purpose horizontal sliding, accordion or folding doors. The proposed text clarifies that panic and fire exit hardware is required for pivoted or side-hinged swinging doors.

Cost Impact: Will not increase the cost of construction The proposal clarifies existing code text.

Report of Committee Action Hearings

Committee Action:
Submitted

Approved as

Committee Reason: To limit the panic hardware to swinging doors is consistent with the referenced standards and application for panic hardware.

Assembly Action:

e

Non

Final Action Results

E77-15

AS

Date Submitted 12/14/2018	Section 1010.1.9.7	Proponent Ann Russo4
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

IFC 1010.1.9.7

Summary of Modification

Permit the use of delayed egress system on door(s) other than the main entrance/exit door(s) from a courtroom.

Rationale

The intent of this code change proposal is to permit the use of delayed egress system on door(s) other than the main entrance/exit door(s) from a courtroom. According to Chapter 3 in the FBC, courtrooms are considered Assembly occupancies. Therefore, delayed egress locking systems would not be permitted to be installed on any doors from a courtroom. Courtrooms are located within courthouses which are a unique building type that is designed with three separate and distinct circulation systems – one for the public, one for the judiciary/secure staff, and one for in-custody inmates. Because each of these groups must be kept separate for security reasons, it is necessary to lock the doors where these groups interface to prevent intermixing. A standard courtroom design provides free egress for the public from the main entrance/exit door(s) (the same entrance the public entered the courtroom) to the public circulation area. The door serving the detainee area (prisoner interface) is locked and fail secure, which is permitted by code. As stated above, since the courtrooms are considered an "assembly occupancy" and have an occupant load of 50 or more persons they require a second means of egress.

Industry practice has been to utilize the exit(s) in the front of the courtroom as the secondary means of egress. These egress door(s) also serve as the entrance/egress for the judge and court staff. (Please refer to diagram). To maintain the security separation of occupants, it is industry practice to equip these second means of egress door(s) with a delayed egress locking system which prevents any unauthorized person from gaining access to the secure corridor areas.

A courtroom, unlike many other assembly occupancies, is a controlled environment. A bailiff is located within the courtroom when occupied by the public and/or prisoners. The bailiff, along with other court personnel, is equipped with a security access card that can override the delay.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

local entity has additional inspection and plan review options of safety devices

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners . It will not increase the cost of construction. It is common to see these devices used within courthouses. Allowing this will not increase the cost of construction

Impact to industry relative to the cost of compliance with code

No impact to industry . It will not increase the cost of construction. It is common to see these devices used within courthouses. Allowing this will not increase the cost of construction

Impact to small business relative to the cost of compliance with code

No impact to small business. It will not increase the cost of construction. It is common to see these devices used within courthouses. Allowing this will not increase the cost of construction

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves the health, safety, and welfare of the general public by allowing secondary egress doors to have delayed egress options.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code providing a better methods and/or systems of construction by allowing secondary egress doors to have delayed egress options.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities, this is a current code requirement that does not limit materials, products, methods, or systems of construction

Does not degrade the effectiveness of the code

Increases the effectiveness of the code by providing a better methods and/or systems of construction

Revise as follows:

1010.1.9.7 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving any occupancy except Group A, E and H in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved automatic smoke or heat detection system* installed in accordance with Section 907.

Exception: Delayed egress locking systems shall be permitted to be installed on exit or exit access doors, other than the main exit or exit access door, that serve a courtroom in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

1010.1.9.7.1 Delayed egress locking system. The delayed egress locking system shall be installed and operated in accordance with all of the following:

1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the *automatic sprinkler system* or *automatic fire detection system*, allowing immediate, free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The delayed egress locking system shall have the capability of being deactivated at the *fire command center* and other *approved* locations.
4. An attempt to egress shall initiate an irreversible process that shall allow such egress in not more than 15 seconds when a physical effort to exit is applied to the egress side door hardware for not more than 3 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the delay electronics have been deactivated, rearming the delay electronics shall be by manual means only.

Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. The egress path from any point shall not pass through more than one delayed egress locking system.

Exception: In Group I-2 or I-3 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds.

6. A sign shall be provided on the door and shall be located above and within 12 inches (305 mm) of the door exit hardware:
 - For doors that swing in the direction of egress, the sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
 - For doors that swing in the opposite direction of egress, the sign shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30]SECONDS.
 The sign shall comply with the visual character requirements in ICC A117.1.

Exception: Where approved, in Group I occupancies, the installation of a sign is not required where care recipients who because of clinical needs require restraint or containment as part of the function of the treatment area.

7. Emergency lighting shall be provided on the egress side of the door.
8. The delayed egress locking system, units shall be listed in accordance with UL 294.

Date Submitted	12/14/2018	Section	1010.1.4.4	Proponent	John Woestman
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Propose requirements for locking of doors to classrooms, offices, and other occupied rooms in Group E and Group B educational occupancies.

Rationale

This proposal submits for the FBC the same language approved for the 2018 IBC. The final language approved for the 2018 IBC modified the original BHMA proposal per a joint public comment by the ICC Building Code Action Committee (BCAC) and the International Association of Fire Chiefs, Fire & Life Safety Section.

The proposal permits these doors to be locked, which is consistent with decades of past practice, and requires compliance with current requirements of the code.

Item 1, which is new, requires these doors to be unlockable from outside the room. This new requirement is important to ensure authorized personnel have ready access into these rooms.

The last sentence in this proposal permits remote operation of locks – remote locking may be highly desirable in new or renovated schools – while requiring the door locks to provide the same functionality of locks without remote locking capability.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Provides guidance where door locks are installed in classrooms, offices, and occupied rooms of K-12 schools and colleges / universities.

Impact to building and property owners relative to cost of compliance with code

Proposed requirements are consistent with vast majority of door locking systems being installed in new schools for the last decade or so. Thus, minimal to no cost of compliance (for new construction).

Impact to industry relative to the cost of compliance with code

Proposed requirements are consistent with vast majority of door locking systems being installed in new schools for the last decade or so. Thus, minimal to no cost of compliance (for new construction).

Impact to small business relative to the cost of compliance with code

Proposed requirements are consistent with vast majority of door locking systems being installed in new schools for the last decade or so. Thus, minimal to no cost of compliance (for new construction).

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Yes. Very important to require door locks, where installed in schools, to comply with requirements of the code AND to be unlockable from outside the room by authorized personnel; who may need immediate access (ingress) into a room to address whatever emergency situation may be unfolding within.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, provides appropriate guidance and requirements.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Improves the effectiveness of the code by addressing this very important need.

Insert text as shown:

1010.1.4.4 Locking arrangements in educational occupancies. In Group E and Group B educational occupancies, egress doors from classrooms, offices and other occupied rooms shall be permitted to be provided with locking arrangements designed to keep intruders from entering the room where all of the following conditions are met:

1. The door shall be capable of being unlocked from outside the room with a key or other approved means.
2. The door shall be operable from within the room in accordance with Section 1010.1.9.
3. Modifications shall not be made to listed panic hardware, fire door hardware or door closer.

1010.1.4.4.1 Remote operation of locks. Remote operation of locks complying with Section 1010.1.4.4 shall be permitted.

Renumber these sections as shown:

1010.1.4.45 Security grilles. <no revisions to text>

1010.1.4.56 Protection devices for emergency escape and rescue openings. <no revisions to text>

Date Submitted 12/14/2018	Section 1010.1.9.3	Proponent John Woestman
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Add a section to FBC in the special locking arrangements area to address “monitored egress”. Monitored egress is where a device such as a card reader, keypad, iris scan, finger scan, etc., is used to monitor who is egressing.

Rationale

Monitored or recorded egress is where an active device requiring credentials is used to monitor and / or record who is egressing. The active device could be a card reader, keypad, iris scan, finger scan, etc. A monitored egress device could be utilized on any of the “special locking arrangements” of Sections 1010.1.9.6 (Controlled egress), 1010.1.9.7 (Delayed egress), 1010.1.9.8 (Sensor release of electrically locked doors), 1010.1.9.9 (Electromagnetically locked egress doors), 1010.1.9.10 (Locking arrangements in correctional facilities) provided the functions of that specific locking arrangement are retained and maintained. Examples: a keypad could be installed next to an electromagnetically locked egress door; a card reader could be installed next to a delayed egress door; or a keypad installed in the approach area of a sensor release door. The special locking arrangement would need to fully comply with its requirements.

This proposal provides guidance and requirements for locking systems and locking arrangements installed today. For example, some hospitals in the newborn nursery area installed delayed egress locking systems (complying with FBC 1010.1.9.7). Many of these locking systems allow hospital staff to swipe their magnetic name badge to eliminate the delay of the delayed egress system while also disabling any alarm system, and at the same time recording (monitoring) which badge was swiped. The proposal recognizes systems such as this, and provides appropriate requirements.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Provides guidance and requirements for locking systems and locking arrangements installed today.

Impact to building and property owners relative to cost of compliance with code

These are “shall be permitted” locking systems. As such, there should be no required cost of code compliance. IF these locking systems are installed, the proposed requirements help assure current code requirements are complied with, which should not increase cost.

Impact to industry relative to the cost of compliance with code

These are “shall be permitted” locking systems. As such, there should be no required cost of code compliance. IF these locking systems are installed, the proposed requirements help assure current code requirements are complied with, which should not increase cost.

Impact to small business relative to the cost of compliance with code

These are “shall be permitted” locking systems. As such, there should be no required cost of code compliance. IF these locking systems are installed, the proposed requirements help assure current code requirements are complied with, which should not increase cost.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This proposal helps ensure egress is provided consistent with current requirements of the code.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Improves the effectiveness of the code.

Insert text as follows:

1010.1.9 Door operations. Except as specifically permitted by this section, egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

1010.1.9.1 Hardware. Door handles, pulls, latches, locks and other operating devices on doors required to be *accessible* by Chapter 11 shall not require tight grasping, tight pinching or twisting of the wrist to operate.

1010.1.9.2 Hardware height. Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor. Locks used only for security purposes and not used for normal operation are permitted at any height.

Exception: Access doors or gates in barrier walls and fences protecting pools, spas and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finished floor or ground, provided the self-latching devices are not also selflocking devices operated by means of a key, electronic opener or integral combination lock.

1010.1.9.3 Monitored or recorded egress. Where electrical systems which monitor or record egress activity are incorporated, the locking system shall comply with Sections 1010.1.9.6, 1010.1.9.7, 1010.1.9.8, 1010.1.9.9, or 1010.1.9.10 or shall be readily openable from the egress side without the use of a key or special knowledge or effort.

Date Submitted 12/14/2018	Section 1023.4	Proponent Ann Russo4
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

IFC1023.4

Summary of Modification

Replaces non-mandatory language with mandatory language "required" instead of necessary

Rationale

Replace non-mandatory language with mandatory language

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Increases strength through improved regulatory language.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners as this is will not increase the cost of construction.

Impact to industry relative to the cost of compliance with code

No impact to industry as this is will not increase the cost of construction

Impact to small business relative to the cost of compliance with code

No impact to small business as this is will not increase the cost of construction

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Improves the health, safety, and welfare of the general public by being an editorial clean up. It replaces non-mandatory language with mandatory language

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code. This is an editorial clean up. It replaces non-mandatory language with mandatory language

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate against material, products, methods, or systems of construction of demonstrated capabilities, this is a current code requirement that does not limit material, products, methods, or systems of construction

Does not degrade the effectiveness of the code

Does not degrade the effectiveness of the code This is an editorial clean up. It replaces non-mandatory language with mandatory language.

Revise as follows:

1023.4 Openings. *Interior exit stairway* and *ramp* opening protectives shall be in accordance with the requirements of Section 716.

Openings in *interior exit stairways* and *ramps* other than unprotected exterior openings shall be limited to those ~~necessary~~ required for *exit access* to the enclosure from normally occupied spaces and for egress from the enclosure.

Elevators shall not open into *interior exit stairways* and *ramps*.

Date Submitted	12/14/2018	Section	1023.11	Proponent	Ann Russo4
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

IFC 1023.11
1011

Summary of Modification

Adds Section 412.3.2 to smoke proof enclosures in correlation with air traffic control towers.

Rationale

Section 412.3.2 requires smokeproof enclosures for air traffic control tower stairs and refers to section 1023.11 but section 1023.11 does not reference back to 412.3.2 as it does for high-rise buildings (403.5.4) and underground buildings (405.7.2). This change is proposed to reduce potential confusion from the lack of the reference statement in 1023.11. The current code requirement from 412.3.2 is included below for reference.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact to local entity as this is only reduces potential confusion and clarifies the intent of the code. No cost impact is associated with this change.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners as this is will not increase the cost of construction.

Impact to industry relative to the cost of compliance with code

No impact to industry as this is will not increase the cost of construction

Impact to small business relative to the cost of compliance with code

No impact to small business as this is will not increase the cost of construction

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Improves the health, safety, and welfare of the general public by adding a change that is proposed to reduce potential confusion from the lack of the reference statement in 1023.11

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by adding a change that is proposed to reduce potential confusion from the lack of the reference statement in 1023.11

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate against material, products, methods, or systems of construction of demonstrated capabilities, this is a current code requirement that does not limit material, products, methods, or systems of construction

Does not degrade the effectiveness of the code

Increases the effectiveness by adding a change that is proposed to reduce potential confusion from the lack of the reference statement in 1023.11

Revise as follows:

1023.11 Smokeproof enclosures. Where required by Section 403.5.4 or, 405.7.2, or 412.3.2, *interior exit stairways* and *ramps* shall be *smokeproof enclosures* in accordance with Section 909.20.

Stairways. Stairways in airport traffic control towers shall be in accordance with Section 1011. Stairways shall be smokeproof enclosures complying with one of the alternatives provided in Section 909.20.

Date Submitted	12/14/2018	Section	1010.1.10	Proponent	John Woestman
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

FBC proposal incorporating revisions approved for the 2018 IBC by proposals E77-15 and E78-15.

Rationale

E77-15 info and reasons

Proponent (original proposal): William Koffel, representing WonDoor

Commenter's Reason: UL 305 is the standard by which panic and fire exit hardware is typically listed. UL 305 applies to outward-opening doors and as such does not apply to the special doors addressed in Section 1010.1.4. However, some have interpreted the current text in 1010.1.10 to require panic hardware or fire exit hardware on special doors, such as special purpose horizontal sliding, accordian or folding doors. The proposed text clarifies that panic and fire exit hardware is required for pivoted or side-hinged swinging doors.

Cost Impact: Will not increase the cost of construction

E78-15 info and reasons

Proponent (original proposal): John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA)

Commenter's reason: Revised 2nd exception allows doors in the means of egress of Group A or E occupancy with an occupant load of 50 or more to be equipped with doors complying with IBC Section 1010.1.9.8 Sensor release of electrically locked doors. These door locking systems permitted by 1010.1.9.8 are required to detect an occupant approaching the door and cause the electrical locking system to unlock the door, allowing egress. These locking arrangements facilitate immediate egress by sensing the approaching occupant and unlocking the electric lock on the door. In many applications, the occupant is unaware the door is electrically locked as the electrical locks unlock prior to the occupant reaching the door.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposal clarifies requirements regarding panic and fire exit hardware which should make it easier to interpret and enforce the building code.

Impact to building and property owners relative to cost of compliance with code

There should be no increase in cost of compliance with the clarifications in this code proposal.

Impact to industry relative to the cost of compliance with code

There should be no increase in cost of compliance with the clarifications in this code proposal.

Impact to small business relative to the cost of compliance with code

There should be no increase in cost of compliance with the clarifications in this code proposal.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Improves the code by improving text of requirements where panic or fire exit hardware is required.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens the code with improvements in understanding.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Improves the effectiveness of the code.

Revise as follows:

1010.1.10 Panic and fire exit hardware. ~~Doors~~Swinging doors serving a Group H occupancy and swinging doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than panic hardware or fire exit hardware.

Exceptions:

1. A main exit of a Group A occupancy shall be permitted to be locking in accordance with Section 1010.1.9.3, Item 2.
2. Doors provided with panic hardware or fire exit hardware serving a Group A or E occupancy shall be permitted to be electromagnetically-electrically locked in accordance with Section 1010.1.9.8 or 1010.1.9.9.
3. Outdoor gates from residential and commercial swimming pools or swimming pool decks, except where the pool deck serves as a portion of the means of egress of a building or has an occupant load of 300 or greater.

Date Submitted 12/15/2018	Section 1010.1.1	Proponent Ann Russo2
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

1010.1.1.1

Summary of Modification

The intent of a large portion of this change is consistent use of the terminology (e.g., minimum clear opening width/height) throughout this section. There is also the intent of putting the modifier first within the specific requirements (Group I-2, ambulatory care) and the exceptions.

Rationale

The intent of a large portion of this change is consistent use of the terminology (e.g., minimum clear opening width/height) throughout this section. There is also the intent of putting the modifier first within the specific requirements (Group I-2, ambulatory care) and the exceptions.

Exceptions 1, 2, 6 and 7 cannot be used in Accessible, Type A or Type B units; that would conflict with the Florida Accessibility Code for Building Construction, ICC A117.1, ADA and FHA. Also in Exception 7: dwelling units and sleeping units in Group I-2 and I-3 have specific criteria elsewhere in this section, and the ADA does not allow Group R-1 units to use this exception, therefore, the more specific limitation to allow this in Group I-1, R-2, R-3 and R-4.

Exception 8 is revised to be consistent with the language used for Type B dwelling units in ICC A117.1.

A code change added exception 10 as part of the coordination with ADA 224.1.2. Questions that has risen are: Is the intent to require 32" clear width shower stall doors in all showers Group I-1, R-2, R-3 and R-4 or multi-stall shower rooms? Is the intent to require 32" clear width shower doors in the 2nd bathrooms in Accessible units that are not required to have clearances? Elimination first part of the sentence would not change the allowances for accessible hotel rooms, and would eliminate the question.

Exception 11 is proposed to be added to address a similar question for doors on toilet stalls. The width of 32" is especially a problem with IPC since the stall is only required to be 30" wide.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

There will be no impact, as the proposed change is a clarification and coordination of current requirements.

Impact to building and property owners relative to cost of compliance with code

There will be no increase in cost.

Impact to industry relative to the cost of compliance with code

There will be no impact, as the proposed change is a clarification and coordination of current requirements.

Impact to small business relative to the cost of compliance with code

There will be no increase in cost.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This is a simple clarification, making it easier to understand.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This is a simple clarification, making it easier to understand.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This is a simple clarification, making it easier to understand.

Does not degrade the effectiveness of the code

This is a simple clarification, making it easier to understand.

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). ~~Clear openings~~ 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 41-1/2 inches (1054 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. ~~Means of egress doors in a Group I-2 occupancy used for the movement of beds shall provide a clear width not less than 41-1/2 inches (1054 mm).~~ The minimum clear height of door openings 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 ~~The~~ minimum and maximum width shall not apply to door openings that are not part of the required ~~means of egress in Group R-2 and R-3 occupancies.~~
2. In Group I-3, door ~~Door~~ openings to resident *sleeping units* that are not required to be and Accessible units in Group I-3 occupancies shall have a minimum clear opening width of ~~not less than~~ 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. Width of door leaves in revolving doors that comply with Section 1010.1.4.1 shall not be limited.
5. Door openings within a *dwelling unit* or *sleeping unit* shall ~~be not less than~~ have a minimum clear opening height of 78 inches (1981 mm) in height.
6. In dwelling and sleeping units that are not required to be Accessible, Type A or Type B units, exterior ~~Exterior~~ door openings ~~in dwelling units and sleeping units,~~ other than the required *exit* door, shall ~~be not less than~~ have a minimum clear opening height of 76 inches (1930 mm) in height.
7. ~~In other than Group R-1 occupancies~~ In Groups I-1, R-2, R-3 and R-4 occupancies, 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 ~~within a dwelling unit or sleeping unit that is not required to be an Accessible unit.~~
8. Buildings that are 400 square feet (37 m²) or less and that are intended for use in conjunction with one- and two-family residences are not subject to the door height and width requirements of this code.
9. 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.
10. ~~In Group R-1 dwelling units or sleeping units not required to be Accessible units, the~~ The minimum width shall not apply to doors for non-accessible showers or saunas compartments.
11. The minimum width shall not apply to the doors for non-accessible toilet seats.

1010.1.1.1 Projections into clear width. 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 and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.

Date Submitted 12/15/2018	Section 1010.1.9.3	Proponent Ann Russo2
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The intent of this proposal is to allow doors to roofs not intended to be occupied to be locked. In an effort to prevent locking out an authorized person who goes to the roof from inside the building, this proposal includes a requirement for the door to not automatically lock behind this person.

Rationale

Questions are being asked of BHMA members as to what is allowed and / or required for locking of doors to roofs not intended to be occupied. This proposal attempts to address these questions. The intent of this proposal is to allow doors to roofs not intended to be occupied to be locked preventing access into the building from the roof, especially for security reasons. However, in an effort to prevent locking out an authorized person who goes to the roof from inside the building, this proposal includes a requirement for the door to not automatically lock behind this person. This proposal does not address locking of doors preventing access to the roof. Also, egress from occupied roofs is addressed in Section 1006.3.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Minimal, relative only to the inspection of the locking mechanism.
- Impact to building and property owners relative to cost of compliance with code**
No costs unless doors providing access to the roof are desired to be locked. If these doors are to be locked, this proposal provides guidance for selecting locking hardware.
- Impact to industry relative to the cost of compliance with code**
No costs unless doors providing access to the roof are desired to be locked. If these doors are to be locked, this proposal provides guidance for selecting locking hardware.
- Impact to small business relative to the cost of compliance with code**
No costs unless doors providing access to the roof are desired to be locked. If these doors are to be locked, this proposal provides guidance for selecting locking hardware.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Prevents occupants from being inadvertently trapped on a roof.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Prevents occupants from being inadvertently trapped on a roof.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Has no effect.
- Does not degrade the effectiveness of the code**
Strengthens the code by requiring a safer locking system for egress from roofs.

1010.1.9.3 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 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:
 - 2.1. The locking device is readily distinguishable as locked.
 - 2.2. 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.
 - 2.3. The use of the key-operated locking device is revokable by the *building official* for due cause.
3. 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.
4. Doors from individual *dwelling* or *sleeping units* of Group R occupancies having an *occupant load* of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.
5. *Fire doors* after the minimum elevated temperature has disabled the unlatching mechanism in accordance with *listed fire door test* procedures.
6. Doors serving roofs not intended to be occupied shall be permitted to be locked preventing entry to the building from the roof provided that when accessing the roof from the building the locks do not automatically lock preventing re-entry into the building from the roof.

Date Submitted 12/15/2018	Section 1010.1.9.5.1	Proponent Ann Russo2
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Eliminates an inconsistent requirement.

Rationale

This is proposed to be deleted because it is an inconsistent requirement. If there is a concern that a person receiving custodial care might lock themselves in a bathroom or closet, this should be required in Group I-1, not just Group R-4. Also, this should not be an overall minimum code requirement, but more an option for a facility to provide where needed. Literally this would applied to storage closets that are not used by residents and closets that you would not walk into at all.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
There will be no impact.
- Impact to building and property owners relative to cost of compliance with code**
There will be no impact.
- Impact to industry relative to the cost of compliance with code**
There will be no impact.
- Impact to small business relative to the cost of compliance with code**
There will be no impact.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Does not affect the safety of the public.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
The proposal eliminates an inconsistent requirement.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Has no effect.
- Does not degrade the effectiveness of the code**
Has no effect.

~~1010.1.9.5.1~~ Closet and bathroom doors in Group R-4 occupancies. In Group R-4 occupancies, closet doors that latch in the closed position shall be openable from inside the closet, and bathroom doors that latch in the closed position shall be capable of being unlocked from the ingress side.

Date Submitted 12/15/2018	Section 1010.1.9.7	Proponent Ann Russo2
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

This proposal is in response to several requests to address the needs of small educational occupancies to help prevent wandering / elopement, especially for the very young, and for special needs students.

Rationale

This proposal is in response to several requests to address the needs of small educational occupancies to help prevent wandering / elopement, especially for the very young, and for special needs students.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Will not affect the ability to enforce the code.
- Impact to building and property owners relative to cost of compliance with code**
No cost impact unless the building owner chooses to install a delayed egress locking system.
- Impact to industry relative to the cost of compliance with code**
No cost impact unless the building owner chooses to install a delayed egress locking system.
- Impact to small business relative to the cost of compliance with code**
No cost impact unless the building owner chooses to install a delayed egress locking system.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Allows small education occupancies to more effectively maintain the safety of its occupants.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Allows small education occupancies to more effectively maintain the safety of its occupants.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Has no effect on materials or methods.
- Does not degrade the effectiveness of the code**
Allows small education occupancies to more effectively maintain the safety of its occupants.

1010.1.9.7 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving ~~any~~ occupancy except Group A, E and H Groups B, F, I, M, R, S and U occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved automatic smoke or heat detection system* installed in accordance with Section 907.

Exception: Delayed egress locking systems shall be permitted to be installed on doors serving Group E occupancies that have an *occupant load* of 10 or fewer and that are in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved automatic smoke or heat detection system* installed in accordance with Section 907.

1010.1.9.7.1 Delayed egress locking system. The delayed egress locking system shall be installed and operated in accordance with all of the following:

1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the automatic sprinkler system or automatic fire detection system, allowing immediate, free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The delayed egress locking system shall have the capability of being deactivated at the fire command center and other approved locations.
4. An attempt to egress shall initiate an irreversible process that shall allow such egress in not more than 15 seconds when a physical effort to exit is applied to the egress side door hardware for not more than 3 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the delay electronics have been deactivated, rearming the delay electronics shall be by manual means only.

Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. The egress path from any point shall not pass through more than one delayed egress locking system.

Exception: In Group I-2 or I-3 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds.

6. A sign shall be provided on the door and shall be located above and within 12 inches (305 mm) of the door exit hardware:

6.1 For doors that swing in the direction of egress, the sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15[30] SECONDS.

6.2 For doors that swing in the opposite direction of egress, the sign shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.

6.3 The sign shall comply with the visual character requirements in ICC A117.1.

Exception: Where approved, in Group I occupancies, the installation of a sign is not required where care recipients who because of clinical needs require restraint or containment as part of the function of the treatment area.

7. Emergency lighting shall be provided on the egress side of the door.

8. The delayed egress locking system units shall be listed in accordance with UL 294.

Date Submitted 12/15/2018
Chapter 10

Section 1010.1.9.7
Affects HVHZ No

Proponent Ann Russo2
Attachments No

TAC Recommendation Approved as Submitted
Commission Action Pending Review

Comments

General Comments

No

Alternate Language

No

Related Modifications

Summary of Modification

Provides a design option that would allow two delayed egress locking systems in the means of egress.

Rationale

In Item 5, the new exception is proposed to be revised to include Group I-1 occupancies to allow up to two delayed egress systems. As in Group I-2, Group I-1 occupancies may need more than one delayed egress system. For example, if the Group I-1 occupancy is on the 2nd floor, or higher, in a building, a delayed egress system may be needed on the door to the exit stairway on that floor. And a second delayed egress locking system may be needed at the door to the exterior on the ground floor. In Group I-1 and I-4 an additional delayed egress locking system may be highly desirable to help reduce wandering or elopement by occupants.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Little to no impact, as it provides a design option.

Impact to building and property owners relative to cost of compliance with code

Will increase the cost of construction.

This is a design option that would allow two delayed egress locking systems in the means of egress, which would increase costs, but it is not a requirement.

Impact to industry relative to the cost of compliance with code

Will increase the cost of construction.

This is a design option that would allow two delayed egress locking systems in the means of egress, which would increase costs, but it is not a requirement.

Impact to small business relative to the cost of compliance with code

Will increase the cost of construction.

This is a design option that would allow two delayed egress locking systems in the means of egress, which would increase costs, but it is not a requirement.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Provides a design option that can provide greater control over means of egress.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Provides a design option that can provide greater control over means of egress.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Has no affect on materials and methods.

Does not degrade the effectiveness of the code

Provides a design option that can provide greater control over means of egress.

1010.1.9.7 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving any occupancy except Group A, E and H in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved automatic smoke or heat detection system* installed in accordance with Section 907. The locking system shall be installed and operated in accordance with all of the following:

1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the *automatic sprinkler system or automatic fire detection system*, allowing immediate, free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The delayed egress locking system shall have the capability of being deactivated at the *fire command center* and other *approved* locations.
4. An attempt to egress shall initiate an irreversible process that shall allow such egress in not more than 15 seconds when a physical effort to exit is applied to the egress side door hardware for not more than 3 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the delay electronics have been deactivated, rearming the delay electronics shall be by manual means only.

Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. The egress path from any point shall not pass through more than one delayed egress locking system.

Exception Exceptions:

1. In Group I-2 or I-3 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds.

2. In Group I-1 or I-4 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

6. A sign shall be provided on the door and shall be located above and within 12 inches (305 mm) of the door exit hardware:

6.1. For doors that swing in the direction of egress, the sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.

6.2. For doors that swing in the opposite direction of egress, the sign shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.

6.3. The sign shall comply with the visual character requirements in the Florida Accessibility Code for Building Construction.

Exception: Where approved, in Group I occupancies, the installation of a sign is not required where care recipients who because of clinical needs require restraint or containment as part of the function of the treatment area.

7. Emergency lighting shall be provided on the egress side of the door.

8. The delayed egress locking system units shall be listed in accordance with UL 294.

Date Submitted 12/15/2018	Section 1010.1.9.8	Proponent Ann Russo2
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Update to improve clarity and consistency in the language. The language is proposed to eliminate redundancy in this section.

Rationale

Update 1010.1.9.8 to improve clarity and consistency in the language. The charging language is proposed to eliminate redundancy in this section. With revisions to the first sentence, text late in that sentence is redundant as entrance doors to tenant spaces are commonly in the means of egress. It is uncommon that tenant doors are not in the means of egress.

The revisions to the numbered items is to clarify the required functions of the electric locking system. In Item 1, the added text describes what the sensor is required to do upon detecting an approaching occupant. The revisions in the other items clarify requirements for this electrical locking system.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
None. There are no technical revisions.

Impact to building and property owners relative to cost of compliance with code
No cost impact.

Impact to industry relative to the cost of compliance with code
No cost impact.

Impact to small business relative to the cost of compliance with code
No cost impact.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
Helps to clarify code requirements.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
Helps to clarify requirements and eliminate redundancy.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
Has no affect om materials or methods.

Does not degrade the effectiveness of the code
Helps to clarify requirements and eliminate redundancy.

1010.1.9.8 Sensor release of electrically locked egress doors. ~~The~~ Sensor release of electric locks locking systems shall be permitted on sensor released doors located in a the means of egress in buildings with an occupancy in Group A, B, E, I-1, I-2, I-4, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in Group A, B, E, I-1, I-2, I-4, M, R-1 or R-2 are permitted where installed and operated in accordance with all of the following criteria:

1. The sensor shall be installed on the egress side, arranged to detect an occupant approaching the doors, and shall cause the electric locking system to unlock.
2. ~~The doors~~ electric locks shall be arranged to unlock by a signal from or loss of power to the sensor.
3. Loss of power to the lock or locking system shall automatically unlock the ~~doors~~ electric lock.
4. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016 mm to 1219 mm) vertically above the floor and within 5 feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the electric lock—independent of other electronics—and the ~~doors~~ electric lock shall remain unlocked for not less than 30 seconds.
5. Activation of the building *fire alarm system*, where provided, shall automatically unlock the ~~doors~~ electric lock, and the ~~doors~~ electric lock shall remain unlocked until the fire alarm system has been reset.
6. Activation of the building *automatic sprinkler system or fire detection system*, where provided, shall automatically unlock the ~~doors~~ electric lock. The ~~doors~~ electric lock shall remain unlocked until the *fire alarm system* has been reset.
7. The door locking system units shall be listed in accordance with UL 294.

Date Submitted	12/15/2018	Section	1010.1.9.10	Proponent	Ann Russo2
Chapter	10	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications**Summary of Modification**

Eliminates the list of Groups in the section due to inconsistencies with how correctional facilities are defined in the code.

Rationale

Group I-1 services are provided in jails, however, they were not in this list of locking arrangements for correctional facilities. Rather than add Group I-1 to this growing list, it seems more appropriate to state that this type of locking should be allowed in all portions of a correctional facility. In addition, this list of Groups is inconsistent with how correctional facilities is defined in Section 308.5. If this system should not be allowed in certain types of jails, it should be regulated by the Condition, not a list of possible uses.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact. Clarification of requirements only.

Impact to building and property owners relative to cost of compliance with code

Will not increase cost of construction.

Impact to industry relative to the cost of compliance with code

Will not increase cost of construction.

Impact to small business relative to the cost of compliance with code

Will not increase cost of construction.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Clarifies the code requirements.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Clarifies the code requirements.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

has no affect on materials or methods.

Does not degrade the effectiveness of the code

Clarifies the code requirements.

1010.1.9.10 Locking arrangements in buildings within correctional facilities. In occupancies in ~~Groups A-2, A-3, A-4, B, E, F, I-2, I-3, M and S~~ buildings within correctional and detention facilities, doors in *means of egress* serving rooms or spaces occupied by persons whose movements are controlled for security reasons shall be permitted to be locked where equipped with egress control devices that shall unlock manually and by not less than one of the following means:

1. Activation of an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. Activation of an *approved manual fire alarm box*.
3. A signal from a *constantly attended location*.

Date Submitted	12/15/2018	Section	1011.10	Proponent	Ann Russo2
Chapter	10	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Modifies tread measurement for spiral stairs, as the method is outdated.

Rationale

This measurement method for standard and winder treads and the 7 $\frac{1}{8}$ inch tread depth for spiral stairs predates the FBC. Since that time the method of measuring spiral stair tread depth has changed with the definition of winder. Spiral treads are winder treads as defined in the code.

Winder. A tread with nonparallel edges

Winder tread depth is measured "between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline". The change in the method of measurement results in a smaller dimension, for the same tread, that is $\frac{1}{8}$ inch smaller in depth as illustrated in figure 1. The figure also illustrates the elements of spiral stair tread geometry. If the code is not changed, each tread in the typical spiral stairway would need to be increased by $\frac{1}{8}$ inch from the longstanding accepted practice. The proposed dimension change preserves what has been the industry standard for the manufacture of spiral stairways since the legacy codes.

Not approving this proposal will result in undue costs for the limited number of stairs that will comply with code when the riser height can be maximized. Please keep in mind that no substantiation was presented of the need for increased tread depth in spiral stairways. In fact spiral stairs actually have deeper treads than most stairs, adjacent to the handrail on the outside where the user walks. The currently required, additional $\frac{1}{8}$ inches of tread depth increase, inadvertently approved in the last cycle, and changed in the long accepted standard for a typical 360 degree stairway will add more than one and one third treads to each 13 tread stairway rotation. This will increasing the rotation by more than 36 degrees or 10% making it impossible in most situations to achieve the required headroom of 78 inches. Unchanged the FBC will all but eliminate spiral stairways.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact to plan review or inspections.

Impact to building and property owners relative to cost of compliance with code

Will reduce the cost of construction by not eliminating space saving spiral stairs from most applications where the intent of the code is to allow their use. Space saved = \$ saved.

Impact to industry relative to the cost of compliance with code

Will reduce the cost of construction by not eliminating space saving spiral stairs from most applications where the intent of the code is to allow their use. Space saved = \$ saved.

Impact to small business relative to the cost of compliance with code

Will reduce the cost of construction by not eliminating space saving spiral stairs from most applications where the intent of the code is to allow their use. Space saved = \$ saved.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Will allow for more usable space in a building.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Does not degrade the code requirements, but clarifies a key difference in winder treads and spiral stairs.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Allows the use of space saving manufactured spiral stairs.

Does not degrade the effectiveness of the code

Does not degrade the code requirements, but clarifies a key difference in winder treads and spiral stairs.

1011.10 Spiral stairways. *Spiral stairways* are permitted to be used as a component in the *means of egress* only within *dwelling units* or from a space not more than 250 square feet (23 m²) in area and serving not more than five occupants, or from *technical production areas* in accordance with Section 410.6.

A *spiral stairway* shall have a ~~7-1/2~~ 6-3/4 inch (~~191~~171 mm) minimum clear tread depth at a point 12 inches (305 mm) from the ~~narrow edge~~ walkline. The risers shall be sufficient to provide a headroom of 78 inches (1981 mm) minimum, but riser height shall not be more than 9-1/2 inches (241 mm). The minimum *stairway* clear width at and below the handrail shall be 26 inches (660 mm).

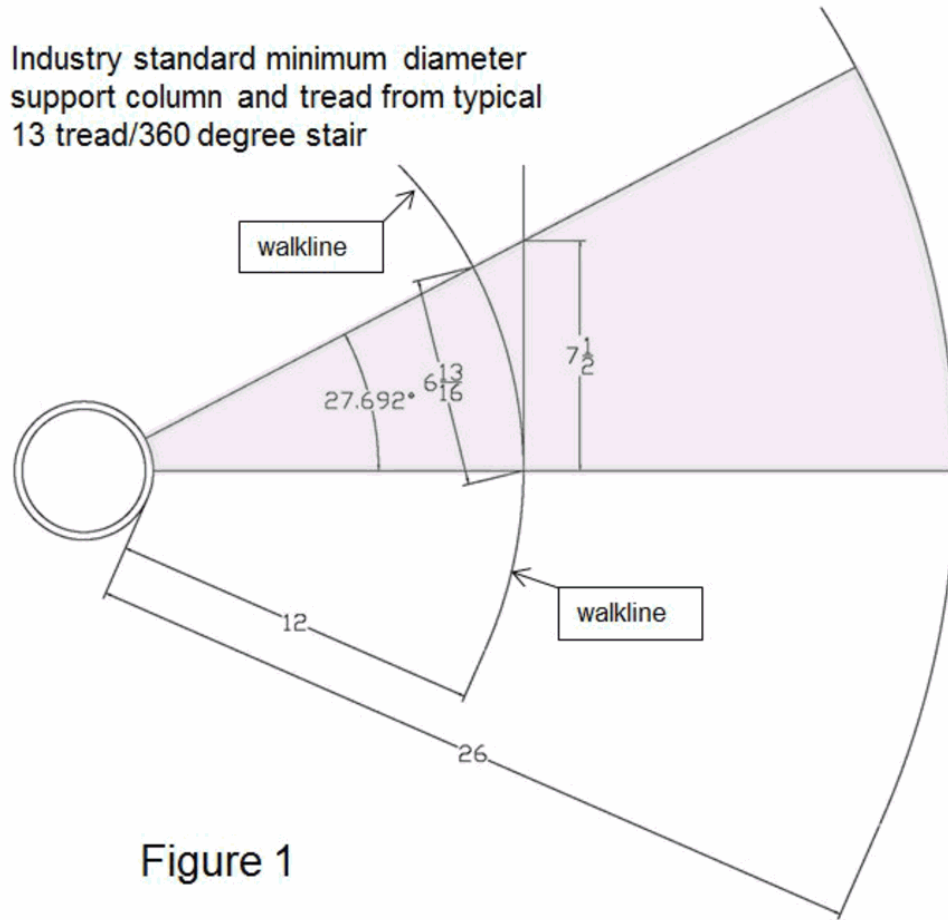


Figure 1

Date Submitted 12/15/2018	Section 1011.11	Proponent Ann Russo2
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

1014.1

Summary of Modification

Clarifies that handrails, other than extensions, are not required at the periphery of stair landings.

Rationale

Other than required handrail extensions, handrails are not required at the outside periphery of landings. However long before we get to 1014.6 Handrail extensions, the use of the defined term "stairways" in sections 1011.11 and 1014.1, supports the interpretation that handrails are required at landings because by definition a stairway includes landings.

Stairway. One or more flights of stairs, either exterior or interior, with the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage from one level to another.

The problem becomes more apparent when we look at 1014.4 Continuity. Unlike continuity in the IRC there is no limit related to the flight. Confusion is created when 1014.4 is considered with the other handrail section references to stairways as revised in the proposal above. This is a particular problem when considering residential applications.

This proposal provides a simple solution by substituting the correct term "flights of stairways" for "stairways" and clarifies the intent of the code. The term flights of stairways is used throughout the code and in particular within 1014.6 Handrail extensions.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Will have no effect. Simply a clarification.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

A simple clarification of handrail requirements.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

A simple clarification of handrail requirements.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

A simple clarification of handrail requirements.

Does not degrade the effectiveness of the code

A simple clarification of handrail requirements.

1011.11 Handrails. ~~Stairways~~ *Flights of stairways* shall have *handrails* on each side and shall comply with Section 1014. Where glass is used to provide the *handrail*, the *handrail* shall comply with Section 2407.

Exceptions:

1. ~~Stairways~~ *Flights of stairways* within *dwelling units* and flights of *spiral stairways* are permitted to have a *handrail* on one side only.
2. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require *handrails*.
3. In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require *handrails*.
4. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require *handrails*.

1014.1 Where required. *Handrails* serving flights of stairways, *ramps*, stepped *aisles* and ramped *aisles* shall be adequate in strength and attachment in accordance with Section 1607.8. *Handrails* required for flights of stairways by Section 1011.11 shall comply with Sections 1014.2 through 1014.9. *Handrails* required for ramps by Section 1012.8 shall comply with Sections 1014.2 through 1014.8. *Handrails* for stepped *aisles* and ramped *aisles* required by Section 1029.15 shall comply with Sections 1014.2 through 1014.8.

Date Submitted 12/15/2018	Section 1011.16	Proponent Ann Russo2
Chapter 10	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Clarifies currently existing ladder construction requirements.

Rationale

Section 306.5 of the FMC provides guidance on where ladders can be used to access equipment and for the technical criteria to construct the ladder (see the reason of the original change for text). The concern is the exact wording of Section 1009.18, Item 6. The list in Section 1011.6 is locations where ladders can be used. Item 6 is revised to limit the reference to where the ladders are permitted in FMC Section 306.5. How ladders are to be constructed is moved to the base paragraph so it is clear what technical requirements are to be followed where a ladder is provided in any of the 6 locations.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
There is no change to the technical requirements, so no impact.
- Impact to building and property owners relative to cost of compliance with code**
There is no change to the technical requirements, so no impact in cost.
- Impact to industry relative to the cost of compliance with code**
There is no change to the technical requirements, so no impact in cost.
- Impact to small business relative to the cost of compliance with code**
There is no change to the technical requirements, so no impact in cost.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
A simple clarification. No technical changes.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
A simple clarification. No technical changes.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
A simple clarification. No technical changes.
- Does not degrade the effectiveness of the code**
A simple clarification. No technical changes.

1011.16 Ladders. Permanent ladders shall not serve as a part of the *means of egress* from occupied spaces within a building. Permanent ladders shall be constructed in accordance with Section 306.5 of the Florida Mechanical Code.

Permanent ladders shall be permitted to provide access to the following areas:

1. Spaces frequented only by personnel for maintenance, repair or monitoring of equipment.
2. Nonoccupiable spaces accessed only by catwalks, crawl spaces, freight elevators or very narrow passageways.
3. Raised areas used primarily for purposes of security, life safety or fire safety including, but not limited to, observation galleries, prison guard towers, fire towers or lifeguard stands.
4. Elevated levels in Group U not open to the general public.
5. Nonoccupied roofs that are not required to have *stairway* access in accordance with Section 1011.12.1.
6. ~~Ladders shall be constructed~~ Where permitted to access equipment and appliances in accordance with Section 306.5 of the Florida Mechanical Code.

Date Submitted	11/28/2018	Section	1208.2	Proponent	Ann Russo1
Chapter	12	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

Summary of Modification

Clarification and coordination of current requirements.

Rationale

The proposal will improve consistency in language throughout the code.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

The proposal will improve consistency in language throughout the code.

Impact to building and property owners relative to cost of compliance with code

Will not increase cost.

Impact to industry relative to the cost of compliance with code

Will not increase cost.

Impact to small business relative to the cost of compliance with code

Will not increase cost.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This proposal will help clarify and coordinate the current code requirements.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal will improve the application of the code and will provide clarity to the current code requirements.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal will not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposal will improve the application of the code and will provide clarity to the current code requirements.

Revise as follows:

1208.2 Minimum ceiling heights. Occupiable spaces, *habitable spaces* and *corridors* shall have a ceiling height of not less than 7 feet 6 inches (2286 mm) above the finished floor. Bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms shall have a ceiling height of not less than 7 feet (2134 mm) above the finished floor.

Exceptions:

1. In one- and two-family *dwelling*s, beams or girders spaced not less than 4 feet (1219 mm) on center shall be permitted to project not more than 6 inches (152 mm) below the required ceiling height.
2. If any room in a building has a sloped ceiling, the prescribed ceiling height for the room is required in one-half the area thereof. Any portion of the room measuring less than 5 feet (1524 mm) from the finished floor to the ceiling shall not be included in any computation of the minimum area thereof.
3. The height of *mezzanines* and spaces below *mezzanines* shall be in accordance with Section 505.1.
4. Corridors contained within a *dwelling unit* or *sleeping unit* in a Group R occupancy shall have a ceiling height of not less than 7 feet (2134 mm) above the finished floor.

Date Submitted	11/13/2018	Section	1407	Proponent	Andy Williams
Chapter	14	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Eliminate Alternate Conditions allowable for Metal Composite Materials (MCM)

Rationale

Fire events around the world have made everyone rethink how MCM panels fit within the construction landscape. While many, if not all, of the fires have involved product and/or wall assemblies that would not have been allowed to be constructed under the code, it is clear that there are questions regarding the allowable use of standard core and fire resistive MCM panels. The MCM Manufacturers that are members of the Metal Construction Association agree that to simplify the application of MCM, Section 1407.11 Alternate conditions, which is based on the allowable use of other combustible exterior envelope materials within the code, should be removed. This will eliminate questions from both designers and code compliance officials on the appropriate product to use.

The clarification of MCM and MCM systems is added because Section 1407.10.1 specifically applies to the MCM "panel" (referred to as MCM in the code). Sections 1407.10.2 through 1407.10.4 reference both MCM and MCM systems.

By using the "40 feet above grade plane" limit as a trigger for MCM system compliance with NFPA 285, the product decision is simplified and the code is made more clear.

The majority of the domestic MCM manufacturers are represented as members of the Metal Construction Association and all agreed unanimously to support this proposed change.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Positive - Should make compliance easier to understand and the enforcement of the code clearer

Impact to building and property owners relative to cost of compliance with code

Minimal - The material cost differential between standard core and fire resistive material is minimal. Material inventories may lead to longer lead time and require additional planning.

Impact to industry relative to the cost of compliance with code

Minimal - The product manufacturers are the proponents of this proposal and are in support of this position

Impact to small business relative to the cost of compliance with code

None - The fabrication and installation of either material is essentially identical.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Clarification of material choice and ease of compliance with code requirements. The general public will not realize any visual or performance difference however the fire safety will be improved on a small segment of structures.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Makes code compliance easier to understand and enforce by elimination of alternate conditions listed in 1407.11

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The products involved in this code change are interchangeable.

Does not degrade the effectiveness of the code

This proposal would increase the effectiveness of the code by minimizing alternate conditions and clarifying design and performance requirements.

?REVISE AS FOLLOWS:

1407.10 Type I, II, III and IV construction.

Where installed on buildings of Type I, II, III and IV construction, MCMs and MCM systems shall comply with Sections 1407.10.1 through 1407.10.3 for installations up to 40 feet (12192 mm) above grade plane. Where installed on buildings of Type I, II, III, and IV construction, MCMs and MCM systems shall comply with Sections 1407.10.1 through 1407.10.4 for installations greater than 40 feet (12192 mm) above grade plane.~~1407.10.4, or Section 1407.11.~~

DELETE WITHOUT SUBSTITUTION

~~**1407.11 Alternate conditions.**~~

~~MCM and MCM systems shall not be required to comply with Sections 1407.10.1 through 1407.10.4 provided such systems comply with Section 1407.11.1, 1407.11.2, 1407.11.3 or 1407.11.4.~~

~~**1407.11.1 Installations up to 40 feet in height.**~~

~~MCM shall not be installed more than 40 feet (12190 mm) in height above grade where installed in accordance with Sections 1407.11.1.1 and 1407.11.1.2.~~

~~**1407.11.1.1 Fire separation distance of 5 feet or less.**~~

~~Where the fire separation distance is 5 feet (1524 mm) or less, the area of MCM shall not exceed 10 percent of the exterior wall surface.~~

~~**1407.11.1.2 Fire separation distance greater than 5 feet.**~~

~~Where the fire separation distance is greater than 5 feet (1524 mm), there shall be no limit on the area of exterior wall surface coverage using MCM.~~

~~**1407.11.2 Installations up to 50 feet in height.**~~

~~MCM shall not be installed more than 50 feet (15240 mm) in height above grade where installed in accordance with Sections 1407.11.2.1 and 1407.11.2.2.~~

~~1407.11.2.1 Self-ignition temperature.~~

MCM shall have a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D1929.

~~1407.11.2.2 Limitations.~~

Sections of MCM shall not exceed 300 square feet (27.9 m²) in area and shall be separated by not less than 4 feet (1219 mm) vertically.

~~1407.11.3 Installations up to 75 feet in height (Option 1).~~

MCM shall not be installed more than 75 feet (22 860 mm) in height above grade plane where installed in accordance with Sections 1407.11.3.1 through 1407.11.3.5.

Exception: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall be exempt from the height limitation.

~~1407.11.3.1 Prohibited occupancies.~~

MCM shall not be permitted on buildings classified as Group A-1, A-2, H, I-2 or I-3 occupancies.

~~1407.11.3.2 Nonfire-resistance-rated exterior walls.~~

MCM shall not be permitted on exterior walls required to have a fire-resistance rating by other provisions of this code.

~~1407.11.3.3 Specifications.~~

MCM shall be required to comply with all of the following:

1. 1.MCM shall have a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D1929.
2. 2.MCM shall conform to one of the following combustibility classifications when tested in accordance with ASTM D635:
 - Class CC1: Materials that have a burning extent of 1 inch (25 mm) or less when tested at a nominal thickness of 0.060 inch (1.5 mm) or in the thickness intended for use.
 - Class CC2: Materials that have a burning rate of 2¹/₂ inches per minute (1.06 mm/s) or less when tested at a nominal thickness of 0.060 inch (1.5 mm) or in the thickness intended for use.

~~1407.11.3.4 Area limitation and separation:~~

The maximum area of a single MCM panel and the minimum vertical and horizontal separation requirements for MCM panels shall be as provided for in Table 1407.11.3.4. The maximum percentage of exterior wall area of any story covered with MCM panels shall not exceed that indicated in Table 1407.11.3.4 or the percentage of unprotected openings permitted by Section 705.8, whichever is smaller.

Exception: In buildings provided with flame barriers complying with Section 705.8.5 and extending 30 inches (760 mm) beyond the exterior wall in the plane of the floor, a vertical separation shall not be required at the floor other than that provided by the vertical thickness of the flame barrier.

TABLE 1407.11.3.4

AREA LIMITATION AND SEPARATION REQUIREMENTS FOR MCM PANELS

FIRE SEPARATION DISTANCE (feet)	COMBUSTIBILITY CLASS OF MCM	MAXIMUM PERCENTAGE AREA OF EXTERIOR WALL COVERED WITH MCM PANELS	MAXIMUM SINGLE AREA OF MCM PANELS (square feet)	MINIMUM SEPARATION OF MCM PANELS (feet)	
				Vertical	Horizontal
Less than 6	—	Not Permitted	Not Permitted	—	—
6 or more but less than 11	CC1	10	50	8	4
11 or more but less than or equal to 30	CC2	Not Permitted	Not Permitted	—	—
11 or more but less than or equal to 30	CC1	25	90	6	4
11 or more but less than or equal to 30	CC2	15	70	8	4
More than 30	CC1	50	Not Limited	3 ^a	0
	CC2	50	100	6 ^a	3

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

1. a. For reductions in the minimum vertical separation, see Section 1407.11.3.4.

~~1407.11.3.5 Automatic sprinkler system increases:~~

Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the maximum percentage area of exterior wall of any story covered with MCM panels and the maximum square footage of a single area of MCM panels in Table 1407.11.3.4 shall be increased 100 percent. The area of MCM panels shall not exceed 50 percent of the exterior wall area of any story or the area permitted by Section 704.8 for unprotected openings, whichever is smaller.

~~1407.11.4 Installations up to 75 feet in height (Option 2):~~

MCM shall not be installed more than 75 feet (22 860 mm) in height above grade plane where installed in accordance with Sections 1407.11.4.1 through 1407.11.4.4.

Exception: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall be exempt from the height limitation.

~~1407.11.4.1 Minimum fire separation distance.~~

MCM shall not be installed on any wall with a fire separation distance less than 30 feet (9 144 mm).

Exception: Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the fire separation distance shall be permitted to be reduced to not less than 20 feet (6096 mm).

~~1407.11.4.2 Specifications.~~

MCM shall be required to comply with all of the following:

1. 1.MCM shall have a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D1929.
2. 2.MCM shall conform to one of the following combustibility classifications when tested in accordance with ASTM D635:
 - o Class CC1: Materials that have a burning extent of 1 inch (25 mm) or less when tested at a nominal thickness of 0.060 inch (1.5 mm), or in the thickness intended for use.
 - o Class CC2: Materials that have a burning rate of 2¹/₂ inches per minute (1.06 mm/s) or less when tested at a nominal thickness of 0.060 inch (1.5 mm), or in the thickness intended for use.

~~1407.11.4.3 Area and size limitations.~~

The aggregate area of MCM panels shall not exceed 25 percent of the area of any exterior wall face of the story on which those panels are installed. The area of a single MCM panel installed above the first story above grade plane shall not exceed 16 square feet (1.5 m²) and the vertical dimension of a single MCM panel shall not exceed 4 feet (1219 mm).

Exception: Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the maximum aggregate area of MCM panels shall be increased to 50 percent of the exterior wall face of the story on which those panels are installed and there shall not be a limit on the maximum dimension or area of a single MCM panel.

~~1407.11.4.4 Vertical separations.~~

Flame barriers complying with Section 705.8 and extending 30 inches (762 mm) beyond the exterior wall or a vertical separation of not less than 4 feet (1219 mm) in height shall be provided to separate MCM panels located on the exterior walls at one-story intervals.

Exception: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

Date Submitted	12/14/2018	Section	1406.3	Proponent	Paul Coats
Chapter	14	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

7522, 7553, 7826, 8265, 8267, 8269, 8270

Summary of Modification

This is a correlation change with other modifications that reorganize the heavy timber provisions. It does not change requirements but improves terminology to distinguish between the use of the terms "heavy timber" and "Type IV construction."

Rationale

This modification was approved by the ICC committee and membership and appears in the 2018 edition of the International Building Code. This code change is related a reorganization of Type IV provisions in Section 602.4 and the heavy timber provisions in section 2304.11. The goal of this change (and similar changes to heavy timber terminology in other chapters) is to use the term "Type IV" or "Section 602.4" when the provisions are referring to the type of construction for the building, and "heavy timber complying with Section 2304.11" when the provisions are referring to a heavy timber element located in a building of any construction type. This and related changes are not intended to make technical changes to the code but rather to make the current requirements easier to apply.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Will make code application easier.

Impact to building and property owners relative to cost of compliance with code

No cost-related impact.

Impact to industry relative to the cost of compliance with code

No cost-related impact.

Impact to small business relative to the cost of compliance with code

No cost-related impact

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Will make code application easier.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by making its application easier.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Does not degrade the effectiveness of the code.

1. **1406.3 Balconies and similar projections.**

Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV~~ heavy timber construction in accordance with Section ~~602.4-2304.11~~. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. 1.On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. 2.Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. 3.Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. 4.Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

G 180-15

406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1

Proponent: Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

2015 International Building Code

Revise as follows:

406.7.2 Canopies. Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11 or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11;
2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a *smokedeveloped index* of 450 or less when tested in the form intended for use in accordance with ASTM E 84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929; or
3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls	3	2	1	0	2	2	2	1	0
Exterior ^{e, f}	3 ^a	2 ^a	1	0	1	0	1/HT	1	0
Interior									
Nonbearing walls and partitions	See Table 602								
Exterior									
Nonbearing walls and partitions	0	0	0	0	0	0	See Section 602.4.6 <u>2304.11.2</u>	0	0
Interior ^d									
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories above grade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour fire-resistance-rated construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of ~~Type IV heavy timber~~ construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV heavy timber~~ construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.13.1.1.

1406.3 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV heavy timber~~ construction in accordance with Section ~~602.4~~2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV~~ heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV~~ heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 802.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15

Committee Action: Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Date Submitted	12/14/2018	Section	2406.4.5	Proponent	Lynn Miller
Chapter	24	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications**Summary of Modification**

This modification clarifies that the sacrificial outboard panes of laminated, insulated glass windows are not required to be safety glazed if they are not exposed to potential hazards.

Rationale

If a laminated, insulated glass window is installed in a wall that is exposed to a slip hazard, provided the laminated inboard lite of the window (adjacent to the hazard) is safety-glazed, the sacrificial outboard lite should not require safety glazing if it is not exposed to any potential hazards.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

There currently exists confusion regarding whether or not the outboard lite is required to be safety-glazed. This modification will clarify the requirement.

Impact to building and property owners relative to cost of compliance with code

This modification does not impact the cost associated with compliance with the code.

Impact to industry relative to the cost of compliance with code

This modification does not impact the cost associated with compliance with the code.

Impact to small business relative to the cost of compliance with code

This modification does not impact the cost associated with compliance with the code.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This modification will not adversely affect the health, safety or welfare of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code as it clarifies a requirement which is currently causing confusion in the industry.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification does not discriminate.

Does not degrade the effectiveness of the code

This modification does not degrade the effectiveness of the code.

2406.4.5 Glazing and wet surfaces.

Glazing in walls, enclosures or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface shall be considered a hazardous location. This shall apply to single glazing and all panes in multiple glazing.

Exceptions:

1. Glazing that is more than 60 inches (1524 mm), measured horizontally and in a straight line, from the water's edge of a bathtub, hot tub, spa, whirlpool or swimming pool.
2. Outboard sacrificial panes in laminated insulating glass units in walls where the exterior of the unit is not exposed to any of the hazardous locations specified in 2406.4.3 or 2406.4.5.

Date Submitted	12/10/2018	Section	2603.4	Proponent	Marcelo Hirschler
Chapter	26	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

This proposal adds a suitable thermal barrier material.

Rationale

Thermal barriers are materials that comply with NFPA 275. In order to comply with NFPA 275 thermal barrier materials (in combination with the foam plastic insulation they are supposed to protect) are supposed to resist flashover after exposure to a room-corner test (using a test specimen that covers 3 walls and the ceiling of an 8 ft. by 12 ft. by 8 ft. room) such as NFPA 286, as well as comply with a number of other requirements (peak heat release rate of no more than 800 kW, flames that don't reach the extremities of the test specimen, total smoke release of no more than 1,000 m²). As an alternative to testing to NFPA 286 the thermal barriers are allowed to be tested to FM 4880, UL 1040 or UL 1715, all severe large scale tests.

Beyond the test just mentioned, thermal barriers must also be able to pass a fire resistance test using a time-temperature curve like the one in ASTM E119 for 15 minutes. It is clear (and fire test data have shown this) that thin wood panel materials will not comply with these requirements, because if a thin wood panel, covering a foam plastic insulation material, is exposed to the fire source in NFPA 286, it will reach flashover well before the end of the 15 minute test period.

Discussions held during ICC hearings addressed the interest by some proponents that a wood material be permitted to be used as a thermal barrier without testing. Therefore, this proposal suggests that heavy timber is a wood material that could safely be used as a thermal barrier, while thin wood panels are not appropriate thermal barriers.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Adds an alternative thermal barrier material

Impact to building and property owners relative to cost of compliance with code

No added cost for compliance

Impact to industry relative to the cost of compliance with code

No added cost for compliance

Impact to small business relative to the cost of compliance with code

No added cost for compliance - provides an additional alternative

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

No effect

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Provides an alternate products

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate against materials or products

Does not degrade the effectiveness of the code

Does not degrade the code

2603.4 Thermal barrier. Except as provided for in Sections 2603.4.1 and 2603.9, foam plastic shall be separated from the interior of a building by an approved thermal barrier of 1/2-inch (12.7 mm) gypsum wallboard, heavy timber in accordance with Section 602.4, or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275. Combustible concealed spaces shall comply with Section 718.

Date Submitted	12/14/2018	Section	2612	Proponent	John Woestman
Chapter	26	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

This proposal is intended to be clarifications and simplification of the requirements for plastic composites identified in this section of the FBC.

Rationale

This proposal is intended to be clarification and simplification of the requirements for plastic composites identified in this section. The 2017 FBC included, for the first time, specific requirements for plastic composite deck boards, stair treads, and guard systems. This language was developed and finalized during the 2012 ICC code development cycle for the 2015 IBC. The following year (2013), the requirements in the IRC for these same products were revised, but the result is there are some differences between the 2015 IBC and the 2015 IRC. This code change proposal is an effort to move the language of the 2018 IBC and the 2020 FBC to be in close alignment with the language of the 2015 IRC and 2017 Florida Building Code, Residential.

Cost: No cost implications. No technical changes to the code requirements.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Updated, revised, and clarified requirements for plastic composite deck boards, stair treads, and guard systems should help with interpretation and enforcement of the code.

Impact to building and property owners relative to cost of compliance with code

No cost implications. No technical changes to the code requirements.

Impact to industry relative to the cost of compliance with code

No cost implications. No technical changes to the code requirements.

Impact to small business relative to the cost of compliance with code

No cost implications. No technical changes to the code requirements.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Updated, revised, and clarified requirements for plastic composite deck boards, stair treads, and guard systems should help with interpretation and enforcement of the code, and help to ensure the appropriate product is selected and installed correctly.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate. Requires plastic composite deck boards, stair treads, and guard systems to comply with an industry accepted standard currently referenced in the code.

Does not degrade the effectiveness of the code

Improves the effectiveness of the code.

Revise as follows:

SECTION 2612

PLASTIC COMPOSITES

2612.1 General. Plastic composites shall consist of either wood/plastic composites or plastic lumber. Plastic composites shall comply with the provisions of this code and with the additional requirements of Section 2612.

2612.2 Labeling and identification. Packages and containers of plastic composites used in exterior applications shall bear a *label* showing the manufacturer's name, product identification and information sufficient to determine that the end use will comply with code requirements.

2612.2.1 Performance levels. The label for plastic composites used in exterior applications as deck boards, stair treads, handrails and guards shall indicate the required performance levels and demonstrate compliance with the provisions of ASTM D 7032.

2612.2.2 Loading. The label for plastic composites used in exterior applications as deck boards, stair treads, handrails and guards shall indicate the type and magnitude of the load determined in accordance with ASTM D 7032.

2612.2 Labeling. Plastic composite deck boards and stair treads, or their packaging, shall bear a *label* that indicates compliance to ASTM D7032 and includes the allowable load and maximum allowable span determined in accordance with ASTM D7032. Plastic composite handrails and guards, or their packaging, shall bear a *label* that indicates compliance to ASTM D7032 and includes the maximum allowable span determined in accordance with ASTM D7032.

2612.3 Flame spread index. Plastic composites deck boards, stair treads, handrails and guards shall exhibit a flame spread index not exceeding 200 when tested in accordance with ASTM E 84 or UL 723 with the test specimen remaining in place during the test.

Exception: Materials determined to be noncombustible in accordance with Section 703.5.

2612.4 Termite and decay resistance. Where required by Section 2304.12 Plastic composites deck boards, stair treads, handrails and guards containing wood, cellulosic or any other biodegradable materials shall be termite and decay resistant as determined in accordance with ASTM D 7032.

2612.5 Construction requirements. Plastic composites shall be permitted to be used as exterior deck boards, stair treads, handrails and guards in buildings of Type VB construction.

2612.5.1 Span rating. Plastic composites used as exterior deck boards shall have a span rating determined in accordance with ASTM D 7032.

2612.6 Plastic composite decking boards, stair treads, handrails and guards. Plastic composite decking boards, stair treads, handrails and guards shall be installed in accordance with this code and the manufacturer's instructions.

Date Submitted 12/14/2018	Section 2603.7	Proponent John Woestman
Chapter 26	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments	No	Alternate Language	No
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Related Modifications

Summary of Modification

This proposal is intended to revise the requirements for foam plastic in plenums. There is a companion proposal for the Florida Mechanical Code. This code change is intended to not revise technical requirements, but clarifies the code's intent for the use of foam plastic in plenums.

Rationale

This proposal is intended to revise the requirements for foam plastic in plenums. There is a companion proposal for the Florida Mechanical Code. This code change is intended to not revise technical requirements, but clarifies the code's intent for the use of foam plastic in plenums. The following revisions are proposed:

- 2) The requirements for foam plastic in a plenum (currently 2603.7.2 Approval) are moved to the charging paragraph in proposed Section 2603.7.
- 3) Not including the last sentence in 2603.7 in this re-write of 2603.7 clearly establishes the ASTM E84 performance limits and NFPA 286 with the identified acceptance criteria in 803.1.2 as the qualifying tests for use of foam plastics exposed to the airflow in plenums.
- 4) The use of a thermal barrier (currently Section 2603.7.1 Separation required) separating the foam plastic from the airflow in the plenum is allowed and therefore listed as an exception.
- 5) The use of an alternate barrier (currently Section 2603.7.3 Covering) separating the foam plastic from the airflow in the plenum is allowed and therefore listed as an exception.
- 6) A new exception is added to recognize the use of masonry or concrete as a means to separate the foam plastic from the airflow in the plenum. Masonry and concrete, with minimum 1 inch thickness, are approved thermal barriers for foam plastic per Section 2603.4.1.
- 7) A sentence is added to the Interior Finish and Trim (Section 2604.1) pointing back to the plenum requirements in Section 2603.7. The changes bring needed clarification regarding the approved barriers and corresponding flame spread and smoke-developed requirements for foam plastic used in plenums.

Cost Impact:
Part II: Will not increase the cost of construction No cost increase. This code proposal revises existing requirements without technical changes.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
The revised text should be easier to understand and enforce, and should make code enforcement quicker.
- Impact to building and property owners relative to cost of compliance with code**
Will not increase the cost of construction. This code proposal revises existing requirements without technical changes.
- Impact to industry relative to the cost of compliance with code**
Will not increase the cost of construction. This code proposal revises existing requirements without technical changes.
- Impact to small business relative to the cost of compliance with code**
Will not increase the cost of construction. This code proposal revises existing requirements without technical changes.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Easier to understand and enforce requirements for foam plastic materials in plenums should improve fire safety of plenums.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves the code with easier to understand and apply requirements.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate.
- Does not degrade the effectiveness of the code**
Does not degrade the effectiveness of the code.

Delete and replace as shown:

2603.7 Foam plastic insulation used as interior finish or interior trim in plenums. Foam plastic insulation used as interior wall or ceiling finish or as interior trim in plenums shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723 and shall comply with one or more of Sections 2603.7.1, 2603.7.2 and 2607.3.

2603.7.1 Separation required. The foam plastic insulation shall be separated from the plenum by a thermal barrier complying with Section 2603.4 and shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723 at the thickness and density intended for use.

2603.7.2 Approval. The foam plastic insulation shall exhibit a flame spread index of 25 or less and a smoke-developed index of 50 or less when tested in accordance with ASTM E 84 or UL 723 at the thickness and density intended for use and shall meet the acceptance criteria of Section 803.1.2 when tested in accordance with NFPA 286. The foam plastic insulation shall be approved based on tests conducted in accordance with Section 2603.9.

2603.7.3 Covering. The foam plastic insulation shall be covered by corrosion-resistant steel having a base metal thickness of not less than 0.0160 inch (0.4 mm) and shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723 at the thickness and density intended for use.

2603.7 Foam plastic insulation in plenums as interior finish or interior trim. Foam plastic insulation in plenums used as interior wall or ceiling finish, or interior trim, shall exhibit a flame spread index of 25 or less and a smoke-developed index of 50 or less when tested in accordance with ASTM E 84 or UL 723 at the maximum thickness and density intended for use, and shall be tested in accordance with NFPA 286 and meet the acceptance criteria of Section 803.1.2.

Exceptions:

1. Foam plastic in plenums used as interior wall or ceiling finish, or interior trim, shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723 at the maximum thickness and density intended for use, where it is separated from the airflow in the plenum by a thermal barrier complying with Section 2603.4.

2. Foam plastic in plenums used as interior wall or ceiling finish, or interior trim, shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723 at the maximum thickness and density intended for use, where it is separated from the airflow in the plenum by corrosion resistant steel having a base metal thickness of not less than 0.0160 inch (0.4 mm).

3. Foam plastic in plenums used as interior wall or ceiling finish, or interior trim, shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723 at the maximum thickness and density intended for use, where it is separated from the airflow in the plenum by not less than a 1 inch (25mm) thickness of masonry or concrete.

Add new text as follows:

2604.1.1 Plenums. Foam plastics installed in plenums as interior wall or ceiling finish shall comply with Section 2603.7. Foam plastics installed in plenums as interior trim shall comply with Sections 2604.2 and 2603.7.

Date Submitted 11/28/2018	Section 3104.5.2.2	Proponent Michael Fox
Chapter 31	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Clarifies type of glass required for pedestrian walkways

Rationale

This clarifies the intent of the code section

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None

Impact to building and property owners relative to cost of compliance with code

None

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Clarifies intent of Code

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Clarifies intent of Code

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Clarifies intent of Code

Does not degrade the effectiveness of the code

Clarifies intent of Code

• 3104.5.2.2 Glass.

The wall shall be constructed of a tempered, wired or laminated glass wall and doors or glass separating the interior of the building from the pedestrian walkway. The glass shall be protected by an automatic sprinkler system in accordance with Section 903.3.1.1 that, when actuated, shall completely wet the entire surface of interior sides of the wall or glass. Obstructions shall not be installed between the sprinkler heads and the wall or glass. The glass shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) the glass before the sprinkler operates.

Date Submitted 12/14/2018	Section 3105.3	Proponent Paul Coats
Chapter 31	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments	No	Alternate Language	No
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Related Modifications

7522, 7553, 7826, 8265, 8267, 8269, 8270, 8271, 8273

Summary of Modification

This is a correlation change with other modifications that reorganize the heavy timber provisions. It does not change requirements but improves terminology to distinguish between the use of the terms "heavy timber" and "Type IV construction."

Rationale

This modification was approved by the ICC committee and membership and appears in the 2018 edition of the International Building Code. This code change is related a reorganization of Type IV provisions in Section 602.4 and the heavy timber provisions in section 2304.11. The goal of this change (and similar changes to heavy timber terminology in other chapters) is to use the term "Type IV" or "Section 602.4" when the provisions are referring to the type of construction for the building, and "heavy timber complying with Section 2304.11" when the provisions are referring to a heavy timber element located in a building of any construction type. This and related changes are not intended to make technical changes to the code but rather to make the current requirements easier to apply.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Will make code application easier.
- Impact to building and property owners relative to cost of compliance with code**
No cost-related impact.
- Impact to industry relative to the cost of compliance with code**
No cost-related impact.
- Impact to small business relative to the cost of compliance with code**
No cost-related impact.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Will make code application easier.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves the code by making its application easier.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate.
- Does not degrade the effectiveness of the code**
Does not degrade the effectiveness of the code.

1.

1. **3105.3 Design and construction.**

Awnings and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 and in accordance with Section 3105.4 of this code with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

G 180-15

406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1

Proponent: Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

2015 International Building Code

Revise as follows:

406.7.2 Canopies. Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11 or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11;
2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a *smokedeveloped index* of 450 or less when tested in the form intended for use in accordance with ASTM E 84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929; or
3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls	3	2	1	0	2	2	2	1	0
Exterior ^{e, f}	3 ^a	2 ^a	1	0	1	0	1/HT	1	0
Interior									
Nonbearing walls and partitions	See Table 602								
Exterior									
Nonbearing walls and partitions	0	0	0	0	0	0	See Section 602.4.6 <u>2304.11.2</u>	0	0
Interior ^d									
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories abovegrade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour fire-resistance-rated construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of ~~Type IV heavy timber~~ construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV heavy timber~~ construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.13.1.1.

1406.3 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV heavy timber~~ construction in accordance with Section ~~602.4~~2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV~~ heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV~~ heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 802.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15

Committee Action: Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Date Submitted 11/30/2018	Section 3306.2	Proponent Ann Russo5
Chapter 33	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

The code provisions are based upon an assumption where the building or structure is completely contained within the construction site with no access by the general public. There are some perceptions that this code provision only applies to "the public right of way".

Rationale

The code provisions are based upon an assumption where the building or structure is completely contained within the construction site with no access by the general public. There are some perceptions that this code provision only applies to "the public right of way". Structures which are under renovation and still open to the public often have private property walkways leading to the entrances of the building and are not subject to the pedestrian protection provisions in the published Code. The same hazards which require protection of pedestrians at the public sidewalk may be present on the private property and should be subject to the same protection afforded to those persons on a public sidewalk.

This proposal corrects an oversight in the provision for walkways at construction sites.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Assists local jurisdictions in review of safety plans and enforcement of requirements
- Impact to building and property owners relative to cost of compliance with code**
Minimal and reduces contingent liability due to improper protection during construction activity
- Impact to industry relative to the cost of compliance with code**
Minimal costs but positive overall impact with regards to liability
- Impact to small business relative to the cost of compliance with code**
None expected

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves safety and welfare of public around construction activity in transiting areas in better safety
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Improves Code efficiency in areas of pedestrian protection during construction activity
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not
- Does not degrade the effectiveness of the code**
Improves effectiveness of Code

Modify as follows:

3306.2 Walkways.

A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless the applicable governing authority authorizes the sidewalk to be fenced or closed. A walkway shall be provided for pedestrian travel that leads from a building entrance or exit of an occupied structure to a public way. Walkways shall be of sufficient width to accommodate the pedestrian traffic, but in no case shall they be less than 4 feet (1219 mm) in width. Walkways shall be provided with a durable walking surface. Walkways shall be *accessible* in accordance with Chapter 11 and shall be designed to support all imposed loads and in no case shall the design live load be less than 150 pounds per square foot (psf) (7.2 kN/m²).

Date Submitted	12/14/2018	Section	35	Proponent	Tim Earl
Chapter	35	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

- 7511 (Section 406.8.3)
- 7546 (Section 424.2)
- 7547 (Sections 804.2 and 804.3)

Summary of Modification

This change adds ASTM E648 as a referenced standard, as a companion to 3 proposals which add it as an option to NFPA 253, since they are equivalent tests and many labs produce reports labeled ASTM E648 instead of NFPA 253.

Rationale

ASTM E648 is technically equivalent to NFPA 253. Since the flooring industry routinely references ASTM E648, this proposal will remove confusion when test reports reference the ASTM test instead of the NFPA test. This proposal also correlates with the 2018 IBC.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Impact to building and property owners relative to cost of compliance with code

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Impact to industry relative to the cost of compliance with code

This change may result in a small costs savings to industry, since those who submit ASTM E648 test reports currently have to either ask the lab to provide another test report referencing NFPA 253, or have a code consultant explain to the code official that they are equivalent tests.

Impact to small business relative to the cost of compliance with code

No impact on cost. It may save time if the code official is unaware that the tests are equivalent. By explicitly allowing both tests in the code, there is no need for any of the parties involved to research the issue if the test report references ASTM E648 instead of NFPA 253.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This section is about the fire performance of flooring products, which is critical to life safety. The change itself simply improves the usability of the code by recognizing two equivalent tests instead of one.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This change makes the code more complete and accurate, since ASTM E648 and NFPA 253 are the same test.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This change is material neutral, as flooring products are tested in an identical manner using ASTM E648 or NFPA 253. The only difference is what is listed on the test report.

Does not degrade the effectiveness of the code

This change makes the code more complete and accurate, since ASTM E648 and NFPA 253 are the same test.

E648-14c Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source

Date Submitted	12/14/2018	Section	102.2.8	Proponent	Paul Coats
Chapter	2704	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

7522, 7553, 7826, 8265, 8267, 8269, 8270, 8271, 8273, 8275

Summary of Modification

This is a correlation change with other modifications that reorganize the heavy timber provisions. It does not change requirements but improves terminology to distinguish between the use of the terms "heavy timber" and "Type IV construction."

Rationale

This modification was approved by the ICC committee and membership and appears in the 2018 edition of the International Building Code. This code change is related a reorganization of Type IV provisions in Section 602.4 and the heavy timber provisions in section 2304.11. The goal of this change (and similar changes to heavy timber terminology in other chapters) is to use the term "Type IV" or "Section 602.4" when the provisions are referring to the type of construction for the building, and "heavy timber complying with Section 2304.11" when the provisions are referring to a heavy timber element located in a building of any construction type. This and related changes are not intended to make technical changes to the code but rather to make the current requirements easier to apply.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Will make code application easier.

Impact to building and property owners relative to cost of compliance with code

No cost-related impact.

Impact to industry relative to the cost of compliance with code

No cost-related impact.

Impact to small business relative to the cost of compliance with code

No cost-related impact.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Will make code application easier.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by making its application easier.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate.

Does not degrade the effectiveness of the code

Does not degrade the effectiveness of the code.

1.

1. **D102.2.8 Permanent canopies.**

Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, Type-IV construction heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.

Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.

2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance* of exterior walls shall not be reduced.

G 180-15

406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1

Proponent: Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

2015 International Building Code

Revise as follows:

406.7.2 Canopies. Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11 or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes~~ heavy timber complying with Section 2304.11;
2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a smoke developed index of 450 or less when tested in the form intended for use in accordance with ASTM E 84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929; or
3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

**TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Primary structural frame ^f (see Section 202)	3 ^a	2 ^a	1	0	1	0	HT	1	0
Bearing walls	3	2	1	0	2	2	2	1	0
Exterior ^{e, f}	3 ^a	2 ^a	1	0	1	0	1/HT	1	0
Interior									
Nonbearing walls and partitions	See Table 602								
Exterior									
Nonbearing walls and partitions	0	0	0	0	0	0	See Section 602.4.6 <u>2304.11.2</u>	0	0
Interior ^d									
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 ¹ / 2 ^u	1 ^{b,c}	1 ^{b,c}	0 ^c	1 ^{b,c}	0	HT	1 ^{b,c}	0

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories above grade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
4. Roof coverings that have an A, B or C classification.
5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
6. Millwork such as doors, door frames, window sashes and frames.
7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
8. *Trim* installed in accordance with Section 806.
9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
10. Finish flooring installed in accordance with Section 805.
11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
14. Blocking such as for handrails, millwork, cabinets and window and door frames.
15. Light-transmitting plastics as permitted by Chapter 26.
16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.
17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour fire-resistance-rated construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of ~~Type IV heavy timber~~ construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV heavy timber~~ construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.13.1.1.

1406.3 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV heavy timber~~ construction in accordance with Section ~~602.4~~2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of ~~Type IV construction~~ heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or ~~Type IV construction~~ heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest *story*, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size~~ heavy timber complying with Section 2304.11, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction~~ heavy timber complying with Section 2304.11 or of 1-hour fire-resistance-rated construction.
Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.
2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).
5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 802.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 180-15 : 406.7.2-RICHARDSONS276

G 180-15

Committee Action: Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Sub Code: Existing Building

F8049

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Date Submitted	12/13/2018	Section	406.2	Proponent	Joseph Belcher for FHBA
Chapter	4	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

406.3, 702.4, and 702.5

Summary of Modification

Coordinates replacement window provisions of the FBC-EB

Rationale

(Note: Reason is as provided by original ICC proponent. JDB)

“Reason: This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>. The intent of this proposal is for consistent terminology in the IEBC between Chapter 4 and 7 when dealing with replacement windows. The added language also clarifies that this applies to windows in IRC dwellings.”

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact the change coordinates and clarifies the provisions for replacement windows.

Impact to building and property owners relative to cost of compliance with code

No impact the change coordinates and clarifies the provisions for replacement windows.

Impact to industry relative to the cost of compliance with code

No impact the change coordinates and clarifies the provisions for replacement windows.

Impact to small business relative to the cost of compliance with code

No impact the change coordinates and clarifies the provisions for replacement windows.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The change impacts public health and safety by coordinating and clarifying the provisions for replacement windows in various sections.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change improves the code by coordinating and clarifying the provisions for replacement windows in various sections.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change upgrades the effectiveness of the code.

Revise as follows:

406.2 Replacement window opening control devices. In Group R-2 or R-3 buildings containing dwelling units and one- and two-family dwellings and townhouses regulated by the *Florida Building Code-Residential*, window opening control devices complying with ASTM F 2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window:

1. The window is operable;
2. The window replacement includes replacement of the sash and the frame;
3. ~~The~~ One of the following applies:
 - 3.1. In Group R-2 or R-3 building containing dwelling units, the top of the sill of the window opening is at a height less than 36 inches (915 mm) above the finished floor; or
 - 3.2. In one- and two-family dwellings and townhouses regulated by the Florida Building Code-Residential, the top of the sill of the window opening is at a height less than 24 inches (610 mm) above the finished floor;
4. The window will permit openings that will allow passage of a 4-inch-diameter (102 mm) sphere when the window is in its largest opened position; and
5. The vertical distance from the top of the sill of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1030.2 of the *Florida Building Code-Building*.

Exceptions:

1. Operable windows where the top of the sill of the window opening is located more than 75 feet (22860 mm) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F2006.
2. Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F2090.

406.3 Replacement window emergency escape and rescue openings. Where windows are required to provide *emergency escape* and *rescue openings* in Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *Florida Building Code-Residential*, replacement windows shall be exempt from the requirements of Sections 1030.2, 1030.3 and 1030.5 of the Florida Building Code-Building and Sections R310.2.1,

310.2.2 and R310.2.3 of the *Florida Building Code-Residential* accordingly provided the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. The replacement of the window is not part of a change of occupancy.

Window opening control devices complying with ASTM F 2090 shall be permitted for use on windows required to provide emergency escape and rescue openings.

702.4 Window opening control devices on replacement windows. In Group R-2 or R-3 buildings containing dwelling units and one- and two-family dwellings and townhouses regulated by the *Florida Building Code-Residential*, window opening control devices complying with ASTM F 2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window:

1. The window is operable;
2. The window replacement includes replacement of the sash and the frame;
3. One of the following applies:
 - 3.1. In Group R-2 or R-3 buildings containing dwelling units, the top of the sill of the window opening is at a height less than 36 inches (915 mm) above the finished floor; or
 - 3.2. In one-and-two-family dwellings and town-houses regulated by the *Florida Building Code-Residential*, the top sill of the window opening is at a height less than 24 inches (610 mm) above the finished floor;
4. The window will permit openings that will allow passage of a 4-inch-diameter (102 mm) sphere when the window is in its largest opened position; and
5. The vertical distance from the top of the sill of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1030.2 of the *Florida Building Code-Building*.

Exceptions:

1. Operable windows where the top of the sill of the window opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F2006.
2. Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F2090.

702.5 Emergency Replacement window emergency escape and rescue openings. Where windows are required to provide emergency escape and rescue openings in Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *Florida Building Code-Residential*, replacement windows shall be exempt from the requirements of Sections 1030.2, 1030.3 and 1030.5 of the *Florida Building Code-Building* and Sections R310.2.1, R310.2.2 and R310.2.3 of the *Florida Building Code-Residential* accordingly, provided the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. The replacement of the window is not part of a change of occupancy.

Window opening control devices complying with ASTM F 2090 shall be permitted for use on windows required to provide *emergency escape and rescue openings*.

Date Submitted 12/14/2018	Section 401.2.4	Proponent Ann Russo4
Chapter 4	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications**Summary of Modification**

It add a new section 401.2.4 that allows alteration projects using the prescriptive method to use sprinkler systems as alternatives to other forms of protection as allowed in the Building Code and as allowed in the FEBC for the work area method.

Rationale

“The topic of allowing the ability to apply sprinkler protection trade-offs that exist in the current code has been a matter of discussion in the code development arena for some time. How to apply the allowance for a potential reduction in fire-resistance ratings and in what code they belong have been discussed without a consensus.

“The concept is that once a building without sprinkler protection has been sprinklered throughout, whether due to renovations or retroactive code application, the designer should be permitted to allow the same fire resistance rating provisions for new construction in an existing sprinklered building. The issue is how to provide for that application of code and ensure a proper review by the building code official is performed to ensure there are no impediments to granting an approval that may result in the reduction of existing levels of protection.

The suggested language provides that once an existing building is sprinklered throughout and meets the other fire protection requirements of Chapter 9 of the FBC, plans, investigation and evaluation reports, and other data can be submitted seeking approval of the code official for the assignment of the new fire-resistance ratings which might me a reduction, or potentially an increase.” The suggested language also requires that any special construction features, conditions of occupancy, approved modifications or approved alternative materials, design and methods of construction, and equipment applying to the building that impact required fire-resistance ratings shall be identified in the evaluation reports submitted. This is to ensure special conditions are identified that may prevent a reduction in fire-resistance ratings.”

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposal could reduce the cost of construction because it allows alteration projects using the prescriptive method to use sprinkler systems as alternatives to other forms of protection as allowed in the Building Code and as allowed in the FEBC for the work area method.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners as this is will not increase the cost of construction

Impact to industry relative to the cost of compliance with code

No impact to industry as this is will not increase the cost of construction

Impact to small business relative to the cost of compliance with code

No impact to small business as this is will not increase the cost of construction

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Improves the health, safety, and welfare of the general public by allowing alteration projects using the prescriptive method to use sprinkler systems as alternatives to other forms of protection as allowed in the Building Code and as allowed in the FEBC for the work area method.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by allowing alteration projects using the prescriptive method to use sprinkler systems as alternatives to other forms of protection as allowed in the Building Code and as allowed in the FEBC for the work area method.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate against material, products, methods, or systems of construction of demonstrated capabilities, this is a current code requirement that does not limit material, products, methods, or systems of construction

Does not degrade the effectiveness of the code

Increases the effectiveness the code by allowing alteration projects using the prescriptive method to use sprinkler systems as alternatives to other forms of protection as allowed in the Building Code and as allowed in the FEBC for the work area method.

Add new text as follows:

401.2.4 Fire resistance ratings Where approved by the code official, buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the Florida Building Code has been added, and the building is now sprinklered throughout, the required fire-resistance ratings of building elements and materials shall be permitted to meet the requirements of the current building code. The building is required to meet the other applicable requirements of the International Building Code.

Plans, investigation and evaluation reports, and other data shall be submitted indicating which building elements and materials the applicant is requesting the code official to review and approve for determination of applying the current building code fire-resistance ratings. Any special construction features, including fire-resistance-rated assemblies and smoke-resistive assemblies, conditions of occupancy, means-of-egress conditions, fire code deficiencies, approved modifications or approved alternative materials, design and methods of construction, and equipment applying to the building that impact required fire-resistance ratings shall be identified in the evaluation reports submitted.

Date Submitted	12/15/2018	Section	805.3	Proponent	Kimberly Gilliam
Chapter	8	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

805.3.1, 805.3.1.1, Table 805.3.1.1(1) (New), Table 805.3.1.1(2) (New)

Summary of Modification

The intent of the proposal is coordination and an update to new terminology.

Rationale

Brings FBC, Existing Building into better alignment with FBC, Building.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

None. The proposed modification is a clarification and does not change requirements.

Impact to building and property owners relative to cost of compliance with code

None. The proposed modification is a clarification and does not change requirements.

Impact to industry relative to the cost of compliance with code

None. The proposed modification is a clarification and does not change requirements.

Impact to small business relative to the cost of compliance with code

None. The proposed modification is a clarification and does not change requirements.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

No, the proposed modification is a clarification and does not change requirements.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, the clarification provides better coordination within the Code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, it does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

No, the clarification provides better coordination within the Code.

805.3 Number of exits.

The number of exits shall be in accordance with Sections 805.3.1 through 805.3.3.

805.3.1 Minimum number.

Every story utilized for human occupancy on which there is a *work area* that includes exits or corridors shared by more than one tenant within the *work area* shall be provided with the minimum number of exits based on the occupancy and the occupant load in accordance with the Florida Building Code, Building. In addition, the exits shall be permitted to comply with Sections 805.3.1.1 and 805.3.1.2.

805.3.1.1 Single-exit buildings.

Only one exit is required from buildings and spaces of the following occupancies: A single exit or access to a single exit shall be permitted from spaces, any story or any occupied roof where one of the following exist:

1. 1.The occupant load, number of dwelling units and exit access travel distance do not exceed the values in Table 805.3.1.1(1) or 805.3.1.1(2).

1.In Group A, B, E, F, M, U and S occupancies, a single exit is permitted in the story at the level of exit discharge when the occupant load of the story does not exceed 50 and the exit access travel distance does not exceed 75 feet (22 860 mm).

2. 2.Group B, F-2, and S-2 occupancies not more than two stories in height that are not greater than 3,500 square feet per floor (326 m²), when the exit access travel distance does not exceed 75 feet (22 860 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.

3. 3.Open parking structures where vehicles are mechanically parked.

4. 4.In Group R-4 occupancies, the maximum occupant load excluding staff is 16.

5. 5.Groups R-1 and R-2 not more than two stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15 240 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.

6. 6.In multilevel dwelling units in buildings of occupancy Group R-1 or R-2, an exit shall not be required from every level of the dwelling unit provided that one of the following conditions is met:

1. 6.1.The travel distance within the dwelling unit does not exceed 75 feet (22 860 mm); or

2. 6.2.The building is not more than three stories in height and all third-floor space is part of one or more dwelling units located in part on the second floor; and no habitable room within any such dwelling unit shall have a travel distance that exceeds 50 feet (15 240 mm) from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.

2. In Group R-1 or R-2, non-sprinklered buildings, individual single-story or multistory dwelling or sleeping units shall be permitted to have a single exit or access to a single exit from the dwelling or sleeping unit provided one of the following criteria are met:

2.1 The occupant load is not greater than 10 and the exit access travel distance within the unit does not exceed 75 feet (22 860 mm).

2.2 The building is not more than three stories in height; all 3rd story space is part of dwelling with an exit access doorway on the 2nd story; and the portion of the exit access travel distance from the door to any habitable room within any such unit to the unit entrance doors does not exceed 50 feet (15 240 mm).

7. In Group R-2, H-4, H-5 and I occupancies and in rooming houses and child care centers, a single exit is permitted in a one-story building with a maximum occupant load of 10 and the exit access travel distance does not exceed 75 feet (22 860 mm).

1. 8.In buildings of Group R-2 occupancy that are equipped throughout with an automatic fire sprinkler system, a single exit shall be permitted from a basement or story below grade if every dwelling unit on that floor is equipped with an

approved window providing a clear opening of at least 5 square feet (0.47 m²) in area, a minimum net clear opening of 24 inches (610 mm) in height and 20 inches (508 mm) in width, and a sill height of not more than 44 inches (1118 mm) above the finished floor.

2. ~~9. 3. In buildings of Group R-2 occupancy of any height number of stories and with not more than four dwelling units per floor; served by an interior exit stairway with a smokeproof enclosure in accordance with Sections 909.20 and 1023.11 of the Florida Building Code, Building or an exterior exit stairway or outside stairway as an exit; and with such exit located within 20 feet (6096 mm) of travel to the entrance doors to all dwelling units served thereby; where the portion of the exit access travel distance from the dwelling unit entrance door to the exit is a maximum of 20 feet (6096 mm).~~
3. ~~10. In buildings of Group R-3 occupancy equipped throughout with an automatic fire sprinkler system, only one exit shall be required from basements or stories below grade.~~

TABLE 805.3.1.1(1)

STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

<u>STORY</u>	<u>OCCUPANCY</u>	<u>MAXIMUM NUMBER OF DWELLING UNITS</u>	<u>MAXIMUM EXIT ACCESS TRAVEL DISTANCE</u>
<u>Basement, First or second story above grade plane</u>	<u>R-2²</u>	<u>4 dwelling units</u>	<u>50 feet</u>
<u>Third story above grade plane and higher</u>	<u>NP</u>	<u>NA</u>	<u>NA</u>

For SI: 1 foot=3048

NP=Not Permitted.

NA=Not Applicable.

- a. Group R-2, non-sprinklered and provided with emergency escape and rescue openings in accordance with Section 1030 of the *International Building Code*.

TABLE 805.3.1.1(2)

STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

<u>STORY</u>	<u>OCCUPANCY</u>	<u>MAXIMUM OCCUPANTS LOAD PER STORY</u>	<u>MAXIMUM EXIT ACCESS TRAVEL DISTANCE (feet)</u>
<u>First story above or below grade plane</u>	<u>B, F-2, S-2^a</u>	<u>35</u>	<u>75</u>
<u>Second story above grade plane</u>	<u>B, F-2, S-2^a</u>	<u>35</u>	<u>75</u>
<u>Third story above grade plane and higher</u>	<u>NP</u>	<u>NA</u>	<u>NA</u>

For SI: 1 foot = 304.8mm.

NP=Not Permitted

NA=Not Applicable

- a. The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet (30480mm).

Code Change No: EB63-15

Original Proposal

Section: 805.3, 805.3.1, 805.3.1.1, Table 805.3.1.1(1) (New), Table 805.3.1.1(2) (New)

Proponent: Edward Kulik, Chair, representing Building Code Action Committee (bcac@iccsafe.org)

Revise as follows:

805.3 Number of exits. The number of exits shall be in accordance with Sections 805.3.1 through 805.3.3.

805.3.1 Minimum number. Every story utilized for human occupancy on which there is a *work area* that includes exits or corridors shared by more than one tenant within the *work area* shall be provided with the minimum number of exits based on the occupancy and the occupant load in accordance with the *International Building Code*. In addition, the exits shall be permitted to comply with Sections 805.3.1.1 and 805.3.1.2.

805.3.1.1 Single-exit buildings. ~~Only one exit is required from spaces, of the following occupancies: A single exit or access to a single exit shall be permitted from spaces, any story or any occupied roof where one of the following exist:~~

- ~~1. The occupant load, number of dwelling units and exit access travel distance do not exceed the values in Table 805.3.1.1(1) or 805.3.1.1(2).~~
- ~~1. In Group A, B, E, F, M, U and S occupancies, a single exit is permitted in the story at the level of exit discharge when the occupant load of the story does not exceed 50 and the exit access travel distance does not exceed 75 feet (22 860 mm).~~
- ~~2. Group B, F-2, and S-2 occupancies not more than two stories in height that are not greater than 3,500 square feet per floor (326 m²), when the exit access travel distance does not exceed 75 feet (22 860 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.~~
- ~~3. Open parking structures where vehicles are mechanically parked.~~
- ~~4. In Group R-4 occupancies, the maximum occupant load excluding staff is 16.~~
- ~~5. Groups R-1 and R-2 not more than two stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15 240 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.~~
- ~~6. In multilevel dwelling units in buildings of occupancy Group R-1 or R-2, an exit shall not be required from every level of the dwelling unit provided that one of the following conditions is met:

 - ~~6.1. The travel distance within the dwelling unit does not exceed 75 feet (22 860 mm); or~~
 - ~~6.2. The building is not more than three stories in height and all third-floor space is part of one or more dwelling units located in part on the second floor; and no habitable room within any such dwelling unit shall have a travel distance that exceeds 50 feet (15 240 mm) from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.~~~~
2. In Group R-1 or R-2, non-sprinklered buildings, individual single-story or multistory dwelling or sleeping units shall be permitted to have a single exit or access to a single exit from the dwelling or sleeping unit provided one of the following criteria are met:
 - 2.1. The occupant load is not greater than 10 and the exit access travel distance within the unit does not exceed 75 feet (22 860 mm).
 - 2.2. The building is not more than three stories in height; all 3rd story space is part of dwelling

- with an exit access doorway on the 2nd story; and the portion of the exit access travel distance from the door to any habitable room within any such unit to the unit entrance doors shall not exceeds 50 feet (15 240 mm).
7. In Group R-2, H-4, H-5 and I occupancies and in rooming houses and child care centers, a single exit is permitted in a one story building with a maximum occupant load of 10 and the exit access travel distance does not exceed 75 feet (22 860 mm).
 8. In buildings of Group R-2 occupancy that are equipped throughout with an automatic fire-sprinkler system, a single exit shall be permitted from a basement or story below grade if every dwelling unit on that floor is equipped with an approved window providing a clear opening of at least 5 square feet (0.47 m²) in area, a minimum net clear opening of 24 inches (610 mm) in height and 20 inches (508 mm) in width, and a sill height of not more than 44 inches (1118 mm) above the finished floor.
 - 3.9. In buildings of Group R-2 occupancy of any height number of stories and with not more than four dwelling units per floor; served by an interior exit stairway with a smokeproof enclosure in accordance with Sections 909.20 and 1023.11 of the *International Building Code* or an exterior exit stairway outside stairway as an exit; and with such exit located within 20 feet (6096 mm) of travel to the entrance doors to all dwelling units served thereby where the portion of the exit access travel distance from the dwelling unit entrance door to the exit is a maximum of 20 feet (6096 mm).
 10. In buildings of Group R-3 occupancy equipped throughout with an automatic fire sprinkler system, only one exit shall be required from basements or stories below grade.

**TABLE 805.3.1.1(1)
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES**

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, First or second story above grade plane	R-2 ²	4 dwelling units	50 feet
Third story above grade plane and higher	NP	NA	NA

For SI: 1 foot=3048
NP=Not Permitted.
NA=Not Applicable.

a. Group R-2, non-sprinklered and provided with emergency escape and rescue openings in accordance with Section 1030 of the *International Building Code*.

**TABLE 805.3.1.1(2)
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES**

STORY	OCCUPANCY	MAXIMUM OCCUPANTS LOAD PER STORY	MAXIMUM EXIT ACCESS TRAVEL DISTANCE (feet)
First story above or below grade plane	B, F-2, S-2 ^a	35	75
Second story above grade plane	B, F-2, S-2 ^a	35	75
Third story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8mm.
NP=Not Permitted
NA=Not Applicable

a. The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet (30480mm).

Reason: The current provisions are not keeping up with the allowances and changes in language for new buildings. This could be interpreted as existing buildings being more restrictive than new construction. Many items match IBC new construction allowances rather than allowing for additional options. To keep items correlated over time, the change to Section 805.3.1 is to allow for any option permitted in new construction. The reasons for the changes to Section 805.3.1.1 are found below. What can be put in tables similar to Table 1006.3.2(1) and Table 1006.3.2(2) has been made so to improve correlation and consistency over time.

Item 1 is permitted for new construction, IBC Table 1006.3.2(2); therefore, it is proposed to be deleted.
 Item 2 - This is the new item 1 and the table. The area is translated to occupant load (3500 sq.ft/100 sq.ft. per occupant) and added in a table. This is consistent with the approach for new construction and should increase consistency over time. The last sentence is addressing exit stairway enclosures, which are already addressed in stairway provisions. Note a in the table is so that it is understood that this allowance will not override the allowance for 100 feet in open parking that is permitted in new construction.
 Item 3 is for mechanical parking garages is permitted in IBC Section 1006.3.2 Item 3; therefore, it is proposed to be deleted.
 Item 4 for Group R-4 is technically incorrect with the language using occupant load rather than number of residents; in addition a single exit is permitted in IBC Section 1006.3.2 Item 4; therefore, it is proposed to be deleted.
 Item 5 is based on old travel distance allowances for single exit apartment buildings – so this limitation should be for only non-sprinklered buildings. Group R-1 does not typically have dwelling units, so this is not logical for a hotel. This item should be deleted in favor new construction allowances in Table 1006.3.2(1) for apartment buildings. The last sentence is addressing exit stairway enclosures, which are already addressed in stairway provisions; therefore, it is proposed to be deleted.
 Item 6 is more restrictive than the multi-story dwelling units permitted in Section 1006.3.2, Item 5. Group R-1 does not typically have dwelling units, so terminology is not logical for a hotel. If this is needed for large sleeping unit, this allowance should be added to new construction in IBC. For sprinklered buildings this item should be deleted in favor new construction allowances in Section 1006.3.2 Item 5 for multi-story dwelling units. The revised item 2 is limited to non-sprinklered buildings and the terminology has been updated. The occupant load was added to be consistent with the previous limit on dwelling units and travel distance before sprinklers were added (2003 IBC Section 1013.3 and 1014.1). There is no intent to change to the technical criteria.
 Item 7 – Rooming houses a limiting factor for Group R-2 in new construction – current text would apply this to all Group R-2. In addition, R-2 congregate residences are now 16 or more. To fit into the maximum of 10 occupants, you are a Group R-3 now. Group R-3 has always had single exit with no travel distance, so this would be more restrictive than new sprinklered or existing not sprinklered. Child care centers could be read as E and I-4. Group I-4 is part of Group I and is the same for new construction. This requirement exceeds Group E requirements for new construction and should not be applicable. The provisions for I, H-4 and H-5 match new construction in Table 1006.3.2(2). Therefore, it is proposed to be deleted.
 Item 8 is addressed for new construction in Table 1006.3.2(2), including the emergency escape window requirement; therefore, it is proposed to be deleted.
 Item 9 (new Item 3) allows for a different travel distance measurement and additional number of stories for apartment buildings with 4 or fewer per story. Since this is unlimited height, this would apply to sprinklered and non-sprinklered existing buildings. The change is intended to be editorial only to match new terminology.
 Item 10 is addressed already permitted for new construction in Section 1006.3.2 Item 3; therefore, it is proposed to be deleted.

Cost Impact: Will not increase the cost of construction
 The code change proposal will not increase the cost of construction. The intent of the proposal is coordination and an update to new terminology. It is not intended to increase requirements.

**Report of Committee Action
 Hearings**

Committee Action: **Approved as Modified**

Modify as follows:

805.3.1.1 Single-exit buildings. A single exit or access to a single exit shall be permitted from spaces, any story or any occupied roof where one of the following exist:

1. The occupant load, number of dwelling units and exit access travel distance do not exceed the values in Table 805.3.1.1(1) or 805.3.1.1(2).
2. In Group R-1 or R-2, non-sprinklered buildings, individual single-story or multistory dwelling or sleeping units shall be permitted to have a single exit or access to a single exit from the dwelling or sleeping unit provided one of the following criteria are met:
 - 2.1 The occupant load is not greater than 10 and the exit access travel distance within the unit does not exceed 75 feet (22 860 mm).
 - 2.2 The building is not more than three stories in height; all 3rd story space is part of a dwelling with an exit access doorway on the 2nd story; and the portion of the exit access travel distance from the door to any habitable room with any such unit to the unit entrance doors ~~shall does~~ not exceed 50 feet (15 240mm).
3. In buildings of Group R-2 occupancy of any number of stories and with not more than four dwelling units per floor; served by an interior exit stairway with a smokeproof enclosure in accordance with Sections 909.20 and 1023.11 of the *International Building Code* or an exterior exit stairway where the portion of the exit access travel distance from the dwelling unit entrance door to the exit is a maximum of 20 feet (6096mm).

Committee Reason: This proposal was approved as it aligns the allowance of single exit buildings with the IBC. It would be inappropriate for the IEBC to be more restrictive than the IBC. The modification simply makes an editorial revision to Item 2.2 to be consistent with the terminology used in Item 2.1. The revision revises “shall not exceeds” to “does not exceed.”

Assembly Action: **None**

Final Action Results

EB63-15

AM

Date Submitted 12/12/2018	Section 804.2.4	Proponent Kimberly Gilliam
Chapter 8	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

904.1.4 (New)

Summary of Modification

The intent of this code change is to address that the municipal water supply must be available at the floor level where the work area is located without the installation of a fire pump. Move to new section 904.1.4, bring into Level 3 alterations.

Rationale

The intent of this code change is to address the concern that the municipal water supply must be available at the floor level where the work area is located without the installation of a fire pump. The determining factor for an automatic fire sprinkler system should be whether there is adequate water at the site, not whether a fire pump may be required when achieving an acceptable level of public safety.

This code change revises the text so that the adequacy of a municipal water supply at the building site is the determining factor. When the work area exceeds 50% of the floor area and a fire sprinkler system would be required. The possible installation of a fire pump to supplement the water flow and pressure would not be the deciding factor when providing fire safety to the work area. Move to Section 904.1.4 bringing the provisions into Level 3 alterations.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Unknown whether this will lead to more existing buildings being required to add sprinkler systems, because even though the threshold is being lowered, the requirements are being moved from Level 2 alteration to Level 3 alteration.

Impact to building and property owners relative to cost of compliance with code

The cost of fire pump will be added to the cost of the fire sprinkler system. However, the same fire pump should be adequate for future fire sprinkler system installations in the building, therefore, the fire pump will be a one-time cost for the building and future alterations.

Impact to industry relative to the cost of compliance with code

The cost of fire pump will be added to the cost of the fire sprinkler system. However, the same fire pump should be adequate for future fire sprinkler system installations in the building, therefore, the fire pump will be a one-time cost for the building and future alterations.

Impact to small business relative to the cost of compliance with code

The cost of fire pump will be added to the cost of the fire sprinkler system. However, the same fire pump should be adequate for future fire sprinkler system installations in the building, therefore, the fire pump will be a one-time cost for the building and future alterations.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes, as it lowers the threshold at which existing buildings would require sprinkler systems.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, as it aligns with the latest ICC Codes, and lowers the threshold at which existing buildings would require sprinkler systems.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, it does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

No, it does not degrade the effectiveness of the code.

804.2.4 904.1.4 Other required automatic sprinkler systems.

In buildings and areas listed in Table 903.2.11.6 of the Florida Building Code, Building, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:

1. 1.The *work area* is required to be provided with an automatic sprinkler system in accordance with the Florida Building Code, Building applicable to new construction; and
2. 2.The building has sufficient municipal water supply for design of an automatic sprinkler system available to the floor without installation of a new fire pump.

2.The building site has sufficient municipal water supply for design and installation of an automatic sprinkler system.

Code Change No: EB61-15

Original Proposal

Section: 804.2.4

Proponent: Adolf Zubia, IAFC Fire & Life Safety Section, representing IAFC Fire & Life Safety Section

Revise as follows:

804.2.4 Other required automatic sprinkler systems. In buildings and areas listed in Table 903.2.11.6 of the *International Building Code*, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:

1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the *International Building Code* applicable to new construction; and
2. ~~The building has sufficient municipal water supply for design of an automatic sprinkler system available to the floor without installation of a new fire pump.~~
2. The building site has sufficient municipal water supply for design and installation of an automatic sprinkler system.

Reason: This proposal is submitted by Fire and Life Safety Section of the International Association of Fire Chiefs. The intent of this code change is to address the concern that the municipal water supply must be available at the floor level where the work area is located without the installation of a fire pump. The determining factor for an automatic fire sprinkler system should be whether there is adequate water at the site, not whether a fire pump may be required when achieving an acceptable level of public safety.

This code change revises the text so that the adequacy of a municipal water supply at the building site is the determining factor. When the work area exceeds 50% of the floor area and a fire sprinkler system would be required. The possible installation of a fire pump to supplement the water flow and pressure would not be the deciding factor when providing fire safety to the work area.

Cost Impact: Will not increase the cost of construction

The cost of fire pump will be added to the cost of the fire sprinkler system. However, the same fire pump should be adequate for future fire sprinkler system installations in the building, therefore, the fire pump will be a one-time cost for the building and future alterations.

Report of Committee Action Hearings

Committee Action:

Approved as Modified

Modify as follows:

~~804.2.4~~ 904.1.4 Other required automatic sprinkler systems. *No change to text.*

Committee Reason: This proposal was seen as reasonable but only if moved to the Level 3 alterations provisions. The modification simply moved the section from Section 804.2.4 to Section 904.1.4 bringing the provisions into Level 3 alterations.

Assembly Action:

None

Final Action Results

EB61-15

AM

Date Submitted	12/15/2018	Section	804.4.1.7	Proponent	Harold Barrineau
Chapter	8	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

None

Summary of Modification

804.4.1.7 Group R-4.

Rationale

This proposal is a clarification of requirements and correlation of requirements. Smoke alarms are addressed in Section 804.3.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposal does not impact local entity relative to enforcement.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction.

This proposal is a clarification only.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction.

This proposal is a clarification only.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction.

This proposal is a clarification only.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This proposal improves the health, safety, and welfare of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal strengthens or improves the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal does not discriminate against materials, products, methods or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

This proposal does not degrade the effectiveness of the code.

Revise as follows:

A manual fire alarm system shall be installed in work areas of Group R-4 residential care/assisted living facilities as required by the Florida Fire Prevention Code for existing Group R-4 occupancies.

Date Submitted 12/15/2018	Section 1012.4	Proponent Kimberly Gilliam
Chapter 10	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

1012.5

Summary of Modification

Clarification so that the table is consistent with the identification of different levels of hazards for the residents in a Group R-4.

Rationale

The change in the table is consistent with the identification of different levels of hazards for the residents in Group R-4. The conditions are based on the egress capability of the residents. Group R-4 Condition 1 is more consistent with Group R-3. Group R-2 Condition 2 is closer to a Group I-1.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This is a reduction in requirements for Group R-4 Condition 1.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction. This is a reduction in requirements for Group R-4 Condition 1.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction. This is a reduction in requirements for Group R-4 Condition 1.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction. This is a reduction in requirements for Group R-4 Condition 1.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The conditions are based on the egress capability of the residents. Group R-4 Condition 1 is more consistent with Group R-3. Group R-2 Condition 2 is closer to a Group I-1.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, it provides clarification and better coordination within the Code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, it does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

No, it improves coordination within the Code.

TABLE 1012.4
MEANS OF EGRESS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4 <u>Condition 2</u>
4	B, F-1, R-3, <u>R-4 Condition 1</u> , S-1
5 (Lowest Hazard)	F-2, S-2, U

TABLE 1012.5
HEIGHTS AND AREAS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4 <u>Condition 2</u>
3	E, F-1, S-1, M
4 (Lowest Hazard)	B, F-2, S-2, A-5, R-3, <u>R-4 Condition 1</u> , U

Code Change No: EB67-15

Original Proposal

Section: Table 1012.4, Table 1012.5

Proponent: Carl Baldassarra, P.E., FSFPA, P.E., FSFPE, Chair, Code Technology Committee, representing Code Technology Committee (CTC@iccsafe.org)

Revise as follows:

**TABLE 1012.4 (1012.4)
MEANS OF EGRESS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4 <u>Condition 2</u>
4	B, F-1, R-3, <u>R-4 Condition 1</u> , S-1
5 (Lowest Hazard)	F-2, S-2, U

**TABLE 1012.5 (1012.5)
HEIGHTS AND AREAS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4 <u>Condition 2</u>
3	E, F-1, S-1, M
4 (Lowest Hazard)	B, F-2, S-2, A-5, R-3, <u>R-4 Condition 1</u> , U

Reason: The change in the table is consistent with the identification of different levels of hazards for the residents in a Group R-4. The conditions are based on the egress capability of the residents. Group R-4 Condition 1 is more consistent with Group R-3. Group R-2 Condition 2 is closer to a Group I-1.

The ICC Code Technology Committee (CTC) has just completed its 10th year. The ICC Board has decided to sunset the CTC. The sunset plan includes re-assigning many of the CTC Areas of Study to the applicable Code Action Committee (CAC). The two remaining CTC Areas of Study are Care Facilities and Elevator Lobbies/WTC Elevator issues. This proposal falls under the Care Facilities Area of Study. Information on the CTC, including: the sunset plan; meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the CTC website at: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>.

Cost Impact: Will not increase the cost of construction
This is a reduction in requirements for Group R-4 Condition 1.

Report of Committee Action Hearings

Committee Action: **Approved as Submitted**

Committee Reason: The committee agreed with the proponent's reason. More specifically, the proposal appropriately divides the two conditions into the proper risk categories in Section 1012.

Assembly Action: **None**

Final Action Results

EB67-15

AS

Date Submitted	12/15/2018	Section	1401.6	Proponent	Kimberly Gilliam
Chapter	14	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

Summary of Modification

This proposal adds "other codes" because other codes besides the FBC, Existing Building are referenced in Chapter 14.

Rationale

The reference to "other codes" is necessary as there are minimum provisions that must be met from other Florida Building Codes.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
None. The proposal is a clarification and does not impact cost.
- Impact to building and property owners relative to cost of compliance with code**
None. The proposal is a clarification and does not impact cost.
- Impact to industry relative to the cost of compliance with code**
None. The proposal is a clarification and does not impact cost.
- Impact to small business relative to the cost of compliance with code**
None. The proposal is a clarification and does not impact cost.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
No, the proposal is a clarification and does not change the requirements.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Yes, the clarification improves the coordination of the Code.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
No, it does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.
- Does not degrade the effectiveness of the code**
No, the clarification improves the coordination of the Code.

1401.6 Evaluation process.

The evaluation process specified herein shall be followed in its entirety to evaluate *existing buildings* in Groups A, B, E, F, M, R, S and U. For existing buildings in Group I-2, the evaluation process specified herein shall be followed and applied to each and every individual smoke compartment. Table 1401.7 shall be utilized for tabulating the results of the evaluation. References to other sections of this code or other codes indicate that compliance with those sections is required in order to gain credit in the evaluation herein outlined. In applying this section to a building with mixed occupancies, where the separation between the mixed occupancies does not qualify for any category indicated in Section 1401.6.16, the score for each occupancy shall be determined, and the lower score determined for each section of the evaluation process shall apply to the entire building, or to each smoke compartment for Group I-2 occupancies.

Where the separation between the mixed occupancies qualifies for any category indicated in Section 1401.6.16, the score for each occupancy shall apply to each portion, or smoke compartment of the building based on the occupancy of the space.

Code Change No: **EB77-15**

Original Proposal

Section: 1401.6

Proponent: Jeff Hugo, National Fire Sprinkler Association, representing National Fire Sprinkler Association (hugo@nfsa.org)

Revise as follows:

1401.6 Evaluation process. The evaluation process specified herein shall be followed in its entirety to evaluate *existing buildings* in Groups A, B, E, F, M, R, S and U. For existing buildings in Group I-2, the evaluation process specified herein shall be followed and applied to each and every individual smoke compartment. Table 1401.7 shall be utilized for tabulating the results of the evaluation. References to other sections of this code or other codes indicate that compliance with those sections is required in order to gain credit in the evaluation herein outlined. In applying this section to a building with mixed occupancies, where the separation between the mixed occupancies does not qualify for any category indicated in Section 1401.6.16, the score for each occupancy shall be determined, and the lower score determined for each section of the evaluation process shall apply to the entire building, or to each smoke compartment for Group I-2 occupancies.

Where the separation between the mixed occupancies qualifies for any category indicated in Section 1401.6.16, the score for each occupancy shall apply to each portion, or smoke compartment of the building based on the occupancy of the space.

Reason: This proposal adds "other codes" because other codes, such as the International Building Code besides the IEBC are referenced in Chapter 14.

Cost Impact: Will not increase the cost of construction
Editorial

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The reference to "other codes" is necessary as there are minimum provisions that must be met from other I-Codes.

Assembly Action:

None

Final Action Results

EB77-15

AS

Date Submitted	12/15/2018	Section	1401.6.6	Proponent	Kimberly Gilliam
Chapter	14	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

1401.6.6.1

Summary of Modification

This proposal clarifies the issue as to the proper application of this section by providing a footnote to VO and modifies the text in 1401.6.6 to ensure that the maximum value of 2 applies to VO.

Rationale

The last sentence of 1401.6.6 states, "The maximum positive value for this requirement shall be 2." Since Table 1401.6.6(1) has a Value of 2, this application of this maximum positive value limit can create some confusion in the proper application of this section. This proposal clarifies the issue by providing a footnote to VO and modifies the text in 1401.6.6 to ensure that the maximum value of 2 applies to VO.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

None. The proposed modification is a clarification and does not change the requirement.

Impact to building and property owners relative to cost of compliance with code

None. The proposed modification is a clarification and does not change the requirement.

Impact to industry relative to the cost of compliance with code

None. The proposed modification is a clarification and does not change the requirement.

Impact to small business relative to the cost of compliance with code

None. The proposed modification is a clarification and does not change the requirement.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

No, the proposed modification is a clarification and does not change the requirement.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, it improves the clarity of the Code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, it does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

No, it improves the clarity of the Code.

1401.6.6 Vertical openings.

Evaluate the fire-resistance rating of interior exit stairways or ramps, hoistways, escalator openings, and other shaft enclosures within the building, and openings between two or more floors. Table 1401.6.6(1) contains the appropriate protection values. Multiply that value by the construction-type factor found in Table 1401.6.6(2). Enter the vertical opening value and its sign (positive or negative) in Table 1401.7 under Safety Parameter 1401.6.6, Vertical Openings, for fire safety, means of egress, and general safety. If the structure is a one-story building or if all the unenclosed vertical openings within the building conform to the requirements of Section 713 of the Florida Building Code, Building, enter a value of 2. The maximum positive value for this requirement (VO) shall be 2.

1401.6.6.1 Vertical opening formula.

The following formula shall be used in computing vertical opening value.



(Equation 14-5)

where:

VO = Vertical opening value. The calculated value shall not be greater than positive 2.0.

PV = Protection value from Table 1401.6.6.(1).

CF = Construction-type factor from Table 1401.6.6.(2).

Code Change No: EB79-15

Original Proposal

Section: 1401.6.6, 1401.6.6.1

Proponent: Anthony Apfelbeck, City of Altamonte Springs Buiding/Fire Safety, representing City of Altamonte Springs (ACApfelbeck@altamonte.org)

Revise as follows:

1401.6.6 Vertical openings. Evaluate the fire-resistance rating of interior exit stairways or ramps, hoistways, escalator openings, and other shaft enclosures within the building, and openings between two or more floors. Table 1401.6.6(1) contains the appropriate protection values. Multiply that value by the construction-type factor found in Table 1401.6.6(2). Enter the vertical opening value and its sign (positive or negative) in Table 1401.7 under Safety Parameter 1401.6.6, Vertical Openings, for fire safety, means of egress, and general safety. If the structure is a one-story building or if all the unenclosed vertical openings within the building conform to the requirements of Section 713 of the *International Building Code*, enter a value of 2. The maximum positive value for this requirement (VO) shall be 2.

1401.6.6.1 Vertical opening formula. The following formula shall be used in computing vertical opening value.

$VO = PV \times CF$ (Equation 14-5)

where:

<i>VO</i>	=	Vertical opening value. <u>The calculated value shall not be greater than positive 2.0</u>
<i>PV</i>	=	Protection value from Table 1401.6.6.(1).
<i>CF</i>	=	Construction-type factor from Table 1401.6.6.(2).

Reason: The last sentence of 1401.6.6 states "The maximum positive value for this requirement shall be 2." Since Table 1401.6.6(1) has a Value of 2, this application of this maximum positive value limit can create some confusion in the proper application of this section....Is the maximum positive value applicable to PV or VO? It appears that the intent of the "The maximum positive value for this requirement shall be 2" sentence is to apply to VO since the sentence above this one is discussion the VO score. This also makes senses from a scoring standpoint. If 2 was to apply to PV, then the formula would provide 14 points for a building of VB construction and 2.4 points for one of IA construction, which would make no logical sense.

This proposal clarifies the issue by providing a footnote to VO and modifies the text in 1401.6.6 to ensure that the maximum value of 2 applies to VO.

Cost Impact: Will not increase the cost of construction
Editorial change.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: This proposal was felt to be a necessary clarification of the vertical opening value (VO). Having a specific reference to the value in Section 1401.6.6 is helpful.

Assembly Action:

None

Final Action Results

EB79-15

AS

Date Submitted 12/15/2018	Section 1401.6.8	Proponent Kimberly Gilliam
Chapter 14	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

This proposal clarifies questions regarding the application of Table 1401.6.8.

Rationale

Column f in Table 1401.6.8 is the only table in Chapter 14 that is populated with a “-” line. The dash line could be read two ways for occupancies other than an I-2: 1. As a “0”, potentially conflicting with “Category d” or; 2. As a “Not Applicable” indicator. The column has been revised to show “NA”, which is then supported by a note at the bottom of the table to state that “NA” means “not applicable.”

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
None. The proposed modification is a clarification and does not change the requirements.
- Impact to building and property owners relative to cost of compliance with code**
None. The proposed modification is a clarification and does not change the requirements.
- Impact to industry relative to the cost of compliance with code**
None. The proposed modification is a clarification and does not change the requirements.
- Impact to small business relative to the cost of compliance with code**
None. The proposed modification is a clarification and does not change the requirements.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
No, the proposed modification is a clarification and does not change the requirements.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Yes, the clarification improves the coordination of the Code.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
No, it does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.
- Does not degrade the effectiveness of the code**
No, the clarification improves the coordination of the Code.

TABLE 1401.6.8
AUTOMATIC FIRE DETECTION VALUES

OCCUPANCY	CATEGORIES					
	a	b	c	d	e	f
A-1, A-3, F, M, R, S-1	-10	-5	0	2	6	— <u>NA</u>
A-2	-25	-5	0	5	9	— <u>NA</u>
A-4, B, E, S-2	-4	-2	0	4	8	— <u>NA</u>
I-2	NP	NP	NP	4	5	2

NA=Not Applicable

Code Change No: EB81-15

Original Proposal

Section: Table 1401.6.8

Proponent: Anthony Apfelbeck, representing City of Altamonte Springs (ACApfelbeck@altamonte.org)

Revise as follows:

**TABLE 1401.6.8 (1401.6.8)
AUTOMATIC FIRE DETECTION VALUES**

OCCUPANCY	CATEGORIES					
	a	b	c	d	e	f
A-1, A-3, F, M, R, S-1	-10	-5	0	2	6	—NA
A-2	-25	-5	0	5	9	—NA
A-4, B, E, S-2	-4	-2	0	4	8	—NA
I-2	NP	NP	NP	4	5	2

NA=Not Applicable

Reason: Column f in Table 1401.6.8 is the only table in Chapter 14 that is populated with a "-" line. The dash line could be read two ways for occupancies other than an I-2: 1. As a "0", potentially conflicting with "category d" or; 2. As a Not Applicable indicator. The proponent believes that the intent of "-" is a not applicable indicator. Therefore, the column is revised to show "NA" which is then supported by a note at the bottom of the table to state that "NA" means "not applicable."

Cost Impact: Will not increase the cost of construction
This is an editorial change providing clarity to the code with no cost impact.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: This proposal was purely editorial and answers questions regarding the application of this table.

Assembly Action:

None

Final Action Results

EB81-15

AS

F7335

172

Date Submitted	11/20/2018	Section	302.4.2	Proponent	Bryan Holland
Chapter	3	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

Summary of Modification

This proposed modification adds a 4th exception for membrane penetrations made by luminaires.

Rationale

This proposed modification will harmonize the FBC-R with the FBC-B, Section 714.5.2 as approved by the Commission under FS67-16. The proposal adds an additional exception which recognizes the listings of recessed incandescent and fluorescent can lights, or enclosure materials which protect recessed can lights or troffer light fixtures, which have been tested as a ceiling membrane penetration of fire-resistance-rated horizontal assemblies. There are currently twenty six UL listed can lights which incorporate integral fire protection which have evaluated for use in fire-resistance-rated horizontal assemblies. Similarly there are eleven UL listed enclosure materials which have been evaluated for their ability to protect penetrations in ceiling membranes by non fire rated can lights or troffer light fixtures.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This proposed modification will not impact the local entity relative to code enforcement.

Impact to building and property owners relative to cost of compliance with code

This proposed modification will not change the cost of compliance to building and property owners.

Impact to industry relative to the cost of compliance with code

This proposed modification will not change the cost of compliance or impact industry as the exception is an optional compliance path.

Impact to small business relative to the cost of compliance with code

This proposed modification will not change the cost of compliance or impact small business.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This proposed modification is directly connected to the health, safety, and welfare of the general public by permitting an alternate path to comply with the main rule with the use of products listed for the purpose.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposed modification improves and strengthens the code by harmonizing the FBC-R with the FBC-B.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposed modification does not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposed modification enhances the effectiveness of the code.

R302.4.2 Membrane penetrations. Membrane penetrations shall comply with Section R302.4.1. Where walls are required to have a fire-resistance rating, recessed fixtures shall be installed so that the required fire-resistance rating will not be reduced.

Exceptions:

1. Membrane penetrations of not more than 2-hour fire-resistance-rated walls and partitions by steel electrical boxes that do not exceed 16 square inches (0.0103 m²) in area provided that the aggregate area of the openings through the membrane does not exceed 100 square inches (0.0645 m²) in any 100 square feet (9.29 m²) of wall area. The annular space between the wall membrane and the box shall not exceed 1/8 inch (3.1 mm). Such boxes on opposite sides of the wall shall be separated by one of the following:

1.1. By a horizontal distance of not less than 24 inches (610 mm) where the wall or partition is constructed with individual noncommunicating stud cavities.

1.2. By a horizontal distance of not less than the depth of the wall cavity where the wall cavity is filled with cellulose loose-fill, rockwool or slag mineral wool insulation.

1.3. By solid fire blocking in accordance with Section R302.11.

1.4. By protecting both boxes with listed putty pads.

1.5. By other listed materials and methods.

2. Membrane penetrations by listed electrical boxes of any materials provided that the boxes have been tested for use in fire-resistance-rated assemblies and are installed in accordance with the instructions included in the listing. The annular space between the wall membrane and the box shall not exceed 1/8 inch (3.1 mm) unless listed otherwise. Such boxes on opposite sides of the wall shall be separated by one of the following:

2.1. By the horizontal distance specified in the listing of the electrical boxes.

2.2. By solid fireblocking in accordance with Section R302.11.

2.3. By protecting both boxes with listed putty pads.

2.4. By other listed materials and methods.

3. The annular space created by the penetration of a fire sprinkler provided that it is covered by a metal escutcheon plate.

4. Ceiling membrane penetrations by listed luminaires or by luminaires protected with listed materials that have been tested for use in fire-resistance-rated assemblies and are installed in accordance with the instructions included in the listing.

Date Submitted	11/20/2018	Section	314.2.2	Proponent	Bryan Holland
Chapter	3	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications**Summary of Modification**

This proposed modification simply removes redundant language in the exceptions to smoke alarm installation requirements in existing buildings.

Rationale

This proposed modification removes the redundant language in the two exceptions. The code doesn't need to tell us the smoke alarm installation is exempt under these conditions within the exception.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposed modification will not impact the local entity relative to code enforcement.

Impact to building and property owners relative to cost of compliance with code

This proposed modification will not change the cost of compliance to building and property owners.

Impact to industry relative to the cost of compliance with code

This proposed modification will not change the cost of compliance or impact industry.

Impact to small business relative to the cost of compliance with code

This proposed modification will not change the cost of compliance or impact small business.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This proposed modification is directly connected to the health, safety, and welfare of the general public by adding clarity and conciseness to the code.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposed modification improves and strengthens the code by removing redundant language in the exceptions to the Section.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposed modification does not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposed modification enhances the effectiveness of the code.

R314.2.2 Alterations, repairs and additions. Where alterations, repairs or additions requiring a permit occur, or where one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.

Exceptions:

1. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, the addition or replacement of windows or doors, or the addition of a porch or deck, ~~are exempt from the requirements of this section.~~
2. Installation, alteration or repairs of plumbing or mechanical systems ~~are exempt from the requirements of this section.~~

Date Submitted	11/20/2018	Section	324	Proponent	Bryan Holland
Chapter	3	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

This proposed modification updates the requirements for solar energy systems.

Rationale

This proposed modification updates the rules for solar energy systems by completely deleting the current R324 of the FBC-R and replacing with R324 of the 2018 IRC, which represents the most current industry practices and related standards. This update also harmonizes the FBC-R with the NFPA 70, NFPA 1, and NFPA 101 (FFPC) as these rules are already required within those standards.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposed modification will not impact the local entity relative to code enforcement as these rules are standard practice for all solar energy installations.

Impact to building and property owners relative to cost of compliance with code

This proposed modification will not change the cost of compliance to building and property owners as these rules already exist in other applicable codes and standards.

Impact to industry relative to the cost of compliance with code

This proposed modification will not change the cost of compliance or impact industry.

Impact to small business relative to the cost of compliance with code

This proposed modification will not change the cost of compliance or impact small business.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This proposed modification is directly connected to the health, safety, and welfare of the general public by updating out-of-date rules for solar energy systems with the most current industry standards and practices.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposed modification improves and strengthens the code by completely updating the rules related to solar energy systems with those already in practice by industry today.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposed modification does not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposed modification enhances the effectiveness of the code.

SECTION 324

SOLAR ENERGY SYSTEMS

~~R324.1 General. Solar energy systems shall comply with the provisions of this section.~~

~~R324.2 Solar thermal systems. Solar thermal systems shall be designed and installed in accordance with Chapter 23 and the Florida Fire Prevention Code.~~

~~R324.3 Photovoltaic systems. Photovoltaic systems shall be designed and installed in accordance with Sections R324.3.1 through R324.6.1 and NFPA 70. Inverters shall be listed and labeled in accordance with UL 1741. Systems connected to the utility grid shall use inverters listed for utility interaction.~~

~~R324.3.1 Equipment listings. Photovoltaic panels and modules shall be listed and labeled in accordance with UL 1703.~~

~~R324.4 Rooftop-mounted photovoltaic systems. Rooftop-mounted photovoltaic panel systems installed on or above the roof covering shall be designed and installed in accordance with Section R909.~~

~~R324.4.1 Roof live load. Roof structures that provide support for photovoltaic panel systems shall be designed for applicable roof live load. The design of roof structures need not include roof live load in the areas covered by photovoltaic panel systems. Portions of roof structures not covered by photovoltaic panels shall be designed for roof live load. Roof structures that provide support for photovoltaic panel systems shall be designed for live load, LR, for the load case where the photovoltaic panel system is not present.~~

~~R324.5 Building-integrated photovoltaic systems. Building-integrated photovoltaic systems that serve as roof coverings shall be designed and installed in accordance with Section R905.~~

~~R324.5.1 Photovoltaic shingles. Photovoltaic shingles shall comply with Section R905.16.~~

~~R324.6 Ground-mounted photovoltaic systems. Ground-mounted photovoltaic systems shall be designed and installed in accordance with Section R301.~~

~~R324.6.1 Fire separation distances. Ground-mounted photovoltaic systems shall be subject to the fire separation distance requirements determined by the local jurisdiction.~~

SECTION 324

SOLAR ENERGY SYSTEMS

R324.1 General. Solar energy systems shall comply with the provisions of this section.

R324.2 Solar thermal systems. Solar thermal systems shall be designed and installed in accordance with Chapter 23 and the Florida Fire Prevention Code.

R324.3 Photovoltaic systems. Photovoltaic systems shall be designed and installed in accordance with Sections R324.3.1 through R324.7.1, NFPA 70 and the manufacturer's installation instructions.

R324.3.1 Equipment listings. Photovoltaic panels and modules shall be listed and labeled in accordance with UL 1703. Inverters shall be listed and labeled in accordance with UL 1741. Systems connected to the utility grid shall use inverters listed for utility interaction.

R324.4 Rooftop-mounted photovoltaic systems. Rooftop-mounted photovoltaic panel systems installed on or above the roof covering shall be designed and installed in accordance with this section.

R324.4.1 Structural requirements. Rooftop-mounted photovoltaic panel systems shall be designed to structurally support the system and withstand applicable gravity loads in accordance with Chapter 3. The roof on which these systems are installed shall be designed and constructed to support the loads imposed by such systems in accordance with Chapter 8.

R324.4.1.1 Roof load. Portions of roof structures not covered with photovoltaic panel systems shall be designed for dead loads and roof loads in accordance with Sections R301.4 and R301.6. Portions of roof structures covered with photovoltaic panel systems shall be designed for the following load cases:

1. Dead load (including photovoltaic panel weight) plus snow load in accordance with Table R301.2(1).
2. Dead load (excluding photovoltaic panel weight) plus roof live load or snow load, whichever is greater, in accordance with Section R301.6.

R324.4.1.2 Wind load. Rooftop-mounted photovoltaic panel or module systems and their supports shall be designed and installed to resist the component and cladding loads specified in Table R301.2(2), adjusted for height and exposure in accordance with Table R301.2(3).

R324.4.2 Fire classification. Rooftop-mounted photovoltaic panel systems shall have the same fire classification as the roof assembly required in Section R902.

R324.4.3 Roof penetrations. Roof penetrations shall be flashed and sealed in accordance with Chapter 9.

R324.5 Building-integrated photovoltaic systems. Building-integrated photovoltaic systems that serve as roof coverings shall be designed and installed in accordance with Section R905.

R324.5.1 Photovoltaic shingles. Photovoltaic shingles shall comply with Section R905.16.

R324.5.2 Fire classification. Building-integrated photovoltaic systems shall have a fire classification in accordance with Section R902.3.

R324.6 Roof access and pathways. Roof access, pathways and setback requirements shall be provided in accordance with Sections R324.6.1 through R324.6.2.1. Access and minimum spacing shall be required to provide emergency access to the roof, to provide pathways to specific areas of the roof, provide for smoke ventilation opportunity areas, and to provide emergency egress from the roof.

Exceptions:

1. Detached, nonhabitable structures, including but not limited to detached garages, parking shade structures, carports, solar trellises and similar structures, shall not be required to provide roof access.
2. Roof access, pathways and setbacks need not be provided where the code official has determined that rooftop operations will not be employed.
3. These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (17-percent slope) or less.

R324.6.1 Pathways. Not fewer than two pathways, on separate roof planes from lowest roof edge to ridge and not less than 36 inches (914 mm) wide, shall be provided on all buildings. Not fewer than one pathway shall be provided on the street or driveway side of the roof. For each roof plane with a photovoltaic array, a pathway not less than 36 inches wide (914 mm) shall be provided from the lowest roof edge to ridge on the same roof plane as the photovoltaic array, on an adjacent roof plane, or straddling the same and adjacent roof planes. Pathways shall be over areas capable of supporting fire fighters accessing the roof. Pathways shall be located in areas with minimal obstructions such as vent pipes, conduit, or mechanical equipment.

R324.6.2 Setback at ridge. For photovoltaic arrays occupying not more than 33 percent of the plan view total roof area, not less than an 18-inch (457 mm) clear setback is required on both sides of a horizontal ridge. For photovoltaic arrays occupying more than 33 percent of the plan view total roof area, not less than a 36-inch (914 mm) clear setback is required on both sides of a horizontal ridge.

R324.6.2.1 Alternative setback at ridge. Where an automatic sprinkler system is installed within the dwelling in accordance with NFPA 13D or Section P2904, setbacks at ridges shall comply with one of the following:

1. For photovoltaic arrays occupying not more than 66 percent of the plan view total roof area, not less than an 18-inch (457 mm) clear setback is required on both sides of a horizontal ridge.
2. For photovoltaic arrays occupying more than 66 percent of the plan view total roof area, not less than a 36-inch (914 mm) clear setback is required on both sides of a horizontal ridge.

R324.6.2.2 Emergency escape and rescue opening. Panels and modules installed on dwellings shall not be placed on the portion of a roof that is below an emergency escape and rescue opening. A pathway not less than 36 inches (914 mm) wide shall be provided to the emergency escape and rescue opening.

R324.7 Ground-mounted photovoltaic systems. Ground-mounted photovoltaic systems shall be designed and installed in accordance with Section R301.

R324.7.1 Fire separation distances. Ground-mounted photovoltaic systems shall be subject to the fire separation distance requirements determined by the local jurisdiction.

Date Submitted 11/28/2018	Section 302.1	Proponent Scott McAdam
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

RB 37-16

Summary of Modification

Current language could be misinterpreted to allow the placement of structures accessory to other dwelling units adjacent to another unit without regard to fire separation distances. Clarify wording.

Rationale

Current language could be misinterpreted to allow the placement of structures accessory to other dwelling units adjacent to another unit without regard to fire separation distances.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Will not increase the cost of construction. This proposal is to provide clarity to an existing code section. No additional cost is associated with this proposal.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction. This proposal is to provide clarity to an existing code section. No additional cost is associated with this proposal.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction. This proposal is to provide clarity to an existing code section. No additional cost is associated with this proposal.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction. This proposal is to provide clarity to an existing code section. No additional cost is associated with this proposal.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Clarifies wording.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Clarifies wording.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Clarifies wording.

Does not degrade the effectiveness of the code

Clarifies wording.

R302.1 Exterior walls. Construction, projections, openings and penetrations of *exterior walls of dwellings* and accessory buildings shall comply with Table R302.1(1); or *dwellings* equipped throughout with an *automatic sprinkler system* installed in accordance with Section P2904 shall comply with Table R302.1(2).

Exceptions:

1. **Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.**
2. Walls of *dwellings individual dwelling units* and their *accessory structures* located on the same *lot*.
3. **Detached tool sheds and storage sheds, playhouses and similar structures exempt from permits are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.**
4. Detached garages accessory to a *dwelling* located within 2 feet (610 mm) of a *lot line* are permitted to have roof eave projections not exceeding 4 inches (102mm).
5. Foundation vents installed in compliance with this code are permitted.

Date Submitted 11/28/2018	Section 302.10.1	Proponent Scott McAdam
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

RB 62-16

Summary of Modification

Clarification and language cleanup Section 302.10 intended to apply to all insulating materials the sentence as is causes confusion because it refers to two types of insulation materials

Rationale

This is simple clarification and language cleanup. Section 302.10 is intended to apply to all insulating materials but the sentence as is causes confusion because it refers to two types of insulation materials, namely (1) facings such as vapor retarders and vapor-permeable membranes and similar coverings and (2) all layers of single and multilayer reflective foil insulations. Therefore it is better if they are shown in a separate sentence at the end of the section that way the sentence is clearer.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Will not increase the cost of construction Change is primarily editorial.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction Change is primarily editorial.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction Change is primarily editorial.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction Change is primarily editorial.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
clarification

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction
clarification

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities
clarification

Does not degrade the effectiveness of the code
clarification

R302.10.1 Insulation. ~~Insulation~~ Insulating materials, including facings, such as vapor retarders and vapor-permeable membranes installed within floor-ceiling assemblies, roof-ceiling assemblies, wall assemblies, crawl spaces and ~~attics~~ attics shall ~~have~~ comply with the requirements of this section. They shall exhibit a flame spread index not to exceed 25 ~~with an accompanying and a~~ smoke-developed index not to exceed 450 where tested in accordance with ASTM E 84 or UL 723. Insulating materials, where tested in accordance with the requirements of this section, shall include facings, where used, such as vapor retarders, vapor permeable membranes and similar coverings.

Exceptions:

1. Where such materials are installed in concealed spaces, the flame spread index and smoke-developed index limitations do not apply to the facings, provided that the facings are installed in substantial contact with the unexposed surface of the ceiling, floor or wall finish.
2. Cellulose fiber loose-fill insulation, that is not spray applied, complying with the requirements of Section R302.10.3, shall not be required to meet the smoke-developed index of not more than 450 and shall be required to meet a smoke-developed index of not more than 450 where tested in accordance with CAN/UL CS102.2.
3. Foam plastic insulation shall comply with Section R316.

Date Submitted 12/4/2018	Section 310.3	Proponent Scott McAdam
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

RB96-16

Summary of Modification

Bulkhead enclosures change wording to area wells, clarification for size, depth, access, drainage and door opening.

Rationale

The language "bulkhead enclosure" has caused confusion for the users of the IRC. There are too many different definitions of what they are. The common use of the term enclosure can be interpreted that the bulkhead must be covered similar to bulkhead enclosures used for storm shelters. We do not believe this was the original intent. The purpose of this change is to clarify the intent of the code and remove the reference to the bulkhead enclosure. We have removed the term and replaced it with area well. The access requirements for an emergency escape and rescue door should not be any different than emergency escape and rescue windows. So, we have duplicated the requirements from the window section to the door section. They are used for the same purpose and should have identical requirements.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
clarification on design making compliance easier
- Impact to building and property owners relative to cost of compliance with code**
will not impact cost
- Impact to industry relative to the cost of compliance with code**
will not impact cost
- Impact to small business relative to the cost of compliance with code**
will not impact cost

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
clarifies design for life safety
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
clarifies design for life safety
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
clarifies design for life safety
- Does not degrade the effectiveness of the code**
clarifies design for life safety

R310.3 Emergency escape and rescue doors. Where a door is provided as the required emergency escape and rescue opening, it shall be permitted to be a side-hinged door or a slider. Where the opening is below the adjacent ground elevation grade, it shall be provided with a ~~bulkhead enclosure~~ an area well.

Delete and substitute as follows:

R310.3.2 Bulkhead enclosures~~Area Wells~~. Bulkhead enclosures shall provide direct access from

~~the basement. The bulkhead enclosure shall provide the minimum net clear opening equal to the door in the fully open position.~~

~~Area wells shall have a width of not less than 36 inches (914 mm). The area of the area well shall allow the emergency escape and rescue door to be fully opened.~~

Add new text as follows:

R310.3.2.1 Ladder and steps. Area wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the door in the fully open position. Ladders or steps required by this section shall not be required to comply with Sections R311.7 and R311.8. Ladders or rungs shall have an inside width of not less than 12 inches (305 mm), shall project not less than 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full height of the exterior stairwell.

Revise as follows:

~~R310.3.2.1~~**R310.3.2.2 Drainage.** ~~Bulkhead enclosures~~ Area wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section R405.1 or by an *approved* alternative method.

Exception: A drainage system for ~~bulkhead enclosures~~ area wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group I Soils, as detailed in Table R405.1.

Date Submitted 12/4/2018	Section 311.7.1	Proponent Scott McAdam
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

RB101-16

Summary of Modification

Handrail design and projection clarification

Rationale

Change to stair width section: The requirement for handrail projection currently included under R311.7.1, Width, is often overlooked. Moving the requirement to the handrail section of the code will provide for better understanding and compliance without changing the requirements for stair width.

New section - Handrail Projection: This new section provides the needed information related to handrail projection within the handrail section to enable: clear recognition of the requirement, compliant design of handrails and improved enforcement of the code.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

clarification and helps add consistent interpretations

Impact to building and property owners relative to cost of compliance with code

No impact on cost clarification could reduce cost

Impact to industry relative to the cost of compliance with code

No impact on cost clarification could reduce cost

Impact to small business relative to the cost of compliance with code

No impact on cost clarification could reduce cost

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

clarifies requirement addresses safety

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

clarifies requirement addresses safety

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

clarifies requirement addresses safety

Does not degrade the effectiveness of the code

clarifies requirement addresses safety

I HAVE THE FONT SET AT 14 I THINK IT APPEARS SMALL AT YOUR END I DO NOT KNOW WHAT ELSE TO DO.

Revise as follows:

R311.7.1 Width.

Stairways shall be not less than 36 inches (914 mm) in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4 1/2 inches (114 mm) on either side of the stairway and the clear width of the stairway at and below the handrail height, including treads and landings, shall be not less than 31 1/2 inches (787 mm) where a handrail is installed on one side and 27 inches (698 mm) where handrails are provided on both sides.

Exception: The width of spiral stairways shall be in accordance with Section R311.7.10.1.

Add new text as follows:

R311.7.8.5
Handrail Projection Handrails shall not project more than 4 1/2 inches (114 mm) on either side of the stairway.

Exception:
Where nosings of landings, floors, or passing flights project into the stairway reducing the required clearance at passing handrails, the handrail shall project not more than 6 1/2 inches (165 mm) into the stairway, provided the required stair width and required handrail clearance are not reduced.

Date Submitted 12/5/2018	Section 311.7.3	Proponent Scott McAdam
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

RB103-16

Summary of Modification

change in stairway height

Rationale

Change maximum stairway height to accommodate common height of ceiling and offer more flexibility. This proposal would allow more flexibility and tolerance, without an increase in hazard. The increased floor to floor height would require 20 risers to not exceed the 7-3/4 inch maximum riser height. But the additional riser would reduce the riser height to 7- 1/2 inches, thus reducing the overall slope of the stair run.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
no impact allows flexibility
- Impact to building and property owners relative to cost of compliance with code**
No cost impact can often save cost by eliminating additional landing
- Impact to industry relative to the cost of compliance with code**
No cost impact can often save cost by eliminating additional landing
- Impact to small business relative to the cost of compliance with code**
No cost impact can often save cost by eliminating additional landing

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
will not effect safety
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
allow for options and flexibility
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
does not effect materials
- Does not degrade the effectiveness of the code**
does not degrade the code

R311.7.3 Vertical rise. A flight of stairs shall not have a vertical rise larger than ~~147-151~~ inches (~~3734 3835.4~~ mm) between floor levels or landings.

Date Submitted 12/6/2018	Section 311.7.8	Proponent Scott McAdam
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

RB107-16

Summary of Modification

The deleted phrase "continuous run of treads" predates the code definition of the term "flight", and is redundant. Flight is defined as: A continuous run of rectangular treads or winders or combination thereof from one landing to another.

Rationale

The deleted phrase "continuous run of treads" predates the code definition of the term "flight", and is redundant. Flight is defined as: A continuous run of rectangular treads or winders or combination thereof from one landing to another. The deletion of the text simplifies the code by sole use of the defined term "flight".

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
no impact, simply update aligning with definitions
- Impact to building and property owners relative to cost of compliance with code**
no cost impact
- Impact to industry relative to the cost of compliance with code**
no cost impact
- Impact to small business relative to the cost of compliance with code**
no cost impact

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
alignment with current definitions provides the same safety
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
improves the code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
no effect
- Does not degrade the effectiveness of the code**
improves the effectiveness of the code

Revise as follows:

R311.7.8 Handrails. Handrails shall be provided on not less than one side of each continuous run of treads or flight with four or more risers.

Date Submitted 12/6/2018	Section 312.1.1	Proponent Scott McAdam
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

RB117.16

Summary of Modification

clarification on location of guards

Rationale

There are two schools of thought about guards when the walking surface is adjacent to a sloping grade. One group says that a guard is only required for that portion of the walking surface that is more than 30 inches above grade. The other group says that if a portion of the walking surface is more than 30 inches above grade the entire walking surface must be provided with a guard. In some circumstances the builder/designer of the walking surface may choose to place the guard all the way around such walking surface for aesthetic reasons. But if the building department is of the opinion that the code regulates the entire guard, correction notices could conceivably be written, for example, for improper spacing within a guard that is only 12 inches above grade. Because the code is not entirely clear and because some code officials interpret the text as applying to the entire walking surface, this amendment is proposed to clarify that guards are only require for those portions of the walking surface that pose a hazard.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

clarification no impact

Impact to building and property owners relative to cost of compliance with code

no cost impact

Impact to industry relative to the cost of compliance with code

no cost impact

Impact to small business relative to the cost of compliance with code

no cost impact

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

clarification connected to life safety

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

improves code

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

no effect

Does not degrade the effectiveness of the code

improves effectiveness

Font size is indicated as 14 I do not us any smaller. It appears when I submit the Mod in 14 font at your end it is seen smaller. Any suggestions? I have received a few other mod comments back indicating the same thing.

I enlarged the text to 18 font, I keep it set at 14 for all Mod's why is it only sometimes at your end appearing smaller. I appreciate your help but this system is creating a lot of work to simply propose a mod. Thank you

Revise as follows:

R312.1.1 Where required. *Guards* shall be ~~located along~~ provided for those portions of open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches (762 mm) measured vertically to the floor or *grade* below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a *guard*.

Date Submitted 12/10/2018	Section 308.4.2	Proponent Joseph Belcher for FHBA
Chapter 3	Affects HVHZ Yes	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Replace Mod 7812 with this mod.

Relates to glazing adjacent to doors.

Summary of Modification

Simplifies requirements related to glazing adjacent to doors.

Rationale

I am sorry, I missed the Public Comment 1 which was approved in Mod 7812. The Public Comment goes even further in simplifying the section and I am submitting this in lieu of 7812 which I will withdraw at the appropriate time.

The current language is confusing and has the potential of creating a condition where the requirement for safety glazing may be missed by reading the requirements literally. The way that the section is written, it only applies to glazing that is within the same plane as the door or perpendicular to the plane of the door. If it is anything other than those two locations, it is unclear what is required. For example, if the glazing is in a wall that is 45 degrees from the face of the door, neither requirement would apply. This proposal attempts to clear up this confusion and increase safety. It changes the perpendicular wall to any wall not in the same plane as the door and retains the 24 inches criteria. Therefore, the example discussed above would require that it comply with item #2 if the glazing is within 24 inches of the hinge side of an in-swinging door even though the wall is not perpendicular to the plane of the door. The Reason provided by the proponent of Public Comment 1 with drawings is uploaded as a Support File.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

The change simplifies the provision making enforcement easier because all parties will have a clear understanding of what is required.

Impact to building and property owners relative to cost of compliance with code

No impact on property owners.

Impact to industry relative to the cost of compliance with code

No impact.

Impact to small business relative to the cost of compliance with code

No impact.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The change impacts public health and safety simplifying a confusing provision of the code resulting in a greater likelihood of safe installations.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change improves the code by eliminating confusion which may lead to an unsafe condition.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change upgrades the effectiveness of the code.

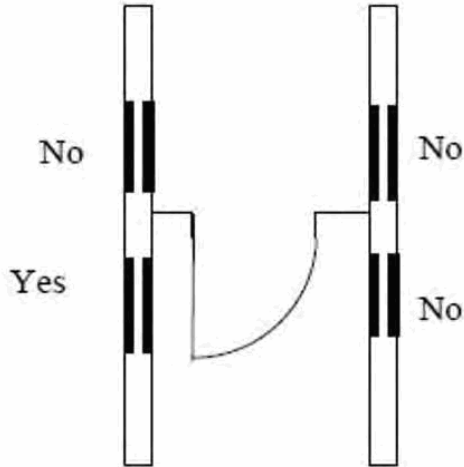
R308.4.2 Glazing adjacent to doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:

1. Where the glazing is within 24 inches (610mm) of either side of the door in the plane of the door in a closed position.
2. Where the glazing is on a wall perpendicular to less than 180 degrees from the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

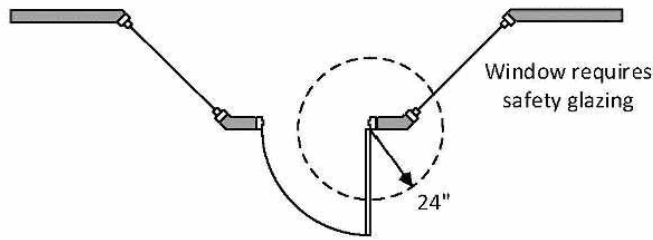
Exceptions:

1. Decorative glazing.
2. Where there is an intervening wall or other permanent barrier between the door and the glazing.
3. Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3.
4. Glazing that is adjacent to the fixed panel of patio doors.

Commenter's Reason: This public comment clarifies when safety glazing is required for an in-swinging door. The original requirement was introduced into the 2015 IRC through code change proposal RB111-13. Based on the figures included in the reason statement (one of which is reproduced below) and the discussions on the proposal, our understanding is the concern being addressed by this provision is that a person can get pinned between the door and the wall, forcing the person against the glazing. The requirement safety glazing in this particular provision is not to address trip/fall/slip hazards, else it wouldn't only be required on the hinge side of the in-swinging door as shown in the figure for RB111-13



However, this proposed change can be interpreted to apply to situations where there is no danger of pinning a person between the door and the window. The figure below illustrates a situation where the wall bends away from the hinge side of the door. In this case, the door swing will be limited by the hinges and the walls, and there is no hazard from the door, but given the text of this proposal only refers to "not in the plane" of the door, safety glazing would be required in the window as shown.



The proposed modification will clarify that only if the window is in a position where a person can get pushed against the window by a door, will safety glazing be required.

The change to the exceptions is purely editorial. As the text appeared in the 2015 IRC, it is unclear if the exceptions only apply to Item 2. cdpACCESS accentuates the appearance by further indenting the exceptions. The context of the exceptions makes it clear they apply to both Items 1 and 2. The change is only to remove the indent, to clarify the exceptions apply to both items in this section.

Final Action Results

RB79-16

AMPC1

Date Submitted	12/10/2018	Section	308.4.7	Proponent	Joseph Belcher for FHBA
Chapter	3	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Expand and simplify Figure 308.4.7

Rationale

This proposal is intended to provide information on Figure R308.4.7 with two callouts that describe the meaning of the figure, consistent with the text of Section R308.4.7. In addition, as figure titles are not enforceable, an editorial change is proposed to the title of the figure to more accurately reflect the meaning. Lastly, we have adjusted the 60 inch dimension at the landing for clarity. (ICC RB73-16 - Proponent: ICC Building Code Action Committee.)

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

The change simplifies the provision making enforcement easier because all parties will have a clear understanding of what is required

Impact to building and property owners relative to cost of compliance with code

No impact on property owners.

Impact to industry relative to the cost of compliance with code

No impact

Impact to small business relative to the cost of compliance with code

No impact

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The change impacts public health and safety simplifying confusing provisions of the code resulting in a greater likelihood of safe installations.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change improves the code by eliminating confusion which may lead to an unsafe condition.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change upgrades the effectiveness of the code.

FIGURE R308.4.7

~~PROHIBITED~~ HAZARDOUS GLAZING LOCATIONS AT BOTTOM STAIR LANDINGS



Date Submitted	12/10/2018	Section	311.7.11	Proponent	Joseph Belcher for FHBA
Chapter	3	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

311.7.12

Summary of Modification

Allows alternating tread devices in areas with low occupancy,

Rationale

(Note: Reason is as provided by ICC proponent. JDB)

It is not uncommon to see small lofts or mezzanines in single family dwelling units. Providing a full stairway to these areas is onerous because the required floor area for the stairway may significantly reduce the usable square footage in the house. There is a growing popularity for so-called tiny houses and other smaller residences. This code change would provide a legal and safe way to access a small loft area typically provided for these homes. The proposal includes an exclusion for kitchens and bathrooms where the only access is via the alternating tread device or ships ladder. This is done to ensure that access to and egress from these facilities will be via a normal stair or from the main floor of the dwelling unit.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact.

Impact to building and property owners relative to cost of compliance with code

May lead to cost reduction via builder.

Impact to industry relative to the cost of compliance with code

Reduces cost \$2,000.00 per location per UF. (Evaluation. of the Cost Impact of 2018 ICC Prescriptive Code Changes, Rinker-CR-2018-103, Final 1 June 2018, Rinker School, University of Florida)
http://www.floridabuilding.org/fbc/publications/Research_2017-018/UF/FinalReportCodeCostImpactDraft.pdf

Impact to small business relative to the cost of compliance with code

Reduces cost \$2,000.00 per location per UF. (Evaluation. of the Cost Impact of 2018 ICC Prescriptive Code Changes, Rinker-CR-2018-103, Final 1 June 2018, Rinker School, University of Florida)
http://www.floridabuilding.org/fbc/publications/Research_2017-018/UF/FinalReportCodeCostImpactDraft.pdf

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The change impacts public health and safety by allowing an alternate to stairs in areas of low occupancy with no reduction in safety.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change improves the code by allowing an alternate to full-fledged stairs in small buildings or areas with low occupancy with no reduction in safety.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change upgrades the effectiveness of the code.

R311.7.11 Alternating tread devices. Alternating tread devices shall not be used as an element of a means of egress. Alternating tread devices shall be permitted provided that the required means of egress stairway or ramp serves the same space at each adjoining level or where a means of egress is not required. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

Exception: Alternating tread devices are allowed to be used as an element of a means of egress for lofts, mezzanines, and similar areas of 200 gross square feet or less and not providing exclusive access to a kitchen or bathroom.

R311.7.12 Ships ladders. Ships ladders shall not be used as an element of a means of egress. Ships ladders shall be permitted provided that a required means of egress stairway or ramp serves the same space at each adjoining level or where a means of egress is not required. The clear width at and below the handrails shall be not less than 20 inches.

Exception: Ships ladders are allowed to be used as an element of a means of egress for lofts, mezzanines, and similar areas of 200 gross square feet or less and not providing exclusive access to a kitchen or bathroom.

Date Submitted	12/10/2018	Section	316.5.4	Proponent	Joseph Belcher for FHBA
Chapter	3	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Use of fiber-cement panel, soffit, or backer board as a thermal barrier.

Rationale

(Note: Reason is as provided by ICC proponent. JDB)

During the previous IRC code cycle (INTERNATIONAL CODE COUNCIL 2012 - 2014 CODE DEVELOPMENT CYCLE Group B (2013)) RB168-13 was approved and thereby added "1/4-inch fiber-cement panels" to the 2015 IRC R316.5.3 subsection 3.8 as an approved ignition barrier material (used in attics). In further support, the 2015 IBC Section 2603.5.7 includes ¼-inch thick fiber-cement as an ignition barrier over foam plastic sheathing.

By definition, ¼-inch fiber-cement panel complying with ASTM C1186, Type A, or ASTM C1288, or ISO 8336, Category C, has a flame spread of 0 and smoke developed index of 5 or less. In addition, the IBC (Sec. 1405.16) Fiber-cement siding ASTM C1186, Type A or ISO 8336, Category C shall be permitted on exterior walls of Type I, II, III, IV and V construction.

Lastly attached are two test reports (SwRI Project number 01.16924.01.219a & 01.12924.01.219b[1]) originally submitted as substantiating data the supported the approval of RB168-13 (Group B 2013) and FS128-12 (Group A 2013). Both reports conclude that the wall assemblies did not exhibit sustained flaming, thus meeting the acceptance criteria described in NFPA 268, Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source.

Bibliography: Performance Evaluation of a Fiber Cement Board and Spray Foam Wall Assembly in Accordance with NFPA 268, 2012 Edition, Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Energy Source, SwRI Project number 01.16924.01.219a, October 19th, 2012.

Performance Evaluation of a Fiber Cement Board and Rigid Foam Wall Assembly in Accordance with NFPA 268, 2012 Edition, Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Energy Source, SwRI Project number 01.12924.01.219b[1], November 27th, 2012.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact.

Impact to building and property owners relative to cost of compliance with code

No impact on property owners. May lead to cost reduction based on materials used.

Impact to industry relative to the cost of compliance with code

May result in cost reduction based on materials used.

Impact to small business relative to the cost of compliance with code

May result in cost reduction based on materials used.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The change impacts public health and safety by allowing an alternate material of proven equivalency to be used as a thermal barrier.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change improves the code by allowing an alternate material of proven equivalency to be used as a thermal barrier.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change upgrades the effectiveness of the code.

R316.5.4 Crawl spaces. The thermal barrier specified in Section R316.4 is not required where all of the following apply:

1. Crawl space access is required by Section R408.4
2. Entry is made only for purposes of repairs or maintenance.
3. The foam plastic insulation has been tested in accordance with Section R316.6 or the foam plastic insulation is protected against ignition using one of the following ignition barrier materials:
 - 3.1. 1-½ inch-thick (38 mm) mineral fiber insulation;
 - 3.2. ¼ inch-thick (6.4 mm) wood structural panels;
 - 3.3. 3/8 inch (9.5 mm) particleboard;
 - 3.4. ¼ inch (6.4 mm) hardboard;
 - 3.5. 3/8 inch (9.5 mm) gypsum board; or
 - 3.6. Corrosion-resistant steel having a base metal thickness of 0.016 inch (0.406 mm).
 - 3.7. ¼ inch (6.4 mm) fiber-cement panel, soffit or backer board.

Date Submitted	12/12/2018	Section	302.1	Proponent	Joseph Belcher for FHBA
Chapter	3	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments**General Comments**

No

Alternate Language

No

Related Modifications**Summary of Modification**

Adds alternate materials for protecting the underside of projections.

Rationale

Reason: The proposal will bring the IRC and the IBC into agreement. Currently, the IBC provides options while the IRC has only one method of compliance.

The IBC in Section 705.2.3 permits the use of Type IV construction, fire-retardant-treated wood or 1-hr fire-resistance construction for combustible projections. The IRC in Table R302.1(1) and Table R302.1(2) only permits the 1-hr fire-resistance construction on the underside. There is no 1-hr. fire-resistance assembly listed for roof eaves. As a result, users of the International Residential Code are looking to the International Building Code for compliance with the requirement.

Cost Impact: Will not increase the cost of construction

The change only provides options. It does not mandate any requirements not permitted by ICC codes.

(Note: The modification was modified by the Committee to change Type IV construction to heavy timber and the change was Approved as Modified. The Committee Reason follows. JDB)

Committee Reason: The modification deletes a term that is not used in the code and replaces it with one that is used. The proposal offers a good solution for projections.

JDB - The change provides another alternate to the builder.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact.

Impact to building and property owners relative to cost of compliance with code

No impact on property owners. May lead to cost reduction based on materials used.

Impact to industry relative to the cost of compliance with code

Provides additional options and may result in cost reduction based on materials used.

Impact to small business relative to the cost of compliance with code

Provides additional options and may result in cost reduction based on materials used.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The change impacts public health and safety by allowing an alternate material of proven equivalency to be used.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change impacts public health and safety by allowing an alternate material of proven equivalency to be used.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change upgrades the effectiveness of the code by allowing the use of additional materials to accomplish the purpose.

TABLE R302.1 EXTERIOR WALLS

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	Fire-resistance rated	1 hour—tested in accordance with ASTM E 119 or UL 263 with exposure from outside or calculated per <i>Florida Building Code-Building</i>	0 feet
	Not fire-resistance rated	0 hours	3 feet ^a
Projections	Not allowed	N/A	< 2 feet
	Fire-resistance rated	1 hour on the underside, or heavy timber, or fire-retardant-treated wood. ^{b, c}	2 feet ^a
	Not fire-resistance rated	0 hours	3 feet
Openings in walls	Not allowed	N/A	< 3 feet
	Unlimited	0 hours	3 feet ^a
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	3 feet ^a

For SI: 1 foot = 304.8 mm.

N/A = Not Applicable.

- a. For residential subdivisions where all *dwellings* are equipped throughout with an automatic sprinkler system installed in accordance with Section P2904, the *fire separation distance* for nonrated exterior walls and rated projections shall be permitted to be reduced to 0 feet, and unlimited unprotected openings and penetrations shall be permitted, where the adjoining *lot* provides an open setback *yard* that is 6 feet or more in width on the opposite side of the property line.
- b. The roof eave fire-resistance ratings shall be permitted to be reduced to 0 hours on the underside of the eave if fire blocking is provided from the wall top plate to the underside of the roof sheathing.
- c. The roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided that gable vent openings are not installed.

Date Submitted 12/6/2018	Section 703.14.3	Proponent Ann Russo1
Chapter 7	Affects HVHZ No	Attachments No
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments No **Alternate Language** No

Related Modifications**Summary of Modification**

Add flame spread index provision for polypropylene siding.

Rationale

This proposal adds the requirements contained in FBC Building. The flame spread requirement is consistent with the requirements for wood and vinyl.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This proposal will improve the enforcement of the code that is consistent with other approved materials and requirements found FBC Building.

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction.

Impact to industry relative to the cost of compliance with code

Will not increase the cost of construction.

Impact to small business relative to the cost of compliance with code

Will not increase the cost of construction.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The added requirements are consistent with those in the FBC Building requirements to ensure safe use of polypropylene siding.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal will improve the application of the requirements found in FBC Building.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal will not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposal will improve the effectiveness of the code.

Revise as follows:**R703.14 Polypropylene siding.**

Polypropylene siding shall be certified and labeled as conforming to the requirements of ASTM D7254 and those of Section R703.14.3 by an approved quality control agency and shall conform to the fire separation distance requirements of Section R703.14.2.

Add new text as follows:**R703.14.3 Flame spread index.**

The certification of the *flame spread index* shall be accompanied by a test report stating that all portions of the test specimen ahead of the flame front remained in position during the test in accordance with ASTM E84 or UL 723.

Date Submitted 12/12/2018
Chapter 10

Section 1005.8
Affects HVHZ No

Proponent Ann Russo8
Attachments No

TAC Recommendation Approved as Submitted
Commission Action Pending Review

Comments

General Comments No

Alternate Language No

Related Modifications

RB359-16

Summary of Modification

ADDS A CODE SECTION TO REQUIRE INSULATION SHIELDS FOR FACTORY-BUILT CHIMNEYS AS IS NOW REQUIRED IN THE CODE FOR VENTS.

Rationale

The codes currently require insulation shields for vents to ensure proper clearance to insulation so as not to cause a fire hazard, the code should also require insulation shields for factory-built chimneys as they also require clearance to insulation and it represents a fire hazard when one is not installed.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Clarification of code only so there should be no effect on code enforcement.

Impact to building and property owners relative to cost of compliance with code

Should not increase cost as the insulation shield should already be used.

Impact to industry relative to the cost of compliance with code

Should not increase cost as the insulation shield should already be used.

Impact to small business relative to the cost of compliance with code

Should not increase cost as the insulation shield should already be used.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The insulation shield should already be used, however, when the code does not specifically call it out as required many times it gets overlooked so this will improve the life safety.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

It represents a fire hazard when one is not installed so this clarification should improve the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Clarification only so does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

Clarification only so does not degrade the effectiveness of the code.

Section: R1005.8 (New)**Add new text as follows:**

R1005.8 Insulation shield. Where factory-built chimneys pass through insulated assemblies, an insulation shield constructed of steel having a minimum thickness of 0.0187 inch (0.4712 mm) (No. 26 gage) shall be installed to provide *clearance* between the chimney and the insulation material. The *clearance* shall not be less than the *clearance* to combustibles specified by the chimney manufacturer's installation instructions. Where chimneys pass through attic space, the shield shall terminate not less than 2 inches (51 mm) above the insulation materials and shall be secured in place to prevent displacement. Insulation shields provided as part of a *listed* chimney system shall be installed in accordance with the manufacturer's installation instructions.

Date Submitted	12/11/2018	Section	101.1	Proponent	Brad Schiffer
Chapter	3317	Affects HVHZ	No	Attachments	No
TAC Recommendation	Approved as Submitted				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

Provides regulations for this additional type of housing if adopted by local ordinance.

Rationale

Appendix Q relaxes various requirements in the body of the code as they apply to houses that are 400 square feet in area or less. Attention is specifically paid to features such as compact stairs, including stair handrails and headroom, ladders, reduced ceiling heights in lofts and guard and emergency escape and rescue opening requirements at lofts.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Provide guidance for communities that want to explore this type of housing.

Impact to building and property owners relative to cost of compliance with code

Provide guidance for communities that want to explore this type of affordable housing.

Impact to industry relative to the cost of compliance with code

Provide guidance for communities that want to explore this type of less costly affordable housing.

Impact to small business relative to the cost of compliance with code

Provide guidance for small business in communities that want to explore this type of less costly affordable housing.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Provide guidance for communities that want to explore this type of safe affordable housing.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Provide guidance for communities that want to explore this method of affordable housing.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not.

Does not degrade the effectiveness of the code

Does not.

APPENDIX Q RESERVED TINY HOUSES

SECTION AQ101 GENERAL

AQ101.1 Scope. This appendix shall be applicable to tiny houses used as single dwelling units. Tiny houses shall comply with this code except as otherwise stated in this appendix.

SECTION AQ102 DEFINITIONS

AQ102.1 General. The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

EGRESS ROOF ACCESS WINDOW. A skylight or roof window designed and installed to satisfy the emergency escape and rescue opening requirements of Section R310.2.

LANDING PLATFORM. A landing provided as the top step of a stairway accessing a loft.

LOFT. A floor level located more than 30 inches (762 mm) above the main floor, open to the main floor on one or more sides with a ceiling height of less than 6 feet 8 inches (2032mm) and used as a living or sleeping space.

TINY HOUSE. A dwelling that is 400 square feet (37 m²) or less in floor area excluding lofts.

SECTION AQ103 CEILING HEIGHT

AQ103.1 Minimum ceiling height. Habitable space and hallways in tiny houses shall have a ceiling height of not less than 6 feet 8 inches (2032 mm). Bathrooms, toilet rooms and kitchens shall have a ceiling height of not less than 6 feet 4 inches (1930 mm). Obstructions including, but not limited to, beams, girders, ducts and lighting, shall not extend below these minimum ceiling heights.

Exception: Ceiling heights in lofts are permitted to be less than 6 feet 8 inches (2032 mm).

SECTION AQ104 LOFTS

AQ104.1 Minimum loft area and dimensions. Lofts used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections AQ104.1.1 through AQ104.1.3.

AQ104.1.1 Minimum area. Lofts shall have a floor area of not less than 35 square feet (3.25 m²).

AQ104.1.2 Minimum dimensions. Lofts shall be not less than 5 feet (1524 mm) in any horizontal dimension.

AQ104.1.3 Height effect on loft area. Portions of a loft with a sloped ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

Exception: Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope), portions of a loft with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

AQ104.2 Loft access. The access to and primary egress from lofts shall be of any type described in Sections AQ104.2.1 through AQ104.2.4.

AQ104.2.1 Stairways. Stairways accessing lofts shall comply with this code or with Sections AQ104.2.1.1 through AQ104.2.1.5.

AQ104.2.1.1 Width. Stairways accessing a loft shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The width below the handrail shall be not less than 20 inches (508 mm).

AQ104.2.1.2 Headroom. The headroom in stairways accessing a loft shall be not less than 6 feet 2 inches (1880 mm), as measured vertically, from a sloped line connecting the tread or landing platform nosings in the middle of their width.

AQ104.2.1.3 Treads and risers. Risers for stairs accessing a loft shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

1. The tread depth shall be 20 inches (508 mm) minus four-thirds of the riser height.
2. The riser height shall be 15 inches (381 mm) minus three-fourths of the tread depth.

AQ104.2.1.4 Landing platforms. The top tread and riser of stairways accessing lofts shall be constructed as a landing platform where the loft ceiling height is less than 6 feet 2 inches (1880 mm) where the stairway meets the loft. The landing platform shall be 18 inches to 22 inches (457 to 559 mm) in depth measured from the nosing of the landing platform to the edge of the loft, and 16 to 18 inches (406 to 457 mm) in height measured from the landing platform to the loft floor.

AQ104.2.1.5 Handrails. Handrails shall comply with Section R311.7.8.

AQ104.2.1.6 Stairway guards. Guards at open sides of stairways shall comply with Section R312.1.

AQ104.2.2 Ladders. Ladders accessing lofts shall comply with Sections AQ104.2.1 and AQ104.2.2.

AQ104.2.2.1 Size and capacity. Ladders accessing lofts shall have a rung width of not less than 12 inches (305 mm), and 10-inch (254 mm) to 14-inch (356 mm) spacing between rungs. Ladders shall be capable of supporting a 200-pound (75 kg) load on any rung. Rung spacing shall be uniform within 3/8 inch (9.5 mm).

AQ104.2.2.2 Incline. Ladders shall be installed at 70 to 80 degrees from horizontal.

AQ104.2.3 Alternating tread devices. Alternating tread devices accessing lofts shall comply with Sections R311.7.11.1 and R311.7.11.2. The clear width at and below the handrails shall be not less than 20 inches (508mm).

AQ104.2.4 Ships ladders. Ships ladders accessing lofts shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below handrails shall be not less than 20 inches (508 mm).

AQ104.2.5 Loft Guards. Loft guards shall be located along the open side of lofts. Loft guards shall be not less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less.

SECTION AQ105 EMERGENCY ESCAPE AND RESCUE OPENINGS

AQ105.1 General. Tiny houses shall meet the requirements of Section R310 for emergency escape and rescue openings.

Exception: Egress roof access windows in lofts used as sleeping rooms shall be deemed to meet the requirements of Section R310 where installed such that the bottom of the opening is not more than 44 inches (1118 mm) above the loft floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1.

Date Submitted 11/26/2018	Section 107.1.1	Proponent Richard Schauland
Chapter 3319	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments	No	Alternate Language	No
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Related Modifications

Summary of Modification

Please refer to the attached file. The documentation for this proposal exceeds the 300 character limit.

Rationale

This appendix was added to the code last cycle. The fire test reports provided by the submitter stated that the bales tested had a density of 7.5 pcf. This section currently mandates a minimum bale density of 6.5 pcf. So, the appendix currently permits a 1- hour or 2-hour fire resistance rating for assemblies which have not demonstrated this level of performance in fire tests. The ASTM E119 test involves measuring the temperature on the unexposed side of the specimen when it is exposed to heat from a furnace. A more dense bale will delay the temperature rise on the unexposed side and perform better in this test. As such, the fire test provided does not represent the worst case scenario, as it should. Therefore, the 1-hour or 2-hour fire resistance rating should only be assigned to walls with bale density of at least 7.5 pcf, as no fire test data has been provided for bales of lesser density.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
There may be little impact to local entities relative to the enforcement of the code. Local entities would have to verify that the bales meet the requirement through documentation provided.
- Impact to building and property owners relative to cost of compliance with code**
This proposal may increase the cost of construction if a user intended to build a 1-hour or 2-hour rated wall with bales of a density less than 7.5 pcf.
- Impact to industry relative to the cost of compliance with code**
This proposal may increase the cost of construction if a user intended to build a 1-hour or 2-hour rated wall with bales of a density less than 7.5 pcf.
- Impact to small business relative to the cost of compliance with code**
There will no impact to small business because this proposal is for residential buildings only.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
The proposal will ensure the safety and welfare of the general public by ensuring that the 1-hour or 2-hour rated walls are rated as tested.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
This proposal does strengthen the Code, it ensures that the rated walls are built as tested.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
The proposal does not discriminate against materials, products, methods, or systems of construction.
- Does not degrade the effectiveness of the code**
This proposal helps the effectiveness of the code by ensuring the rated wall is built as tested.

1st Comment Period History

Proponent Richard Schauland	Submitted 1/2/2019	Attachments No
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Comment:
Mod. 7457 is related to this Mod.

F7456-G1

AS107.1.1 One-hour rated clay plastered wall. One-hour fire-resistance-rated nonload-bearing clay plastered strawbale walls shall comply with all of the following:

1. Bales shall be laid flat or on-edge in a running bond.
2. Bales shall maintain thickness of not less than 18 inches (457mm).
3. Bales shall have a minimum density of 7.5 pounds per cubic foot.
4. Gaps shall be stuffed with straw-clay.
5. Clay plaster on each side of the wall shall be not less than 1 inch (25 mm) thick and shall be composed of a mixture of 3 parts clay, 2 parts chopped straw and 6 parts sand, or an alternative approved clay plaster.
6. Plaster application shall be in accordance with Section AS104.4.3.3 for the number and thickness of coats.

Code Change No: RB370-16

Original Proposal

Section: AS107.1.1, AS107.1.2

Proponent: Tim Earl, representing GBH International (tearl@gbhinternational.com)

Revise as follows:

AS107.1.1 One-hour rated clay plastered wall. One-hour fire-resistance-rated nonload-bearing clay plastered strawbale walls shall comply with all of the following:

1. Bales shall be laid flat or on-edge in a running bond.
2. Bales shall maintain thickness of not less than 18 inches (457 mm).
3. Bales shall have a minimum density of 7.5 pounds per cubic foot.
4. Gaps shall be stuffed with straw-clay.
5. Clay plaster on each side of the wall shall be not less than 1 inch (25 mm) thick and shall be composed of a mixture of 3 parts clay, 2 parts chopped straw and 6 parts sand, or an alternative approved clay plaster.
6. Plaster application shall be in accordance with Section AS104.4.3.3 for the number and thickness of coats.

AS107.1.2 Two-hour rated cement plastered wall. Two-hour fire-resistance-rated nonload-bearing cement plastered strawbale walls shall comply with all of the following:

1. Bales shall be laid flat or on-edge in a running bond.
2. Bales shall maintain a thickness of not less than 14 inches (356 mm).
3. Bales shall have a minimum density of 7.5 pounds per cubic foot.
4. Gaps shall be stuffed with straw-clay.
5. one (1)¹/₂-inch (38 mm) by 17-gage galvanized woven wire mesh shall be attached to wood members with 1¹/₂-inch (38 mm) staples at 6 inches (152 mm) on center. 9 gage U-pins with not less than 8-inch (203 mm) legs shall be installed at 18 inches (457 mm) on center to fasten the mesh to the bales.
6. Cement plaster on each side of the wall shall be not less than 1 inch (25 mm) thick.
7. Plaster application shall be in accordance with Section AS104.4.8 for the number and thickness of coats.

Reason: This appendix was added to the code last cycle. The fire test reports provided by the submitter stated that the bales tested had a density of 7.5 pcf. This section currently mandates a minimum bale density of 6.5 pcf. So, the appendix currently permits a 1-hour or 2-hour fire resistance rating for assemblies which have not demonstrated this level of performance in fire tests.

The ASTM E119 test involves measuring the temperature on the unexposed side of the specimen when it is exposed to heat from a furnace. A more dense bale will delay the temperature rise on the unexposed side and perform better in this test. As such, the fire test provided does not represent the worst case scenario, as it should.

Therefore, the 1-hour or 2-hour fire resistance rating should only be assigned to walls with bale density of at least 7.5 pcf, as no fire test data has been provided for bales of lesser density.

Cost Impact: Will increase the cost of construction

This proposal may increase the cost of construction if a user intended to build a 1-hour or 2-hour rated wall with bales of a density less than 7.5 pcf.

**Report of Committee Action
Hearings**

Committee Action:

Approved as Submitted

Committee Reason: This proposal clarifies the requirements of the code.

Assembly Action:

None

Final Action Results

RB370-16

AS

Date Submitted 11/26/2018	Section 107.1.2	Proponent Richard Schauland
Chapter 3319	Affects HVHZ No	Attachments Yes
TAC Recommendation Approved as Submitted		
Commission Action Pending Review		

Comments

General Comments	No	Alternate Language	No
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Related Modifications

Summary of Modification

Please refer to the attached file. The documentation for this proposal exceeds the 300 character limit.

Rationale

This appendix was added to the code last cycle. The fire test reports provided by the submitter stated that the bales tested had a density of 7.5 pcf. This section currently mandates a minimum bale density of 6.5 pcf. So, the appendix currently permits a 1- hour or 2-hour fire resistance rating for assemblies which have not demonstrated this level of performance in fire tests. The ASTM E119 test involves measuring the temperature on the unexposed side of the specimen when it is exposed to heat from a furnace. A more dense bale will delay the temperature rise on the unexposed side and perform better in this test. As such, the fire test provided does not represent the worst case scenario, as it should. Therefore, the 1-hour or 2-hour fire resistance rating should only be assigned to walls with bale density of at least 7.5 pcf, as no fire test data has been provided for bales of lesser density.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

There may be little impact to local entities relative to the enforcement of the code. Local entities would have to verify that the bales meet the requirement through documentation provided.

Impact to building and property owners relative to cost of compliance with code

This proposal may increase the cost of construction if a user intended to build a 1-hour or 2-hour rated wall with bales of a density less than 7.5 pcf.

Impact to industry relative to the cost of compliance with code

This proposal may increase the cost of construction if a user intended to build a 1-hour or 2-hour rated wall with bales of a density less than 7.5 pcf.

Impact to small business relative to the cost of compliance with code

There will no impact to small business because this proposal is for residential buildings only.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The proposal will ensure the safety and welfare of the general public by ensuring that the 1-hour or 2-hour rated walls are rated as tested.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This proposal does strengthen the Code, it ensures that the rated walls are built as tested.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The proposal does not discriminate against materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This proposal helps the effectiveness of the code by ensuring the rated wall is built as tested.

1st Comment Period History

Proponent Richard Schauland	Submitted 1/2/2019	Attachments No
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Comment:

Mod. 7456 is related to this Mod.

F7457-G1

AS107.1.2 Two-hour rated cement plastered wall. Two-hour fire-resistance-rated nonload-bearing cement plastered strawbale walls shall comply with all of the following:

1. Bales shall be laid flat or on-edge in a running bond.
2. Bales shall maintain a thickness of not less than 14 inches (356 mm).
3. Bales shall have a minimum density of 7.5 pounds per cubic foot.
4. Gaps shall be stuffed with straw-clay.
5. one (1) 1/2-inch (38 mm) by 17-gage galvanized woven wire mesh shall be attached to wood members with 1 1/2-inch (38 mm) staples at 6 inches (152 mm) on center. 9 gage U-pins with not less than 8-inch (203 mm) legs shall be installed at 18 inches (457 mm) on center to fasten the mesh to the bales.
6. Cement plaster on each side of the wall shall be not less than 1 inch (25 mm) thick.
7. Plaster application shall be in accordance with Section AS104.4.8 for the number and thickness of coats.

Code Change No: **RB370-16**

Original Proposal

Section: AS107.1.1, AS107.1.2

Proponent: Tim Earl, representing GBH International (tearl@gbhinternational.com)

Revise as follows:

AS107.1.1 One-hour rated clay plastered wall. One-hour fire-resistance-rated nonload-bearing clay plastered strawbale walls shall comply with all of the following:

1. Bales shall be laid flat or on-edge in a running bond.
2. Bales shall maintain thickness of not less than 18 inches (457 mm).
3. Bales shall have a minimum density of 7.5 pounds per cubic foot.
4. Gaps shall be stuffed with straw-clay.
5. Clay plaster on each side of the wall shall be not less than 1 inch (25 mm) thick and shall be composed of a mixture of 3 parts clay, 2 parts chopped straw and 6 parts sand, or an alternative approved clay plaster.
6. Plaster application shall be in accordance with Section AS104.4.3.3 for the number and thickness of coats.

AS107.1.2 Two-hour rated cement plastered wall. Two-hour fire-resistance-rated nonload-bearing cement plastered strawbale walls shall comply with all of the following:

1. Bales shall be laid flat or on-edge in a running bond.
2. Bales shall maintain a thickness of not less than 14 inches (356 mm).
3. Bales shall have a minimum density of 7.5 pounds per cubic foot.
4. Gaps shall be stuffed with straw-clay.
5. one (1)¹/₂-inch (38 mm) by 17-gage galvanized woven wire mesh shall be attached to wood members with 1¹/₂-inch (38 mm) staples at 6 inches (152 mm) on center. 9 gage U-pins with not less than 8-inch (203 mm) legs shall be installed at 18 inches (457 mm) on center to fasten the mesh to the bales.
6. Cement plaster on each side of the wall shall be not less than 1 inch (25 mm) thick.
7. Plaster application shall be in accordance with Section AS104.4.8 for the number and thickness of coats.

Reason: This appendix was added to the code last cycle. The fire test reports provided by the submitter stated that the bales tested had a density of 7.5 pcf. This section currently mandates a minimum bale density of 6.5 pcf. So, the appendix currently permits a 1-hour or 2-hour fire resistance rating for assemblies which have not demonstrated this level of performance in fire tests.

The ASTM E119 test involves measuring the temperature on the unexposed side of the specimen when it is exposed to heat from a furnace. A more dense bale will delay the temperature rise on the unexposed side and perform better in this test. As such, the fire test provided does not represent the worst case scenario, as it should.

Therefore, the 1-hour or 2-hour fire resistance rating should only be assigned to walls with bale density of at least 7.5 pcf, as no fire test data has been provided for bales of lesser density.

Cost Impact: Will increase the cost of construction

This proposal may increase the cost of construction if a user intended to build a 1-hour or 2-hour rated wall with bales of a density less than 7.5 pcf.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: This proposal clarifies the requirements of the code.

Assembly Action:

None

Final Action Results

RB370-16

AS

TAC: Fire

Total Mods for Fire in No Affirmative Recommendation: 7

Total Mods for report: 205

Sub Code: Building

F7850

192

Date Submitted	12/10/2018	Section	202	Proponent	Marcelo Hirschler
Chapter	2	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications

None

Summary of Modification

Adds definition for SOFT CONTAINED PLAY EQUIPMENT STRUCTURE, a term that is used for regulation.

Rationale

Section 424 discusses children's play structures and a definition is being proposed for that. Items 3, 6 and 7 of 424.2 also talks about "soft-contained play equipment structures", and a definition is being proposed for that as well, to identify that "soft-contained play equipment structures" are those that contain pliable materials.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Clarification - defines a term used in the code.

Impact to building and property owners relative to cost of compliance with code

None

Impact to industry relative to the cost of compliance with code

None

Impact to small business relative to the cost of compliance with code

None

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

No effect

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by clarifying a term

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate

Does not degrade the effectiveness of the code

Does not degrade the code

202 Add definition, as follows:

SOFT CONTAINED PLAY EQUIPMENT STRUCTURE. A children's play structure containing one or more components where the user enters a play environment that utilizes pliable materials.

Date Submitted 12/10/2018	Section 424.1	Proponent Marcelo Hirschler
Chapter 4	Affects HVHZ No	Attachments No
TAC Recommendation No Affirmative Recommendation		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Definition of SOFT CONTAINED PLAY EQUIPMENT STRUCTURE proposed to be added

Summary of Modification

Clarifies that both height and area limitations apply

Rationale

The intent of this code section is to protect children from exposure to fire in large play structures. Code officials have expressed a concern that there have been instances where suggested structures were proposed where one of the dimensions (width or height) was just slightly smaller than the cut off and the other one vastly exceeded the cut off. With the language requiring both dimensions to exceed the limits this may be interpreted that, as long as as one dimension does not exceed the limits the other dimension has no limits. That is not safe. The change should clarify that there is a limitation on each dimension.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
Makes the code more restrictive by clarifying that both height and area apply separately.
- Impact to building and property owners relative to cost of compliance with code**
Potential increase in cost but clarifies code intent.
- Impact to industry relative to the cost of compliance with code**
Potential increase in cost but clarifies code intent.
- Impact to small business relative to the cost of compliance with code**
Potential increase in cost but clarifies code intent.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Improves fire safety
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Strengthens the code
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
Does not discriminate
- Does not degrade the effectiveness of the code**
Does not degrade the code

424.1 Children's play structures. Children's play structures installed inside all occupancies covered by this code that exceed 10 feet (3048 mm) in height ~~and~~ or 150 square feet (14 m²) in area shall comply with Sections 424.2 through 424.5.

Date Submitted	11/30/2018	Section	720.1	Proponent	Marcelo Hirschler
Chapter	7	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications**Summary of Modification**

This is clarification and cleanup. Section 720.1 is intended to apply to all insulating materials but the sentence causes confusion as is.

Rationale

This is simple clarification and language cleanup. Section 720.1 is intended to apply to all insulating materials but the sentence as is causes confusion because it refers to two types of insulation materials, namely (1) facings such as vapor retarders and vapor-permeable membranes and similar coverings and (2) all layers of single and multilayer reflective foil insulations. Therefore it is better if they are shown in a separate sentence at the end of the section that way the sentence is clearer. Other appropriate insulations and facings are also added.

The other change is that the correct section for reflective plastic core insulation materials (which are a subset of reflective insulation materials) is 2614 and not 2613.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No cost impact - clarification, for incorrect code language

Impact to building and property owners relative to cost of compliance with code

No cost impact - clarification, for incorrect code language

Impact to industry relative to the cost of compliance with code

No cost impact - clarification, for incorrect code language

Impact to small business relative to the cost of compliance with code

No cost impact - clarification, for incorrect code language

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

No impact - clarification, for incorrect code language

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

No impact - clarification, for incorrect code language

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No impact - clarification, for incorrect code language

Does not degrade the effectiveness of the code

No impact - clarification, for incorrect code language

720.1 General.

Insulating materials, including facings such as vapor retarders and *vapor-permeable membranes*, similar coverings and all layers of single and multilayer reflective foil insulations, shall comply with the requirements of this section. Where a flame spread index or a smoke-developed index is specified in this section, such index shall be determined in accordance with ASTM E84 or UL 723. Any material that is subject to an increase in flame spread index or smoke-developed index beyond the limits herein established through the effects of age, moisture or other atmospheric conditions shall not be permitted. Insulating materials, when tested in accordance with the requirements of this section, shall include facings, when used, such as vapor retarders, vapor permeable membranes and similar coverings, and all layers of single and multilayer reflective foil insulation, and similar materials.

Exceptions:

1. Fiberboard insulation shall comply with Chapter 23.
2. Foam plastic insulation shall comply with Chapter 26.
3. Duct and pipe insulation and duct and pipe coverings and linings in plenums shall comply with the Florida Building Code, Mechanical.
4. All layers of single and multilayer reflective plastic core insulation shall comply with Section 2614 2613.

Date Submitted	11/30/2018	Section	803	Proponent	Marcelo Hirschler
Chapter	8	Affects HVHZ	No	Attachments	No
TAC Recommendation	No Affirmative Recommendation				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

None

Summary of Modification

This modifies section 803 to make it more logical and adds two new products.

Rationale

This reorganizes section 803 to make it follow the testing logic, but it does not change any of the requirements (with two additions, as described below).

Moving NFPA 286 to the beginning of the section is editorial, and is appropriate for more products and removes redundant language; ASTM E84 remains an option for materials to meet; and the section as a whole becomes more enforceable as it is more easily understood.

The two added sections (803.11 and 803.12, with section 803.11 becoming 803.13) address laminated wood products, either (a) with the product factory-made and brought to the building as a finished product or (b) with a facing or veneer brought to the building and installed over a wood substrate. Such products need special handling because they will behave differently and it has been shown that, when veneers are applied over a wood substrate the resulting flame spread is much higher than when applied over gypsum board or over a non-combustible substrate.

ASTM committee E05 on fire tests developed two different mounting practices for testing these types of products with ASTM E84. In the case of factory produced panels, they have to be tested with ASTM E84 as a finished wood product. Therefore, the requirement in ASTM E2579 (which is the mounting practice for wood products) is that the testing be done with the full product and, thus, there will no need to retest for different substrates. Facings applied on site over wood substrates are tested using ASTM E2404 (which is the mounting practice for wall coverings and has a special section for coverings with a wood substrate). In this case what is being tested is the facing or veneer itself, and it is tested on a wood substrate, in the same way that wall coverings are tested.

Similarly, NFPA 286 contains sections that addresses testing of wall covering materials, including facings applied on site, and testing of laminated products produced in a factory.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Easier code enforcement - also adds two new products

Impact to building and property owners relative to cost of compliance with code

Increase cost for veneered products only - the rest is editorial and logical

Impact to industry relative to the cost of compliance with code

Increase cost for veneered products only - the rest is editorial and logical

Impact to small business relative to the cost of compliance with code

Increase cost for veneered products only - the rest is editorial and logical

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

Improves safety with regard to veneered products.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves safety with regard to veneered products.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No discrimination

Does not degrade the effectiveness of the code

Improves code enforcement

803.1 General.

Interior wall and ceiling finish materials shall be classified for fire performance and smoke development in accordance with Section 803.1.1 or 803.1.2, except as shown in Sections ~~803.2~~ 803.1.3 through 803.13. Materials tested in accordance with Section 803.1.1 ~~803.1.2~~ shall not be required to be tested in accordance with Section 803.1.2 ~~803.1.1~~.

803.1.1 Interior wall and ceiling finish materials tested in accordance with NFPA 286.

Interior wall and ceiling finish materials shall be classified in accordance with NFPA 286 and comply with Section 803.1.1.1. Materials complying with Section 803.1.1.1 shall be considered to also comply with the requirements of a Class A in accordance with Section 803.1.2, ASTM E84 or UL 723. Such *interior finish materials shall be grouped in the following classes in accordance with their flame spread and ~~smoke developed indexes.~~*

Class A: = ~~Flame spread index 0-25; smoke developed index 0-450.~~

Class B: = ~~Flame spread index 26-75; smoke developed index 0-450.~~

Class C: = ~~Flame spread index 76-200; smoke developed index 0-450.~~

~~**Exception:** Materials tested in accordance with Section 803.1.2.~~

803.1.1.1 Acceptance criteria for NFPA 286.

The interior finish shall comply with the following:

1. During the 40 kW exposure, flames shall not spread to the ceiling.
2. The flame shall not spread to the outer extremity of the sample on any wall or ceiling.
3. Flashover, as defined in NFPA 286, shall not occur.
4. The peak heat release rate throughout the test shall not exceed 800 kW.
5. The total smoke released throughout the test shall not exceed 1,000 m².

803.1.2 Interior Wall or Ceiling Finish Materials Tested in Accordance with ASTM E84 or UL 723 ~~Room corner test for interior wall or ceiling finish materials.~~

Interior wall ~~and~~ ~~or~~ ceiling finish materials shall be classified in accordance with ASTM E 84 or UL 723. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-developed indexes, permitted to be tested in accordance with NFPA 286. Interior wall or ceiling finish materials tested in accordance with NFPA 286 shall comply with Section 803.1.2.1.

Class A: = Flame spread index 0-25; smoke developed index 0-450.

Class B: = Flame spread index 26-75; smoke developed index 0-450.

Class C: = Flame spread index 76-200; smoke developed index 0-450.

803.1.2.1 Acceptance criteria for NFPA 286.

The interior finish shall comply with the following:

1. ~~1. During the 40 kW exposure, flames shall not spread to the ceiling.~~
2. ~~2. The flame shall not spread to the outer extremity of the sample on any wall or ceiling.~~
3. ~~3. Flashover, as defined in NFPA 286, shall not occur.~~
4. ~~4. The peak heat release rate throughout the test shall not exceed 800 kW.~~
5. ~~5. The total smoke released throughout the test shall not exceed 1,000 m².~~

803.1.3 Interior wall and ceiling finish materials with different requirements Room corner test for textile wall coverings and expanded vinyl wall coverings. The materials indicated in Sections 803.2 through 803.13 shall be tested as indicated in the corresponding sections.

~~Textile wall coverings and expanded vinyl wall coverings shall meet the criteria of Section 803.1.3.1 when tested in the manner intended for use in accordance with the Method B protocol of NFPA 265 using the product mounting system, including adhesive.~~

803.1.3.1 Acceptance criteria for NFPA 265.

The interior finish shall comply with the following:

1. ~~1. During the 40 kW exposure, flames shall not spread to the ceiling.~~
2. ~~2. The flame shall not spread to the outer extremities of the samples on the 8-foot by 12-foot (203 by 305 mm) walls.~~
3. ~~3. Flashover, as defined in NFPA 265, shall not occur.~~
4. ~~4. The total smoke released throughout the test shall not exceed 1,000 m².~~

803.1.4 Acceptance criteria for textile and expanded vinyl wall or ceiling coverings tested to ASTM E84 or UL 723.

~~Textile wall and ceiling coverings and expanded vinyl wall and ceiling coverings shall have a Class A flame spread index in accordance with ASTM E84 or UL 723 and be protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. Test specimen preparation and mounting shall be in accordance with ASTM E2404.~~

803.2 Thickness exemption.

Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls or ceilings shall not be required to be tested.

803.3 Heavy timber exemption.

Exposed portions of building elements complying with the requirements for buildings of Type IV construction in Section 602.4 shall not be subject to *interior finish* requirements.

803.4 Foam plastics.

Foam plastics shall not be used as *interior finish* except as provided in Section 2603.9. This section shall apply both to exposed foam plastics and to foam plastics used in conjunction with a textile or vinyl facing or cover.

803.5 Textile wall coverings.

Where used as interior wall finish materials, textile wall coverings, including materials having woven or nonwoven, napped, tufted, looped or similar surface and carpet and similar textile materials, shall be tested in the manner intended for use, using the product mounting system, including adhesive, and shall comply with the requirements of one of the following: Section 803.1.1, Section 803.5.1 or Section 803.5.2 ~~Section 803.1.2, 803.1.3 or 803.1.4.~~

803.5.1 Room corner test for textile wall coverings and expanded vinyl wall coverings. Textile wall coverings and expanded vinyl wall coverings shall meet the criteria of Section 803.5.1.1 when tested in the manner intended for use in accordance with the Method B protocol of NFPA 265 using the product mounting system, including adhesive.

803.5.1.1 Acceptance criteria for NFPA 265.

The interior finish shall comply with the following:

1. During the 40 kW exposure, flames shall not spread to the ceiling.
2. The flame shall not spread to the outer extremities of the samples on the 8-foot by 12-foot (203 by 305 mm) walls.
3. Flashover, as defined in NFPA 265, shall not occur.
4. The total smoke released throughout the test shall not exceed 1,000 m².

803.5.1.2 Acceptance criteria for textile and expanded vinyl wall or ceiling coverings tested to ASTM E84 or UL 723.

Textile wall and ceiling coverings and expanded vinyl wall and ceiling coverings shall have a Class A flame spread index in accordance with ASTM E84 or UL 723 and be protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. Test specimen preparation and mounting shall be in accordance with ASTM E2404.

803.6 Textile ceiling coverings.

Where used as interior ceiling finish materials, textile ceiling coverings, including materials having woven or nonwoven, napped, tufted, looped or similar surface and carpet and similar textile materials, shall be tested in the manner intended for use, using the product mounting system, including adhesive, and shall comply with the requirements of Section 803.1.1 or of Section 803.5.2 ~~803.1.2 or 803.1.4.~~

803.7 Expanded vinyl wall coverings.

Where used as interior wall finish materials, expanded vinyl wall coverings shall be tested in the manner intended for use, using the product mounting system, including adhesive, and shall comply with the requirements of one of the following: Section 803.1.1, Section 803.5.1 or Section 803.5.2 ~~Section 803.1.2, 803.1.3 or 803.1.4.~~

803.8 Expanded vinyl ceiling coverings.

Where used as interior ceiling finish materials, expanded vinyl ceiling coverings shall be tested in the manner intended for use, using the product mounting system, including adhesive, and shall comply with the requirements of Section 803.1.1 or of Section 803.5.2 ~~803.1.2 or 803.1.4.~~

803.9 High-density polyethylene (HDPE) and polypropylene (PP).

Where high-density polyethylene or polypropylene is used as an interior finish it shall comply with Section 803.1.1 ~~803.1.2.~~

803.10 Site-fabricated stretch systems.

Where used as interior wall or interior ceiling finish materials, site-fabricated stretch systems containing all three components described in the definition in Chapter 2 shall be tested in the manner intended for use, and shall comply with the requirements of Section 803.1.1 or 803.1.2. If the materials are tested in accordance with ASTM E84 or UL 723, specimen preparation and mounting shall be in accordance with ASTM E2573.

803.11 Laminated products factory-produced with a wood substrate Laminated products factory-produced with a wood substrate shall comply with one of the following:

1. The laminated product shall meet the criteria of Section 803.1.1 when tested in accordance with NFPA 286 using the product mounting system, including adhesive, of actual use, as described in Section 5.8 of NFPA 286.
2. The laminated product shall have a Class A, B, or C flame spread index and smoke developed index, based on the requirements of Table 803.13, in accordance with ASTM E84 or UL 723. Test specimen preparation and mounting shall be in accordance with ASTM E2579.

803.11 Facings or wood veneers intended to be applied on site over a wood substrate Facings or veneers intended to be applied on site over a wood substrate shall comply with one of the following:

1. The facing or veneer shall meet the criteria of Section 803.1.1 when tested in accordance with NFPA 286 using the product-mounting system, including adhesive, as described in Section 5.9 of NFPA 286.
2. The facing or veneer shall have a Class A, B or C flame spread index and smoke-developed index, based on the requirements of Table 803.13, in accordance with ASTM E 84 or UL 723. Test specimen preparation and mounting shall be in accordance with ASTM E 2404.

803.11-803.13 Interior finish requirements based on group.

Interior wall and ceiling finish shall have a flame spread index not greater than that specified in Table 803.13 ~~803.14~~ for the group and location designated. *Interior wall and ceiling finish* materials tested in accordance with NFPA 286 and meeting the acceptance criteria of Section 803.1.2.1, shall be permitted to be used where a Class A classification in accordance with ASTM E84 or UL 723 is required.

TABLE 803.13 ~~803.14~~

Note: content of the Table remains unchanged.

Also: revise the section in Chapter 35 on referenced ASTM standards:

ASTM E2404, Standard Practice for Specimen Preparation and Mounting of Textile, Paper or Polymeric (Including Vinyl) Wall or Ceiling Coverings, and of Facings and Wood Veneers Intended to be Applied on Site Over a Wood Substrate, to Assess Surface Burning Characteristics ~~(2013)~~ (2017)

ASTM E2579, Standard Practice for Specimen Preparation and Mounting of Wood Products to Assess Surface Burning Characteristics (2015)

Date Submitted	12/14/2018	Section 1		Proponent	Amanda Hickman
Chapter	35	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	No Affirmative Recommendation				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

#7919
#7928
#7936

Summary of Modification

This modification updates the reference standards NFPA 80 and NFPA 105 to the most current editions.

Rationale

The purpose of this modification is to update reference standards NFPA 80 and NFPA 105 to the current editions (2019).

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

This modification updates reference standards to the current editions, thereby assisting code enforcement.

Impact to building and property owners relative to cost of compliance with code

This modification only updates reference standards to their current editions, therefore, there is no cost impact.

Impact to industry relative to the cost of compliance with code

This modification only updates reference standards to their current editions, therefore, there is no cost impact.

Impact to small business relative to the cost of compliance with code

This modification only updates reference standards to their current editions, therefore, there is no cost impact.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This modification updates the reference standards to their current editions. This includes periodic inspections for dampers, which will promote the health, safety and welfare of the general public.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification updates the reference standards to their current editions, which improves the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification does not discriminate against materials, products, etc. It only updates reference standards to their current edition.

Does not degrade the effectiveness of the code

No. This modification improves the effectiveness of the code by updating reference standards to their current edition.

Revise reference standards as follows:

NFPA

80-1319 Standard for Fire Doors and Other Opening Protectives

NFPA

105-1319 Standard for Smoke Door Assemblies and Other Opening Protectives

NFPA has arranged the delivery of hard copies of standards NFPA 80-2019 and NFPA 105-2019.

Sub Code: Existing Building

F8050

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Date Submitted	12/13/2018	Section	805.3	Proponent	Joseph Belcher for FHBA
Chapter	8	Affects HVHZ	Yes	Attachments	Yes
TAC Recommendation	No Affirmative Recommendation				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications

This Mod includes changes 805.3.1, 805.3.1.1, and adds Table 805.3.1.1(1), and Table 805.3.1.1(2)

Summary of Modification

Brings FBC-EB in line with FBC-B for where single exit buildings are permitted. The FBC-EB was becoming more stringent than for new construction due to changes in the FBC-B.

Rationale

The following is extracted from the original ICC proponent's reason. Please see the Uploaded Support File for the entire text.

Reason: The current provisions are not keeping up with the allowances and changes in language for new buildings. This could be interpreted as existing buildings being more restrictive than new construction. Many items match IBC new construction allowances rather than allowing for additional options. To keep items correlated over time, the change to Section 805.3.1 is to allow for any option permitted in new construction. The reasons for the changes to Section 805.3.1.1 are found below. What can be put in tables similar to Table 1006.3.2(1) and Table 1006.3.2(2) has been made so to improve correlation and consistency over time.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact the change coordinates and clarifies the provisions for single exit buildings.

Impact to building and property owners relative to cost of compliance with code

No impact the change coordinates and clarifies the provisions for single exit buildings. May result in a decrease in cost due to FBC-EB becoming more stringent than FBC-B.

Impact to industry relative to the cost of compliance with code

No impact the change coordinates and clarifies the provisions for single exit buildings. May result in a decrease in cost due to FBC-EB becoming more stringent than FBC-B.

Impact to small business relative to the cost of compliance with code

No impact the change coordinates and clarifies the provisions for single exit buildings. May result in a decrease in cost due to FBC-EB becoming more stringent than FBC-B.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The change impacts public health and safety by coordinating, clarifying, and simplifying the provisions for single exit buildings.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change improves the code by coordinating, clarifying, and simplifying the provisions for single exit buildings.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change upgrades the effectiveness of the code.

805.3 Number of exits. The number of exits shall be in accordance with Sections 805.3.1 through 805.3.3.

805.3.1 Minimum number. Every story utilized for human occupancy on which there is a *work area* that includes exits or corridors shared by more than one tenant within the *work area* shall be provided with the minimum number of exits based on the occupancy and the occupant load in accordance with the *Florida Building Code-Building*. In addition, the exits shall be permitted to comply with Sections 805.3.1.1 and 805.3.1.2.

805.3.1.1 Single-exit buildings. Only one exit is required from spaces, of the following occupancies: A single exit or access to a single exit shall be permitted from spaces, any story or any occupied roof where one of the following exist:

1. The occupant load, number of dwelling units and exit access travel distance do not exceed the values in Table 805.3.1.1(1) or 805.3.1.1(2).
1. In Group A, B, E, F, M, U and S occupancies, a single exit is permitted in the story at the level of exit discharge when the occupant load of the story does not exceed 50 and the exit access travel distance does not exceed 75 feet (22 860 mm).
2. Group B, F-2, and S-2 occupancies not more than two stories in height that are not greater than 3,500 square feet per floor (326 m²), when the exit access travel distance does not exceed 75 feet (22 860 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.
3. Open parking structures where vehicles are mechanically parked.
4. In Group R-4 occupancies, the maximum occupant load excluding staff is 16.
5. Groups R-1 and R-2 not more than two stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15 240 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.
6. In multilevel dwelling units in buildings of occupancy Group R-1 or R-2, an exit shall not be required from every level of the dwelling unit provided that one of the following conditions is met:
 - 6.1. The travel distance within the dwelling unit does not exceed 75 feet (22 860 mm); or
 - 6.2. The building is not more than three stories in height and all third-floor space is part of one or more dwelling units located in part on the second floor, and no habitable room within any such dwelling unit shall have a travel distance that exceeds 50 feet (15 240 mm) from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.
2. In Group R-1 or R-2, non-sprinklered buildings, individual single-story or multistory dwelling or sleeping units shall be permitted to have a single exit or access to a single exit from the dwelling or sleeping unit provided one of the following criteria are met:
 - 2.1. The occupant load is not greater than 10 and the exit access travel distance within the unit does not exceed 75 feet (22 860 mm).
 - 2.2. The building is not more than three stories in height; all 3rd story space is part of dwelling with an exit access doorway on the 2nd story; and the portion of the exit access travel distance from the door to any habitable room within any such unit to the unit entrance door does not exceed 50 feet (15 240 mm).
7. In Group R-2, H-4, H-5 and I occupancies and in rooming houses and child care centers, a single exit is permitted in a one-story building with a maximum occupant load of 10 and the exit access travel distance does not exceed 75 feet (22 860 mm).
8. In buildings of Group R-2 occupancy that are equipped throughout with an automatic fire sprinkler system, a single exit shall be permitted from a basement or story below grade if every dwelling unit on that floor is equipped with an approved window providing a clear opening of at least 5 square feet (0.47 m²) in area, a minimum net clear opening of 24 inches (610 mm) in height and 20 inches (508 mm) in width, and a sill height of not more than 44 inches (1118 mm) above the finished floor.
- 3.9. In buildings of Group R-2 occupancy of any height number of stories and with not more than four dwelling units per floor; served by an interior exit stairway with a smokeproof enclosure in accordance with Sections 909.20 and 1023.11 of the *Florida Building Code-Building* or an exterior exit stairway outside stairway as an exit; and with such exit located within 20 feet (6096 mm) of travel to the entrance doors to all dwelling units served thereby where the portion of the exit access travel distance from the dwelling unit entrance door to the exit is a maximum of 20 feet (6096 mm).
10. In buildings of Group R-3 occupancy equipped throughout with an automatic fire sprinkler system, only one exit shall be required from basements or stories below grade.

TABLE 805.3.1.1(1)

STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, First or second story above grade plane	R-2 ²	4 dwelling units	50 feet
Third story above grade plane and higher	NP	NA	NA

For SI: 1 foot=3048

NP=Not Permitted.

NA=Not Applicable.

- a. Group R-2, non-sprinklered and provided with emergency escape and rescue openings in accordance with Section 1030 of the Florida Building Code-Building.

TABLE 805.3.1.1(2)

STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM OCCUPANTS LOAD PER STORY	MAXIMUM EXIT ACCESS TRAVEL DISTANCE (feet)
First story above or below grade plane	B, F-2, S-2 ^a	35	75
Second story above grade plane	B, F-2, S-2 ^a	35	75
Third story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8mm.

NP=Not Permitted

NA=Not Applicable

- a. The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet (30480mm).

Reason: The current provisions are not keeping up with the allowances and changes in language for new buildings. This could be interpreted as existing buildings being more restrictive than new construction. Many items match IBC new construction allowances rather than allowing for additional options. To keep items correlated over time, the change to Section 805.3.1 is to allow for any option permitted in new construction. The reasons for the changes to Section 805.3.1.1 are found below. What can be put in tables similar to Table 1006.3.2(1) and Table 1006.3.2(2) has been made so to improve correlation and consistency over time.

Item 1 is permitted for new construction, IBC Table 1006.3.2(2); therefore, it is proposed to be deleted.

Item 2 - This is the new item 1 and the table. The area is translated to occupant load (3500 sq.ft./100 sq.ft. per occupant) and added in a table. This is consistent with the approach for new construction and should increase consistency over time. The last sentence is addressing exit stairway enclosures, which are already addressed in stairway provisions. Note a in the table is so that it is understood that this allowance will not override the allowance for 100 feet in open parking that is permitted in new construction.

Item 3 is for mechanical parking garages is permitted in IBC Section 1006.3.2 Item 3; therefore, it is proposed to be deleted. Item 4 for Group R-4 is technically incorrect with the language using occupant load rather than number of residents; in addition a single exit is permitted in IBC Section 1006.3.2 Item 4; therefore, it is proposed to be deleted. Item 5 is based on old travel distance allowances for single exit apartment buildings – so this limitation should be for only non-sprinklered buildings. Group R-1 does not typically have dwelling units, so this is not logical for a hotel. This item should be deleted in favor new construction allowances in Table 1006.3.2(1) for apartment buildings. The last sentence is addressing exit stairway enclosures, which are already addressed in stairway provisions; therefore, it is proposed to be deleted.

Item 6 is more restrictive than the multi-story dwelling units permitted in Section 1006.3.2, Item 5. Group R-1 does not typically have dwelling units, so terminology is not logical for a hotel. If this is needed for large sleeping unit, this allowance should be added to new construction in IBC. For sprinklered buildings this item should be deleted in favor new construction allowances in Section 1006.3.2 Item 5 for multi-story dwelling units. The revised item 2 is limited to non-sprinklered buildings and the terminology has been updated. The occupant load was added to be consistent with the previous limit on dwelling units and travel distance before sprinklers were added (2003 IBC Section 1013.3 and 1014.1). There is no intent to change to the technical criteria.

Item 7 – Rooming houses a limiting factor for Group R-2 in new construction – current text would apply this to all Group R-2. In addition, R-2 congregate residences are now 16 or more. To fit into the maximum of 10 occupants, you are a Group R-3 now. Group R-3 has always had single exit with no travel distance, so this would be more restrictive than new sprinklered or existing not sprinklered. Child care centers could be read as E and I-4. Group I-4 is part of Group I and is the same for new construction. This requirement exceeds Group E requirements for new construction and should not be applicable. The provisions for I, H-4 and H-5 match new construction in Table 1006.3.2(2). Therefore, it is proposed to be deleted.

Item 8 is addressed for new construction in Table 1006.3.2(2), including the emergency escape window requirement; therefore, it is proposed to be deleted.

Item 9 (new Item 3) allows for a different travel distance measurement and additional number of stories for apartment buildings with 4 or fewer per story. Since this is unlimited height, this would apply to sprinklered and non-sprinklered existing buildings. The change is intended to be editorial only to match new terminology.

Item 10 is addressed already permitted for new construction in Section 1006.3.2 Item 3; therefore, it is proposed to be deleted.

Cost Impact: Will not increase the cost of construction

The code change proposal will not increase the cost of construction. The intent of the proposal is coordination and an update to new terminology. It is not intended to increase requirements.

F7122

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Date Submitted	11/21/2017	Section	310.1.1	Proponent	Derek Wiechmann PG CBO
Chapter	3	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	No Affirmative Recommendation				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

Under R310.1.1 Operational constraints Exceptions:
 1. A casement window utilizing a cranking mechanism that does not delay the window to open to the minimum opening area per R310.2.1 can be utilized as an emergency escape and rescue opening.

Summary of Modification

Under R310.1.1 Operational constraints Exceptions: 1. A casement window utilizing a cranking mechanism that does not delay the window to open to the minimum opening area per R310.2.1 can be utilized as an emergency escape and rescue opening.

Rationale

This needs to be clarified for some jurisdictions throughout Florida do not allow cranks on egress windows and it will describe further to the window industries that there cannot be a delay in the window opening process in the event of an emergency

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
No impact to local entity relative to code enforcement.
- Impact to building and property owners relative to cost of compliance with code**
No impact to building and property owners relative to code enforcement.
- Impact to industry relative to the cost of compliance with code**
The impact to the construction industry relative to the cost of code compliance is a reduction in cost giving the builder more egress window options and not limiting their sales or installations for casement windows utilizing cranks.
- Impact to small business relative to the cost of compliance with code**
The impact to small business relative to the cost of code compliance is a reduction in cost giving the small business more egress window options and not limiting their sales for casement windows utilizing cranks.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
Yes because it further describes what is required for an egress window, making an improvement for life safety.
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
Yes because it further describes what is required for an egress window, and it allows for the use of different window types, it strengthens the life safety code.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
It does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.
- Does not degrade the effectiveness of the code**
This code change will not degrade the effectiveness of the code.

1st Comment Period History

Proponent	Dick Wilhelm	Submitted	2/9/2019	Attachments	No
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Comment:

AAMA is opposed to the language ("does not delay the window to open") as it is not a measurable metric.

F7122-G1

R310.1.1 Operational constraints and opening control devices. Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys, tools or special knowledge. Window opening control devices complying with ASTM F2090 shall be permitted for use on windows serving as a required emergency escape and rescue opening.

Exceptions:

1. A casement window utilizing a cranking mechanism that does not delay the window to open to the minimum opening area per R310.2.1 can be utilized as an emergency escape and rescue opening.

Rationale: This needs to be clarified for some jurisdictions throughout Florida do not allow cranks on egress windows and it will describe further to the window industries that there cannot be a delay in the window opening process in the event of an emergency.

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TAC: Fire

Total Mods for Fire in Withdrawn: 7

Total Mods for report: 205

Sub Code: Building

F7556

199

Date Submitted 12/5/2018

Chapter 3

Section 302.1

Affects HVHZ No

Proponent Ann Russo5

Attachments No

TAC Recommendation Withdrawn

Commission Action Pending Review

Comments

General Comments No

Alternate Language No

Related Modifications

503.1.4 - new

Summary of Modification

As roof areas are being used for other activities and functions, addresses these uses and related issues

Rationale

Many buildings are being built or altered to create an occupied roof. The code is not clear as to the requirements for these "spaces". Chapter 10 takes care of the means of egress requirements. But, the rest of the code does not address these issues. Some areas are used as gathering spaces, dining areas, swimming pools, etc. The question has come up as to whether these uses are an "occupancy". Some jurisdictions classify them as occupancies and others do not. However, the fact is that the code is an occupancy driven document. Therefore, we decided to use similar language in Section 302.1 combined with the language in Section 1004.5. An occupied roof would be classified to an occupancy that it most resembles. For example, a roof off of a private office would be classified as a Group B occupancy. However a roof above a restaurant would be classified as a Group A-2 occupancy.

We have also provided language stating that the height and area requirements do not apply to occupied roofs. We conducted a survey of several building departments and code consultants and found that most respondents did not require an occupied roof to comply with the height and area provisions of the code. We are also not aware of any issues with the use of a roof as an occupied space.

This proposal provides users of the code some guidance and clarification on how to apply the provisions to an occupied roof.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Assists and clarifies requirements tying it back to their use, and clearly illustrating requirements for design, plan review and inspection

Impact to building and property owners relative to cost of compliance with code

Lowers impact due to uncertainty for the use planned and makes it easier for designer to focus on clear requirements

Impact to industry relative to the cost of compliance with code

None expected

Impact to small business relative to the cost of compliance with code

None expected

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Allows for clearer requirements for such uses on roof area making it safer for users of the area

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Strengthens Code due to clear definitions and uses local adopted classifications for design and enforcement

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not

Does not degrade the effectiveness of the code

Does not and provides better focus and enforcement criteria

Revise as follows:

302.1 General. Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed in this section. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied. Structures with multiple occupancies or uses shall comply with Section 508. Where a structure is proposed for a purpose that is not specifically provided for in this code, such structure shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved. Yards, patios, courts, occupied roofs and similar outdoor areas accessible to and usable by the building occupants shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved.

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.

Date Submitted	11/29/2018	Section	2304.11	Proponent	Paul Coats
Chapter	6	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Withdrawn				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

#7522 for Section 602.4 is a duplicate of this proposal which takes provisions from Chapter 6 and moves them to Chapter 23, necessitating review by both the Fire Safety and Structural TACs.

Summary of Modification

This proposed modification takes the details for heavy timber construction out of Chapter 6 and consolidates them in Chapter 23.

Rationale

The proposed modifications were approved by the ICC membership and appear in the 2018 IBC. They do not change the technical requirements for heavy timber but improve their usability. The changes shown reflect ICC code changes G179-15 (primarily), G178-15, and G175-18, which were all Approved as Submitted by the General Code Development Committee and subsequently the ICC membership (files are attached). The IBC General Code Development Committee made the following statement in the 2015 ICC Report of Committee Action Hearing, for G179-15: "The proposal provides necessary consolidation and eliminates duplicative text between Chapters 6 and 23. The revised table is sorely needed to make help the users of the code. Moving the table to Chapter 23 is totally appropriate. The was comfort that with a detailed comparision this is a good clean up with no technical changes. As with any major revision, there remained concerns that all pieces have been maintained and there might be some unintended consequences. The new organization provides better logic for the requirements." See the uploaded file for the complete rationale for the primary code change, G179-15, and a table comparing the locations of sections in the current code and what is proposed. Reason statements for G175-15 and G178-15 can also be seen in the support files for the text.

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

Enforcement of provisions may be easier.

Impact to building and property owners relative to cost of compliance with code

There are no changed cost implications.

Impact to industry relative to the cost of compliance with code

There are no changed cost implications.

Impact to small business relative to the cost of compliance with code

No impact.

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

This reorganization and consolidation of heavy timber provisions in one location will promote better compliance and better enforcement and therefore affects the safety and welfare of the general public positively.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This reorganization and consolidation of heavy timber provisions in one location will improve the usability and application of the code.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

Does not discriminate in any way.

Does not degrade the effectiveness of the code

Retains the current effectiveness of the code and improves it.

602.4 Type IV. Type IV construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid wood, or laminated wood, heavy timber (HT) or structural composite lumber (SCL) without concealed spaces. The minimum dimensions for permitted materials including solid timber, glued-laminated timber, structural composite lumber (SCL), and cross-laminated timber and The details of Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying with Section 602.4.1 or 602.4.2 shall be permitted. Interior walls and partitions not less than 1-hour fire-resistance rating or heavy timber complying with Section 2304.11.2.2 shall be permitted. Minimum solid-sawn nominal dimensions are required for structures built using Type IV construction (HT). For glued-laminated members and structural composite lumber (SCL) members, the equivalent net finished width and depths corresponding to the minimum nominal width and depths of solid-sawn lumber are required as specified in Table 602.4. *Cross-laminated timber* (CLT) dimensions used in this section are actual dimensions.

602.4.1 Fire-retardant-treated wood in exterior walls. *Fire-retardant-treated wood framing and sheathing* complying with Section 2303.2 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less.

602.4.2 Cross-laminated timber in exterior walls. *Cross-laminated timber* complying with Section 2303.1.4 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one the following:

1. *Fire-retardant-treated wood* sheathing complying with Section 2303.2 and not less than 15/32 inch (12 mm) thick;
2. *Gypsum board* not less than 1/2 inch (12.7 mm) thick; or
3. A noncombustible material.

602.4.3 Columns. Wood columns shall be sawn or glued-laminated and shall be not less than 8 inches (203 mm), nominal, in any dimension where supporting floor loads and not less than 6 inches (152 mm) nominal in width and not less than 8 inches (203 mm) nominal in depth where supporting roof and ceiling loads only. Columns shall be continuous or superimposed and connected in an *approved* manner. Protection in accordance with Section 704.2 is not required.

602.4.4 Floor framing. Wood beams and girders shall be of sawn or glued-laminated timber and shall be not less than 6 inches (152 mm) nominal in width and not less than 10 inches (254 mm) nominal in depth. Framed sawn or glued-laminated timber arches, which spring from the floor line and support floor loads, shall be not less than 8 inches (203 mm) nominal in any dimension. Framed timber trusses supporting floor loads shall have members of not less than 8 inches (203 mm) nominal in any dimension.

602.4.5 Roof framing. Wood frame or glued-laminated arches for roof construction, which spring from the floor line or from grade and do not support floor loads, shall have members not less than 6 inches (152 mm) nominal in width and have not less than 8 inches (203 mm) nominal in depth for the lower half of the height and not less than 6 inches (152 mm) nominal in depth for the upper half. Framed or glued-laminated arches for roof construction that spring from the top of walls or wall abutments, framed timber trusses and other roof framing, which do not support floor loads, shall have members not less than 4 inches (102 mm) nominal in width and not less than 6 inches (152 mm) nominal in depth. Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice plates shall be not less than 3 inches (76 mm) nominal in thickness. Where protected by *approved* automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.

602.4.9 602.4.3 Exterior structural members. Where a horizontal separation of 20 feet (6096 mm) or more is provided, wood columns and arches conforming to heavy timber sizes complying with 2304.11 shall be permitted to be used externally.

2304.11 Heavy timber construction. Where a structure or a portion thereof is, or individual structural elements are required to be of Type IV construction heavy timber by other provisions of this code, the building elements therein shall comply with the applicable provisions of Sections 2304.11.1 through 2304.11.5 2304.11.4. Minimum dimensions of heavy timber shall comply as applicable in Table 2304.11 based on roofs or floors supported and the configuration of each structural element, or as applicable in Sections 2304.11.2 through 2304.11.4.

2304.11.1 Columns Details of heavy timber structural members. Columns

Heavy timber structural members shall be continuous or superimposed throughout all stories by means of reinforced concrete or metal caps detailed and constructed in accordance with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods. Sections 2304.11.1.1 through 2304.11.1.3.

2304.11.1 Column connectionsColumns. Minimum dimensions of columns shall be in accordance with Table 2304.11. Columns shall be continuous or superimposed throughout all stories and connected in an *approved* manner. Girders and beams at column connections shall be closely fitted around columns and adjoining ends shall be cross tied to each other, or intertied by caps or ties, to transfer horizontal loads across joints. Wood bolsters shall not be placed on tops of columns unless the columns support roof loads only. Where traditional heavy timber detailing is used, connections shall be permitted to be by means of reinforced concrete or metal caps with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods.

2304.11.2 2304.11.1.2 Floor framing. Minimum dimensions of floor framing shall be in accordance with Table 2304.11. Approved wall plate boxes or hangers shall be provided where wood beams, girders or trusses rest on masonry or concrete walls. Where intermediate beams are used to support a floor, they shall rest on top of girders, or shall be supported by ledgers or blocks securely fastened to the sides of the girders, or they shall be supported by an *approved* metal hanger into which the ends of the beams shall be closely fitted. Where traditional heavy timber detailing is used, these connections shall be permitted to be supported by ledgers or blocks securely fastened to the sides of the girders.

2304.11.3 2304.11.1.3 Roof framing. Minimum dimensions of roof framing shall be in accordance with Table 2304.11. Every roof girder and at least every alternate roof beam shall be anchored to its supporting member; and every monitor and every sawtooth construction shall be anchored to the main roof construction. Such anchors shall consist of steel or iron bolts of sufficient strength to resist vertical uplift of the roof forces as required in Chapter 16.

602.4.8 2304.11.2 Partitions and walls. Partitions and walls shall comply with Section 602.4.8.1-2304.11.2.1 or 602.4.8.2-2304.11.2.2.

602.4.8.2 2304.11.2.1 Exterior walls. Exterior walls shall be permitted to be of one of the following:

1. Noncombustible materials.
1. Not less than 6 inches (152 mm) in thickness and constructed of one of the following:
 - 1.1. *Fire-retardant-treated wood* in accordance with Section 2303.2 and complying with Section 602.4.1.
 - 1.1. *Cross-laminated timber* complying with meeting the requirements of Section 602.4.2-2303.1.4.

602.4.8.4 2304.11.2.2 Interior walls and partitions. *No change to text.*

602.4.6 2304.11.3 Floors. Floors shall be without concealed spaces. Wood floors shall be constructed in accordance with Section 602.4.6.1-2304.11.3.1 or 602.4.6.2-2304.11.3.2.

602.4.6.2 2304.11.3.1 Cross-laminated timber floors. *Cross-laminated timber* shall be not less than 4 inches (102 mm) in actual thickness. *Cross-laminated timber* shall be continuous from support to support and mechanically fastened to one another. *Cross-laminated timber* shall be permitted to be connected to walls without a shrinkage gap providing swelling or shrinking is considered in the design. Corbelling of masonry walls under the floor shall be permitted to be used.

602.4.6.4 2304.11.3.2 Sawn or glued-laminated plank floors. *No change to text.*

Delete without substitution:

2304.11.4 Floor decks. Floor decks and covering shall not extend closer than 1/2-inch (12.7 mm) to walls. Such 1/2-inch (12.7 mm) spaces shall be covered by a molding fastened to the wall either above or below the floor and arranged such that the molding will not obstruct the expansion or contraction movements of the floor. Corbeling of masonry walls under floors is permitted in place of such molding.

Revise as follows:

2304.11.5 2304.11.4 Roof decks. Roofs shall be without concealed spaces and roof decks shall be constructed in accordance with Section 2304.11.4.1 or 2304.11.4.2. Other types of decking shall be permitted to be used where equivalent fire resistance and structural properties are being provided. Where supported by a wall, roof decks shall be anchored to walls to resist uplift forces determined in accordance with Chapter 16. Such anchors shall consist of steel bolts, lags, screws or iron bolts approved hardware of sufficient strength to resist vertical uplift of the roof prescribed forces.

602.4.7 2304.11.4.1 Roofs Cross-laminated timber roofs. Roofs shall be without concealed spaces and wood roof decks shall be sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness; 1 1/8-inch-thick (32 mm) wood structural panel (exterior glue); planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors; or of cross-laminated timber. Other types of decking shall be permitted to be used if providing equivalent fire resistance and structural properties.

Cross-laminated timber roofs shall be not less than 3 inches (76 mm) nominal in in actual thickness and shall be continuous from support to support and mechanically fastened to one another.

Add new text as follows:

2304.11.4.2 Sawn, wood structural panel, or glued-laminated plank roofs.

Sawn, wood structural panel, or glued-laminated plank roofs shall be one of the following:

1. Sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness;
2. 1 1/8-inch-thick (32mm) wood structural panel (exterior glue);
3. Planks not less than 3 inches (76mm) nominal in width, set on edge close together and laid as required for floors.

Revise as follows:

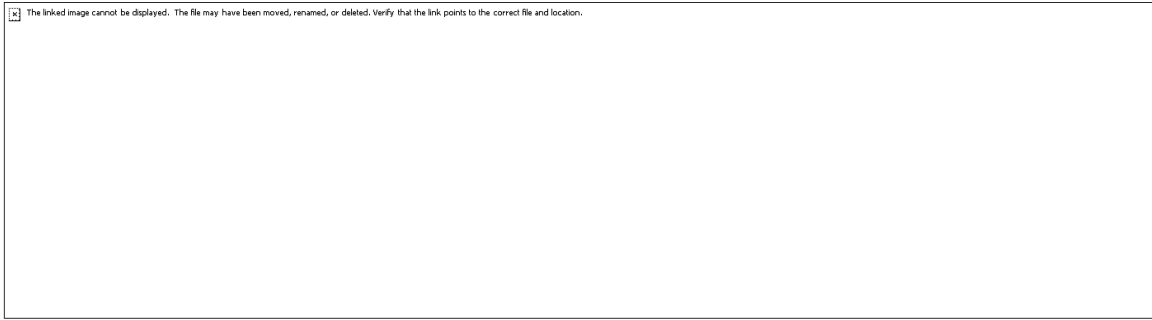
**TABLE 602.4 2304.11
WOODMEMBER SIZE EQUIVALENCIES MINIMUM DIMENSIONS OF HEAVY TIMBER STRUCTURAL MEMBERS**

		MINIMUM NOMINAL SOLID SAWN SIZE	MINIMUM GLUED- LAMINATED NETSIZE	MINIMUM STRUCTURAL COMPOSITE LUMBER NETSIZE
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	<u>Heavy Timber Structural Element</u>		Width, inch	Depth, inch	Width, inch	Depth, inch	
<u>Supporting</u>							<u>Width</u>

<p>Floor loads only or combined floor and roof loads</p>	<p><u>Columns; Framed sawn or glued- laminated timber arches which spring from the floor line;</u> <u>Framed timber trusses</u></p>	8	8	6 3/4	8 1/4	
	<p><u>Wood beams and girders</u></p>	6	10	5	10 1/2	5
	<p><u>Columns (roof and ceiling loads);</u> <u>Lower half of; Wood-frame or glued-laminated arches which spring from the floor line or from grade</u></p>	6	8	5	8 1/4	5
	<p><u>Upper half of; Wood-frame or glued-laminated arches which spring from the floor line or from grade</u></p>	6	6	5	6	5

Roof loadsonly	<p><u>Framed timber trusses and other roof framing;</u>^a <u>Framed or glued-laminated arches that spring from the top of walls or wall abutments</u></p>	4 _b	6	3 _b	6 7/8	3 1.
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=25.4 mm.

For SI: 1 inch

_____^aSpaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood coverplate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice lates shall be not less than 3 inches (76mm) nominal in thickness.

_____^bWhere protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches(76 mm) nominal in width.

G 175-15

602.3, 602.4.1

Proponent: Homer Maiel, PE, CBO, representing ICC Tri-Chapter (Peninsula, East Bay, Monterey Bay) (hmaiel@gmail.com)**2015 International Building Code****Revise as follows:**

602.3 Type III. Type III construction is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of any material permitted by this code. *Fire-retardant-treated wood framing and sheathing* complying with Section 2303.2 shall be permitted within exterior wall assemblies of a 2-hour rating or less.

602.4.1 Fire-retardant-treated wood in exterior walls. *Fire-retardant-treated wood framing and sheathing* complying with Section 2303.2 shall be permitted within exterior wall assemblies with a 2-hour rating or less.

Reason: The word framing creates some confusion, some have interpreted that framing does not include the sheathing utilized for lateral resistance to be framing. This has resulted in at least one interpretation that the walls cannot have FRT structural wood panel framing and yet another interpretation that the structural wood panel is permitted to be installed but unlike the studs does not need to be FRT.

ASCE considers sheathing to be part of the framing system. The ICC ES has AQ for a product equivalent to FRT plywood for use on Type III construction.

The addition of sheathing clarifies wood framing and sheathing is permitted to be within the assembly if FRT.

Cost Impact: Will not increase the cost of construction

This code change does not create a new requirement. It clarifies existing code language to prevent misinterpretation of the code.

G 175-15 : 602.3-MAIEL4965

G 178-15**602.4**

Proponent: Sam Francis, American Wood Council, representing American Wood Council (sfrancis@awc.org)

2015 International Building Code

Revise as follows:

602.4 Type IV. Type IV construction (Heavy Timber, ~~HT~~) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid ~~or wood~~, laminated wood ~~or structural composite lumber (SCL)~~ without concealed spaces. The details of Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying with Section 602.4.1 or 602.4.2 shall be permitted. Minimum ~~solid~~ dimensions for building elements are as follows:

1. Solid sawn building elements shall be not less than the nominal dimensions are required for structures built using Type IV construction (HT) in Sections 602.4.3 through 602.4.6.

2. For ~~glued laminated~~ Glued-laminated members and structural composite lumber (SCL) members, members shall be the equivalent net finished width and ~~depths~~ depth corresponding to the minimum nominal width and ~~depths~~ depth of solid sawn lumber are required as specified in Table 602.4. ~~Cross-laminated~~

3. Cross-laminated timber (CLT) dimensions used in this section are actual dimensions and shall be not less than the dimensions required in Sections 602.4.6.2, 602.4.7, and 602.4.6.8.2, as applicable.

Reason:

In the last code cycle, the Heavy Timber section saw 5 code change proposals. The correlation of these changes was very difficult. We are submitting several changes which are intended to make this chapter more understandable. One of the issues to be clarified is the "minimum dimensions of the exterior walls. Another item is to make it absolutely clear that Structural Composite Lumber of the minimum dimensions for this chapter is, in fact, considered heavy timber. So this proposal will point the user to the proper sections to accomplish these tasks.

For a complete list of AWC code change proposals and additional information please go to <http://www.awc.org/Code-Officials/2015-IBC-Code-Changes>.

Cost Impact: Will not increase the cost of construction

This is an editorial rewrite and will have no cost impact other than to lower costs by making the minimum requirements more clear.

G 178-15 : 602.4-FRANCIS4679

G 179-15

602.4, TABLE 602.4, 602.4.1, 602.4.2, 602.4.3, 602.4.4, 602.4.5, 602.4.9, 2304.11, 2304.11.1, TABLE 2304.11.1.1, 2304.11.2, 2304.11.3, 602.4.8, 602.4.8.2, 602.4.8.1, 602.4.6, 602.4.6.2, 602.4.6.1, 2304.11.4, 2304.11.5, 602.4.7, 2304.11.4.2 (New)

Proponent: Dennis Richardson, representing American Wood Council

2015 International Building Code

Revise as follows:

602.4 Type IV. Type IV construction (~~Heavy Timber (HT)~~) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid or laminated wood ~~heavy timber (HT)~~, without concealed spaces. The minimum dimensions for permitted materials including solid timber, glued-laminated timber, structural composite lumber (SCL), and cross laminated timber (CLT) and details of Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying with Section 602.4.1 or 602.4.2 shall be permitted. Minimum solid-sawn nominal dimensions are required for structures built using Type IV construction (HT). For glued-laminated members, interior walls, and structural composite lumber (SCL) members, the equivalent net finished width and depths corresponding to the minimum nominal width and depth partitions of solid-sawn lumber are required as specified in Table 602.4, not less than one hour. ~~Crossfire-resistance rating-laminated or heavy timber (CLT) dimensions used in this section are actual dimensions, conforming with Section 2304.11.2.2 shall be permitted.~~

602.4.1 Fire-retardant-treated wood in exterior walls. *Fire-retardant-treated wood* framing complying with Section 2303.2 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less.

602.4.2 Cross-laminated timber in exterior walls. *Cross-laminated timber* complying with Section 2303.1.4 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one the following:

1. *Fire-retardant-treated wood* sheathing complying with Section 2303.2 and not less than $1\frac{1}{2}$ inch (12 mm) thick;
2. *Gypsum board* not less than $\frac{1}{2}$ inch (12.7 mm) thick; or
3. A noncombustible material.

Delete without substitution:

602.4.3 Columns. Wood columns shall be ~~sawn or glued laminated and shall be not less than 8 inches (203 mm), nominal, in any dimension where supporting floor loads and not less than 6 inches (152 mm) nominal in width and not less than 8 inches (203 mm) nominal in depth where supporting roof and ceiling loads only. Columns shall be continuous or superimposed and connected in an approved manner. Protection in accordance with Section 704.2 is not required.~~

602.4.4 Floor framing. Wood beams and girders shall be of ~~sawn or glued laminated timber and shall be not less than 6 inches (152 mm) nominal in width and not less than 10 inches (254 mm) nominal in depth. Framed sawn or glued laminated timber arches, which spring from the floor line and support floor loads, shall be not less than 8 inches (203 mm) nominal in any dimension. Framed timber trusses supporting floor loads shall have members of not less than 8 inches (203 mm) nominal in any dimension.~~

602.4.5 Roof framing. Wood frame or glued laminated arches for roof construction, which spring from the floor line or from grade and do not support floor loads, shall have members not less than 6 inches (152 mm) nominal in width and have not less than 8 inches (203 mm) nominal in depth for the lower half of the height and not less than 6 inches (152 mm) nominal in depth for the upper half. Framed or glued laminated arches for roof construction that spring from the top of walls or wall abutments, framed timber trusses and other roof framing, which do not support floor loads, shall have members not less than 4 inches (102 mm) nominal in width and not less than 6 inches (152 mm) nominal in depth. Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice plates shall be not less than 3 inches (76 mm) nominal in thickness. Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.

Revise as follows:

602.4.9602.4.3 Exterior structural members. Where a horizontal separation of 20 feet (6096 mm) or more is provided, wood columns and arches conforming to heavy timber sizes complying with 2304.11 shall be permitted to be used externally.

2304.11 Heavy timber construction. Where a structure or portion thereof ~~is, or individual structural elements are~~ required to be of ~~Type IV construction heavy timber by other provisions of this code, the building elements therein shall comply with the applicable provisions of Sections 2304.11.1 through 2304.11.5~~2304.11.4, Minimum dimensions of heavy timber shall comply as applicable in Table 2304.11 based on roofs or floors supported and the configuration of each structural element, or as applicable in Sections 2304.11.2 through 2304.11.4.

2304.11.1 Columns~~Details of heavy timber structural members.~~ ~~Columns~~ Heavy timber structural members shall be ~~continuous or superimposed throughout all stories by means of reinforced concrete or metal caps detailed and constructed in accordance with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods.~~ Sections 2304.11.1.1 through 2304.11.1.3.

2304.11.1.1 Column connections~~Columns.~~ Columns. Minimum dimensions of columns shall be in accordance with Table 2304.11. Columns shall be continuous or superimposed throughout all stories and connected in an approved manner. Girders and beams at column connections shall be closely fitted around columns and adjoining ends shall be cross tied to each other, or intertied by caps or ties, to transfer horizontal loads across joints. Wood bolsters shall not be placed on tops of columns unless the columns support roof loads only. Where traditional heavy timber detailing is used, connections shall be permitted to be by means of reinforced concrete or metal caps with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods.

~~2304.11.2304.11.1.2 Floor framing. Minimum dimensions of floor framing shall be in accordance with Table 2304.11. Approved wall plate boxes or hangers shall be provided where wood beams, girders or trusses rest on masonry or concrete walls. Where intermediate beams are used to support a floor, they shall rest on top of girders, or shall be supported by ledgers or blocks securely fastened to the sides of the girders, or they shall be supported by an approved metal hanger into which the ends of the beams shall be closely fitted. Where traditional heavy timber detailing is used, these connections shall be permitted to be supported by ledgers or blocks securely fastened to the sides of the girders.~~

~~2304.11.2304.11.1.3 Roof framing. Minimum dimensions of roof framing shall be in accordance with Table 2304.11. Every roof girder and at least every alternate roof beam shall be anchored to its supporting member; and every monitor and every sawtooth construction shall be anchored to the main roof construction. Such anchors shall consist of steel or iron bolts of sufficient strength to resist vertical uplift of the roof forces as required in Chapter 16.~~

~~602.4.6.2304.11.2 Partitions and walls. Partitions and walls shall comply with Section 602.4.6.2304.11.2.1 or 602.4.6.2304.11.2.2.~~

~~602.4.6.2304.11.2.1 Exterior walls. Exterior walls shall be permitted to be of one of the following:~~

- ~~1. Noncombustible materials.~~
- ~~1. Not less than 6 inches (152 mm) in thickness and constructed of one of the following:

 - ~~1.1. Fire-retardant-treated wood in accordance with Section 2303.2 and complying with Section 602.4.1.~~
 - ~~1.1. Cross-laminated timber complying with meeting the requirements of Section 602.4.2303.1.4.~~~~

~~602.4.6.2304.11.2.2 Interior walls and partitions. No change to text.~~

~~602.4.6.2304.11.3 Floors. Floors shall be without concealed spaces. Wood floors shall be constructed in accordance with Section 602.4.6.2304.11.3.1 or 602.4.6.2304.11.3.2.~~

~~602.4.6.2304.11.3.1 Cross-laminated timber floors. Cross-laminated timber shall be not less than 4 inches (102 mm) in actual thickness. Cross-laminated timber shall be continuous from support to support and mechanically fastened to one another. Cross-laminated timber shall be permitted to be connected to walls without a shrinkage gap providing swelling or shrinking is considered in the design. Corbelling of masonry walls under the floor shall be permitted to be used.~~

~~602.4.6.2304.11.3.2 Sawn or glued-laminated plank floors. No change to text.~~

Delete without substitution:

~~2304.11.4 Floor decks. Floor decks and covering shall not extend closer than $1\frac{1}{2}$ inch (12.7 mm) to walls. Such $1\frac{1}{2}$ inch (12.7 mm) spaces shall be covered by a molding fastened to the wall either above or below the floor and arranged such that the molding will not obstruct the expansion or contraction movements of the floor. Corbelling of masonry walls under floors is permitted in place of such molding.~~

Revise as follows:

~~2304.11.52304.11.4 Roof decks. Roofs shall be without concealed spaces and roof decks shall be constructed in accordance with Section 2304.11.4.1 or 2304.11.4.2. Other types of decking shall be permitted to be used where equivalent fire resistance and structural properties are being provided. Where supported by a wall, roof decks shall be anchored to walls to resist uplift forces determined in accordance with Chapter 16. Such anchors shall consist of steel bolts, lags, screws or iron bolts approved hardware of sufficient strength to resist vertical uplift of the roof, prescribed forces.~~

~~602.4.72304.11.4.1 RoofsCross-laminated timber roofs. Roofs shall be without concealed spaces and wood roof decks shall be sawn or glued laminated, splined or tongue and groove plank, not less than 2 inches (51 mm) nominal in thickness; $1\frac{1}{2}$ inch-thick (32 mm) wood structural panel (exterior glue); planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors; or of cross-laminated timber. Other types of decking shall be permitted to be used if providing equivalent fire resistance and structural properties.~~

~~Cross-laminated timber roofs shall be not less than 3 inches (76 mm) nominal in actual thickness and shall be continuous from support to support and mechanically fastened to one another.~~

Add new text as follows:

2304.11.4.2 Sawn, wood structural panel, or glued-laminated plank roofs.

Sawn, wood structural panel, or glued-laminated plank roofs shall be one of the following:

1. Sawn or glued laminated, splined or tongue and groove plank, not less than 2 inches (51 mm) nominal in thickness;
2. $1\frac{1}{8}$ inch-thick (32 mm) wood structural panel (exterior glue);
3. Planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors.

Revise as follows:

TABLE 2304.11
WOOD MEMBER SIZE EQUIVALENCIES MINIMUM DIMENSIONS OF HEAVY TIMBER STRUCTURAL MEMBERS

		MINIMUM NOMINAL SOLID SAWN SIZE		MINIMUM GLUED-LAMINATED NET SIZE		MINIMUM STRUCTURAL COMPOSITE LUMBER NET SIZE	
		Width, inch	Depth, inch	Width, inch	Depth, inch	Width, inch	Depth, inch
<u>Supporting</u>	<u>Heavy Timber Structural Element</u>						

Floor loads only or combined floor and roof loads	Columns: Framed sawn or glued-laminated timber arches which spring from the floor line; Framed timber trusses	8	8	6 ³ / ₄	8 ¹ / ₄	7	7 ¹ / ₂
	Wood beams and girders	6	10	5	10 ¹ / ₂	5 ¹ / ₄	9 ¹ / ₂
Roof loads only	Columns (roof and ceiling loads): Lower half of: Wood-frame or glued-laminated arches which spring from the floor line or from grade	6	8	5	8 ¹ / ₄	5 ¹ / ₄	7 ¹ / ₂
	Upper half of: Wood-frame or glued-laminated arches which spring from the floor line or from grade	6	6	5	6	5 ¹ / ₄	5 ¹ / ₂
	Framed timber trusses and other roof framing; ^a Framed or glued-laminated arches that spring from the top of walls or wall abutments	4 ^b	6	3 ^b	6 ⁷ / ₈	3 ¹ / ₂ [‡]	5 ¹ / ₂

For SI: 1 inch = 25.4 mm.

^a Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice lates shall be not less than 3 inches (76 mm) nominal in thickness.

^b Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.

Reason: The cross laminated timber product standard was approved in the 2015 IBC in addition to a code change allowing this material to be utilized for the construction of 2 hour exterior walls in type IV-HT construction.

Cross Laminated Timber has been manufactured for over 30 years in Europe and has just recently caught hold on the American Continent where some major structures are under way in Canada and smaller buildings are being built in the US. In Europe buildings of 8 to 10 stories and above are regularly constructed. The following link gives examples of CLT buildings throughout the world. <http://www.rethinkwood.com/tall-wood-survey>

Because of the high level of carbon sequestration and low embodied energy, it is anticipated there will be a renewed interest in the use of type IV heavy timber as a type of construction. One bit of feedback American Wood Council received after CLT was approved in the 2015 IBC was the observation from one building department that the heavy timber and type IV provisions are confusing, sometimes redundant and spread across different sections of the building code.

This code change is an attempt to address that concern without making any change in the substance of the requirements. Currently type IV construction and heavy timber requirements are found in Sections 602.4 and 2304.11 of the IBC. The clean up and reorganization of those sections is part one of this effort. Part two is the identification and update of many references to type IV construction and heavy timber found throughout the code.

In order to pare down Section 602.4, only the provisions specific to type IV construction remain along with a list of the types of materials found in heavy timber and the reference to the requirements for those materials in Section 2304.11. Requirements specific to type IV remain in 602.4.

Section 2304.11 can best be described as "all things heavy timber". Heavy timber structural elements have long been referenced throughout other parts of the code where a specific heavy timber structural element is detailed for use incorporated in another type of construction. The most general example of this is table 601 footnote c allowing the use of heavy timber roof construction in place of one hour fire resistance rated roof construction in types IB, II, IIIA, and VA construction. The design professional may detail heavy timber as the roof structure and assembly for these different types of construction and they are treated as building elements but the type of construction for the overall structure does not change from the type IB, II, IIIA, or VA.

Heavy timber requirements removed from Section 602.4 are combined and organized with the existing content of Section 2304. Table 602.4 is moved and renamed Table 2304.11. It is updated with information placing a description of the elements that are applicable for a given size timber element based on whether the element supports roof loads and floor loads or only roof loads. Specific footnotes about the size and protection of spaced truss elements and the reduction of roof beam width for sprinklers are noted where applicable.

The non-size related detailing provisions for framing members and connections (columns, floor framing and roof framing) are coalesced into Sections 2304.11.1.1, 2304.11.1.2 and 2304.11.1.3. All of the information in table 2304.11 and the following sections are organized so that the most pertinent information for most designs is found first.

Finally, some of the detailing provisions for traditional heavy timber are identified as such and relocated later in each section while some other information that is archaic and better replaced by reference is removed. A good example of this is the removal of the requirement for the anchorage of "every monitor and every sawtooth construction" to the main roof construction in Section 2304.11.3. New Section 2304.11.1.3 requires roof girders and alternate roof beams to be anchored to their supports as required by Chapter 16. Finally, Sections 2304.11.2 through 2304.11.4 contain pertinent thickness and detailing requirements for walls, roof and floor deck construction.

The following table gives a more detailed description of where specific requirements are moved.

Since this change is intended not to create any new requirements or delete pertinent content, there are other code changes which contain specific code changes to this information. It is intended this code change will serve as a template for the relocation of those other specific changes through the correlation process should other specific changes be approved.

Part 2 of this effort follows with the change to specific code references to: Section 602.4, type IV construction, heavy timber and Section 2304.11.

The following link provides access to additional information regarding this or other code changes proposed by American Wood Council.

<http://www.awc.org/Code-Officials/2015-IBC-Code-Changes/>

Section in 2015 IBC	Location in proposed change	Comments
602.4 Type IV	602.4 (same location)	modified to direct users to new section on heavy timber details; retains essentials for Type IV construction
Table 602.4	Table 2304.11	additional content is added describing the thickness of structural elements based on loading and configuration from 602.4.3 through 602.4.5
602.4.1 Fire-retardant treated wood in exterior walls, and 602.4.2 Cross-laminated timber in exterior walls	602.4.1 and 602.4.2 (same location)	thickness of wall assembly added from 602.4.8.2 item 2.
602.4.3 Columns	2304.11, Table 2304.11, and Section 2304.11.1.1	requirements combined with existing 2304.11.1 Columns; dimensions in new Table 2304.11.1
602.4.4 Floor framing	2304.11, Table 2304.11	
602.4.5 Roof framing	2304.11, Table 2304.11	
602.4.6 Floors	2304.11.3	
602.4.6.1 Sawn or glued-laminated plank floors	2304.11.3.2	the end of proposed Section 2304.11.3.2 comes from current 2304.11.2
602.4.6.2 Cross-laminated timber floors	2304.11.3.1	
602.4.7 Roofs	2304.11.4 and subsections 2304.11.4.1 and 2304.11.4.2	the current provisions of current section 2304.11.5 are folded into these sections
602.4.8 Partitions and walls and subsections 602.4.8.1 Interior walls and partitions and 602.4.8.2 Exterior walls	602. for exterior wall thickness in type IV; heavy timber in 2304.11.2 2304.11.2.1 and 2304.11.2.2	kept essentials for a Type IV building in 602.4; essentials for heavy timber in proposed section 2304.11.2
602.4.9 Exterior structural members	602.4.3	Unchanged but references proposed heavy timber section
2304.11 Heavy timber construction	2304.11 (same location)	Modified to become charging language for all heavy timber, not just Type IV construction; adds

2304.11.1 Columns	2304.11.1.1	changing language for proposed Table 2304.11 new section 2304.11.1.1 combines current sections 2304.11.1 and 2304.11.1.1; updates text to be more design focused; retains traditional details
2304.11.1.1 Column connections	2304.11.1.1	incorporated in 2304.11.1
2304.11.2 Floor framing	2304.11.1.2	modifies text to make lesser-used methods a permitted option
2304.11.3 Roof framing	2304.11.1.3	modifies text to refer to design for all forces, not just uplift, archaic language deleted
2304.11.4 Floor decks	2304.11.3.2	current text appears at the end of the proposed section with hardware choices updated; this section incorporates requirements for floors moved from Chapter 6
2304.11.5 Roof decks	2304.11.4	current text appears at end of proposed section, and updates language to reflect current methods and to include consideration of all forces

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

G 179-15 : 602.4-RICHARDSONS194

Final Action: AS (Approved as Submitted)

G 179-15

Committee Action:

Approved as Submitted

Committee Reason: The proposal provides necessary consolidation and eliminates duplicative text between Chapters 6 and 23. The revised table is sorely needed to make help the users of the code. Moving the table to Chapter 23 is totally appropriate. The was comfort that with a detailed comparision this is a good clean up with no technical changes. As with any major revision, there remained concerns that all pieces have been maintained and there might be some unintended consequences. The new organization provides better logic for the requirements.

Assembly Action :

None

F7475

201

Date Submitted	11/28/2018	Section	324	Proponent	John Hall
Chapter	3	Affects HVHZ	No	Attachments	Yes
TAC Recommendation	Withdrawn				
Commission Action	Pending Review				

Comments

General Comments	No	Alternate Language	No
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Related Modifications

No related modifications have been identified as necessary.

Summary of Modification

The modification provides for roof access pathways and location and spacing dimensions for rooftop mounted solar PV systems. First responder safety is paramount. This provides safe access and egress during fire fighting operations.

Rationale

This modification provides for access pathways on roofs where photovoltaic panels are installed. This provides a safe path on the roof for firefighters to perform ventilation operations. This modification provides the same measure of safety for first responders to residential fires as for non-residential fires.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

There will be no cost impact relative to enforcement of the code due to this proposed modification. The inspection activity will be performed during already required inspections that are regularly scheduled.

Impact to building and property owners relative to cost of compliance with code

There will be no cost impact to building and property owners for compliance. The modifications addresses only the location and spacing of the solar equipment placed on the roof.

Impact to industry relative to the cost of compliance with code

There will be no cost impact to industry for compliance. The modification addresses only to one- and two-family dwellings and townhouses.

Impact to small business relative to the cost of compliance with code

There is no impact to small business. The provisions are limited to one- and two-family dwellings and townhouses.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The proposed modification has a reasonable and substantial connection with the health, safety, and welfare of the general public through provision of safe access paths for firefighters during fire fighting operations.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The proposed modification improves the code by making provision for safe access paths for firefighters during fire fighting operations.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The proposed modification does not discriminate against any materials, products, methods, or systems of construction as none are specified. The modification simply provides safe access paths for firefighters during firefighting operations.

Does not degrade the effectiveness of the code

The proposed modification does not degrade the effectiveness of the code. The implementation of the code is enhanced through the provision of safe access paths for firefighters during firefighting operations.

SECTION 324**SOLAR ENERGY SYSTEMS**

R324.1 General. Solar energy systems shall comply with the provisions of this section.

R324.2 Solar thermal systems. Solar thermal systems shall be designed and installed in accordance with Chapter 23 and the *Florida Fire Prevention Code*.

R324.3 Photovoltaic systems. Photovoltaic systems shall be designed and installed in accordance with Sections R324.3.1 through R324.7.1, NFPA 70 and the manufacturer's installation instructions.

R324.3.1 Equipment listings. Photovoltaic panels and modules shall be listed and labeled in accordance with UL 1703. Inverters shall be *listed* and *labeled* in accordance with UL 1741. Systems connected to the utility grid shall use inverters *listed* for utility interaction.

R324.4 Rooftop-mounted photovoltaic systems. Rooftop-mounted *photovoltaic panel systems* installed on or above the roof covering shall be designed and installed in accordance with this section.

R324.4.1 Structural requirements. Rooftop-mounted *photovoltaic panel systems* shall be designed to structurally support the system and withstand applicable gravity loads in accordance with Chapter 3. The roof on which these systems are installed shall be designed and constructed to support loads imposed by such systems in accordance with Chapter 8.

R324.5 Building-integrated photovoltaic systems. Building-integrated photovoltaic systems that serve as roof coverings shall be designed and installed in accordance with Section R905.

R324.5.1 Photovoltaic shingles. Photovoltaic shingles shall comply with Section R905.16.

R324.5.2 Fire Classification. *Building-integrated photovoltaic systems* shall have a fire classification in accordance with Section R902.3.

~~**R324.6 Ground-mounted photovoltaic systems.**~~

~~Ground-mounted photovoltaic systems shall be designed and installed in accordance with Section R301.~~

~~**R324.6.1 Fire separation distances.**~~

~~Ground-mounted photovoltaic systems shall be subject to the *fire separation distance* requirements determined by the local *jurisdiction*.~~

(Section R324.6 relocated and renumbered to R324.7)

R324.6 Roof access and pathways. Roof access, pathways and setback requirements shall be provided in accordance with Sections 324.6.1 through R324.6.2.1. Access and minimum spacing shall be required to provide emergency access to the roof, to provide pathways to specific areas of the roof, provide for smoke ventilation opportunity areas, and to provide emergency egress from the roof.

Exceptions:

1. Detached, non-habitable structures, including but not limited to detached garages, parking shade structures, carports, solar trellises and similar structures, shall not be required to provide roof access.
2. Roof access. Pathways and setbacks need not be provided where the code official has determined that rooftop operations will not be employed.

R324.6.1 Pathways. Not fewer than two pathways, on separate roof planes from lowest roof edge to ridge and not less than 36 inches (914 mm) wide, shall be provided on all buildings. Not fewer than one pathway shall be provided on the street or driveway side of the roof. For each roof plane with a photovoltaic array, a pathway not less than 36 inches wide (914 mm) shall be provided from the lowest roof edge to ridge on the same roof plane as the photovoltaic array, on an adjacent roof plane, or straddling the same and adjacent roof planes. Pathways shall be over areas capable of supporting fire fighters accessing the roof. Pathways shall be located in areas with minimal obstructions such as vent pipes, conduit, or mechanical equipment.

R324.6.2 Setback at ridge. For photovoltaic arrays occupying not more than 33 percent of the plan view total roof area, not less than an 18-inch (457 mm) clear setback is required on both sides of a horizontal ridge. For photovoltaic arrays occupying more than 33 percent of the plan view total roof area, not less than a 36-inch (914 mm) clear setback is required on both sides of a horizontal ridge.

R324.6.2.1 Alternative setback at ridge. Where an automatic sprinkler system is installed within the dwelling in accordance with NFPA 13D or Section P2904, setbacks at ridges shall comply with one of the following:

1. For photovoltaic arrays occupying not more than 66 percent of the plan view total roof area, not less than an 18-inch (457 mm) clear setback is required on both sides of a horizontal ridge.
2. For photovoltaic arrays occupying more than 66 percent of the plan view total roof area, not less than a 36-inch (914 mm) clear setback is required on both sides of a horizontal ridge.

R324.6.2.2 Emergency escape and rescue opening. Panels and modules installed on dwellings shall not be placed on the portion of a roof that is below an emergency escape and rescue opening. A pathway not less than 36 inches (914 mm) wide shall be provided to the emergency escape and rescue opening.

R324.7 Ground-mounted photovoltaic systems. Ground-mounted photovoltaic systems shall be designed and installed in accordance with Section R301.

R324.7.1 Fire separation distances. Ground-mounted photovoltaic systems shall be subject to the *fire separation distance* requirements determined by the *local jurisdiction*.

Date Submitted 12/3/2018	Section 308.4.2	Proponent Scott McAdam
Chapter 3	Affects HVHZ No	Attachments No
TAC Recommendation Withdrawn		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

RB79-16

Summary of Modification

clarification of R308.4.2 glazing adjacent to a door, addresses glazing not in plane with the door

Rationale

The current language creates the potential of creating a condition where safety glazing is required if the requirements are read literally. The way that the section is written, it only applies to glass that is within the same plane as the door and perpendicular to plane of the door. If it is anything other than those two locations, it is unclear what is required. For example if the glazing is in a wall that is 45° from the face of the door, neither requirement would apply. This proposal attempts to clear up this confusion. It changes the perpendicular wall to any wall not in the same plane as the door. Therefore, the example discussed above would require that it comply with item #2.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

no impact, clarification

Impact to building and property owners relative to cost of compliance with code

Will not increase the cost of construction

This proposal is a clarification and therefore would not change the cost of construction.

Impact to industry relative to the cost of compliance with code

no impact, clarification

Impact to small business relative to the cost of compliance with code

no impact, clarification

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

clarification of requirement

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

clarification of requirement

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

clarification of requirement

Does not degrade the effectiveness of the code

clarification of requirement

R308.4.2 Glazing adjacent to doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:

1. Where the glazing is within 24 inches(610mm) of either side of the door in the plane of the door in a closed position.
2. Where the glazing is on a wall ~~perpendicular to~~ not in the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

Exceptions:

1. Decorative glazing.
2. Where there is an intervening wall or other permanent barrier between the door and the glazing.
3. Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3.
4. Glazing that is adjacent to the fixed panel of patio doors.

Date Submitted	12/10/2018	Section	302.4.2	Proponent	Joseph Belcher for FHBA
Chapter	3	Affects HVHZ	Yes	Attachments	No
TAC Recommendation	Withdrawn				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language** No

Related Modifications**Summary of Modification**

Adds provisions for listed methods of penetrating a ceiling membrane with luminaries.

Rationale

The proposal adds an additional exception which recognizes the listings of recessed incandescent and fluorescent can lights, or enclosure materials which protect recessed can lights or troffer light fixtures, which have been tested as a ceiling membrane penetration of fire-resistance-rated horizontal assemblies. There are currently twenty-six UL listed can lights which incorporate integral fire protection evaluated for use in fire-resistance-rated horizontal assemblies. Similarly, there are eleven UL listed enclosure materials which have been evaluated for their ability to protect penetrations in ceiling membranes by non-fire rated can lights or troffer light fixtures. (ICC RB54-16)

Fiscal Impact Statement**Impact to local entity relative to enforcement of code**

No impact on enforcement of the code. The change adds accepted methods for maintaining the fire-resistance-rating at penetrations of ceiling membranes.

Impact to building and property owners relative to cost of compliance with code

No impact on property owners. Provides an accepted method for maintaining fire-resistance rating at penetrations of horizontal membranes. May result in savings passed on by the builder.

Impact to industry relative to the cost of compliance with code

May reduce costs. UF cites reduction of \$2,000. Eval. of the Cost Impact of 2018 ICC Prescriptive Code Changes, Rinker-CR-2018-103, Final Report 1 June 2018, Rinker School, University of Florida
http://www.floridabuilding.org/fbc/publications/Research_2017-2018/UF/FinalReportCodeCostImpactDraft.pdf

Impact to small business relative to the cost of compliance with code

May reduce costs. UF cites reduction of \$2,000. Eval. of the Cost Impact of 2018 ICC Prescriptive Code Changes, Rinker-CR-2018-103, Final Report 1 June 2018, Rinker School, University of Florida
http://www.floridabuilding.org/fbc/publications/Research_2017-2018/UF/FinalReportCodeCostImpactDraft.pdf

Requirements**Has a reasonable and substantial connection with the health, safety, and welfare of the general public**

The change impacts public health and safety by recognizing a tested and accepted method of maintaining the fire-resistance-rating of ceiling membrane penetrations.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change improves the code by recognizing a tested and accepted method of maintaining the fire-resistance-rating of ceiling membrane penetrations.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change upgrades the effectiveness of the code.

R302.4.2 Membrane penetrations. Membrane penetrations shall comply with Section R302.4.1. Where walls are required to have a fire-resistance rating, recessed fixtures shall be installed so that the required fire-resistance rating will not be reduced.

Exceptions:

1. Membrane penetrations of not more than 2-hour fire-resistance-rated walls and partitions by steel electrical boxes that do not exceed 16 square inches (0.0103 m²) in area provided that the aggregate area of the openings through the membrane does not exceed 100 square inches (0.0645 m²) in any 100 square feet (9.29 m²) of wall area. **The annular space between the wall membrane and the box shall not exceed 1/ inch (3.1 mm). Such boxes on opposite sides of the wall shall be separated by one of the following:**
 - By a horizontal distance of not less than 24 inches (610 mm) where the wall or partition is constructed with individual noncommunicating stud cavities.
 - By a horizontal distance of not less than the depth of the wall cavity where the wall cavity is filled with cellulose loose-fill, rock wool or slag mineral wool insulation.
 - By solid fireblocking in accordance with Section R302.11.
 - By protecting both boxes with *listed* putty pads.
 - By other *listed* materials and methods.
2. Membrane penetrations by *listed* electrical boxes of any materials provided that the boxes have been tested for use in fire-resistance-rated assemblies and are installed in accordance with the instructions included in the *listing*. The annular space between the wall membrane and the box shall not exceed 1 / inch (3.1 mm) unless *listed* otherwise. Such boxes on opposite sides of the wall shall be separated by one of the following:
 - By the horizontal distance specified in the *listing* of the electrical boxes.
 - By solid fireblocking in accordance with Section R302.11.
 - By protecting both boxes with *listed* putty pads.
 - By other *listed* materials and methods.

The annular space created by the penetration of a fire sprinkler provided that it is covered by a metal escutcheon plate.
4. Ceiling membrane penetrations by listed luminaires or by luminaires protected with listed materials, that have been tested for use in fire-resistance-rated assemblies and are installed in accordance with the instructions included in the listing.

Date Submitted 12/10/2018	Section 308.4.2	Proponent Joseph Belcher for FHBA
Chapter 3	Affects HVHZ Yes	Attachments No
TAC Recommendation Withdrawn		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Changes "perpendicular" to "not in" when referring to glazing adjacent to doors.

Rationale

The current language is confusing and has the potential of creating a condition where the requirement for safety glazing may be missed by reading the requirements literally. The way that the section is written, it only applies to glazing that is within the same plane as the door or perpendicular to the plane of the door. If it is anything other than those two locations, it is unclear what is required. For example, if the glazing is in a wall that is 45° from the face of the door, neither requirement would apply. This proposal attempts to clear up this confusion and increase safety. It changes the perpendicular wall to any wall not in the same plane as the door and retains the within 24 inches criteria. Therefore, the example discussed above would require that it comply with item #2 if the glazing is within 24 inches of the hinge side of an in-swinging door even though the wall is not perpendicular to the plane of the door.

Fiscal Impact Statement

- Impact to local entity relative to enforcement of code**
The change simplifies the provision and should make enforcement easier because all parties will have a clear understanding of what is required.
- Impact to building and property owners relative to cost of compliance with code**
No impact on property owners.
- Impact to industry relative to the cost of compliance with code**
No impact.
- Impact to small business relative to the cost of compliance with code**
No impact.

Requirements

- Has a reasonable and substantial connection with the health, safety, and welfare of the general public**
The change impacts public health and safety simplifying a confusing provision of the code resulting in a greater likelihood of safe installations
- Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction**
The change improves the code by eliminating confusion which may lead to an unsafe condition.
- Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities**
The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.
- Does not degrade the effectiveness of the code**
The proposed change upgrades the effectiveness of the code.

R308.4.2 Glazing adjacent to doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:

1. Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position.
2. Where the glazing is on a wall perpendicular to not in the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

Exceptions:

1. Decorative glazing.
2. Where there is an intervening wall or other permanent barriers between the door and the glazing.
3. Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with Section R308.4.3.
4. Glazing that is adjacent to the fixed panel of patio doors.

Date Submitted 12/10/2018	Section 311.7.3	Proponent Joseph Belcher for FHBA
Chapter 3	Affects HVHZ Yes	Attachments No
TAC Recommendation Withdrawn		
Commission Action Pending Review		

Comments

General Comments No	Alternate Language No
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Related Modifications

Summary of Modification

Increases allowable vertical rise of stairs to 151 inches.

Rationale

(Note: Reason is as provided by ICC proponent. Proponent’s request for rise of 150 inches was increased to 151 inches by the Code Action Committee. JDB)

Many custom and larger tract homes desire a 10 foot ceiling height and use 24 inch floor trusses. With actual wall framing height of approximately 10 foot 1 inch, using nominal dimensioned lumber, and a sub floor thickness of 1-2 inches. This does not allow for any variation in thickness for premium floor finishes, nor construction tolerances, which could put the stairs out of compliance and require a landing. By giving some additional tolerance in the dimension the construction will have the same look and feel without creating an inconvenience to the home builder.

The 2015 IRC modified this from the previous 144 inches (3658 mm) to allow 147 inches (3734 mm); under code proposal RB132-13. This proposal would allow more flexibility and tolerance, without an increase in hazard. The increased floor to floor height would require 20 risers to not exceed the 7-3/4 inch maximum riser height. But the additional riser would reduce the riser height to 7- 1/2 inches, thus reducing the overall slope of the stair run.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact.

Impact to building and property owners relative to cost of compliance with code

No fiscal impact on property owners. Will allow greater flexibility in design.

Impact to industry relative to the cost of compliance with code

Increases flexibility for design and construction with no fiscal impact.

Impact to small business relative to the cost of compliance with code

Increases flexibility for design and construction with no fiscal impact.

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

The change impacts public health and safety by allowing greater flexibility in the design and construction of stairs with no reduction in safety.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

The change improves the code by allowing greater flexibility in the design and construction of stairs with no reduction in safety.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

The change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

The proposed change upgrades the effectiveness of the code.

R311.7.3 Vertical rise. A flight of stairs shall not have a vertical rise larger than ~~447~~151 inches (~~3734~~3835 mm) between floor levels or landings.