INITIAL STATEMENT OF REASONS
FOR PROPOSED BUILDING STANDARDS
OF THE STATE FIRE MARSHAL
REGARDING THE 2022 CALIFORNIA BUILDING CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2

(SFM 04/21)

The Administrative Procedure Act (APA) requires that an Initial Statement of Reasons be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

STATEMENT OF SPECIFIC PURPOSE, PROBLEM, RATIONALE and BENEFITS

Government Code Section 11346.2(b)(1) requires a statement of specific purpose of each adoption, amendment, or repeal and the problem the agency intends to address and the rationale for the determination by the agency that each adoption, amendment, or repeal is reasonably necessary to carry out the purpose and address the problem for which it is proposed. The statement shall enumerate the benefits anticipated from the regulatory action, including the benefits or goals provided in the authorizing statute.

CHAPTER 1
ADMINISTRATION
DIVISION I
CALIFORNIA ADMINISTRATION

Item 1-1
Chapter 1, SCOPE AND ADMINISTRATION, DIVISION I, CALIFORNIA ADMINISTRATION, Section 1.1 through 1.1.12 GENERAL

The SFM is proposing to maintain the adoption of those existing California provisions contained Sections 1.1 through 1.1.12 with modification as shown above.

Item 1-2
Chapter 1, SCOPE AND ADMINISTRATION, DIVISION I, CALIFORNIA ADMINISTRATION, Section 1.1.1 Title

The SFM is proposing to repeal the adoption by reference of the 2018 International Building Code and incorporate and adopt by reference in its place the 2021 International Building Code for application and effectiveness in the 2022 California Building Code.

Item 1-3
Chapter 1, Scope and Administration, Division I, California Administration, Section 1.11 through 1.11.11 Office of the State Fire Marshal

The SFM is proposing to carry forward existing California provisions contained in Sections 1.11 through 1.11.11 with amendments as shown below.

Item 1-4
Chapter 1, Scope and Administration, Division I, California Administration, Section 1.11.1 Office of the State Fire Marshal

The State Fire Marshal is required as per passed in Senate Bill 85. Public resources: omnibus trailer bill. (2019-2020) to provide clarifying language regarding Specified State Occupied Occupancies. The regulations adopted by the State Fire Marshal will meet the intent of Health and Safety Code Sections 13208 and 13146.

Problem being addressed: With the passage of Senate Bill 85. Public resources: omnibus trailer bill. (2019-2020), the Office of the State Fire Marshal is required to provide clarifying language regarding Specified State Occupied Occupancies.

Anticipated benefits from this regulatory action: This regulatory proposal benefits California and stakeholders by clarifying and updating the safety requirements for Specified State Occupied Occupancies.

Factual Basis/Rationale: The Office of the State Fire Marshal is required to clarify and define Specified State Occupied Occupancies as per Senate Bill 85. Public resources: omnibus trailer bill. (2019-2020).

Item 1-5
Chapter 1, Scope and Administration, Division I, California Administration, Section 1.11.4.4 Fire Clearance Preinspection

Section 1.11.4.4 and 1.11.4.5 are updated to meet the Health & Safety Code Section 13244. The statute has changed the fees that are charged for inspections. These changes were made in other parts of Title 24, but Part 2 was missed. This will correlate with the other parts of Title 24.

Item 1-6
Chapter 1, Scope and Administration, Division I, California Administration, Section 1.11.4.5 Care Facilities

Section 1.11.4.4 and 1.11.4.5 are updated to meet the Health & Safety Code Section 13244. The statute has changed the fees that are charged for inspections. These changes were made in other parts of Title 24, but Part 2 was missed. This will correlate with the other parts of Title 24.

Item 1-7
Chapter 1, Scope and Administration, Division I, California Administration, Section 1.11.6 Certificate of Occupancy

The SFM is proposing to correlate the requirements for certificate of occupancy with the regulations in the California Building Code. This is an existing amendment that has not

been maintained and overlooked in the California Fire Code for several editions. The California Building Code is the appropriate part of the California Building Standards Code for the issuance of a certificate of occupancy from the authority having jurisdiction.

Item 1-8
Chapter 1, Scope and Administration, Division I, California Administration, Section 1.11.11 Adopting Agency Identification

The proposal is an editorial correction to the referenced Section number in the California Building Code.

CHAPTER 1
ADMINISTRATION
DIVISION II

ADMINISTRATION

Item 1-9
Chapter 1, Administration, Division II, Administration

[The SFM proposes to only adopt Sections 105.2.1, 105.3 – 105.3.1, 105.4, 105.6 – 105.7, 106.1– 106.3, 107.1 – 107.3, 107.4, 108.1 – 108.3, 110.1 – 110.3, 110.3.4 – 110.3.7, 110.3.9 – 110.3.11, 110.4 – 110.6, 111.1– 111.4, 112, 114.1 – 114.2, 115 and 116 contained in the 2021 IBC Chapter 1.]

Item 1-10
Chapter 1, Administration, Division II, Administration

The SFM is proposing to modify section 105.2 based on proposed changes in Chapter 7A, Section 710A for accessory building and structures.

Without the addition of this language, Exception #1 to the “Building” portion of Section 105.2 basically instructs the code user to ignore the code altogether for these structures, despite the fact that the construction is within the scope and application of portions of Chapter 7A (namely Section 710A ACCESSORY STRUCTURES). The goal of this change is to correlate this section with Chapter 7A and instruct the code user to consult Section 710A, regardless of whether or not a permit is required. The language being added does not impose any regulatory provisions nor any requirement for a permit; rather it is informational for the benefit of the code user only.

Item 1-11
Chapter 1, Administration, Division II, Administration, Section 110.3.12 Type IV-A, IV-B, and IV-C connection protection inspection

[The SFM is proposing to repeal and replace with model code language.]

Rationale:
The International Code Council (ICC) Ad Hoc Tall Wood Building workgroup (TWB) determined that the proper construction of the fire resistance rating of mass timber structural elements was important enough, as demonstrated in a series of TWB proposals including this one, to warrant a specific requirement to inspect mass timber connections. The proposal complements the other code change submissions (e.g. Chapters, 7 “Fire and Smoke Protection Features", 17 “Special Inspections and Tests", and 23 "Wood"), and recognizes that building officials have the ability to inspect the protection of connections as part of the normal permit inspection process (e.g. footing and foundations, slabs, framing, etc.). The TWB, following input by code officials, did not feel this provision warranted being incorporated into Chapter 17 "Special Inspections and Tests" as this field inspection process did not require any special expertise for inspection nor tools for testing that were outside the capabilities of building officials today. However, the TWB did believe that some form of inspection should take place since the connections of the structural members, and their protection to achieve a fire resistance rating, represent a significant component to the entire design of mass timber buildings.

Background information: The ICC Board approved the establishment of an ad hoc committee for tall wood buildings in December of 2015. The purpose of the ad hoc committee is to explore the science of tall wood buildings and to investigate the feasibility and take action on developing code changes for tall wood buildings. The committee is comprised of a balance of stakeholders with additional opportunities for interested parties to participate in the four Work Groups established by the ad hoc committee, namely: Code; Fire; Standards/Definitions; and Structural. For more information, be sure to visit the ICC website iccsafe.org/codes-tech-support/cs/icc-ad-hoc-committee-on-tall-wood buildings (link active and up to date as of 12/27/17). As seen in the “Meeting Minutes and Documents” and “Resource Documents” sections of the committee web page, the ad hoc committee reviewed a substantial amount of information in order to provide technical justification for code proposals.

The TWB believes the package of code change proposal will result in regulations that adequately address the fire and life safety issues of tall mass timber buildings.

California Governor Edmund G. Brown issued Executive Order B-52-18 on May 10, 2018 that became effective immediately. Among other directives, order number 13 charged the State Fire Marshal, the department of Housing and Community Development, the Division of the State Architect, the California Building Standards Commission and the Statewide Health Planning and Development to review the approved Tall Wood Building Proposals of the International Code Council's Ad Hoc Committee on Tall Wood Buildings and shall consider proposing its adoption into the California Building Standards Code in the subsequent intervening code cycle.

To review the Executive Order B-52-18, please visit:
ca.gov/archive/gov39/wp-content/uploads/2018/05/5.10.18-Forest-EO.pdf

The State Fire Marshal initiated a workgroup to evaluate, discuss and make recommendations on the approved ICC Tall Wood Building proposals for adoption to the

2019 Title 24 intervening rulemaking cycle. Invitations were sent out to state agencies, stakeholders, fire service, building officials, interested parties and various industry organizations. The first meeting was held on April 2, 20019 at the State Fire Marshal headquarters at 2251 Harvard Street, Sacramento, CA 95815 from 0900 – 1500. There was a conference line and Skype computer meeting set up to accommodate widespread participation. The workgroup's last meeting was held on August 16, 2019, at which time all comments, presentations from industry, concerns and recommendations to the State Fire Marshal were finalized.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. The tall wood provisions will have no additional impact because the proposal is simply to repeal and replace previously adopted state amendments with model code language. Since all the code proposals related to Mass Timber products are to address new types of building construction, in theory this will not increase the cost of construction, but rather provides design options not currently provided for in the code. The committee took great care to not change the requirements of the pre-existing construction types, and our changes do not increase the cost of construction using those pre-existing construction types. (ADM35-19)

CHAPTER 2
DEFINITIONS

Item 2-1
Chapter 2, Definitions

The SFM proposes to adopt Chapter 2 and carry forward existing amendments.

Item 2-2
Chapter 2, Section 202 General Definitions, Capacitor Energy Storage System

The SFM proposes to adopt model code language for Capacitor Energy Storage System.

The SFM proposes to adopt model code language for Capacitor Energy Storage System. This was mistakenly deleted in the 2019 intervening code cycle. It is part of the Energy Storage System Chapter 12 re-write.

Item 2-3
Chapter 2, Section 202 General Definitions, Child Care

The SFM is proposing a definition for Child Care.

Current regulation as it is printed in California Code of Regulations (CCR) Title 22. The Department of Social Services (DSS) has for approximately 10 years been transitioning from the term "Day Care" to "Child Care". The profession of child care has evolved into a more inclusive type of care that can include early learning and child development. The

caring aspect of the facilities are more emphasized. The State Fire Marshal work group is including the definition to be more consistent between regulations.

CCR 22 Section 101152 c (7) “Child Care Center” or “Day Care Center” (or “center”) means any child care facility of any capacity, other than a family child care home as defined in Section 102352f. (1), in which less than 24-hour per day non-medical care and supervision are provided to children in a group setting. The term “Child Care Center” supersedes the term “Day Care Center” as used in previous regulations.
Here is the link: Title 22 regulations

Item 2-4
Chapter 2, Section 202 General Definitions, Day-Care

The SFM proposes to amend the definition of Day-Care.

The SFM proposes to amend the definition of Day-Care. The occupancy of day-care is for a limited time during any day. The code is clear that is can be any time of the day, it was not described it the definition. This is an editorial change, to have consistency with the Social Service regulations in Title 22 and the current regulations.

Item 2-5
Chapter 2, Section 202 General Definitions, Energy Storage System, Electrochemical

The SFM proposes to repeal California amendments and replace with model code language.

Item 2-6
Chapter 2, Section 202 General Definitions, Inflatable Amusement Device

The SFM proposes a new definition.

This proposal introduces basic safety requirements for inflatable amusement devices also known as “bounce houses”. There have been numerous reported incidents of accidents and injuries involving these devices caused by weather events such as sustained or wind gusts and/or improper set-up, anchorage or use where the “bounce house” is uplifted, carried away and/or overturned with children or adults inside. A proposal to regulate these devices was presented in the last cycle but there was concern regarding the difference between outdoors and indoors and permits. At the time ASTM F2374 was not written in a way that it could be referenced but that has changed now, and it is in good shape (including all mandatory language). No discussion of either location or permits is included in this proposal. This proposal is much more compact than the earlier one. Chapter scoping section is modified to reference proposed new section. This new section simply

adds basic fire and electrical safety requirements for the construction, placement, and operation of portable inflatable amusement devices. The section addresses safety requirements for both outdoor and indoor use of these devices. The electrical safety section simply refers to an existing code section. A definition for inflatable amusement devices is also included to correlate the type of devices covered by these new CFC code requirements. The information regarding a certificate and affidavit refers to the existing sections for tents.

Cost Impact: The code change proposal will increase the cost of construction. This will increase the cost of construction (compliance) because products that are unregulated will now require to undergo some fire testing.

Item 2-7
Chapter 2, Section 202 General Definitions, Large-Scale Fire Testing

The SFM proposes a new definition.

The definition of what large-scale testing means is a growing problem for the installation of Energy Storage Systems. An explosion in 2019 in Arizona resulted in a significant event, a deflagration and firefighters seriously injured. The Energy Storage System (ESS) compliance world have correctly pointed out that the installation would not have complied with either 2018 fire codes, even more so NFPA 855 and the 2021 IFC. We used the 2018 fire codes and NFPA 855 as benchmarks on safety.

UL 9540A was developed to ensure there was a standard method to conduct the required large-scale fire test, not to create a concept similar to UL 1973 that provides an out.

Many of us were of the opinion that if a system is installed in accordance with the 2018 fire codes or NFPA 855 a reasonable level of safety has been provided and we have addressed what happened in Arizona. However inadequate large-scale fire test reports are being applied where there wasn't a large-scale fire when the cells are capable of thermal runaway, that reasonable level of safety is not occurring and the language and intent of the fire codes and NFPA 855 are not being complied with. We are still installing potential Arizona hazards.

The definition in NFPA 855 is clear. The proposed language brings the definition from NFPA 855 into the Fire Code for the clear intent of the meaning used within the code regulations for Chapter 12 for ESS.

Cost Impact: There will be no increase or decrease in cost, as the regulations are existing in code.

Item 2-7.1
Chapter 2, Section 202 General Definitions, Mass Timber

[The SFM proposes to repeal and replace with model code language.]

Rationale:
The SFM proposes to repeal and replace the amendment of the definition of Mass Timber that was previously adopted and replace with model code language. Over the previous adoption cycle, the term “mass timber” has been proposed to represent both the legacy heavy timber (a.k.a. Type IV construction) and the three (3) new construction types that are proposed for Chapter 6 of the IBC. The purpose of creating this term and definition was to establish a single term which represented the various sawn and engineered timber products that are referenced in IBC Chapter 23 (Wood) and in PRG-320 “Standard for Performance-rated Cross-laminated Timber.”

Item 2-7.2
Chapter 2, Section 202 General Definitions, Mechanical Access Enclosed Parking Garage

[The SFM proposes to repeal and replace with model code language.]

Rationale:
The SFM proposes to repeal and replace the amendment of the definition of Mechanical Access Enclosed Parking Garage that was previously adopted and replace with model code language. Over the previous adoption cycle, the term correlates with the NFPA 88A Standard for Parking Structures document and include all automatic parking systems. Open mechanical-access parking garages are defined in the codes, but do not pose the firefighting challenge as an enclosed mechanical access parking garage. An open parking garage has floors, stairwells, standpipe connections and natural ventilation. An enclosed garage is in a box, no stairwells or floors or standpipes for elevated firefighting, and no ventilation to remove the products of combustion, heat and superheated gases.

Item 2-8
Chapter 2, Section 202 General Definitions, Photovoltaic (PV) Panel System, Ground-Mounted

The SFM proposes a new definition. Ground-mounted photovoltaic panel systems are referenced in the 2021 I-codes, in IBC Sections 1607.4.4 and 3111.3.5; in IRC Section R324.7; and in IFC Section 1205.5.

Item 2-9
Chapter 2, Section 202 General Definitions, Photovoltaic (PV) Support Structure Elevated

The SFM proposes a new definition. Most PV panels in the marketplace have been fire tested and assigned a “type rating” in accordance with UL 1703. However, some PV panels might not have that fire testing, and could be marked “not fire rated.” This proposal clarifies that PV panels marked “not fire rated” cannot be used on

elevated/overhead PV structures that could have people or cars beneath them, with or without a full roof assembly. Where elevated PV structures have PV panels mounted over open-grid framing with no roof deck or sheathing cannot achieve a “fire classification” because there is no combustible roof covering to ignite in a UL 2703 spread-of-flame or burning brand test. Therefore, it is sufficient protection to install only type-rated modules. The same is true when PV panels are installed directly over noncombustible metal sheathing without a stand-off mounting system. Where elevated PV structures have a roof assembly and PV panels are rooftop mounted over that roof assembly, then those structures.

Item 2-9.1
Chapter 2, Section 202 General Definitions, Puzzle Room

[The SFM proposes to repeal and replace with model code language.]

Rationale:
Puzzle rooms are a new business model where people are placed in a room and asked either to find a way out of the room or to find their way to the next room in the puzzle. The rooms are typically small and might otherwise be classified as a B occupancy under the current code. Each of these are designed in a way to provide a unique experience for the customer. This unique design incorporates several possible features to disorient the occupants and/or disguise the exit route. Such a design is contrary to the foundations of code specified exiting provisions. This proposal seeks to establish criteria for puzzle rooms by incorporating them into the special amusement section. Since part of the appeal of this business model is that each experience is different, there is no way to prescriptively handle every situation. The language is generic but gives guidance on providing reliable exiting in an emergency.

Item 2-9.2
Chapter 2, Section 202 General Definitions, Special Amusement Area

[The SFM proposes to repeal and replace with select model code language, the additional California amendments with remain unchanged.]

Rationale:
While researching this proposal, it was recognized that the special amusement building section needed some updating. The word "building" is changed to "area" and the fire alarm provisions were rewritten to correlate with section 907 of the fire code.

This proposal was heard and approved for the ICC 2021 codes. The SFM is proposing to bring these regulations in California to address the need for public and life safety, as well as give the code officials a tool for enforcement.

Cost Impact
The code change proposal will increase the cost of construction. Many of these rooms may be classified currently as a B occupancy as they are not specifically called out in the code.

As such, there are very little requirements for fire alarm or sprinkler systems. Depending on the size and configuration of the room(s), this provision would increase the cost of construction. (G48-18)

Response to Code Advisory Committee (CAC) from the 2019 intervening supplement:
Approve as Amended
SFM agrees with the CAC recommendation. The recommendation of the committee members is to include the addition of the word “or” after each listed example in the definition of Special Amusement Area. This change more closely aligns with the original intent of the paragraph format.

Item 2-10
Chapter 2, Section 202 General Definitions, Toddler

The SFM proposes a new definition.

Day Care facilities are licensed by the Department of Social Services. The classifications of the children are infants – age 0 to 24 months, toddlers – 18 to 36 months and preschool, etc. The intent of the regulations is to provide a level of safety to the children that are non-ambulatory or unable to self-evacuate in an emergency. The conflict is that there is an overlap of the definition of infants and toddlers. The Office of the State Fire Marshal conducted a Day Care Workgroup to address issues with the current regulations. The workgroup recommended the legal definition of toddlers from the Health & Safety Code Section 1596.55 and to include them in the regulations to remove the conflict in the definitions. This proposal will also remove the conflict with the Social Service’s classification of daycares. This will allow the building and fire code officials to classify the occupancy of I-4 or E based on Social Services classifications for licensing. This will be determined by the age of the children within the child care facility.

Item 2-11
Chapter 2, Section 202 General Definitions, Wall, Load-bearing

[The SFM proposes repeal and replace with model code language.]

Rationale:
The SFM proposes to repeal and replace the amendment of the definition of Load Bearing Wall that was previously adopted and replace with model code language. Over the previous adoption cycle, the term “load-bearing wall” has been updated to include “mass timber” as a category equivalent to that of masonry or concrete. Based on the research done by the wood trade associations, mass timber walls (e.g. sawn, glued-laminated, cross-laminated timbers) have the ability to support the minimum 200 pounds per linear foot vertical load requirement.

CHAPTER 3

OCCUPANCY CLASSIFICATION AND USE

Item 3-1
Chapter 3, Occupancy Classification and Use

The SFM proposes to adopt Chapter 3 and carry forward existing amendments.

SECTION 304
BUSINESS GROUP B

Item 3-2
Chapter 3, Occupancy Classification and Use, Section 304.1 Business Group B

The SFM proposes to add the title of Group I-2.1 and delete model code language for higher education laboratories.

The SFM proposes to add the descriptive title for I-2.1 occupancies classification. The SFM proposes to delete model code language for higher education laboratories, it is not used in California and is in conflict with California's Group L occupancy classification.

Item 3-3
Chapter 3, Occupancy Classification and Use, Section 304.4 Higher education laboratories

The SFM proposes to delete model code language for higher education laboratories.

SECTION 305
EDUCATIONAL GROUP E

Item 3-4
Chapter 3, Occupancy Classification and Use, Section 305.2 Educational Group, Section 305.2 and 305.2.1 Group E child care facilities

The SFM proposes to amend the definition for day care facilities.

The SFM proposes to amend the definition for day care facilities. SFM is proposing to delete the amend version of 305.2 and adopt the IBC model language. The SFM is also maintaining the exception for the R-3 occupancies with are the Family Day Cares which are mandated by Health & Safety Code section 1596.955, 1596.956
The code was silent on the number of infants that could be included in a Group E Day Care. This created confusion for the building and fire officials. This proposal fills in that gap. It would allow up to five infants and toddlers in the Group E Day Care. This number of infants and toddlers corresponds with CBC 305.2.2 that allows up to five children in any occupancy, without changing the occupancy classification.
The change to include children at the age of 3, Child Care facilities are licensed by the Department of Social Services. The license categories of children are; infants – age 0 to 24 months, toddlers – 18 to 36 months and preschool, etc. The intent of the regulations is to provide a level of safety to the children that are non-ambulatory or unable to self-evacuate in an emergency. The conflict is that there is an overlap of the definition of

infants and toddlers. The Office of the State Fire Marshal conducted a Child Care Workgroup to address issues within the current regulations. The IBC set the age at 2 ½. Historically the SFM modified to 2 to align with the definition of infant in California. The workgroup recommended the legal definition of toddlers from the Health & Safety Code Section 1596.55 and to include them in the regulations to remove the conflict in the categories. This proposal will also remove the conflict with the Social Service's license of Child Care Centers. This will allow the building and fire code officials to classify the occupancy of I-4 or E based on Social Services licensing categories. This will be determined by the age of the children within the child care center.
The intent of this code sections is not retro-active. Existing centers licensed under previous regulations will be inspected to the regulations that were in place at that time. When there is a change in the licensing then the new current regulations will be applied.

SECTION 306
FACTORY GROUP F

Item 3-5
Chapter 3, Occupancy Classification and Use, Section 306 Factory Group F, Factory Industrial F-1 Moderate-hazard occupancy

The SFM proposes to repeal California amendments and replace with model code language.

SECTION 308
INSTITUTIONAL GROUP I

Item 3-6
Chapter 3, Occupancy Classification and Use, Section 308 Instituional Group I, Institional Group I-2.1

The SFM proposes to modify the California amendment for Group I-2.1 and remove the words "Ambulatory Health Care Facility". The use of ambulatory health care facility is incorrect. Ambulatory health care facility would be classified as an occupancy Group B.

Item 3-7
Chapter 3, Occupancy Classification and Use, Section 308 Institutional Group I, Section 308.5 Institutional Group I-4, day care facilities and Section 308.5.1 Classification as Group E

The SFM proposes to amend the definition for Group 1-4. SFM is proposing to delete subsections of Group I-4 for classification as a Group E and any Special Provisions.

The SFM proposes to amend the definition for Group 1-4. SFM is proposing to delete subsections of Group I-4 for classification as a Group E and any Special Provisions.

Clarification. Current regulation as it is printed in Title 22. The Department of Social Services has for approximately 10 years been transitioning from the term Day Care to Child Care. The profession of child care has evolved into a more inclusive type of care that can include early learning and child development. The caring aspect of the facilities are more emphasized. The work group is including the definition to be more consistent between regulations.

The proposal to delete and remove the model code language and the California amendments in this section are conflicting with other section (305.2) in the code and California statue. There has been confusion between the Group E day cares and the Group I-4 day cares. Currently this exception for Group I-4 daycares conflicts with the definition of Group E as found in section 305.2. The workgroup found the regulations proposals in sections 305.2 and 308.5, 452 will provide clear guidance by separating the child care centers, based on the children age group. This is based on the infants and toddler's inability to self-evacuate. This proposal assures the current level of protection for infant and toddler care by clearly defining these occupancies as Group I-4.

SECTION 310
RESIDENTIAL GROUP R

Item 3-8
Chapter 3, Occupancy Classification and Use, Section 310 Residential Group R, Section 310.3 Residential Group R-2

The SFM proposes to amend the definition for Group R-2.

The SFM proposes to amend the definition for Group R-2. This change is to meet SB 234. Small and Large Family Day Cares can operate in R-2 occupancies when they comply with the regulations. This change is to add the day cares to the list of occupancies under R-2 and comply with the statute, Health & Safety Code section 1597.46.

CHAPTER 4
SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE

Item 4-1
Chapter 4, Special Detailed Requirements Based On Occupancy And Use

The SFM proposes to adopt Chapter 4 and carry forward existing amendments.

SECTION 401
GENERAL

Item 4-2
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 401.9 Evacuation of buildings.

[The proposal is to expand the needs to evacuate a building based on additional emergency situations.]

Since schools (and others) now respond to emergency conditions other than fire (Carbon Monoxide, Active Shooter, Gas leaks, Hazmat spills, etc), The SFM proposes to amend the language in Section 401.9 (Evacuation of Buildings) of the CFC as follows,

"…of the fire alarm, other emergency condition, or upon orders…".

The SFM realizes that this is a broad phrase, but it provides a level of clarity for building owners and the AHJ that there are emergency/life safety conditions other than fire that arise, for which evacuation may be necessary.

SECTION 403
HIGH-RISE BUILDINGS

Item 4-3
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 403.4.8.1 Equipment room

In accordance with California Building Code Section 308.3, conditions for Group I-2 are not used in California.

Related Sections in Part 2, California Building Code 308.3, 707, 711.

In accordance with CBC Section 308.3, conditions for Group I-2 are not used in the CBC.

In the exception to Section 403.4.8.1, the SFM proposed amendment deletes a reference to Condition 2 for a Group I-2 occupancy. The SFM proposed amendment does not establish a new requirement.

By deleting from the text of the CBC the reference to Condition 2, this SFM amendment corrects the CBC by eliminating a reference to Condition 2 that is not used in the CBC. Conditions pertaining to Group I-2 occupancies are not published in the CBC.

Irrelevant references to inapplicable criteria are a source of confusion for designers, owners and code officials. Deleting such references simplifies the interpretation and understanding of provisions of the code.

SECTION 406
MOTOR-VEHICLE-RELATED OCCUPANCIES

Item 4-3.1
Chapter 4, Special Detaied Requirements Based on Use and Occupancy, Section 406.6.4- 406.4.4 Mechcanical-access garages

The SFM proposes to repeal and replace with model code language. The California amendments that were approved in the 2019 Intervening Code Cycle will remain unchanged.

SECTION 407
GROUP I-2 *AND GROUP I-2.1*

Item 4-4
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 407.2 Corridors continuity and separtation

SFM proposes and editorial correction to a section pointer.

Related Sections in Part 2, California Building Code 407.2.6, 407.2.7, 407.3, 708.

IBC provisions in Section 407.2 permit the location of nursing home cooking facilities Group I-2 corridors. The Group I-2 corridor requirements in the CBC are more restrictive. In accordance with the provisions of Section 3.11(b), Title 19 of the California Code of Regulations, the CBC does not permit the location of cooking facilities in fire-resistance rated corridors.

The IBC requires Group I-2 corridors constructed in accordance with the requirements for a smoke partition. CBC Section 407.3 requires Group I-2 corridors constructed as fire-resistance rated fire partitions in accordance with CBC Section 708. The CBC requirements for corridor construction are, therefore, more restrictive than the requirements identified in the IBC.

CBC Section 407.2 allows the location in a corridor of spaces conforming to Sections 407.2.1 through 407.2.6. CBC Section 407.2.6 contains requirements for the location and installation of cooking facilities in Group I-2 nursing home corridors. Title 19, CCR, Section 3.11(b) requires that no person shall install, place, or permit the installation or placement of any combustible material or equipment in or exposed to any exit. The proposed SFM amendment deletes the reference to Section 407.2.6 in CBC Section 407.2 that allows the installation of nursing home cooking facilities in fire-resistance rated corridors constructed in accordance with the requirements of CBC Section 708.

Conflicts between applicable provisions of regulations is a source of confusion and frustration for owners, designers, contractors, and code officials. Eliminating such conflicts assists owners, designers, contractors, and code officials with understanding, interpreting and complying with the code.

Item 4-5
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 407.2.6 Nursing home cooking facilities

Existing amendments to the California Building Code Section 407.2.6 prohibit the installation of cooking appliances exposed to a Group I-2 corridor.

Related Sections in Part 2, California Building Code407.2, 407.2.7, 407.3, 422.7, 708

Existing amendments to the CBC Section 407.2.6 prohibit the installation of cooking appliances exposed to a Group I-2 corridor.

SFM proposed amendment deletes an unnecessary model code criterion regarding the installation of cooking appliances exposed to a Group I-2 corridor. This SFM proposed amendment does not establish a new requirement.

Requiring a space dedicated to cooking appliances to be delineated by a floor pattern, material or color is not necessary. The text of item 4 deleted by the SFM proposed amendment could otherwise lead to an inference that a space containing cooking appliances could be open to a Group I-2 corridor. This is not the case. Existing provisions of the CBC require areas and spaces containing a cooking facility be separated from a Group I-2 corridor by a fire partition. The IBC does not require a Group I-2 corridor be constructed as a fire partition therefore provisions accommodating cooking appliances open to the corridor are not applicable.

Inapplicable provisions are a source of confusion for designers, owners, and code officials. Deleting such provisions simplifies the interpretation and understanding of provisions of the code.

Deletion of item number 4 requires renumbering of items 5 and 6. Items 1, 2 and 3 remain unchanged.

Item 4-6
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 407.2.7 Domestic cooking appliances

The SFM proposed amendment is necessary to accommodate new requirements published in the 2021 edition of the International Building Code and reformatting of existing provisions previously published in the 2019 edition of the California Building Code (CBC). The adoption of Section 407.2.7 items 1, 2 and 6 assures that provisions previously adopted in the 2019 edition CBC remain in effect.

Related Sections in Part 2, California Building Code407.2, 407.2.6, 407.3, 422.7, 708

The 2021 edition of the IBC relocated a number of criteria from the 2019 CBC Section 407.2.6 to a new Section 407.2.7 and added new requirements regulating cooking appliances that are located in Group I-2 occupancies. This SFM proposed amendment

does not establish a new requirement.

In Section 407.2.7 item 2, the SFM proposed amendment replaces the reference to the International Mechanical Code Section 505 with a reference to the California Mechanical Code. The California Mechanical Code is the mechanical code adopted by the California Building Standards Commission. There is no corresponding Section 505 in the California Mechanical Code.

The SFM proposed amendment to Section 407.2.7 Exception 1 requires compliance with Section 407.2.7 items 1, 2 and 6. Items 1, 2 and 6 identify the types of cooking appliances that are of concern, references the California Mechanical Code for hood requirements and requires a fire extinguisher within 30 feet of the cooking appliances. These provisions were previously located in the 2019 CBC Section 407.2.6, Items 4, 6 and 10.

The SFM proposed amendment is necessary in order to accommodate new requirements published in the 2021 edition of the IBC and reformatting of existing provisions previously published in the 2019 edition of the CBC. The adoption of Section 407.2.7 items 1, 2 and 6 assures that provisions in compliance the 2019 CBC remain in effect.

The SFM amendments provide information to designers, owners, and code officials by providing references and direction as to the implementation of new provisions published in the 2021 IBC.

Item 4-7
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 407.3.1.1 Door construction

The SFM proposed amendment modifies the grammar in the new Section 407.3.1.1 charging statement to clearly indicate the intent is to regulate doors where they are not required to have a fire protection rating.

Related Sections in Part 2, California Building Code 407.3.1

In a new Section 403.1.1, the 2021 edition of the IBC includes new requirements regulating doors installed in Group I-2 corridors not required to have a fire protection rating.

The SFM proposed amendment modifies the grammar in the new Section 407.3.1.1 charging statement to clearly indicate the intent in the 2022 CBC is to regulate doors where they are not required to have a fire protection rating. CBC Section 407.3 requires Group I-2 corridors be constructed as fire-resistance rated fire partitions. The IBC does not require fire-resistance rated corridor construction. The SFM amendment further affirms the intent of this new provision of the IBC is to regulate doors not required to have a fire protection rating. The intent of the charging language is consistent with provisions of the CBC Section 407.3.1 permitting corridor doors to be provided without a fire-protection rating. The purpose of the SFM amendment is to avoid confusion for owners, designers,

contractors, and code officials regarding the intent of the new requirement published in the 2021 IBC. This portion of the SFM proposed amendment does not establish a new requirement.

The SFM proposed amendment deletes 2021 IBC Section 407.3.1.1 item 3. This item is a new requirement published in the 2021 IBC. The provisions of item 3 are in conflict with existing California Mechanical Code Group I-2 provisions found in California Mechanical Code Sections 407, 414, 415 and 416. These sections contain specific requirements related to the required height above the floor of corridor ventilation openings and the location of corridor ventilation openings. Comprehensive requirements pertaining to air balance and ventilation of Group I-2 occupancies are contained in the CMC.

To avoid confusion for owners, designers, contractors, and code officials, the SFM amendment proposes that IBC Section 407.3.1.1 item 3 be deleted. It is the intent of the SFM proposed amendment that the CMC remain the sole source of these requirements. This portion of the SFM proposed amendment does not establish a new requirement.

Item 4-8
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 407.3.1.2 Swing of corridor doors

A new provision in the 2021 IBC requires renumbering of an existing SFM amendment.

Related Sections in Part 2, California Building Code 407.3.1

A new provision in the 2021 IBC requires renumbering of an existing SFM amendment. This amendment is editorial only. This SFM proposed amendment does not establish a new requirement. It renumbers an existing section of the CBC.

Item 4-9
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 407.4.4.5 Care suites containing sleeping room areas

SFM proposed amendment to item 2 deletes a reference to CBC section 903.2.6.and requires fire sprinkler protection in addition to a smoke detection system when direct and constant visual supervision is not provided for a care suite.

Related Sections in Part 2, California Building Code 407.4.4, 903.2.6

SFM proposed amendment to item 2 deletes a reference to CBC section 903.2.6.and requires fire sprinkler protection in addition to a smoke detection system when direct and constant visual supervision is not provided for a care suite.

The use of smoke detectors as an alternative to providing direct and constant visual supervision was introduced in the 2018 edition of the IBC. Prior to the 2018 IBC, direct and

constant visual supervision was required for care suites containing sleeping rooms. The IBC provisions regulate new construction and therefore contemplate that suites constructed in accordance with the 2018 edition of the IBC and all subsequent editions of the IBC will, in accordance with other provisions of the IBC, be protected by fire sprinkler systems. When fire sprinkler protection is not provided, as would be the case with Group I-2 buildings of Type I-A construction in existence March 4,1972, it is not the intent to substitute only a smoke detection system for direct and constant visual supervision. It is the intent of the IBC to provide both sprinkler protection and a smoke detection system before constant visual supervision is omitted. This concern is applicable only to existing Group I-2 facilities originally constructed in accordance with the provisions requiring direct and constant visual supervision when such facilities are remodeled. The SFM amendment affirms that modifications to care suites containing sleeping rooms in existing facilities should continue to provide direct and constant visual supervision when fire sprinkler protection is not provided. This SFM proposed amendment does not establish a new requirement.

Suite arrangements that accommodate provisions for constant visual supervision are extremely impactful on design. In order to avoid costly errors, it is important that owners, designers, contractors and code officials are aware of this requirement.

Item 4-10
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 407.5 Smoke Barriers

The SFM proposed amendment is editorial only. It corrects a code section reference error.

Related Sections in Part 2, California Building Code 407.5, 709, 1026.2

SFM Proposed amendment corrects a reference to the CBC section requirements for the fire-resistance rated construction of horizontal exit separations. These requirements have been relocated from CBC Section 1025.2 to CBC Section 1026.2. The SFM proposed amendment is editorial only. It corrects a code section reference error.

This SFM proposed amendment does not establish a new requirement. The SFM proposed amendment directs owners, designers, contractors and code officials to the correct section in the CBC.

SECTION 408
GROUP I-3

Item 4-11
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 408.8.4 Smoke-tight doors

This is editorial. During review of 2018 IBC and 2021 IBC revisions, noticed inappropriate use of “closures”. Explanation: a closer is a device that provides closure of something that closes or shuts. Put another way, the closer closes the closure.

SECTION 411
SPECIAL AMUSEMENT ~~*AREAS*~~ AREAS

Item 4-11.1
Chapter 4, Special Detaied Requirements Based on Use and Occupancy, Section 411.1-411.7 Special Amusement Areas

The SFM propose to repeal and replace with select model code language. California amendments that approved during the Intervening Code Cycle that differ from the model code will remain unchanged.

Rationale:
Puzzle rooms are a new business model where people are placed in a room and asked either to find a way out of the room or to find their way to the next room in the puzzle. The rooms are typically small and might otherwise be classified as a B occupancy under the current code. Each of these are designed in a way to provide a unique experience for the customer. This unique design incorporates several possible features to disorient the occupants and/or disguise the exit route. Such a design is contrary to the foundations of code specified exiting provisions. This proposal seeks to establish criteria for puzzle rooms by incorporating them into the special amusement section. Since part of the appeal of this business model is that each experience is different, there is no way to prescriptively handle every situation. The language is generic but gives guidance on providing reliable exiting in an emergency. While researching this proposal, it was recognized that the special amusement building section needed some updating. The word "building" is changed to "area" and the fire alarm provisions were rewritten to correlate with section 907 of the fire code.

[Section: 411.1]
Rationale:
This proposal was heard and approved for the ICC 2021 codes. The SFM is proposing to bring these regulations in California to address the need for public and life safety, as well as give the code officials a tool for enforcement.

2019 Intervening Code Cycle Response to Code Advisory Committee (CAC): Further Study. SFM agrees with the CAC recommendation. The SFM addressed the committee comments to include some editorial corrections, to address the meaning of temporary, and an alternate may be determined by the authority having jurisdiction. The corresponding Part 9, California Fire code section is 914.7.

[Section: 411.2]
Rationale:
Section 411.2 gives specific criteria for the requirement of sprinklers in the special amusement areas where the building may not have been equipped with sprinklers prior to establishing the business. Many of the business models of puzzle or escape rooms have been classified as a B occupancy. The code proposal is a minimum sprinkler requirement for the safety of the public in these places of amusement. An exception of sprinklers is

given for a minimal floor area and an exit within 50 feet, to accommodate to small businesses and not be over restrictive when there is a reasonable safety of life safety.

2019 Intervening Code Cycle Response to Code Advisory Committee (CAC): Further Study
SFM agrees with the CAC recommendation. The SFM addressed the committee comments to include some editorial corrections, to address the meaning of temporary, and an alternate may be determined by the authority having jurisdiction. The corresponding Part 9, California Fire code section is 914.7.1.

Rationale:
Section 411.3 correlates fire alarm requirements for smoke detection in the California Fire Code and cleans up the existing code language in section 411.4.

2019 Intervening Code Cycle Response to Code Advisory Committee (CAC): Further Study

SFM agrees with the CAC recommendation. The SFM addressed the committee comments to include some editorial corrections, to address the meaning of temporary, and an alternate may be determined by the authority having jurisdiction. The corresponding Part 9, California Fire code section is 914.7.2.

Rationale:
Section 411.5 is renumbered to 411.4 as the existing language of 411.4 is proposed to be incorporated into section 411.3 to correlate with section 907 of the California Fire Code. The corresponding Part 9, California Fire code section is 914.7.3.

Rationale:
Section 411.5 is renumbered to 411.4 as the existing language of 411.4 is proposed to be incorporated into section 411.3 to correlate with section 907 of the California Fire Code. The corresponding Part 9, California Fire code section is 914.7.3.

Rationale:
Section 411.6 emphasizes that exiting requirements shall comply with Chapter 10. These puzzles or escape rooms are not allowed to have any locking devices installed, which is what the strategy of the business model would like to do. Locking the doors creates an unsafe condition for the public safety of the users. An alternative design proposal is added to give the local authority having jurisdiction a tool to accept a condition that may be acceptable to allow the business to operate in a safe matter.

2019 Intervening Code Cycle Response to Code Advisory Committee (CAC): Further Study
SFM agrees with the CAC recommendation. The SFM addressed the committee comments to include some editorial corrections, to address the meaning of temporary, and an alternate may be determined by the authority having jurisdiction.

Rationale:

Sections 411.6 and 411.7 have proposed changes to correlate with the concept of the special amusement area. The proposal creates consistency within the code.

SECTION 414
HAZARDOUS MATERIALS

Item 4-11.2
Chapter 4, Special Detaied Requirements Based on Use and Occupancy, Section 414 Table 414.5.1 Explosion Requirements

[The SFM propose to repeal and replace with select model code language.]

Rationale:
The addition of energy storage system (ESS) requirements into the 2018 code was an initial effort to address safety hazards associated with the increased use of lithium-ion batteries, capacitors and other modern energy storage system (ESS) technologies for an expanded number of grid related energy storage applications. The new requirements were a huge step toward addressing modern ESS technologies and grid based applications. However as written the requirements made it difficult to apply appropriate safety requirements for different installations, each with their own risks and exposures. Case in point, a lead acid battery ESS installation in an unmanned rural telecommunications repeater doesn't present the same risks and exposures as a lithium ion battery ESS installation in a mixed occupancy high rise in an urban area.

Since the 2018 ESS requirements were developed there has been a lot of work done by private and government stakeholders to enhance ESS installation requirements, including the initial drafting of the NFPA 855 Energy Storage System standard. The ICC Fire Code Action Committee's ESS work group, which includes 45+ code officials, manufacturers, users and industry experts identified several areas in the 2018 code that needed to be addressed to provide requirements that better address the hazards and exposures associated with various types of ESS installations, technologies, and operations.

The footnote added to Table 414.5.1 gives the building code user a reference pointer to the appropriate section in the California Fire Code.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. (F203-18)

[F] TABLE 414.5.1
EXPLOSION CONTROL REQUIREMENTS [a, h]

SECTION 422
AMBULATORY CARE FACIILITIES

Item 4-12
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 422.6 Electrical systems

California Electrical Code Article 517 contains numerous and comprehensive State of California amendments that are applicable to ambulatory care facilities.

Related Sections in Part 2, California Building Code 407.11

CEC Article 517 contains numerous and comprehensive State of California amendments that are applicable to ambulatory care facilities.

In CBC Section 422.6, the SFM proposed amendment deletes a reference to NFPA 99 and replaces it with a reference to Article 517 of the California Electrical Code. CEC Article 517 is continually updated and is more extensive than NFPA 99 essential electrical system requirements.

The SFM proposed amendment directs owners, designers, contractors, and code officials to consult the applicable provisions of CEC Article 517 for ambulatory care facilities.

Corrections made to the Section 422.6 will assist owners, designers, contractors, and code officials with understanding and interpreting the requirements of CEC Section 517 not previously referenced in Section 422.6.

When a bracketed [F] precedes the code section, it is an indication that the text for a particular code section originates with the Fire Code Committee and is published in the International Fire Code. Because there is no provision in the International Fire Code regulating the design and construction of electrical systems in ambulatory care facilities, it is proposed that the [F] be deleted.

This SFM proposed amendment does not establish a new requirement.

Item 4-13
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 422.7 Domestic cooking

In Section 422.7 item 2, the SFM proposed amendment replaces the reference to the International Mechanical Code Section 505 with a reference to the California Mechanical Code. The California Mechanical Code is the mechanical code adopted by the California Building Standards Commission. There is no corresponding Section 505 in the California Mechanical Code.

Related Sections in Part 2, California Building Code 407.2.6, 407.2.7

IBC Section 422.7 is a new provision published in the 2021 IBC.

In Section 422.7 item 2, the SFM proposed amendment replaces the reference to the

International Mechanical Code Section 505 with a reference to the California Mechanical Code. The California Mechanical Code is the mechanical code adopted by the California Building Standards Commission. There is no corresponding Section 505 in the California Mechanical Code.

The SFM proposed amendment to Section 422.7 Item 2 references the mechanical code for hood requirements. The SFM proposed amendment is necessary in order to accommodate new requirements published in the 2021 edition of the IBC.

The SFM proposed amendment provides information to designers, owners, and code officials by providing the correct reference to the CMC. This is a new IBC requirement with a proposed SFM amendment.

Item 4-13.1
Chapter 4, Special Detaied Requirements Based on Use and Occupancy, Section 428

[The SFM would like to maintain the non-abortion and not to print Section 428 in its entirety for Higher Education laboratories. It has been found to be in conflict with California's Group L Occupancies.]

~~**SECTION 428**~~
~~**HIGHER EDUCATION LABORATORIES**~~

SECTION 436
GROUP I-4 [SFM]

Item 4-14
Chapter 4, Special Detaied Requirements Based on Use and Occupancy,Section 436.1 Group I-4 special provisions

The SFM proposes to amend Section 436.1.

Exception #2 is being proposed for deletion because…the workgroup is separating out the E's from the I-4's. this provision is for E's and no longer is appropriate. It is no longer applicable. The E provisions already exist in 452 and defined in 305.In exception #3, because the new construe types are deemed to be equal to type I and Type II (tall wood).

In exception #3, The correct term for smoke detection is automatic smoke detection. This is an editorial change to correlate the language. The propose does not have regulatory affect. The change from child care center and adult day care was to be clear in the intent for both age group uses.

In exception #3.5, Exception 3.4 already requires each compartment to have atmospheric separation, but it is not abundantly clear that it is required to be maintained for the path of egress. The addition of the smoke barrier and reference to 709 is to clarify the requirement

which aligns with 452 Exception 3.5 for Group E day cares which already requires atmospheric separation but is intended to require an equal or lesser level of protection as an I-4. This also aligns with 1022.1 for maintaining the required level of protection and 452.1.2 which also requires atmospheric separation for some Group E occupancies. This is an editorial addition to provide clarity. This proposal does not have regulatory affect.

Item 4-15
Chapter 4, Special Detaied Requirements Based on Use and Occupancy, Section 436.1.1 Egress

The SFM proposes to amend Section 436.1.1.

The Group E daycares required a direct exit by section 308.5.1 and this was less restrictive than the group I-4 daycares. This addition maintains the direct exiting requirement but allows for a rated corridor with a minimum width of 60 inches. This is consistent with section 435.8.4.2 for non- ambulatory clients and would allow for a crib to roll down the corridor for emergency evacuation.

SECTION 441
PET KENNELS AND
PET BOARDING FACILITIES [SFM]

Item 4-15.1
Chapter 4, Special Detaied Requirements Based on Use and Occupancy, Section 441.1 Health and Safety Code Section References

The SFM proposes to correct the Health and Safety Code Section reference to Section 122388. Errata.

SECTION 452
SCHOOL FACILITIES FOR KINDERGARTEN
THROUGH 12TH GRADE AND GROUP E ~~DAY~~ CHILD CARE

Item 4-16
Chapter 4, Special Detaied Requirements Based on Use and Occupancy, Section 452 School Facilities for Kindergarten through 12th grade and Group E Child Care

The SFM proposes to amend Section 452 Title to correlate with Title 22 regulations. The term “day care” is outdated. As the industry has progressed the term “child care” is more inclusive of the many other facets of that child care offers, including development skills, reading, etc.

Item 4-17
Chapter 4, Special Detaied Requirements Based on Use and Occupancy, Section 452.1.4 Special Provisions

The SFM proposes to amend Section 452.1.4.

In exception #3, This also adds Type IV construction to correlate with 503 for the new types of construction, because the new construction types are deemed to be equal to type I and Type II (tall wood).
In exception #3, The correct term for smoke detection is automatic smoke detection. This is an editorial change to correlate the language. The propose does not have regulatory affect.
In exception #3.5, Exception 3.5 already requires each path of travel to have atmospheric separation. This is an editorial addition to provide clarity. The proposal does not have regulatory affect.

SECTION 455
LARGE FAMILY DAY-CARE HOMES [SFM]

Item 4-18
Chapter 4, Special Detaied Requirements Based on Use and Occupancy, Section 455.2 Large Family Day-Care Homes HSC 1597.46 and 455.6 Compliance

The SFM proposes to amend Section 455 to comply with changes made to Health and Safety Code Law by Senate Bill 234, Chaptered with the Secretary of State on Sep. 5, 2019.

Senate Bill No. 234
CHAPTER 244

An act to amend Sections 1596.72, 1596.73, 1596.78, 1597.30, 1597.45, and 1597.54 of, to add Sections 1597.41, 1597.42, and 1597.455 to, to repeal Section 1597.47 of, and to repeal and add Sections 1597.40, 1597.46, and 1597.543 of, the Health and Safety Code, relating to family daycare homes.

[Approved by Governor, September 05, 2019. Filed with Secretary of State September 05, 2019.]

LEGISLATIVE COUNSEL'S DIGEST

SB 234, Skinner. Family daycare homes.

1) Revises and recasts legislative findings and declarations regarding the shortage of regulated childcare, the importance of regulated childcare, and the need to promote the development and expansion of regulated childcare.

2) Expends the purpose of the CDCFA to include promoting the development and expansion of regulated childcare.

3) Modifies the definitions of a “large family daycare home” and “small family daycare home” to include that the care, protection and supervision of children takes place in a facility, as specified.

4) Provides that a small family daycare home or large family daycare home includes a detached single-family dwelling, a townhouse, a dwelling unit within a dwelling, or a dwelling unit within a covered multifamily dwelling in which the underlying zoning allows for residential uses. Further provides that a small or large family daycare home is where the daycare provider resides and includes a dwelling or a dwelling unit that is rented, leased, or owned.

5) Revises and recasts provisions of law regarding licensed large and small family daycare homes in order to:

    a) Require local governments to treat licensed large family daycare homes as a residential use of property for the purposes of all local ordinances, giving large family daycare homes the same status as small family daycare homes with regard to local ordinances.

    b) Update housing protections for licensed family daycare providers to ensure they will not be prohibited from living in a home solely based on the fact that they are operating a family daycare home.

    c) Clarify that licensed family daycare homes are permitted to operate in apartments and other types of multifamily units.

    d) Clarify that family daycare providers may be subject to remedies and procedures available to them under the Fair Employment and Housing Act (FEHA) based on potential violation of the CDCFA.

    e) Require State Fire Marshal to update the building and fire standards relating to life and fire safety for large and small family daycare homes, as provided.

    f) Provide that the use of a home as a small or large family daycare home shall be considered a residential use of property and a use by right for the purposes of all local ordinances, including, but not limited to, zoning ordinances.

6) Requires CDSS to, during the license application process for a small or large family daycare home, notify the applicant that defined remedies and procedures relating to fair housing are available to family daycare home providers, family daycare home provider applicants, and individuals who claim that any specified protections have been denied.

7) Provides that this bill does not alter the existing rights of landlords and tenants with respect to addressing and resolving issues related to noise, lease violations, nuisances, or conflicts between landlords and tenants.

8) Makes technical and conforming changes.

Comments According to the author, childcare provided in licensed family daycare homes is "vitally important for families and our communities, but childcare has increasingly become too expensive and difficult for parents to find." The author further states that cities and counties have "put up too many barriers" that impeded the creation and expansion of family daycare homes. Additionally, according to the author, many family daycare providers have been "forced to shut down due to property owners unlawfully prohibiting family childcare." "This legislation helps struggling families who are too often asked to sacrifice their child's well-being and get the childcare they need to support their families. This legislation will especially help women, including family childcare providers and many of whom are women of color," per the author.

Family Daycare Homes

Family daycare homes provide a more affordable close to home option for parents seeking childcare. Family daycare homes are licensed in two categories: large family daycare homes, which may care for up to 14 children and small family daycare homes, which may care for up to eight children. There are other differences between the two license categories such as staff-to-child ratio, staff training requirements, and conditions on the physical environment of the home. Licensed family daycare homes play an important role in the childcare market. Family daycare providers offer flexible hours for parents who have non-traditional work schedules in home environments that are frequently close to where families live. Compared to child care centers, family daycare homes are more likely to care for infants, are more affordable for families, and meet families' linguistic and cultural needs. This bill proposes to make it easier for childcare providers to operate licensed large family daycare homes by shoring up housing protections and removing barriers that might keep existing small family daycare providers from expanding into a large provider or the opening of new large family daycare homes.

Local Zoning Laws

This bill requires local governments to treat licensed large family daycare homes as a residential use of property for the purposes of all local ordinances. This gives large family daycare homes the same status as small family daycare homes with regard to local ordinances. Many cities and counties have imposed zoning requirements for large family daycare homes. According to the sponsors, the cost of obtaining zoning permits in some cities and counties can range between $3,000 and $10,000, which can be cost prohibitive for a family childcare providers. To address this problem, this bill requires local governments to treat large family based childcare operations just as they do small ones. Thus, all family-based childcare operations would be considered residential use, could not be considered a change of use for building or fire code purposes, and could not be made subject to a business license, tax, or fee.

Housing Protections

This bill updates housing protections for licensed family daycare providers which is intended to ensure such providers will not be prohibited from living in a home solely based on the fact that they are providing childcare. According to the sponsors, existing law gives some property owners the impression that, absent a written agreement with a licensed childcare provider, they can refuse to rent or sell a home to childcare providers. Per the sponsors, family daycare providers are routinely turned down from living in or purchasing all types of homes because they intend to provide home based childcare.

This bill clarifies that childcare providers can have remedies and procedures available to them under the FEHA if their protections are violated under the CDCFA. The CDCFA, which includes all the land-use and housing protections specifically for family daycare homes, lacks language telling providers they can hold local governments and others accountable for violating the law. Consequently, many family daycare providers have nowhere to turn if their protections are violated, per the sponsors. To address this limited awareness, this bill requires CDSS to notify all family day care home license applicants of the remedies and procedures available to them under FEHA. This bill also clarifies that licensed family daycare homes are allowed to operate in apartments and other types of multifamily units. According to the sponsors, reference to the terms “single-family dwelling” and “single-family residence” in existing laws have caused some local governments and land owners to prohibit family daycare providers from operating in apartments and other types of residential multi-family dwellings. This is despite guidance from CDSS and the State Fire Marshal indicating that such prohibition is not allowed.

FISCAL EFFECT: Appropriation: No Fiscal Com.: Yes Local: No

According to the Assembly Appropriations Committee:

1) CDSS indicates any costs will be minor and absorbable.

2) The State Fire Marshal anticipates negligible costs.

SUPPORT: (Verified 8/20/19)
California Child Care Resource and Referral Network (co-source)
Child Care Law Center (co-source)
United Domestic Workers of America-AFSCME Local 3930/AFL-CIO (co-source)
Alexander Child Care and Preschool
Bananas, Inc.
California Association for the Education of Young Children
California Women’s Law Center
Coco kids Community Action Partnership of San Luis Obispo County, Inc.
Community Child Care Council of Sonoma County
Equal Rights Advocates
Family Child Care Association of San Francisco
First 5 Sonoma County
GRACE Morning Song School
National Council of Jewish Women

California Parent Voices
California Positive Discipline Community Resources Public Counsel San Diego County Family Child Care Association
The Future Supporting Family Child Care Western Center on Law & Poverty, Inc.
Wonder school Three Individuals

OPPOSITION: (Verified 8/20/19) None received

ASSEMBLY FLOOR: 77-0, 8/19/19 AYES: Aguiar-Curry, Arambula, Bauer-Kahan, Berman, Bigelow, Bloom, Boerner Horvath, Bonta, Brough, Burke, Calderon, Carrillo, Cervantes, Chau, Chen, Chiu, Choi, Chu, Cooley, Cooper, Cunningham, Daly, Diep, Eggman, Flora, Fong, Frazier, Friedman, Gabriel, Gallagher, Cristina Garcia, Eduardo Garcia, Gipson, Gloria, Gonzalez, Gray, Grayson, Holden, Irwin, Jones-Sawyer, Kalra, Kamlager-Dove, Kiley, Lackey, Levine, Limón, Low, Mathis, Mayes, Medina, Melendez, Mullin, Muratsuchi, Nazarian, Obernolte, O'Donnell, Patterson, Petrie-Norris, Quirk, Quirk-Silva, Ramos, Reyes, Luz Rivas, Robert Rivas, Rodriguez, Blanca Rubio, Salas, Santiago, Smith, Mark Stone, Ting, Voepel, Waldron, Weber, Wicks, Wood, Rendon

CHAPTER 5
GENERAL BUILDING HEIGHTS AND AREAS

Item 5-1
Chapter 5, General Building Heights And Areas

The SFM proposes to adopt Chapter 5 and carry forward existing amendments.

SECTION 504
BUILDING HEIGHT AND NUMBER OF STORIES

Item 5-2
Chapter 5, General Building Heights And Areas, Table 504.3 Allowable Building Height in Feet Above Grade Plane

[The SFM proposes to maintain all California amendments including the California amendments for Type IV A, IV-B, IV-C and HT. Do not print the model code language for Type IV-A, IV-B, IV-C and HT.]

TABLE 504.3
ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE [a, i]

[Maintain California amendments for Table 504.3]

Rationale:
Allowable Height proposal addresses the allowable building height, in terms of feet, for the three new construction types proposed by the TWB. As set forth in the proposal to Section 602.4, the three new types of construction are Types IV-A, IV-B, and IV-C. The TWB

examined each proposed type of construction for its safety and efficacy with regard to each occupancy type.

The following approach was used to develop proposed allowable heights of the new construction types, based on the conclusions of the Committee:

1. Based upon TWB review of fire safety and structural integrity performance, Type IV-B is equated to Type I-B for height (in feet). A noteworthy item to remember is that, per Section 403.2.1.1 of the IBC, Type IB construction is permitted to be reduced to 1-hour Fire Resistance rating; however, the TWB does not propose to allow the same reduction for Type IV-B. As a result, the comparison is between 2-hr mass timber construction that is partially exposed, versus 1-hr Type IB construction, and the Committee believes that 2-hr mass timber construction that is partially exposed per the limits of proposed Section 602.4 warrants the same heights as allowed for 1-hr Type I-B construction. It should be noted that the unprotected mass timber also needs to meet the 2 hour FRR, thus the protected area will likely be conservatively higher FRR than actually required;

2. Type IV-A should be somewhat larger than IV-B, as Type IV-A construction is entirely protected (no exposed mass timber permitted) and the required rating of the structure is equivalent to those required of Type I-A construction (3-hr rating for structural frame). However, the Committee did not find it acceptable to allow the unlimited heights of Type I-A to be applied to Type IV-A. Instead, the Committee applied a multiplier of 1.5 to the heights proposed for Type IV-B construction, in order to propose reasonable height allowances for IV-A construction;

3. The Committee viewed Type IV-C as similar to existing HT construction with the exception that IV-C has a 2 hour FRR where HT is acceptably fire resistant based on the large sizes of the members. As such, the height in feet is proposed to be equal to the height in feet of Type IV-HT. In terms of stories, however, the Committee proposed an additional number of stories for IV-C in recognition of its greater FRR.

4. While the base code seems to allow significant heights for buildings without sprinklers (e.g., Table 504.3 currently allows a height of 160 feet for NS Type I-B construction for many occupancy classifications), the Committee believes that no additional heights over what is already permitted for Type IV-HT would be proposed for the NS (non sprinklered) rows. As such, where separate rows are provided for heights for the NS situation, the proposed heights for Types IV-A, IV-B, and IV-C are the same as those heights already permitted for Type IV for the NS condition.

Methodology
This methodology explains the majority of the recommendations here. Specifically, for occupancy groups A, B, E, F, I-4, M, R, S, U, the methodology described above accurately reflects how the height proposals were developed.

After undergoing this methodology to develop initial height recommendations, the TWB then applied professional judgment (from both a fire safety and a structural perspective), to develop a working draft table, cell by cell, for all occupancy types.

The exercise for establishing the allowable number of stories for the three new types of construction started with setting Type I-B allowances equivalent to Type IV-B. The tabular fire resistance ratings of building elements for these two types of construction is identical (not including the reduction permitted by 403.2.1.1), so the identical number of stories was deemed a reasonable starting point. From this point, the TWB Committee reviewed each occupancy classification to see if the Type I-B story allowance required adjustment.

Summary

Allowable number of stories
Following is a summary of how allowable number of stories for sprinklered I-B were adjusted for IV-B:

A-1, A-2, A-3, A-4, A-5, B, E, H-1, H-5, I-1(1), I-1(2), I-2, I-3, I-4, R-1, R-2, R-3, R-4, U: no adjustment, same number of allowable stories as Type I-B.

F-1 and S-1: reduced from 12 to 7 (2 story increase from Type IV-HT)

F-2, M, S-2: reduced from 12 to 8 (2 story increase from Type IV-HT)

H-2: reduced from 3 to 2 (same as Type IV-HT)

H-3: reduced from 6 to 4 (same as IV-Type HT)

H-4: reduced from 8 to 7 (1 story increase from Type IV-HT)

Height in feet
Similarly, to establish the height in feet for Type IV-B:

A-1, A-2, A-3, A-4, A-5, B, E, F-1, F-2, I-4, M, R-1, R-2, R-3, R-4, S-1, S-2, U: same allowable height as I-B.

H-1, H-2, H-3: reduced from 180’ to 90’

H-4: reduced from 180’ to 100’

H-5: reduced from 160’ to 90’

I-1(1): reduced from 180’ to 120’

I-1(2): reduced from 180’ to 65’

I-2: reduced from 180’ to 65’

I-3: reduced from 180’ to 120’

Allowable number of stories
Adjusting IV-B up to IV-A for allowable number of stories:

A-1, A-2, A-3, A-4, A-5, B, E, F-2, I-4, M, R-1, R-2, R-3, R-4, S-1, S-2, U – 1.5 x IV-B number of stories

F-1, S-1 increase by 3 stories

H-1, H-3 same as IV-HT

H-2, H-4, H-5 increase by 1 story

I-1(1), I-1(2), I-2, I-3 increase by 2 stories

H-3 reduced from 6 to 4 (same as IV-HT)

H-4 reduced from 8 to 7 (1 story increase from IV-HT)

I-I(1), I-1(2), I-2, I-3, same as IV-HT

Adjusting IV-B to IV-A for building height:

A-1, A-2, A-3, A-4, A-5, B, E, F-1, F-2, H-1, H-5, I-1(1), I-3, I-4, M, R-1, R-2, R-3, R-4, S-1, S-2, U: multiply 1.5 x Type IV-B (180 ft.)

H-1, H-2 H-3, H-5: increase by 30 ft.

H-4: increase by 40 ft.

I-1(2), I-2: same as Type IV-HT

Groups H-1, H-2, H-3, and H-5
For instance, for Groups H-1, H-2, H-3, and H-5, while the table allows 160 feet for Type I-B construction, the TWB Committee proposed a height of 90 feet for Type IV-B construction and is using a multiplier of 1.33 to propose a height for Type IV-A construction of 120 feet height, intentionally made equal to the existing Heavy Timber heights.

Group H-4
For H-4, corrosives represent a health hazard (but not necessarily a fire hazard) to building occupants and first responders, the Committee believed that reduced heights were warranted. These are slightly greater than discussed above for the H-occupancy groups (140 feet versus 120 feet for IV-A construction, and 100 feet versus 90 feet for IV-B construction), but these still are far below what is permitted for Type I-B construction (180 feet permitted for the sprinklered condition), and is in recognition of the particular type of Hazardous occupancy covered by the H-4 occupancy group.

Group I
For Group I occupancies, there are two rows in the table, one being a row that includes I-1 Condition 1 and I-3 occupants (more capable of self-preservation) and the other being a row that includes I-1 Condition 2 and I-2 occupants (less capable of self-preservation). For I-1 Condition 1 and I-3 occupants, the Committee proposed a height of 120 feet for Type IV-B (versus 180 feet from the general methodology summarized above) and a height of 180 feet for Type IV-A (versus 270 feet from the general methodology summarized above). For those I-1 Condition 2 and I-2 occupants, the TWB Committee took a very conservative approach and will only allow the heights that are already permitted by code for traditional Type IV construction.

ICC Committee Modification: In Table 503.4, the value under Type IV A construction is to be 180 instead of 270 and the value under Type IV B construction is to be 120 instead of 180. All other portions of the proposal are not modified. This floor modification DiGiovanni-1 changed the height for one occupancy group, I-4, but the excerpt from the report of the CAH fails to make that distinction clear. The intent of the modification was further confirmed in an email by ICC Technical Services SVP Michael Pfeiffer, P.E. on August 8, 2019.

ICC Committee Reason for modification: The modification proposed makes this proposal work. The proposal was excessive without it. Otherwise, many of the reasons cited by the committee for proposal G80-18 apply as well.

State Fire Marshal (SFM) Background:
The SFM Tall Wood Buildings workgroup evaluated the existing California amendments to the Table for allowable height, stories and area. In the 2007 Triennial rulemaking code cycle, the SFM took a balanced approach to fire protection based on the historical use of height and area provisions and data demonstrated that California's minimum requirements for the built environment have safeguarded the public health, safety and general welfare of the occupants and to the property as a whole since the 1920s.

The additional safety provided by an automatic sprinkler system has been acknowledged as justification for either increasing the allowable height of a building by one (1) story or increasing the allowable area beyond the limits established in Table 506.2, but not both.

The SFM recognizes and supports the benefits of automatic fire sprinkler protection in buildings. The need for a balanced approach to fire protection is also recognized and is the basis for maintaining the current California amendments which permit the use of automatic sprinkler systems for an increase in height or area but not both. During the 2007 Triennial rulemaking California code adoption process, building and fire officials reviewed data from various sources to justify the increased building size of the 2006 IBC over the allowable areas and heights in all three legacy codes. At the time there appeared to be little science behind the table values and formulas, SFM and California code officials involved in the process were not comfortable and could not justify the elimination of redundancy from the code and an over reliance on fire sprinkler systems.

During the SFM Tall Wood Building workgroup it was discussed and recognized that the

tables for allowable height, stories and area need to be re-evaluated. The SFM plans to address those comments, concerns, and recommendations for the 2022 Triennial rulemaking code package.

Per California regulations buildings housing Group I-3 occupancies, shall be constructed of Type I-A or Type IB, for this reason, the new Types of mass timber construction are not permitted.

Per Health and Safety Code 13131.5 buildings housing Group R-2.1, shall not be permitted in non-fire resistive construction. For this reason, only Type VI-A is allowed.

During the SFM Tall Wood Building workgroup, representatives from the office of Statewide Health Planning and Development (OSHPD), determined that at this time the proposed Type IV-A, Type IV-B, and Type IV-C as well as HT will not be permitted for Group I-2 and I-2.1 occupancies in California.

Cost Impact: The code change proposal will not increase or decrease the cost of construction This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (G75-18)

Item 5-3
Chapter 5, General Building Heights And Areas, Table 504.3 Footnote f.

This SFM proposed amendment corrects an error that references an IFC section not adopted by the State of California.

Related Sections in Part 2, California Building Code Table 504.4, Table 506.2, 903.2.6

This SFM proposed amendment corrects an error that references an IFC section not adopted by the State of California.

In Table 504.3 Footnote f, the SFM proposed amendment deletes a reference to CFC Section 1103.5. IFC Section 1103.5 is not adopted by SFM and is therefore not a provision of the California Fire Code. Automatic sprinkler systems for existing Group I-2 occupancies are regulated by CBC Section 903.2.6 and California Health and Safety Code Section 13113(d). Compliance with the provisions of IFC Section 1103.5 would result in the enforcement of more restrictive sprinkler protection requirements for Group I-2 occupancies, or any alterations thereto, located in Type IA construction in existence on March 4, 1972. This SFM proposed amendment does not establish a new requirement.

The SFM proposed amendment eliminates a reference that misdirects owners, designers, contractors and code officials to an inapplicable sprinkler protection requirement for existing Group I-2 occupancies. Such misdirection has the potential to require the performance of nonrequired work.

Item 5-4
Chapter 5, General Building Heights And Areas, Table 504.4 Allowable Number of Stories Above Grade Plane

[The SFM proposes to maintain all California amendments including the California amendments for Type IV A, IV-B, IV-C and HT. Do not print the model code language for Type IV-A, IV-B, IV-C and HT.]

TABLE 504.4
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE [a, b, n]
[Maintain California amendments for Table 504.4]

Rationale:
This proposal addresses the building height, in terms of the number of stories, for the three new construction types proposed by the TWB. As set forth in the proposal to Section 602.4, the three new types of construction are Types IV-A, IV-B, and IV-C. The TWB Committee examined each proposed type of construction for its safety and efficacy regarding each occupancy.

The following approach was considered appropriate for the heights of the new construction types, based on the conclusions of the TWB Committee:

Based upon TWB committee review of fire safety and structural integrity performance, Type IV-B is equated to Type I-B for height (in number of stories). A noteworthy item is that, per Section 403.2.1.1 of the IBC, Type I-B construction is permitted to be reduced to 1-hour Fire Resistance Rating (FRR); however, the TWB does not propose to allow the same reduction for Type IV-B. As a result, the comparison is between 2-hr mass timber construction that is permitted to be partially unprotected, versus 1-hr Type IB construction, and the TWB Committee believes that 2-hr mass timber construction that is partially exposed per the limits of proposed Section 602.4 warrants the same heights as allowed for 1-hr Type I-B construction;

Type IV-A should be somewhat larger than IV-B, as Type IV-A construction is entirely protected (no exposed mass timber permitted) and the required rating of the structure is equivalent to those required of Type I-A construction (3-hr rating for structural frame). However, the Committee did not find it acceptable to allow the scale of heights (many of which are unlimited) of Type I-A to be applied to Type IV-A. Instead, the Committee applied a multiplier of 1.5 to the heights proposed for Type IV-B construction (rounded up or down based on judgment) in order to propose reasonable height allowances for IV-A construction;

The TWB Committee viewed Type IV-C as sufficiently similar to existing HT construction, especially in terms of the percentage of exposed wood (it is permitted to be entirely unprotected), and the resulting contribution to fire. While the height in feet for Type IV-C is proposed to be equal to the height in feet of Type IV-HT, the TWB Committee felt that additional stories was warranted in some cases. Therefore, in terms of stories, the TWB Committee proposes additional number of stories for Type IV-C construction when compared to traditional Type IV heavy timber construction. The TWB Committee feels that

some recognition is warranted for the fire resistance rating requirements (Type IV-C has 2-hour rating on structural elements, whereas traditional Type IV Heavy Timber used dimensional wood, which is understood to yield an approximate fire resistance rating equivalent to about 1-hour construction) and provided that flexibility when developing height, in terms of stories, for Type IV-C construction. A multiplier of 1.5 was applied from the Type IV-HT heights to develop reasonable numbers of stories for Type IV-C construction. While the base code seems to allow significant heights for buildings without sprinklers (e.g., Table 504.4 currently allows 11 stories for NS Type I-B construction for many occupancy classifications), the TWB Committee believes that no additional heights over what is already permitted for Type IV should be proposed for the NS (non sprinklered) rows. As such, where separate rows are provided for heights for the NS condition, the proposed heights for Types IV-A, IV-B, and IV-C are the same as those heights already permitted for Type IV for the NS condition. This methodology explains the majority of the recommendations included in this proposal. Specifically, for occupancy groups A, B, E, R, and U, the methodology described above accurately reflects how the height proposals were developed.

The TWB Committee applied professional judgment (from both a fire safety and a structural perspective) to develop a draft table, cell by cell, for all occupancy types. After further examination, reduced heights were proposed for F, H, I, M, and S occupancy classifications.

F-1 occupancies
For F-1 occupancies, the TWB Committee proposed a height of 7 stories for Type IV-B construction (versus the 12 stories currently permitted for I-B construction). A multiplier of 1.5 was used to propose a height of 10 stories for Type IV-A construction (when rounded down). No additional height was proposed for Type IV-C construction (Type IV-C proposed at 5 stories, and 5 stories is already permitted by code for Type IV-HT).

F-2 occupancies
For F-2 occupancies, again the Committee is proposing a reduced number of stories, with 8 stories for Type IV-B construction (versus 12 stories that would be derived from the methodology). Again, a multiplier of 1.5 was used to propose a height of 12 stories for Type IV-A construction. No additional height is proposed for Type IV-C construction (Type IV-C proposed at 6 stories, and 6 stories is already permitted by code for Type IV-HT).

A conservative approach also explains the proposed heights for Group H occupancies. For Group H-1, only 1 story buildings are permitted by Table 504.4 for all construction types, so the proposal was adjusted to also limit all the new Type IV construction types to 1 story as well.

Groups H-2, H-3, and H-5
For Groups H-2, H-3, and H-5, heights were intentionally made equal to the existing Heavy Timber heights. In other words, there is no proposal to any increased heights over what is already allowed by code for these use groups.

Group H-4

Group H-4, being corrosives, which represents a health hazard (but not necessarily a fire hazard) to occupants and first responders, was also reduced, slightly. The TWB proposes 7 stories for Type IV-B construction (equivalency to Type I-B would have yielded 8 stories). The proposal allows only 8 stories for Type IV-A construction. No additional height is proposed for Type IV-C construction (Type IV-C proposed at 6 stories, and 6 stories is already permitted by code for Type IV-HT).

Group I
Group I, the Committee took a more conservative approach and proposed an equivalent number of stories for Type IV-A construction, as is provided for Type I-B construction (10 stories for both construction types and occupancy types). The allowable heights for Type IV-B construction were selected to fall between the 10 stories for Type IV A and the number of stories for Type IV-C construction. The Committee proposed a height of 7 stories for I-1, and 6 stories for I-2. No additional height was proposed for Type IV-C construction (IV-C construction heights in floors is equal to the number of floors already allowed for Type IV-HT, 5 stories for I-1, 4 stories for I-2).

Group M occupancies
For Group M occupancies, the Committee again took a conservative approach, and proposed an equivalent number of stories for Type IV-A construction, as is provided for Type I-B construction (12 stories for both construction types). The proposal for Type IV-B construction is 8 stories which is based on the use of the multiplier of 1.5 with respect to the Type IV-A proposal. A modest increase (from 5 to 6 stories) is proposed for Type IV-C construction due to the higher requirement for structural fire-resistance.

Group S
For Group S, while the base code does not differentiate between S-1 and S-2 in Type I-B construction (both 12 stories), the Committee recognized that the base code does provide a difference for Group F (10 stories for F-1, 12 stories for F-2). As explained above, this led the Committee to propose lower heights for F-1, than for F-2. The Committee felt this was appropriate with respect to the hazard differences between F-1 and F-2. Rather than basing our proposal for S occupancies on the same starting point of 12 stories, the Committee decided to simply copy the proposed heights for Group F into the rows for Group S for both IV-A and IV-B construction types. No additional height is proposed for IVC construction (IV-C proposed at 5 stories for both S-1 and S-2, same as existing Type IV-HT heights).

This proposed change corrects the tabular value errors that went undetected in the original code change until after the completion of the 2012 cycle: the tabular story and height numbers for Type IV Group S-2. The proposal corrects those errors. (G81-18)

State Fire Marshal (SFM) Background:
The SFM Tall Wood Buildings workgroup evaluated the existing California amendments to the Table for allowable height, stories and area. In the 2007 Triennial rulemaking code cycle, the SFM took a balanced approach to fire protection based on the historical use of height and area provisions and data demonstrated that California's minimum requirements for the built environment have safeguarded the public health, safety and general welfare of the occupants and to the property as a whole since the 1920s.

The additional safety provided by an automatic sprinkler system has been acknowledged as justification for either increasing the allowable height of a building by one (1) story or increasing the allowable area beyond the limits established in Table 506.2, but not both.

The SFM recognizes and supports the benefits of automatic fire sprinkler protection in buildings. The need for a balanced approach to fire protection is also recognized and is the basis for maintaining the current California amendments which permit the use of automatic sprinkler systems for an increase in height or area but not both. During the 2007 Triennial rulemaking California code adoption process, building and fire officials reviewed data from various sources to justify the increased building size of the 2006 IBC over the allowable areas and heights in all three legacy codes. At the time there appeared to be little science behind the table values and formulas, SFM and California code officials involved in the process were not comfortable and could not justify the elimination of redundancy from the code and an over reliance on fire sprinkler systems.

During the SFM Tall Wood Building workgroup it was discussed and recognized that the tables for allowable height, stories and area need to be re-evaluated. The SFM plans to address those comments, concerns, and recommendations for the 2022 Triennial rulemaking code package.

Per California regulations buildings housing Group I-3 occupancies, shall be constructed of Type I-A or Type IB, for this reason, the new Types of mass timber construction are not permitted.

Per Health and Safety Code 13131.5 buildings housing Group R-2.1, shall not be permitted in non-fire resistive construction. For this reason, only Type VI-A is allowed.

During the SFM Tall Wood Building workgroup, representatives from the office of Statewide Health Planning and Development (OSHPD), determined that at this time the proposed Type IV-A, Type IV-B, and Type IV-C as well as HT will not be permitted for Group I-2 and I-2.1 occupancies in California.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (G80-18)

Item 5-5
Chapter 5, General Building Heights And Areas, Table 504.4 Footnote f.

This SFM proposed amendment corrects an error that references an International Fire Code section not adopted by the State of California.

Related Sections in Part 2, California Building Code Table 504.3, Table 506.2, 903.2.6

This SFM proposed amendment corrects an error that references an IFC section not

adopted by the State of California.

In Table 504.4 Footnote f, the SFM proposed amendment deletes a reference to CFC Section 1103.5. IFC Section 1103.5 is not adopted by SFM and is therefore not a provision of the California Fire Code. Automatic sprinkler systems for existing Group I-2 occupancies are regulated by CBC Section 903.2.6 and California Health and Safety Code Section 13113(d). Compliance with the provisions of IFC Section 1103.5 would result in the enforcement of more restrictive sprinkler protection requirements for Group I-2 occupancies, or any alterations thereto, located in Type IA construction in existence on March 4, 1972. This SFM proposed amendment does not establish a new requirement.

The SFM proposed amendment eliminates a reference that misdirects owners, designers, contractors and code officials to an inapplicable sprinkler protection requirement for existing Group I-2 occupancies. Such misdirection has the potential to require the performance of nonrequired work.

Item 5-6
Chapter 5, General Building Heights And Areas, Table 504.4 Footnote p.

The SFM proposes to add footnote “p” to Table 504.4 for Group I-4 that sends the code user to the pertinent regulations for Group I-4 child care centers and adult day care.

SECTION 506
BUILDING AREA

Item 5-7
Chapter 5, General Building Heights And Areas, Table 506.2 Allowable Area Factor

[The SFM proposes to maintain all California amendments including the California amendments for Type IV A, IV-B, IV-C and HT. Do not print the model code language for Type IV-A, IV-B, IV-C and HT.]

TABLE 506.2
ALLOWABLE AREA FACTOR
(*At* = NS, S1, S13R, S13D or SM, as applicable) IN SQUARE FEET [a, b, j]

[Maintain California amendments for Table 505.2]

Rationale:
In addressing Allowable Area topic, it was necessary to develop height and area criteria to address each new type of construction being proposed. Relying upon each new type of construction proposed for tall wood buildings (Types IV-A, IV-B and IVC), the TWB committee examined each type of construction for its safety and efficacy with regard to each occupancy type. This proposal on allowable areas should be considered as a companion proposal to the height proposals. The three proposals were developed regarding one another as well as with regard to the new types of construction.

The TWB also determined that fire testing was necessary to validate these concepts. At its first meeting, members discussed the nature and intention of fire testing so as to ensure meaningful results for the TWB and, more specifically, for the fire service. Subsequently a test plan was developed. The fire tests consisted of one-bedroom apartments on two levels, with both apartments having a corridor leading to a stairway. The purpose of the tests was to address the contribution of mass timber to a fire, the performance of connections, the performance of joints, and to evaluate conditions for responding fire personnel. The Fire Work Group then refined the test plan, which was implemented with a series of five full-scale, multiple-story building tests at the Alcohol, Tobacco and Firearms (ATF) laboratories in Beltsville, MD.

Test Results
The results of those tests, as well as testing conducted by others, helped the TWB Committee form the basis upon which the Codes Work Group developed its code change proposals. This code change proposal is one of those developed by the Codes Work Group and adopted by the TWB.

To review a summary of the fire tests, please visit:

bit.ly/ATF-firetestreport

To watch summary videos of the fire tests, which are accelerated to run in 3-1/2 minutes each, please visit:bit.ly/atf-firetestvideos

Both links were confirmed active on October 11, 2019

Each proposed new type of construction was examined for its fire safety characteristics and compared to the existing, long-standing type of construction known as Heavy Timber. The TWB committee found that it was reasonable to develop a multiplier which could be applied to the traditional HT areas. This was done for each new type of construction. Thus, the proposed new Type IV-C was 1.25 times the HT allowable area, IV-B was 2.00 times the HT allowable area and IV-A was 3.00 times the HT allowable area.

These multipliers were examined in terms of relative performance compared to traditional HT. They were reexamined on a case-by-case basis based upon relative hazard and occupancy classification. Some hazards were perceived to be greater and, thus, areas were adjusted downward to reflect the hazard. Other situations were similarly considered. For example, Hazardous and Institutional occupancies do not fully follow the multiplier method, as most areas for those occupancies were reduced from what the multiplier method would suggest.

Also, the TWB committee reconsidered this proposal with respect to the companion height proposal. This review was to be sure that allowable areas were commensurate with the risk posed by being allowed on some particular story or at some height above grade plane.

This proposed change corrects the tabular value errors that went undetected in the original code change until after the completion of the 2012 cycle: the tabular story and height numbers for Type IV Group S-2. The proposal corrects those errors.

State Fire Marshal (SFM) Background:
The SFM Tall Wood Buildings workgroup evaluated the existing California amendments to the Table for allowable height, stories and area. In the 2007 Triennial rulemaking code cycle, the SFM took a balanced approach to fire protection based on the historical use of height and area provisions and data demonstrated that California's minimum requirements for the built environment have safeguarded the public health, safety and general welfare of the occupants and to the property as a whole since the 1920s.

The additional safety provided by an automatic sprinkler system has been acknowledged as justification for either increasing the allowable height of a building by one (1) story or increasing the allowable area beyond the limits established in Table 506.2, but not both.

The SFM recognizes and supports the benefits of automatic fire sprinkler protection in buildings. The need for a balanced approach to fire protection is also recognized and is the basis for maintaining the current California amendments which permit the use of automatic sprinkler systems for an increase in height or area but not both. During the 2007 Triennial rulemaking California code adoption process, building and fire officials reviewed data from various sources to justify the increased building size of the 2006 IBC over the allowable areas and heights in all three legacy codes. At the time there appeared to be little science behind the table values and formulas, SFM and California code officials involved in the process were not comfortable and could not justify the elimination of redundancy from the code and an over reliance on fire sprinkler systems.

During the SFM Tall Wood Building workgroup it was discussed and recognized that the tables for allowable height, stories and area need to be re-evaluated. The SFM plans to address those comments, concerns, and recommendations for the 2022 Triennial rulemaking code package.

Per California regulations buildings housing Group I-3 occupancies, shall be constructed of Type I-A or Type IB, for this reason, the new Types of mass timber construction are not permitted.

Per Health and Safety Code 13131.5 buildings housing Group R-2.1, shall not be permitted in non-fire resistive construction. For this reason, only Type VI-A is allowed.

During the SFM Tall Wood Building workgroup, representatives from the office of Statewide Health Planning and Development (OSHPD), determined that at this time the proposed Type IV-A, Type IV-B, and Type IV-C as well as HT will not be permitted for Group I-2 and I-2.1 occupancies in California.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (G84-18)

Item 5-8
Chapter 5, General Building Heights and Areas, Table 506.2 Footnote f.

This SFM proposed amendment corrects an error that references an IFC section not adopted by the State of California.

Related Sections in Part 2, California Building Code Table 504.3, Table 504.4, 903.2.6

This SFM proposed amendment corrects an error that references an IFC section not adopted by the State of California.

In Table 506.2 Footnote f, the SFM proposed amendment deletes a reference to CFC Section 1103.5. IFC Section 1103.5 is not adopted by SFM and is therefore not a provision of the California Fire Code. Automatic sprinkler systems for existing Group I-2 occupancies are regulated by CBC Section 903.2.6 and California Health and Safety Code Section 13113(d). Compliance with the provisions of IFC Section 1103.5 would result in the enforcement of more restrictive sprinkler protection requirements for Group I-2 occupancies, or any alterations thereto, located in Type IA construction in existence on March 4, 1972. This SFM proposed amendment does not establish a new requirement.

The SFM proposed amendment eliminates a reference that misdirects owners, designers, contractors and code officials to an unapplicable sprinkler protection requirement for existing Group I-2 occupancies. Such misdirection has the potential to require the performance of nonrequired work.

SECTION 508
MIXED USE AND OCCUPANCY

Item 5-9
Chapter 5, General Building Heights and Areas, Section 508.2.4 Separation of occupancies

The proposed SFM amendment revises CBC Section 508.2.4 Exception 3 to permit covered exterior entrances required elsewhere in the California Building Code to be considered as accessory occupancies to Group I-2 occupancies.

Related Sections in Part 2, California Building Code 311.3, 406.5.2, Table 508.4, 903.2.21(New), 11B-206.4.10, 1224.33.2.1

CBC Section 508.2.4 permits the consideration of some uses as accessory occupancies.

The proposed SFM amendment revises CBC Section 508.2.4 Exception 3 to permit covered exterior entrances required elsewhere in the California Building Code to be considered as accessory occupancies to Group I-2 occupancies. The SFM proposed

amendment eliminates consideration of S-2 occupancies as accessory occupancies to Group I-2. CBC Section 311.3 Group S-2 includes twenty-nine categories enumerating the storage of manufactured and consumer goods. Parking garages, open or enclosed are the only Group S-2 category not focused on such storage. Nevertheless, the original intent of CBC Section 508.2.4 Exception 3 is to allow covered exterior entrances, commonly known as porte-cocheres, to be considered accessory occupancies. It was never the intent of CBC Section 508.2.4 Exception 3 to permit the Group S-2 storage categories identified in CBC Section 311.3 to be considered as accessory occupancies. Such unseparated storage for manufactured and consumer goods is limited or prohibited by NFPA 101, Section 6.1.14.1.3. Such unseparated storage creates a concern for Group I-2 facilities that must comply with the Centers for Medicare-Medicaid Services (CMS) requirements.

Because the accessory covered entrances are required only for 24-hour care facilities, the exception cannot be included with provisions that also permit unseparated accessory occupancies for Group I-2.1. The provision that permits unseparated accessory covered entrances is therefore distinguished by separate language included in a new exception.

The proposed SFM amendment limits permitted unseparated accessory covered entrances to those required by CBC Section 11B-206.4.10, for weather protection at entrances to medical care and long-term care facilities or Section 1224.33.2.1, emergency medical service exterior entrances.

The proposed SFM amendment provides for a use required by existing CBC provisions. The proposed SFM amendment eliminates a conflict with provisions enforced by CMS. The SFM amendment provides direction to owners, designers, contractors, and code officials on how to accommodate the construction of an unseparated covered vehicle entrance required by other provisions of the CBC.

The proposed SFM amendment also reformats CBC Section 508.2.4 Exceptions 3 and 4. The IBC format includes two exceptions to CBC Section 508.2.4. The CBC includes two additional exceptions to Section 508.2.4. The existing CBC exceptions 3 and 4 include text that indicates the CBC exceptions actually do not apply in all cases. Within the format presented by the IBC, the CBC exceptions included in the text of exceptions 3 and 4 are more appropriately identified as exceptions to their corresponding exceptions.

The SFM proposed amendment relocates exceptions that are actually exceptions to CBC Section 508.2.4 Exceptions 3 and 4 to display them separately. Prominent display indicating that Group B, E, R-2 sleeping units and S-2 occupancies or covered exterior entrances may be permitted to be unseparated accessory occupancies assists owners, designers, contractors, and code officials in locating and identifying these exceptions.

Item 5-10
Chapter 5, General Building Heights and Areas, Table 508.4 Footnote i.

[The SFM proposes repeal and replace with model code language for a code reference section in footnote c. The SFM proposes to add a footnote i. to Table 508.4 for Group I-4.]

The Day care workgroup is moving the Group E day cares to the group I-4. Currently there would be not separation between the different group E day cares. Community Care Licensing clarified that there is a separation required by Title 22. The workgroup felt in this situation a one-hour separation would provide the appropriate separation between the two for fire and life safety.

Item 5-11
Chapter 5, General Building Heights and Areas, Table 508.4 Footnote j.

The proposed SFM amendment reduces the fire-resistive separation criteria for covered vehicle entrances required by other provisions of the California Building Code associated with Group I-2 occupancies from 2-hour to 1-hour fire-resistance-rated construction.

Related Sections in Part 2, California Building Code 311.3, 406.5.2, 508.2.4, 903.2.21(New), 11B-206.4.10, 1224.33.2.1

The proposed SFM amendment reduces the fire-resistive separation criteria for covered vehicle entrances required by other provisions of the California Building Code associated with Group I-2 occupancies from 2-hour to 1-hour fire-resistance-rated construction.

The proposed SFM amendment adds footnote i to I-2 in the occupancy column of CBC Table 508.4. The proposed new SFM amendment language associated with the new footnote permits required covered vehicle entrances to be separated from a Group I-2 occupancy by 1-hour fire-resistive construction when they are configured as open parking garages and protected by fire sprinklers. Such uses most nearly resemble Group S-2 occupancies and, as such, CBC Table 508.4 requires the occupancy separation between a Group I-2 and a Group S-2 to be not less than 2-hour fire-resistance rated construction. The requirement for a 2-hour fire-resistance separation is due, in part, to the lack of any requirement in model code for sprinkler protection of Group S-2 occupancies.

When considered with an SFM proposed amendment to CBC Section 903.2.21 that requires covered vehicle entrances be provided with sprinkler protection, this amendment will permit required covered entrance covers in accordance with the provisions for openings for open parking garages to be separated from Group I-2 occupancies by 1-hour fire-resistance-rated construction.

As additions to or extensions of 24-hour care health facilities, covered exterior entrances are already required to be protected by fire sprinkler systems in accordance with California Health and Safety Code, Section 13113(a) and CBC Section 903.2.6. Where such covers also accommodate the means of egress for adjacent occupancies protected by automatic sprinklers, sprinkler protection is required at these covered entrances in accordance with Section 1004.4.

The proposed SFM amendment limits application of footnote i to accessory covered entrances required by CBC Section 11B-206.4.10, for weather protection at entrances to medical care and long-term care facilities or Section 1224.33.2.1, emergency medical

service exterior entrances.

The footnote “i” makes reference to CBC Section 508.2.4 to distinguish that covered exterior entrances accessory to Group I-2 that are required by Section 11B-206.4.10 or Section 1224.33.2.1 which exceed the limitation for an accessory use are required to be separated as distinct occupancies in accordance with Section 508.4.

The SFM proposed amendment affirms a requirement requiring sprinkler protection of exterior covered entrances, commonly referred to as porte-cocheres, that is currently enforced. The SFM proposed amendment allows for a reduction in the fire-resistance separation requirement from 2-hour to 1-hour in acknowledgment that such required exterior covered entrances are protected by a sprinkler system.

The SFM proposed amendment provides for a reduction from 2-hour to 1-hour for the fire-resistance separation of required covered exterior entrances required elsewhere in the CBC. As such, on some occasions, this could decrease the cost of construction and assist in the configuration of designs. The SFM proposed amendment provides direction to owners, designers, contractors, and code officials not previously available in the CBC.

Item 5-12
Chapter 5, General Building Heights And Areas, Section 508.4.4.1 Construction

The SFM proposes to repeal and replace with model code language.

Rationale:
On this subject of “fire barriers,” the ICC TWB committee determined that additional measures were necessary to address cases where mass timber is serving as a fire barrier or horizontal assembly. Section 508.4 describes the third option for separating mixed occupancies within a building.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (G89-18)

SECTION 509
INCIDENTAL USES

Item 5-13
Chapter 5, General Building Heights and Areas, Table 509.1 Incidental Uses

The SFM proposed amendment corrects references to footnote “a” in IBC Table 509.1 and the 2019 CBC Table 509 midcycle amendments. In four locations, the table is corrected to add footnote “a” where it has been omitted.

Related Sections in Part 2, California Building Code 508, 509, 707, 711, 714, 716, 717

CBC Table 509.1 requires the separation and protection of incidental uses identified in the table.

The SFM proposed amendment corrects references to footnote a in IBC Table 509.1 and the 2019 CBC Table 509 midcycle amendments. In four locations the table is corrected to add footnote a where it has been omitted. In one location, footnote a is deleted where it is not applicable. For laboratories located in Group I-2 and I-2.1 not classified as Group H, the information in the Separation and/or Protection column is reformatted to conform with the Separation and/or Protection column format used for Group I-2 and I-2.1 occupancies located elsewhere in the Table 509.1. To correct an omission, in two locations, laundry rooms over 100 square feet and physical plant maintenance shops, the table is amended to include Group I-2.1 in addition to Group I-2.

When a bracketed [F] precedes the title of a table, it is an indication that the table originates with the Fire Code Committee and is published in the International Fire Code. Because there is similar table in the International Fire Code regulating incidental uses, it is proposed that the [F] be deleted.

The SFM proposed amendment is editorial only. The SFM proposed amendment provides for a consistent format for referencing footnote a which is applicable only to Group I-2 and I-2.1 occupancies and includes references to Group I-2.1 inadvertently omitted at two locations in Table 509.1. Accurate information and a consistent format presenting such information is essential to an understanding of the requirements contained in Table 509.1. Corrections made to the Table 509.1 will assist owners, designers, contractors and code officials with understanding and interpreting the requirements identified in Table 509.1. This SFM proposed amendment does not establish a new requirement.

Item 5-14
Chapter 5, General Building Heights and Areas, Section 509.4.1.1 Type IV-B and IV-C construction

[The SFM proposed to repeal and replace model code language.]

Rationale:
Section 509.4 discusses the fire-resistance rated separation that is required for incidental uses within a larger use group. Section 509 also permits, when stated, protection by an automatic sprinkler system without fire barriers, however the construction enclosing the incidental use must resist the passage of smoke in accordance with Section 509.4.2.

The concern is that without any modifications to these provisions regulating separated occupancies and incidental uses, a fire barrier or horizontal assembly could be designed using mass timber that would comply with the fire resistance rating, but which would allow any exposed mass timber to contribute to the fuel load. This can occur in Types IV-B and IV-C construction.

The ICC TWB committee applied professional judgment by choosing to emulate the existing thermal barrier requirements by applying those requirements to these two sections. The intent of this proposal is to have the thermal barrier delay or prevent the ignition of the mass timber, thus delaying or preventing the mass timber's contribution to the fuel load. This will also allow additional time for fire and life safety measures to be executed as well as allow first responders additional time to perform their services.

The ICC TWB committee's intent is that the thermal barrier only needs to cover an exposed wood surface. The thermal barrier is not required in addition to any noncombustible protection that is required in Section 602.4, nor does it add to the fire resistance rating of the mass timber.

Mass timber walls or floors serving as fire barriers for separated uses (Section 508.4) would need to have a thermal barrier on both faces of the assembly.

For Section 509.4 (incidental use separations) the intent is to provide the thermal barrier only on the side where the hazard exists, that is, the side facing the incidental use. For example, if a mass timber floor assembly of the incidental use contains a noncombustible topping this provision would not require the addition of a thermal barrier on mass timber surfaces not facing the incidental use area. In addition, the thermal barrier would not be required if the sprinkler option is exercised.

It should be noted that this proposal is only addressing the contribution of exposed mass timber's face to the fuel load of a fire and is not recommending any modifications to the fire resistance requirements of Sections 508 or 509 or to the other mass timber provisions.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (G89-18)

CHAPTER 6
TYPES OF CONSTRUCTION

Item 6-1
Chapter 6, Types Of Construction

The SFM proposes to adopt Chapter 6 and carry forward existing amendments.

SECTION 601
GENERAL

Item 6-2
Chapter 6, Types Of Construction, Table 601 Fire-resistance rating requirements for building elements (Hours)

[The SFM proposes to maintain all California amendments including the California amendments for Type IV A, IV-B, IV-C and HT except for the footnotes. Do not print the model code language for Type IV-A, IV-B, IV-C and HT in the table, repeal and replace the footnotes as shown for footnote c and g.]

Rationale:
Types of Construction
The ICC TWB committee recognized that tall, mass timber buildings around the world generally fell into three categories: one in which the mass timber was fully protected by noncombustible protection, a second type in which the protection was permitted to be omitted to expose the wood in certain limited amounts of walls or ceilings, and a third type in which the mass timber for the structure was permitted to be unprotected.

The TWB also determined that fire testing was necessary to validate these concepts. At its first meeting, members discussed the nature and intention of fire testing so as to ensure meaningful results for the TWB and, more specifically, for the fire service. Subsequently a test plan was developed. The fire tests consisted of one-bedroom apartments on two levels, with both apartments having a corridor leading to a stairway. The purpose of the tests was to address the contribution of mass timber to a fire, the performance of connections, the performance of joints, and to evaluate conditions for responding fire personnel.

The Fire Work Group then refined the test plan, which was implemented with a series of five, full-scale, multiple-story building tests at the Alcohol, Tobacco and Firearms (ATF) laboratories in Beltsville, MD. The results of those tests, as well as testing conducted by others, helped form the basis upon which the Codes Work Group developed its code change proposals. This code change proposal is one of those developed by the Codes Work Group and approved by the TWB.

To review a summary of the fire tests, please visit:

awc.org/pdf/codes-standards/fire/WCTE-2018_Fire-Tests.pdf

To watch summary videos of the fire tests, which are accelerated to run in 3-1/2 minutes each, please visit:

youtube.com/playlist?list=PL_sDiz8JiMIwby77vfpPSPucEhBuEK22P

Both links were confirmed active on October 10, 2019.

The completely protected type of construction, as noted above, is identified as Type IV-A. The protection is defined by a new section, 722.7, proposed in a separate code change.

Testing has shown that mass timber construction protected with noncombustible protection, primarily multiple layers of 5/8-inch Type X gypsum board, can survive a complete burnout of a residential fuel load without engaging the mass timber in the fire. (See video or report above.) In considering this type of construction and its potential height and/or allowable area, the TWB wanted to make sure that code users realize that the protection specified in the text applies to all building elements. Thus, the text clearly requires protection for the floor surface, all wall and ceiling surfaces, the inside roof surfaces, the underside of floor surfaces, and shafts. In addition, Type IV-A construction is proposed to have the same fire resistance rating requirements as the existing Type I-A construction, which sets forth requirements for 2-hour and 3-hour structural elements. The specified fire resistance rating for Type IV-A construction is conservative in that the fire resistance rating of the structural elements was selected to be able to passively sustain the fuel loads associated with the various occupancies without the benefit of automatic sprinkler protection, and without involving the contribution of the structural members, similar to the strategy employed in the IBC for Type I construction.

Type IV-B allows some exposed wood surfaces of the ceiling, the walls or columns and beams. The amount of exposed surface permitted to be installed, as well as the required separation between unprotected portions, is clearly specified to limit the contribution of the structure in an interior fire. For example, two different walls may share the unprotected area, but the two walls must be separated by a distance of 15 feet. Type IV-B has been subjected to the same fire tests under the same conditions as Type IV-A and the results demonstrate that a predictable char layer develops on mass timber in the same fashion as traditional sawn lumber, provided that substantial delamination is avoided. (See video or report above.) It should be noted that, while portions of the mass timber may be unprotected, concealed spaces, shafts and other specified areas are required to be fully protected by noncombustible protection. Type IV-B is provided with the same base fire resistance requirements as the existing Type I-B construction, which sets forth requirements for 2-hour structural elements. Please note that the allowance per IBC Section 403.2.1.1 to reduce I-B construction to 1-hour structural elements is not proposed for Type IV-B construction. Essentially, where a building is permitted to be constructed of I-B construction and has 1-hour protection, that same building will still require 2-hour structural elements for Type IV-B construction.

Type IV-C construction permits fully exposed mass timber. Important caveats are that concealed spaces, shafts, elevator hoistways, and interior exit stairway enclosures are not permitted to be exposed, but instead are required to have noncombustible protection. The IV-C construction is differentiated from traditional Heavy Timber construction in that Type IV-C construction is required to be 2-hour fire rated. While the added fire rating is required, the committee does not propose any additional height, in terms of feet, for Type IV-C buildings; in other words, the height in feet for Type IV-C and Type IV-HT are identical. However, due to the added fire resistance ratings, the committee has proposed added floors for some occupancy groups of Type IV-C construction.

SECTION 602
CONSTRUCTION CLASSIFICATION

Item 6-3
Chapter 6, Types Of Construction, Table 602 Fire-resistance rating requirements for Exterior Walls Based on Fire Separation Distance

[The SFM proposes to maintain all California amendments including the California amendments for Type IV A, IV-B, IV-C and HT. Do not print the model code language for Type IV-A, IV-B, IV-C and HT.]

TABLE 602
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE [a, d, g]
[Maintain California amendments for Table 602]

…

Rationale:
Tables 601 and 602: Included in the proposal are modification of Tables 601 and 602. This is necessary to set the performance requirement for these new types of construction based upon mass timber. It should be noted that these Fire Resistance Ratings (FRR) are set to have the requirements similar to those of Type I construction. In other words, IV-A has the same FRR as I-A; IV-B has the same FRR as I-B. Because there is no Type I corollary to IV-C, it was set the same as IV-B. The IV-C has to achieve all its fire resistance by the performance of the mass timber itself because no noncombustible protection is required. This is reflected in greatly reduced permitted height, in both feet and stories, in other TWB proposals to Table 504.3, 504.4 and 506.2.

Item 6-4
Chapter 6, Types Of Construction, Sections 602.4 through 602.4.4.4 Type IV

[The SFM proposes to repeal and replace with model code language.]

Rationale:
Section 602.4.4.1 and 602.4.4.2 This code change corrects a correlation issue that was the result of two conflicting code changes that were both approved in the 2018 International Building Code. The code change eliminated the minimum thickness dimension of the exterior wall assembly for both Cross Laminated Timber (CLT) and Fire Retardant Treated Wood (FRTW) exterior walls, and introduced a minimum thickness for the CLT itself.

Another code change re-introduced the minimum wall assembly thickness into these sections to provide a re-organization of provisions without making any technical changes to the existing requirements. Correlation was made in favor of nullifying the action to require a minimum thickness of CLT, which was not anticipated. The proposal to introduce a minimum thickness to the CLT should be affirmed by approval of this proposal. A minimum thickness for the CLT is a better parameter for structural integrity than an overall thickness of wall, since overall thickness could include exterior sheathing, cladding, and exterior insulation. This proposal will provide the thickness required for the CLT.

Regarding FRTW exterior walls, the thickness of the assembly is not a significant factor, rather the required fire resistance rating is. A minimum thickness for the entire exterior wall assembly is unnecessary. (G110-18)

Section 602.4.4.2 Rationale:
The code currently does not recognize that heavy timber members could be used as a beam, header, column or any other boundary element within a wall of CLT. Glued laminated, SCL, or solid sawn heavy timber elements having the same rating, thickness, and protection as required for the CLT will have no significant difference in fire performance. This is a common-sense approach to the current code but should be made explicit. (G111-18)

Section 602.4.4.4 Rationale:
The option of having protected concealed spaces in Type IV buildings is important to encourage the adaptive re-use of existing heavy timber buildings as well as to provide for the installation of mechanicals in Type IV cross laminated timber (CLT) construction. In addition to the current requirements for all concealed spaces in combustible construction, this change would require additional protection of the concealed spaces with sprinkler coverage, or eliminating all air space with noncombustible insulation, or covering all combustible surfaces with gypsum. These alternatives are the same protection required for concealed spaces in NFPA 13, except they are slightly more restrictive since 5/8-inch Type X gypsum is required in the one case. In addition, because the provisions are taken from NFPA 13, in order to use these provisions, the entire building must be protected by a sprinkler system complying with NFPA 13.

A similar change was recently successful in NFPA 220 and NFPA 5000. This proposal is more conservative in that it requires 5/8-inch Type X gypsum instead of ½ -inch gypsum in the alternative for sheathing combustible concealed spaces with gypsum in proposed section 602.4.4.4. (G109-18)

Background information: The ICC Board approved the establishment of an ad hoc committee for tall wood buildings in December of 2015. The purpose of the ad hoc committee is to explore the science of tall wood buildings and to investigate the feasibility and take action on developing code changes for tall wood buildings. The committee is comprised of a balance of stakeholders with additional opportunities for interested parties to participate in the four Work Groups established by the ad hoc committee, namely: Code; Fire; Standards/Definitions; and Structural. For more information, be sure to visit the ICC website iccsafe.org/codes-tech-support/cs/icc-ad-hoc-committee-on-tall-wood buildings/ (link active and up to date as of 12/27/17). As seen in the “Meeting Minutes and Documents” and “Resource Documents” sections of the committee web page, the ad hoc committee reviewed a substantial amount of information in order to provide technical justification for code proposals.

The TWB believes the package of code change proposal will result in regulations that adequately address the fire and life safety issues of tall mass timber buildings.

California Governor Edmund G. Brown issued Executive Order B-52-18 on May 10, 2018 that became effective immediately. Among other directives, order number 13 charged the

State Fire Marshal, the department of Housing and Community Development, the Division of the State Architect, the California Building Standards Commission and the Statewide Health Planning and Development to review the approved Tall Wood Building Proposals of the International Code Council's Ad Hoc Committee on Tall Wood Buildings and shall consider proposing its adoption into the California Building Standards Code in the subsequent intervening code cycle.

To review the Executive Order B-52-18, please visit:

ca.gov/archive/gov39/wp-content/uploads/2018/05/5.10.18-Forest-EO.pdf

The State Fire Marshal initiated a workgroup to evaluate, discuss and make recommendations on the approved ICC Tall Wood Building proposals for adoption to the 2019 Title 24 intervening rulemaking cycle. Invitations were sent out to state agencies, stakeholders, fire service, building officials, interested parties and various industry organizations. The first meeting was held on April 2, 20019 at the State Fire Marshal headquarters at 2251 Harvard Street, Sacramento, CA 95815 from 0900 – 1500. There was a conference line and Skype computer meeting set up to accommodate widespread participation. The workgroup's last meeting was held on August 16, 2019, at which time all comments, presentations from industry, concerns and recommendations to the State Fire Marshal were finalized.

Cost Impact: The code change proposals will not increase or decrease the cost of construction. (G108-18)

CHAPTER 7
FIRE AND SMOKE PROTECTION FEATURES

Item 7-1
Chapter 7, Fire And Smoke Protection Features

The SFM proposes to adopt Chapter 7, carry forward existing amendments and propose modifications as shown below.

SECTION 703
FIRE-RESISTANCE RATINGS AND FIRE TESTS

Item 7-2
Chapter 7, Fire And Smoke Protection Features, Sections 703.9 and 703.7

[SFM proposed repeal and replace with model code language.]

Rationale:

The ICC TWB committee determined that the fire resistance rating of mass timber structural elements, embodied in a series of proposals including this one, shall consist of the inherent fire resistance rating of the mass timber and the additional fire resistance rating of the Noncombustible Protection described in new definitions proposals. The ICC TWB committee determined that at least 2/3 of the required fire resistance rating should come from the Noncombustible Protection. The TWB decided to provide both a performance path, as embodied in this proposal, and a prescriptive path, embodied in another proposal for Section 722.7.

This proposal constitutes the performance path for determining the contribution of noncombustible protection for mass timber elements. The proposal outlines a protocol to accomplish this. This proposal should be considered as a companion proposal to the proposals creating new types of mass timber construction in Section 602.4 and the code proposal in Section 722.7. The proposed new Section 602.4 requires the use of noncombustible protection on most mass timber elements in most of the proposed new types of construction.

This proposal, new section 703.8, is created to provide the method by which any material not contained in the prescriptive Table in Section 722.7 may be tested to show the time, in minutes, which it contributes as noncombustible protection. This procedure is representative of the procedure used in the past to determine the protection times for various membranes in Section 722.6 Component Additive Method for wood construction. It is neither new nor ambiguous in its use. Recent testing by AWC confirms the values derived from historic testing. A report is available at the following link: bit.ly/WFC-firetestofGWBonCLT

This link was confirmed active on October 14, 2019.

This procedure should not be confused with “membrane protection” which is based on temperature rise on the unexposed side of a membrane attached to construction elements. Noncombustible construction is, instead, noncombustible material meeting the requirements of Section 703.5. Its contribution to the fire resistance rating of any building element is determined by this proposed new section. Simply put, it is determined by measuring the fire resistance time, in minutes and determined by structural failure, of a mass timber building element and then conducting a second test measuring the fire resistance time, in minutes and determined by structural failure, of the identical mass timber element with identical load, construction and condition, but with the proposed noncombustible protection applied to it. The difference in time between the two samples is the contribution, in minutes, of the noncombustible protection.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (FS5-18)

SECTION 704
FIRE-RESISTANCE RATING OF STRUCTURAL MEMBERS

Item 7-3
Chapter 7, Fire And Smoke Protection Features, Section 704.6.1 Secondary attachments to Structrual members

SFM proposes to repeal and replace and amend to 704.6.1 to further clarify the attachments to primary and secondary structural members that are to be protected. The intent was to protect attachments that will pose a significant fire protection deficit in the primary and secondary structural members. The proposed modification clarifies that thin hanger wire that holds up ceiling grid and other items such as ½" or less threaded rod that holds up items above ceiling are not required to be protected with 12" of fire proofing material.

Cost Impact: The code change proposal will decrease the cost of construction
The cost impact will be that the small attachments defined in the proposal will not require protection, reducing costs significantly. The amount of reduction varies based on the number of small attachments, the presence of a hanging ceiling with metal grid and ceiling tiles, or other building service items such as ducts, cables and pipes, that might hang from a fire-resistance-rated assembly.

SECTION 707
FIRE BARRIERS

Item 7-4
Chapter 7, Fire And Smoke Protection Features, Section 707.4 Exterior Walls

[SFM proposed repeal and replace with model code language.]

Rationale:
Battery storage systems, now referred to as Energy Storage Systems, have historically been separated from other portions of an occupancy by one or two hour fire-resistance-rated construction as an Incidental Use. The enclosure protects the general occupancy areas from an event involving the Incidental Use.

One of the hazards of an energy storage system is thermal runaway leading to a fire event. These fire events can be significant and last several hours. The systems are required to be designed to prevent thermal runaway internally, however, thermal runaway can be induced in some case by an exterior event such as a damaging impact or from a fire exposure. Though the code now requires fire suppression of the space occupied by the energy storage system, the remainder of the occupancy may not be protected, and the current code language allows the use of fire-protection rated glazing material in door and window openings.

Fire-protection-rated glazing is intended to stop spread of flame and smoke, but not radiant heat. The radiant heat flow through the glazing is significant, enough to cause a fire on the other side of the fire-resistance-rated separation assembly, and, specific to this issue, induce thermal runaway of the energy storage system. (See the included Intertek test report (dropbox.com/sh/n8h65nht5dcruq5/AAAZxIS4ioKu_eTXz1GqjwQ3a?dl=0) and heat

transmittal through ceramic fire-protection-rated glazing with a revision date of May 13, 2016.)

A large part of the new requirements in the International Fire Code targeting energy storage systems and in the currently in cycle NFPA 855 Energy Storage Systems Standard is protecting the energy storage system from exposure hazards to the system. This proposal builds on that part of the protection to the systems by prohibiting the use of fire protection- rated glazing in one hour assemblies that are used to enclose energy storage systems.

Cost Impact: The code change proposal will increase the cost of construction. (FS26-18)

SECTION 708
FIRE PARTITIONS

Item 7-5
Chapter 7, Fire And Smoke Protection Features, Section 708.1 General

SFM proposed amendment adds corridor walls in Group I-2 and I-2.1 as required by CBC Section 407.3 to item 3 of the list of locations where corridor wall assemblies are to be constructed in accordance with the requirements for fire partitions.

Related Sections in Part 2, California Building Code 407.3

CBC Section 708.1 contains a list of wall assemblies required to be constructed in accordance with the requirements for fire partitions.

SFM proposed amendment adds corridor walls in Group I-2 and I-2.1 as required by CBC Section 407.3 to item 3 of the list of locations where corridor wall assemblies are to be constructed in accordance with the requirements for fire partitions. Because the IBC Section 407.3 does not include a requirement for Group I-2 and I-2.1 corridor walls to be constructed as fire partitions, the text from the IBC Section 708.1 does not include a reference to CBC Section 407.3. The SFM proposed amendment corrects an omission by adding a reference to CBC Section 407.3. CBC Section 407.3 requires corridor walls in Group I-2 and Group I-2.1 occupancies be constructed as fire partitions in accordance with CBC Section 708.

The 2021 IBC added 3 items numbered 6, 7 and 8 to the list included in IBC Section 708.1 therefore it is necessary for SFM item 6 to be renumbered as item 9.

The SFM proposed amendment corrects an error of omission providing direction to owners, designers, contractors and code officials to a requirement for corridor walls constructed as fire partitions in Group I-2 and Group I-2.1 occupancies that is unique to the State of California. Overlooking such a requirement is extremely impactful to the design and construction of Group I-2 and I-2.1 facilities. This SFM proposed amendment does not establish a new requirement.

SECTION 709
SMOKE BARRIERS

Item 7-6
Chapter 7, Fire And Smoke Protection Features, Section 709.3 Fire-resistance rating

SFM proposed to delete the exception for I-3 buildings.

Per CBC 709.3, a 1-HR fire resistance is required of smoke barriers. However, there is an exception that allows smoke barriers in an I-3 occupancy constructed with a minimum 0.10 steel to be exempt from the 1-HR fire resistance requirement. So, products such as Truss Built partitions constructed with 12 GA steel sheet currently meet this exception but does not comply with fire exposure and acceptance criteria (as specified by ASTM E119 or UL 263) required by CBC 703.3 for fire resistance ratings. In reviewing Truss Built's Intertek test reports, this product doesn't meet the E119 requirement for cold side temperature rise even though it maintains a 3-HR structural integrity for duration of fire test. During the 3-HR test the temperature rise exceeded the allowed rise within 15 minutes into the test.

SECTION 716
OPENING PROTECTIVES

Item 7-7
Chapter 7, Fire And Smoke Protection Features, Table 716.1(2), Table 716.1 (3), and Section 716.2.5.4.1

[The SFM is proposing to repeal all California amendments to Table 716.1(2) Opening Fire Protection assemblies, rating and markings, Table 716.1(3) and Section 716.2.5.4.1.]

[Section: TABLE 716.1(2), TABLE 716.1(3), 716.2.5.4.1 (New)716.3.2.1.1.1 (New)]
Rationale:
Battery storage systems, now referred to as Energy Storage Systems, have historically been separated from other portions of an occupancy by one or two-hour fire-resistance-rated construction as an Incidental Use. The enclosure protects the general occupancy areas from an event involving the Incidental Use.

One of the hazards of an energy storage system is thermal runaway leading to a fire event. These fire events can be significant and last several hours. The systems are required to be designed to prevent thermal runaway internally, however, thermal runaway can be induced in some case by an exterior event such as a damaging impact or from a fire exposure. Though the code now requires fire suppression of the space occupied by the energy storage system, the remainder of the occupancy may not be protected, and the current code language allows the use of fire protection rated glazing material in door and window openings.

Fire protection rated glazing is intended to stop spread of flame and smoke, but not radiant heat. The radiant heat flow through the glazing is significant, enough to cause a fire on the

other side of the fire-resistance-rated separation assembly, and, specific to this issue, induce thermal runaway of the energy storage system. (See the included Intertek test report and heat transmittal through ceramic fire protection rated glazing with a revision date of May 13, 2016.)

dropbox.com/sh/n8h65nht5dcruq5/AAAZxIS4ioKu_eTXz1GqjwQ3a?dl=0

A large part of the new requirements in the International Fire Code targeting energy storage systems and in the current cycle of NFPA 855 Energy Storage Systems Standard is protecting the energy storage system from exposure hazards to the system. This proposal builds on that part of the protection to the systems by prohibiting the use of fire protection rated glazing in one hour assemblies that are used to enclose energy storage systems.

Cost Impact: The code change proposal will increase the cost of construction. (FS26-18)

Item 7-8
Chapter 7, Fire And Smoke Protection Features. 716.2.6 Fire door hardware and closers

This is editorial. During review of 2018 IBC and 2021 IBC revisions, noticed inappropriate use of “closures”. Explanation: a closer is a device that provides closure of something that closes or shuts. Put another way, the closer closes the closure.

SECTION 717
DUCTS AND AIR TRANSFER OPENINGS

Item 7-9
Chapter 7, Fire And Smoke Protection Features, 717.5.2 Fire Barriers

SFM proposed amendment adds a reference to the California Mechanical Code Section 603 for the enforcement of the CBC flexible duct provisions contained in Section 717.5.2 Exceptions 3.1 and 3.2. SFM proposed amendment reformats text so as not to indent the paragraph and corrects section numbers referenced in the paragraph.

Related Sections in Part 2, California Building Code 707, 708, 711, 714, 716, 717, 1020.1, 1023.5, 1024

The 2021 edition of the IBC includes new provisions referencing flexible duct requirements located in the International Mechanical Code. The California Mechanical Code is the mechanical code adopted by the California Building Standards Commission.

The SFM proposed amendment deletes references to sections of the International Mechanical Code located in the 2021 IBC Section 717.5.2 Exceptions 3.1 and 3.2. The SFM proposed amendment adds a reference to the California Mechanical Code Section

603 for the enforcement of the CBC flexible duct provisions contained in Section 717.5.2 Exceptions 3.1 and 3.2. The California Mechanical Code Section 603 includes requirements for the installation of nonmetal flexible air ducts listed and labeled in accordance with UL 181. This SFM proposed amendment does not establish a new requirement.

The SFM proposed amendment corrects Section 717.5.2 Exceptions 3.1 and 3.2 by deleting references to the International Mechanical Code and providing a reference to the California Mechanical Code Section 603. The SFM proposed amendment eliminates incorrect information and provides owners, designers, contractors and code officials with direction to the correct source for additional information related to the installation of flexible ducts.

SFM proposed amendment reformats text so as not to indent the paragraph and corrects section numbers referenced in the paragraph. Editorial only. This SFM proposed amendment does not establish a new requirement.

SFM Proposed amendment corrects a reference to the CBC sections containing requirements for the protection of penetrations at interior exit stairways, ramps and exit passageways. These requirements have been relocated from CBC Sections 1022.4 and 1023.6 to CBC Sections 1023.5 and 1024.6 respectively. The SFM proposed amendment is editorial only. It corrects a code section reference error. This SFM proposed amendment does not establish a new requirement. The SFM proposed amendment directs owners, designers, contractors, and code officials to the correct sections for further information regarding the protection of penetrations at interior exit stairways, ramps and exit passageways.

This provision is currently indented. To be consistent with similar provisions in Section 717.5.2, this provision should not be indented. Realigning this provision consistent with the established format of Section 717.5.2 will assist owners, designers, contractors, and code officials interpreting and applying the requirements of Section 717.5.2.

Item 7-10
Chapter 7, Fire And Smoke Protection Features, Section 717.5.4.1 Corridors

The CBC Section 717.5.4.1 charging statement specifies that the provisions of 714.5.4.1 are not applicable to Group I occupancies.

Related Sections in Part 2, California Building Code 407.3.1, Table 716.1(2), 716.2.2.1

The CBC Section 717.5.4.1 charging statement specifies that the provisions of 714.5.4.1 are not applicable to Group I occupancies.

SFM proposed amendment deletes language inadvertently added to CBC Section 717.5.4.1. The language deleted by the SFM proposed amendment references CBC Section 407.3.1. CBC Section 407.3.1 regulates corridor doors in Group I-2 and I-2.1

occupancies. The inclusion of information regulating doors located in Group I occupancies in Section 717.5.4.1, a section that is not applicable to Group I occupancies, is therefore not appropriate. This SFM proposed amendment does not establish a new requirement.

The SFM proposed amendment corrects a provision of CBC 717.5.4.1 by deleting language incorrectly included in the section. The inclusion of inapplicable language in CBC Section 717.5.4.1 is confusing for owners, designers, contractors, and code officials. The SFM proposed amendment is editorial only.

SECTION 718
CONCEALED SPACES

Item 7-11
Chapter 7, Fire And Smoke Protection Features, Section 718.2.1 Floreblocking materials

[The SFM proposes to repeal and replace with model code language.]
Rationale:
The purpose of this code change proposal is to recognize that mass timber as a suitable fireblocking material. The current list of acceptable materials lists “nominal lumber”, therefore since mass timber (e.g. Sawn, glued-laminated, and cross laminated timbers) are of greater mass the correlation from single nominal lumber to mass timber was determined to be of equal or greater blocking resistance to reduce the ability of fire, smoke and gasses from moving to different part of the building through combustible concealed spaces.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (FS73-18)

SECTION 722
CALCULATED FIRE RESISTANCE

Item 7-12
Chapter 7, Fire And Smoke Protection Features, Sections 722.7, 722.7.1, Table 722.7.1(1), Table 722.7.1(2), 722.7.2, 722.7.2.1, 722.7.2.2 (Tall Wood proposals)

The SFM proposes to repeal and replace with model code language.

[Sections: 722.7 (New), 722.7.1 (New), TABLE 722.7.1 (1) (New), TABLE 722.7.1 (2) (New), 722.7.2 (New), 722.7.2.1 (New), 722.7.2.2 (New)]

Rationale:
Typically, mass timber elements will be large due to structural requirements. In addition, Cross Laminated Timber panels typically are utilized in odd number laminations. This typically results in excess capacity which means better fire endurance. Thus, mass timber

elements are conservative in their fire resistance rating. Furthermore, the ICC TWB committee decided to provide both a prescriptive path, as embodied in this proposal, and a performance path, embodied in another proposal.

This proposal outlines a method to calculate the fire resistance rating of a protected wood element by adding the fire resistance rating of the unprotected wood member together with the protection time provided by the noncombustible protection applied to the exposed wood.

This proposal should be considered as a companion proposal to the proposals creating new types of mass timber construction in Section 602.4 and the code proposal for Section 703.8 outlining a testing protocol to determine the contribution of noncombustible protection.

This code proposal allows the user to select a prescriptive solution utilizing Type X gypsum wall board, which is deemed to comply with the basic requirements of this section and those of the proposed Section 602.4. Since this is a prescriptive solution, conditions of use such as attachment, finishing and edge treatment when bordering exposed mass timber areas, are also included in this section.

A proposal in Section 703.8 both forms the performance path for this determination and is the basis by which the contribution of the Noncombustible Protection to the fire resistance rating is determined. Testing of beams, columns, walls and ceiling panels has been used to establish the values found in table 722.7.1(b) for 1/2-inch Type X and 5/8-inch Type X gypsum board as well.

Recent testing by American Wood Council confirms the values derived from historic testing. A report is available at the following link:
bit.ly/WFC-firetestofGWBonCLT

This link was confirmed active on October 14, 2019

Tests proposed in Section 703.8 may be used in the future to justify additional materials added to this table and should not be confused with “membrane protection” which is based on temperature rise on the unexposed side of a membrane attached to construction elements. Noncombustible construction is, instead, noncombustible material meeting the requirements of Section 703.5. Its contribution to the fire resistance rating of any building element is determined by this proposed new section. Simply put, it is determined by measuring the fire resistance time in minutes to the point of structural failure of a mass timber building element and then conducting a second test measuring the fire resistance time in minutes taken to the same point of structural failure. Each test is to be conducted with identical mass timber element with identical load, construction and condition, but with the proposed noncombustible protection applied to the second assembly. The difference in time between the two samples is the contribution, in minutes, of the noncombustible protection.

The referenced standards, ASTM C645 and ASTM C1002, are currently referenced in the 2019 California Code of Regulations Title 24.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (FS81-18)

CHAPTER 7A
MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE

Item 7A-1
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure

The SFM proposes to adopt Chapter 7A and carry forward existing amendments with modifications as shown below.

SECTION 701A
SCOPE, PURPOSE AND APPLICATION

Item 7A-2
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 701A.1 Scope

The SFM proposes to add the acronym WUI for Wildland-Urban Interface.

Rationale: The addition of the acronym is consistent with terminology used to describe the fire are in a wildland-urban interface. The acronym “WUI” is more commonplace that the spelled out meaning of the acronym. The proposal is to stay current with terminology.

Item 7A-3
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 701A.3 Application

The SFM proposes to restate the application as it applies to accessory buildings and structures.

There are no changes to regulatory provisions; rather, only non-regulatory changes are made, to clarify standing regulations.

1. The hanging sentence (previously located after the list of exceptions) was moved up to the charging paragraph and revised to clarify what buildings are “applicable”. It is critical that this term, while defined in Section 702A, be clearly stated in the “Application” section. The sentence already states that they are “all new buildings with residential, commercial, educational, institutional, or similar occupancy type use”.

Since “applicable building” is only used in Section 701A and 710A, placing its definition within 702A can confidently be done without interfering with the meaning of the rest of the chapter.

2. Since Exception #1 of 701A.3 is actually not necessary because the code user still needs to go to Section 710A to see if the enforcing agency requires it, Exception #1 can be removed.

3. Exceptions 2 (now #1) and 3 (now #2) are rewritten in language that is similar for consistency.

4. Exceptions 2 (now #1) refers to Group U accessory buildings and the rewording is just simpler language.

5. Exception 3 (now #2) refers to Group U agricultural buildings and the reference to the appendix adds nothing (as the appendix is not enforceable; see also below).

6. Existing Exception 4 (now #5) is revised with the applicable date and retained, and moved to the end as Exception 5.

7. Existing Exception 5 is retained and becomes Exception 3.

8. New Exception 4 is consistent with Section 710A.2 and relocates section 701A.3.2 to where it belongs, as an exception to 701A.3. This clarifies that accessory structures do not have to comply with any other section in Chapter 7A than section 710A.

9. A new clause is added to the end of the charging paragraph to clarify that accessory buildings and structures are within the scope of Chapter 7A but to direct the user exclusively to Section 710A.

Item 7A-4
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 701A.3.2 Application to accessory buildings and miscellaneous structures

The SFM proposes to delete the Section 701A.3.2 as it was added to the main Application Section 701A.3 as shown above.

SECTION 702A
DEFINITIONS

For the purposes of this chapter, certain terms are defined below:

Item 7A-5
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to define an applicable building as it pertains to the 7A regulations.

Rationale: The definition was added for comprehensibility for what an applicable building in regards to the regulations of Chapter 7A. It is critical that this term, while defined in Section 702A, be clearly stated in the "Application" section. The sentence already states that they are "all new buildings with residential, commercial, educational, institutional, or similar occupancy type use".
Since "applicable building" is only used in Section 701A and 710A, placing its definition within 702A can confidently be done without interfering with the meaning of the rest of the chapter.

Item 7A-6
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to update the title of the director for the California Department of Forestry and Fire Protection which is currently known as CAL FIRE.

Rationale: Editorial. Over the years the State Agency has updated the identity from CDF to Cal Fire. The change is correcting an outdated term.

Item 7A-7
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to add a definition of an exterior wall assembly.

Rationale: The definitions of exterior wall covering and exterior wall assembly are being added because they are needed to distinguish between different exterior wall products in section 707.

Item 7A-8
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to add a definition of an exterior wall covering.

Rationale: The definitions of exterior wall covering and exterior wall assembly are being added because they are needed to distinguish between different exterior wall products in section 707.

Item 7A-9
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to modify the definition of a fire protection plan, which will correlate to changes proposed in the California Fire Code Chapter 49.

Rationale: The proposal of a standard fire protection plan section 4903 warranted an updated definition. The second part of the definition is not needed any longer, as the new proposed Section 4903 will cover the requirements and regulations. The group expressed that having the regulation requirements in the definition was not appropriate.

Item 7A-10
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to make an editorial correction.

Item 7A-11
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to add the definition of a Fire-Resistant Vegetation, which will correlate to changes proposed in the California Fire Code Chapter 49.

Rationale: The term fire resistant vegetation which is referenced in Chapter 49 was not previously defined. Chapter 49 has been significantly revised, the definition will add clarification to the term used throughout the revision.

Realizing that vegetation can never be completely fire resistant, the definition was composed to describe the beneficial characteristics that determine when vegetation is less likely to be a significant contributing factor in a wildfire. And while all burning vegetation will contribute some heat to a fire, the amount of heat is variable. For instance, dry grasses and other light fuels will initially contribute heat and proceed to burn out quickly compared to thick branches of a tree which take more energy to ignite, but will contribute significantly more heat once ignited than a light fuel.

The definition also pays homage to the requirements in Public Resources Code, Division 4, Part 2, Chapter 3, Section 4291 which stipulates the Department of Forestry and Fire Protection to provide guidance on fuel management ensuring “regionally appropriate vegetation suggestions that preserve and restore native species that are fire resistant and/or drought tolerant”. It is essential that in the widely variable climatic regions within California, that home owners have options to select regionally appropriate fire-resistant vegetation. And to ensure when not native to the region they do not create a higher risk of

vegetative flammability than native vegetation. It is also not the intent to imply that native vegetation must be removed, but to allow a comparison of relative flammability between proposed non-native, new vegetation and existing native vegetation.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This adds clarification to a term referenced in the code.

Item 7A-12
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to modify the definition of Ignition-resistant material and send the code user to the appropriate standard.

Rationale: The definition of ignition resistant material is being revised because SFM Standard 12-7A-5 has been rendered obsolete and is being deleted. In section 703 the standard will no longer appear, but ignition resistant materials will be accepted based on testing to an extended ASTM E84 test (to 30 minutes) or to ASTM E2768. That was the original intent of the SFM.

Item 7A-13
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to make editorial corrections and add an acronym.

Rationale: Editorial update, no regulation change. Provides consistency with the language in the regulations.

Item 7A-14
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to make editorial corrections and add an acronym.

Rationale: Editorial addition of the acronym to be consistent with terminology used in the regulations.

Item 7A-15
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to make editorial corrections.

Item 7A-16
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to make editorial corrections.

Item 7A-17
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 702A Definitions

The SFM proposes to add an acronym.

Rationale: The addition of the acronym is consistent with terminology used to describe the fire are in a wildland-urban interface. The acronym “WUI” is more commonplace that the spelled out meaning of the acronym. The proposal is to stay current with terminology.

SECTION 703A
STANDARDS OF QUALITY

Item 7A-18
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 703A Standards of Quality

The SFM proposes to delete a SFM standard and add updated equivalent standards.

Rationale: This proposal does not change any requirement and does not delete or replace four of the five CA SFM standards that have been replaced by ASTM standards because of the concern about materials and products approved via testing to them. CA SFM 12-7-A2 does not have an ASTM replacement and is proposed to be retained. CA SFM Standard 12-7A-5, Ignition-resistant Material is being replaced because it is no longer correct. It refers to a generic building material surface burning flame spread test standard consisting of an extended 30 minute ASTM E84 or UL 723 test method as is used for fire-retardant treated wood. It is equivalent to ASTM E2768, which is the 30-minute version of ASTM E84 with the correct pass/fail criteria, consistent with the building code.

A reference to ASTM E119 and UL 263 is being proposed to be added into 707, everywhere there is a requirement to test for a fire resistance rating, and they are being added here. If no information exists on the test for fire resistance rating, ASTM E84 or UL 263 (which are the same test) is the logical test to use, just like elsewhere in the California Code.

The following SFM standards with ASTM equivalents are being retained:

1. SFM Standard 12-7A-1, Exterior Wall Siding and Sheathing. A fire resistance test standard consisting of a 150-kW intensity direct flame exposure for a 10-minute duration. It is equivalent to ASTM E2707.

2. SFM Standard 12-7A-3, Horizontal Projection Underside A fire resistance test standard consisting of a 300-kW intensity direct flame exposure for a 10-minute duration. It is equivalent to ASTM E2957.

3. SFM Standard 12-7A-4, Decking. A two-part test consisting of a heat release rate (Part A) deck assembly combustion test with an under-deck exposure of 80 kW intensity direct flame for a 3-minute duration, and a (Part B) sustained deck assembly combustion test consisting of a deck upper surface burning ember exposure with a 12-mph wind for 40 minutes using a 2.2lb (1kg) burning “Class A” size 12" x 12" x 2.25" (300 mm x 300 mm x 57 mm) roof test brand. It is equivalent to the combination of ASTM E2632 and ASTM E2726. Wherever it is required the code also requires both the ASTM tests to be conducted.

4. SFM Standard 12-7A-4A, Decking Alternate Method A. A heat release rate deck assembly combustion test with an under-deck exposure of 80 kW intensity direct flame for a 3-minute duration. It is equivalent to ASTM E2632.

SECTION 704A
IGNITION-RESISTANT CONSTRUCTION

Item 7A-19
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 704A Ignition-Resistant Construction

The SFM proposes to provide the code user to correct Section pointers.

Item 7A-20
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 704A Ignition-Resistant Construction

The SFM proposes to make editorial changes, add testing standards.

Item 7A-21
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 704A Ignition-Resistant Construction

The SFM proposes to add testing standard for wood structural panels.

Rationale: This eliminates confusion in 704A.2 by not going to the CA standard which is not necessary when the details are in this section. Moreover, this is consistent with what the IBC did for the 2021 IBC but will not be brought in directly as it is in 7A and not in chapter 23 of the CBC. The new proposed 704.A.3.1 is consistent with the change in section 2303.2 of the 2021 IBC, which will read as follows, on approval of S166 AM and of S167 AM PC2:

> *2021 IBC Section 2303.2 Fire-retardant-treated wood. Fire-retardant-treated wood is any wood product that, when impregnated with chemicals by a pressure process or other means during manufacture, shall have, when tested in accordance with ASTM E84 or UL 723, a listed flame spread index of 25 or less. Additionally, the ASTM E84 or UL 723 test shall be continued for an additional 20-minute period and the flame front shall not progress more than 10 / feet (3200 mm) beyond the centerline of the burners at any time during the test.*
>
> *2021 IBC Section 2303.2.1 Pressure process. For wood products impregnated with chemicals by a pressure process, the process shall be performed in closed vessels under pressures not less than 50 pounds per square inch gauge (psig) (345 kPa).*
>
> *2021 IBC Section 2303.2.2 Other means during manufacture. For wood products impregnated with chemicals by other means during manufacture, the treatment shall be an integral part of the manufacturing process of the wood product. The treatment shall provide permanent protection to all surfaces*
>
> *of the wood product. The use of paints, coating, stains or other surface treatments is not an approved method of protection as required in this section.*
>
> *2021 IBC Section 2303.2.3 Fire Testing of Wood Structural Panels. Wood structural panels shall be tested with a ripped or cut longitudinal gap of 1/8" (3.2 mm).*

Background:
All testing laboratories who are asked to conduct the “extended ASTM E84 test” provide sentences equivalent to the proposed new section 704.A.3.1 in their report. A typical statement is: “The flame front shall not progress more than 10.5 ft. (3.2 m) beyond the centerline of the burners at any time during the 30-minute test period. This is considered evidence of no significant progressive combustion in this test method.” ASTM E84 is a 10-minute test period and is silent on the requirements for 30-minute testing. The “added” criterion of “no evidence of significant progressive combustion” can be used as a “barrier” to the introduction of new materials.

This proposal simply explains that the requirement for “no evidence of significant progressive combustion” is duplicative because it is undefined and the only evidence as to how to measure it is contained in ASTM E2768. Fire testing labs have used as the corresponding criterion that the flame front in the ASTM E84 test does not progress more than 10.5 ft. beyond the centerline of the burners in either the 10-minute test or the continuation of the test for an additional 20 minutes (for a total of 30 minutes).

The “extended ASTM E84 test” is used in the IBC, the IRC, the IFC, the IMC and the IWUIC. It is also used in NFPA codes (NFPA 101, Life Safety Code and NFPA 5000, Building Code) and in NFPA 703 (“Standard for Fire Retardant–Treated Wood and Fire-Retardant Coatings for Building Materials”). It is also used in AC 66 (Acceptance Criteria

for Fire-Retardant Treated Wood). However, neither in any of the ICC codes nor in any NFPA code or standard nor in AC 66 nor in ASTM E84 is there any description or guidance for what constitutes “no evidence of significant progressive combustion”. However, there is one standard that contains the criterion for the assessment of “no evidence of significant progressive combustion”. That standard is ASTM E2768 “Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30 min Tunnel Test)”.

It has been stated that AC 66 (Acceptance Criteria for Fire-Retardant Treated Wood) describes the way in which “no evidence of significant progressive combustion” is assessed. The June 2012 edition of AC 66 states as follows, in sections 3.1.4 and 3.2.4, which is the same language used in the codes, namely:

“3.1.4 Surface Burning Characteristics The surface burning characteristics (flame spread and smoke-developed index) shall be determined in accordance with ASTM E 84 or UL 723. The flame spread index shall be 25 or less and there shall be no evidence of significant progressive combustion when the test is continued for an additional 20-minute period. Additionally, the flame front shall not progress more than 10½ feet (3200 mm) beyond the centerline of the burners at any time during the test. The smoke-developed index shall be 450 or less. For recognition of exterior use, tests shall be conducted both before and after durability tests conducted in accordance with Section 3.1.3. The FRT lumber shall meet the requirements of IBC Section 2303.2, IRC Section R802.1.3, UBC Section 207, SBC Section 202, or BNBC 2310.2, as applicable.”

“3.2.4 Surface Burning Characteristics The surface burning characteristics (flame spread and smoke-developed index) shall be determined in accordance with ASTM E 84 or UL 723. The flame spread index shall be 25 or less and there shall be no evidence of significant progressive combustion when the test is continued for an additional 20-minute period. Additionally, the flame front shall not progress more than 10½ feet (3200 mm) beyond the centerline of the burners at any time during the test. The smoke-developed index shall be 450 or less. For recognition of exterior use, tests shall be conducted both before and after durability tests conducted in accordance with Section 3.2.3. The FRT plywood shall meet the requirements of Section 2303.2 of the IBC or Section R802.1.3 of the IRC, UBC Section 207, SBC Section 202, or BNBC Section 2310.2, as applicable.”

No means has been proposed in any document other than in ASTM E2768 as to what constitutes “no evidence of significant progressive combustion”. Note that ASTM E2768 applies to any material or product and not just to wood. The scope of ASTM E2768 includes the following statement: “The purpose of this fire-test-response standard is to evaluate the ability of a product to limit the surface spread of flame when evaluated for 30 min. This fire-test-response standard uses the apparatus and procedure of Test Method E84 with the total test period extended to 30 min.”

The conditions of classification of ASTM E2768 include the following criteria and are identical to the conditions of acceptance included based on the “extended ASTM E84 or UL 723”:

1. The flame spread index shall be 25 or less as determined for the initial 10 min test period,
2. The flame front shall not progress more than 10.5 ft. (3.2 m) beyond the centerline of the burners at any time during the 30-min test period. This is considered evidence of no significant progressive combustion in this test method.

SECTION 706A
VENTS

Item 7A-22
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 706A Vents

The SFM proposes to modify and rewrite the General section to align with additional vent changes below.

Rationale: 706A.1: This is a unification of redundant wording from the following sections: 706A.2 706A.2.1 & 706A.3. This section is intended to qualify the general intent of coverage of the requirements for all applications to follow. It is all now condensed in a single location.

Item 7A-23
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 706A Vents

The SFM proposes to make editorial corrections and expand the requirement for protection from embers to all ventilation openings.

706A.2 Having qualified the intent in the “general” section 706A.1, this section identifies the actual requirements to follow. The applications are not needed as all applications are shown in 706A.1 Previously, it just restated some applications from the “general” section. This was redundant.

Deletion of exceptions 1 and 2: These exceptions are remaining in the code from when there was no listing of vents. With the listing of vents, the exceptions are not needed. Exception 1 includes a term “special eave and cornice vents” that lacks any definition and is not needed because the AHJ should simply accept listed vents. This exception also does not qualify the ability of the vents to “resist the intrusion of flame and burning embers”.
The second exception is based on the concept that sprinklers complying with NFPA 13, plus two other requirements, will ensure safe vents. That is not valid. If a property is sprinklered to NFPA 13 it may very well not sprinkler the attic area. Moreover, there is no assurance that this will prevent the intrusion of flames or burning embers.

Item 7A-24
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 706A Vents

The SFM proposes to delete language that has been incorporated in to the Section 706A.2 requirements. This proposal cleans up the intent of vents in the wildland urban interface area, that any opening where flame and embers may enter the home shall be protected.

The new language allows for a compliance path for off ridge and ridge vents to be used in the wildland urban interface, with protections against ember intrusion. The use of non-wildfire resistant off ridge and ridge vent should be avoided where possible. The current scope of standard ASTM E2886 is the following which excludes off ridge and ridge vents:

> 1.1This fire-test-response standard prescribes two individual methods to evaluate the ability of a gable end, crawl space (foundation) and other vents that mount on a vertical wall or in the under-eave area to resist the entry through the vent opening of embers and flame. The ability of such vents to completely exclude entry of flames or embers is not evaluated. Roof ridge and off-ridge (field) vents are excluded from this standard. Acceptance criteria are not provided in this standard.

Vents that are tested to the ASTM E2886 standard provide better protection than screens. Of the ridge and off ridge outlet vent options, the following performed well:

> Miami-Dade wind-driven-rain-compliant ridge vent
> Wildfire-resistant off-ridge vent
> Turbine (off-ridge) vent

Wind-blown vegetative debris must be removed from the inlet of all ridge and off-ridge vents. Plastic components are not allowed. All components shall be noncombustible and corrosion resistant.

Item 7A-25
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 706A Vents

The SFM proposes to delete the subsection 706A.3 that is no longer needed. It has been incorporated into Section 706A.2 requirements. This proposal cleans up the intent of vents in the wildland urban interface area, that any opening where flame and embers may enter the home shall be protected.

SECTION 707A
EXTERIOR COVERING

Item 7A-26
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to add clarifying definitions, delete outdated language, clearly state that the exceptions are for the entire Section 707A.2, and delete exceptions.

Rationale: Section 707A.3 contains requirements for both the “exterior wall covering” and the “exterior wall assembly” but they are the same. In fact, exterior wall coverings and exterior wall assemblies are different, and it is important to separate them and this is being done by splitting 707A.3 into 707A.3 (for coverings) and 707A.4 (for assemblies), The changes to 707A.2 are simply editorial, but it is important also to add a definition of “exterior wall assembly” and of “exterior wall covering”.

For all sections below it is being made clear that combinations of materials or assemblies are permitted by stating “one or more” instead of just “one” of the materials or assemblies.

Item 7A-27
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to add clarifying definitions, delete, and move the exceptions to subsections shown below.

Rationale: The key changes are that exterior wall covering, and exterior wall assembly are separated into two sections, with 707A.3 dealing with exterior wall coverings. combined. The sentence in 707A.3.2, which deals with all exterior wall coverings is being moved to the charging paragraph, without a change in requirements.

Item 2 is being revised to clarify what section contains the requirements for ignition resistant materials. It also clarifies that the ignition resistant material needs to be labeled for exterior use, since not all ignition resistant materials are required to meet the weathering test.

Item 3 is being added because, although fire retardant treated wood (FRTW) is an ignition resistant material, it should be mentioned specifically since the code has particular requirements for it. Also, the change clarifies that the FRTW must be labeled for exterior use, as above. The fire performance of ignition resistant materials is of the same order as that of FRTW. Both need to meet the extended ASTM E84, with the same criteria. This clarification is being made in all sections.

Items 2 and 3 could be switched but both are exterior wall coverings and not exterior wall assemblies, which have all been moved into a new 707A.4.

Item 7A-28
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to delete the subsection and move it to an added section shown below.

Item 7A-29
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to renumber the section based on reorganizing.

Item 7A-30
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to add a section for exterior wall assemblies.

Rationale: (new) This contains all the assemblies from the earlier 707A.3.

Items 1 through 4 are identical to items 3 through 6 of the original section.

Item 5 is being added as a generic version of the two exceptions, both of which address a one-hour fire resistance rated assembly, suitable for exterior fire exposure. In the revised language, it is being made clear that the fire resistance rating is assessed from the exterior side and is assessed by testing to ASTM E119 or UL 263 (something inherent but missing in the existing text, done in all sections).

The exceptions in the existing text are both examples of what is expected to be a 1-hour fire resistance rating. Therefore, the exceptions should be deleted from their present location as they represent a new proposed option, which is simply a pair of examples of a 1-hour fire resistance rating. Thus, the exceptions in the original section are being deleted and replaced by items 6 and 7. They are consistent also with what is in the IWUIC.

This proposed revision does not delete the wall assemblies tested to SFM Standard 12-7A-1 or to ASTM E2707 (with the pass/fail criteria in 707A.4.1), which are identical to each other and are of much lower fire performance than any of the others.

An exception is added to 707A.4 to indicate that the exterior wall coverings in 707A.3 do not require compliance with 707A.4, meaning that any exterior wall assembly with one of those three types of exterior wall covering is acceptable.

The IBC contains definitions of “exterior wall envelope” and of “exterior wall covering” but it uses the terms “exterior wall assembly” and “exterior wall envelope” with the same meaning. Therefore, since the terms “exterior wall assembly” and “exterior wall covering” are being used in Chapter 7A they should be defined here.

Chapter 7A has a definition for “exterior covering”, as shown below, and that is retained.

EXTERIOR COVERING. The exposed siding or cladding material applied to the exterior side of an exterior wall, roof eave soffit, floor projection or exposed underfloor framing.

Note that, in a separate proposal, the requirements for ignition resistant materials (in 704A.2)

are being made consistent with the change accepted by the IBC for the 2021 edition. Note also that the requirements for noncombustible materials (in 704A.4) are, in a separate proposal, being made consistent also with the IBC 2021. Neither of these changes affect section 707A.

Item 7A-31
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to add a subsection for exterior wall assemblies.

This proposed revision does not delete the wall assemblies tested to SFM Standard 12-7A-1 or to ASTM E2707 (with the pass/fail criteria in 707A.4.1), which are identical to each other and are of much lower fire performance than any of the others.

Item 7A-32
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to renumber based on reorganization, add criteria for compliance, clarify the exceptions apply to the entire section, delete exceptions that no longer apply.

Rationale: No change in requirements - This makes the section on open roof eaves fully consistent with the section on exterior walls. Now 707A.5

Item 7A-33
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to renumber based on reorganization, add criteria for compliance, clarify the exceptions apply to the entire section, delete exceptions that no longer apply.

Rationale: No change in requirements - This makes the section on enclosed roof eaves fully consistent with the sections on exterior walls and open roof eaves. Now 707A.6.

Item 7A-34
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to renumber based on reorganization, add criteria for compliance, clarify the exceptions apply to the entire section, delete exceptions that no longer apply.

Rationale: No change in requirements - This makes the section on exterior porch ceilings fully consistent with the sections on exterior walls, open roof eaves, and enclosed roof eaves. Note that items 5 and 6 are identical, relating either to the ASTM or to the CA fire test. Now 707A.7.

Item 7A-35
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to renumber based on reorganization, add criteria for compliance, clarify the exceptions apply to the entire section, delete exceptions that no longer apply.

Rationale: No change in requirements - This makes the section on floor projections fully consistent with the sections on exterior walls, open roof eaves, enclosed roof eaves and exterior porch ceilings. Note that items 5 and 6 are identical, relating either to the ASTM or to the CA fire test. Now 707A.8.

Item 7A-36
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to renumber based on reorganization, add criteria for compliance, clarify the exceptions apply to the entire section, delete exceptions that no longer apply.

Rationale: No change in requirements - This makes the section on underfloor protection fully consistent with all the earlier sections. Note that the second sentence in the overall exception needs a verb. Now 707A.9

Item 7A-37
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to renumber based on reorganization, add criteria for compliance, clarify the exceptions apply to the entire section.

Rationale: No change in requirements - This makes the section on underside of appendages fully consistent with all the earlier sections. Note that items 5 and 6 are identical, relating either to the ASTM or to the CA fire test. Note that the second sentence in the overall exception needs a verb. Now 707A.10.

Item 7A-38
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 707A Exterior Covering

The SFM proposes to renumber based on reorganization.

Rationale: No change in requirements - Now 707A.11.

For all proposals of Section 707A the requirements allow the use of “one or more” instead of just one of the testing options.

SECTION 709A
DECKING

Item 7A-39
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 709A Decking

The SFM proposes to add correct section pointers.

Rationale: The changes are simple clarification and do not change requirements.

709A.3 item 3: ignition resistant material is defined now in 704A.3, and it explains the test methods to be used. Repeating them here simply leads to potential confusion.

709A.3 item 3: SFM 12 7A-5 is being deleted and the requirements are in 704A.3.

Item 7A-40
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 709A Decking

The SFM proposes to make an editorial correction.

Rationale: The changes are simple clarification and do not change requirements.

709A.4: this is a typo that was never corrected. These requirements are not for an ignition resistant material

Item 7A-41
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to add to the Title of Section 710A for comprehensibility an intent of the section requirements.

Item 7A-42
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to modify the General section to clearly state the intent of the requirements of Section 710A.

Rationale for changes to CBC Section ***710A ACCESSORY STRUCTURES*****:**
Section 710A was reorganized, and the language clarified, for better flow and consistent categories of accessory structures and buildings.

Item 7A-43
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to modify the Applicability section to clearly state the intent of the requirements of Section 710A.

Item 7A-44
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to modify the Where required section to clearly state the intent of the requirements of Section 710A.

Item 7A-45
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to delete a section that is no longer needed based on reorganization and intent of the entire 710A section.

Item 7A-46
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to renumber and reorganize the requirements for accessory buildings at different distances from an applicable building.

The subsections of 710A.3 were organized by uniform categories of distances from applicable buildings.

A hole/gap in coverage was identified for accessory buildings located at a distance of

between 3 feet and 30 feet from an applicable building, and the SFM moves to fill that oversight by mandating enforcement upon those greater than 120 square feet and by leaving it to the discretion local Authority Having Jurisdiction (AHJ) for those less than 120 square feet.

Since Exception #1 of 701A.3 is not necessary because the code user still needs to go to Section 710A to see if the enforcing agency requires it, Exception #1 (which was the only place the code still mentioned this 30-foot threshold) can be removed. This removal of Exception #1 now allows the combining of categories 3'-30' and 30'-50'.

The following table helps visualize the resultant requirements.

Location	Noncombustible or Ignition-resistant Materials Required CBC Section 704A.2		
	Accessory Building ≤120 ft²	Accessory Building >120 ft²	Misc. Structure that requires a permit, (any size)
Attached or <3'	Yes (per 710A.3.1)	Yes (per 710A.3.1)	Yes (per 710A.3.1)
≥3' and <50'	When required by AHJ (per 710A.3.3)	Yes (per 710A.3.2)	When required by AHJ (per 710A.3.4)

Item 7A-47
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to add sections based on a reorganization of the section and the requirements for accessory buildings at different distances from an applicable building.

The subsections of 710A.3 were organized by uniform categories of distances from applicable buildings.

A hole/gap in coverage was identified for accessory buildings located at a distance of between 3 feet and 30 feet from an applicable building, and the SFM moves to fill that oversight by mandating enforcement upon those greater than 120 square feet and by leaving it to the discretion local Authority Having Jurisdiction (AHJ) for those less than 120 square feet.

Since Exception #1 of 701A.3 is not necessary because the code user still needs to go to Section 710A to see if the enforcing agency requires it, Exception #1 (which was the only place the code still mentioned this 30-foot threshold) can be removed. This removal of Exception #1 now allows the combining of categories 3'-30' and 30'-50'.

The following table helps visualize the resultant requirements.

Location	Noncombustible or Ignition-resistant Materials Required CBC Section 704A.2		
	Accessory Building ≤120 ft²	Accessory Building >120 ft²	Misc. Structure that requires a permit, (any size)
Attached or <3'	Yes (per 710A.3.1)	Yes (per 710A.3.1)	Yes (per 710A.3.1)
≥3' and <50'	When required by AHJ (per 710A.3.3)	Yes (per 710A.3.2)	When required by AHJ (per 710A.3.4)

Item 7A-48
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to add sections based on a reorganization of the section and the requirements for accessory buildings at different distances from an applicable building.

The subsections of 710A.3 were organized by uniform categories of distances from applicable buildings.

A hole/gap in coverage was identified for accessory buildings located at a distance of between 3 feet and 30 feet from an applicable building, and the SFM moves to fill that oversight by mandating enforcement upon those greater than 120 square feet and by leaving it to the discretion local Authority Having Jurisdiction (AHJ) for those less than 120 square feet.

Since Exception #1 of 701A.3 is not necessary because the code user still needs to go to Section 710A to see if the enforcing agency requires it, Exception #1 (which was the only place the code still mentioned this 30-foot threshold) can be removed. This removal of Exception #1 now allows the combining of categories 3'-30' and 30'-50'.

The following table helps visualize the resultant requirements.

Location	Noncombustible or Ignition-resistant Materials Required CBC Section 704A.2		
	Accessory Building ≤120 ft²	Accessory Building >120 ft²	Misc. Structure that requires a permit, (any size)
Attached or <3'	Yes (per 710A.3.1)	Yes (per 710A.3.1)	Yes (per 710A.3.1)
≥3' and <50'	When required by AHJ (per 710A.3.3)	Yes (per 710A.3.2)	When required by AHJ (per 710A.3.4)

Item 7A-49
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to add sections based on a reorganization of the section and the requirements for accessory buildings at different distances from an applicable building.

The subsections of 710A.3 were organized by uniform categories of distances from applicable buildings.

A hole/gap in coverage was identified for accessory buildings located at a distance of between 3 feet and 30 feet from an applicable building, and the SFM moves to fill that oversight by mandating enforcement upon those greater than 120 square feet and by leaving it to the discretion local Authority Having Jurisdiction (AHJ) for those less than 120 square feet.

Since Exception #1 of 701A.3 is not necessary because the code user still needs to go to Section 710A to see if the enforcing agency requires it, Exception #1 (which was the only place the code still mentioned this 30-foot threshold) can be removed. This removal of Exception #1 now allows the combining of categories 3'-30' and 30'-50'.

The following table helps visualize the resultant requirements.

Location	Noncombustible or Ignition-resistant Materials Required CBC Section 704A.2		
	Accessory Building ≤120 ft²	Accessory Building >120 ft²	Misc. Structure that requires a permit, (any size)
Attached or <3'	Yes (per 710A.3.1)	Yes (per 710A.3.1)	Yes (per 710A.3.1)
≥3' and <50'	When required by AHJ (per 710A.3.3)	Yes (per 710A.3.2)	When required by AHJ (per 710A.3.4)

Item 7A-50
Chapter 7A, Materials And Construction Methods For Exterior Wildfire Exposure, Section 710A Accesory Buildings and Miscellaneous Structures

The SFM proposes to add requirements of roof construction for accessory buildings.

Rationale: Section 710A.4 Roof construction [of accessory structures] was added by overwhelming consensus to address this recognized "Achilles Heel" to all efforts of Section 710A, and to Chapter 7A for that matter. Whenever an accessory building is required to be constructed of noncombustible materials or of ignition resistant materials its roof must meet Class A fire rating.

CHAPTER 8
INTERIOR FINISHES

Item 8-1
Chapter 8, Interior Finishes

The SFM proposes to adopt Chapter 8 and carry forward existing amendments.

CHAPTER 9
FIRE PROTECTION AND LIFE SAFETY SYSTEMS

Item 9-1
Chapter 9, Fire Protection And Life Safety Systems

The SFM proposes to adopt Chapter 9 and carry forward existing amendments. Proposed modifications are shown below.

SECTION 901
GENERAL

Item 9-2
Chapter 9, Fire Protection And Life Safety Systems, Section 901.5 Installation acceptance testings

The SFM proposes make an editorial change.

Item 9-3
Chapter 9, Fire Protection And Life Safety Systems, Table 901.6.1 Fire Protection System Maintenance

The SFM proposes make an editorial change.

Item 9-4
Chapter 9, Fire Protection And Life Safety Systems, Section 901.7 Systems out of service

The SFM proposes add the reference to the California NFPA 25 Edition.

SECTION 903
AUTOMATIC SPRINKLER SYSTEMS

Item 9-5
Chapter 9, Fire Protection And Life Safety Systems, 903.1.1 Alternative protection

[The SFM proposes to add the word system to make clear the intent of the automatic sprinkler system.]

Item 9-6
Chapter 9, Fire Protection And Life Safety Systems, Section 903.2 Where required

SFM proposed amendment to CBC Section 903.2 includes additional sections of the CBC identifying CFC sections inadvertently omitted.

Related Sections in Part 9, California Fire Code 903.1, 903.2.14, 903.2.15, 903.2.16, 903.2.17, 903.2.18, 903.2.19, 903.2.20, 903.2.21(New)

The CBC sections requiring an approved automatic sprinkler system include Sections 903.2.14 through 903.2.21. The existing text of CBC Section 903.2 does not include Sections 903.2.14 through 903.2.21. The SFM proposed amendment adds omitted CBC Sections 903.2.14 through 903.2.21 to the existing language referencing CBC sections when an approved automatic sprinkler system is required.

Inaccurate and incomplete references to code criteria are a source of confusion for owners, designers, contractors, and code officials. Correcting such references assists with the interpretation and understanding of provisions of the code.

This SFM proposed amendment is editorial only. This SFM proposed amendment does not establish a new requirement.

Item 9-7
Chapter 9, Fire Protection And Life Safety Systems, Table 903.2.11.6 Additional Required Fire Suppression Systems

[SFM proposed errata to reference the correct section in the California Fire Code for Energy Storage Systems.]

Rationale:
The proposal adds a reference to the appropriate section in the California Fire Code for stationary and mobile energy storage systems.

Section 1206.10 covers two types of mobile ESS installations/operations, charging and storage of the mobile ESS at its home facility when it is not deployed to an event or facility, and deployment of the mobile ESS for temporary energy storage applications, such as providing power at an electric vehicle event. Mobile ESS charging and storage locations are treated the same as a stationary indoor or outdoor installation in accordance with Section 1206.7 or 1206.8 but can include temporary electrical and fire suppression system

connections. This provides an acceptable level of protection based on the exposures at the facility and prevents parties from using an ESS on wheels as a permanent ESS with less than effective protection.

To summarize this proposal, developed by a large industry and code official work group, more effectively protects ESS installations based on knowledge gained since last code cycle. It provides protection customized for the types of installations that are being deployed today, instead of using the “one size fits all” type of protection.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. Some of the requirements in this proposal have the potential to increase the cost of providing ESS installations. However, some of the provisions in this proposal better address risks and owner/user needs in dedicated use (utility) buildings and outdoor remote installations and will probably decrease the cost of those installations as compared to installations using the current existing requirements. (F203-18)

Item 9-8
Chapter 9, Fire Protection And Life Safety Systems, Section 903.3.1.1 NFPA 13 sprinkler systems, Sections 903.3.1.1.1, 903.3.1.1.3

SFM proposed amendment adds a reference to CFC Section 3005.4.1 for specific sprinkler system provisions for passenger elevators and relocates sprinkler exemptions for solar photovoltaic panel structures to a new Subsection 903.3.1.1.3.

Related Sections in Part 2, California Building Code 903.1, 903.3, 903.3.1, 907.4.3, 907.4.3.1, 1505.9, 1510.7, 1512, 3005.4.1, 3111

CBC Section 903.3.1.1.1 includes a list of locations where sprinkler protection is permitted to be exempted when smoke detection is provided.

SFM proposed amendment adds a reference to CBC Section 3005.4.1 for specific sprinkler system provisions for passenger elevators and relocates sprinkler exemptions for solar photovoltaic panel structures to a new Subsection 903.3.1.1.3.

The SFM proposed amendment adds a new item 6 to the list of exempt locations in Section 903.3.1.1.1 where sprinkler protection is permitted to be omitted. The SFM proposed amendment adds elevator hoistways, machine rooms, machinery spaces, control spaces, and control rooms in accordance with Section 3005.4.1 of the California Building Code to the list of exempt locations where sprinkler protection is permitted to be omitted. CBC Section 3005.4.1 contains specific provisions for when sprinkler protection is permitted to be omitted from passenger elevator hoistways, machine rooms, machinery spaces, control spaces, and control rooms. The additional reference to Section 3005.4.1 is needed in order to direct owners, designers, contractors and code officials to the specific provisions relevant to the omission of sprinkler protection in passenger elevator hoistways, machine rooms, machinery spaces, control spaces, and control rooms. Without such reference, the list of locations where sprinkler protection is permitted to be omitted is

incomplete.

The SFM proposed amendment relocates and renumbers provisions permitting the omission of sprinkler protection for solar photovoltaic panel structures to a new CBC Section 903.3.1.1.3.

The charging statement for CBC Section 903.3.1.1.1 requires the substitution of smoke detection when sprinklers are not provided. Solar photovoltaic panel structures are installed outdoors. Substituting smoke detectors is not appropriate at outdoor locations. The inclusion of outdoor solar photovoltaic panel structures in the items enumerated in CBC Section 903.3.1.1.1 is problematic. The SFM proposed amendment relocates the provisions permitting the omission of fire sprinkler protection for solar photovoltaic panel structures from CBC Section 903.3.1.1.1 Item 6 and Item 7 to a separate new CBC Section 903.3.1.1.3 Item 1 and Item 2. The SFM proposed amendment preserves the provisions that require no storage beneath solar photovoltaic panel structures and includes sufficient openings for ventilation when sprinkler protection is omitted. The SFM amendment deletes a requirement for the installation of smoke detectors in outdoor locations as a substitution for sprinkler protection. The SFM proposed amendment leaves in place appropriate alternatives for the omission of fire sprinkler protection for solar photovoltaic panel structures for owners, designers, contractors and code officials.

This SFM proposed amendment does not establish a new requirement.

Item 9-9
Chapter 9, Fire Protection And Life Safety Systems, Section 903.2.10.2 Mechanical access enclosed parking garages

The SFM proposes repeal California amendment and replace with model code language.

Item 9-10
Chapter 9, Fire Protection And Life Safety Systems, Section 903.2.21 Required exterior entrance covers

The SFM proposes a new section for sprinkler protection of exterior entrance covers.

Related Sections in Part 2, California Building Code 311.3, 406.5.2, 407.6, 407.6.1, 508.2.4, Table 508.4, 903.2.6, 11B-206.4.10, 1224.33.2.1

The proposed SFM amendment requires automatic sprinkler protection for specific uses required by existing provisions of the California Building Code associated with Group I-2 occupancies.

The proposed SFM amendment limits the application of CBC Section 903.2.21 to covered entrances required by CBC Section 11B-206.4.10, for weather protection at entrances to medical care and long-term care facilities and Section 1224.33.2.1, emergency medical

service exterior entrances.

The proposed SFM amendment requires sprinkler protection of required covered vehicle entrances associated with Group I-2 occupancies. Such uses most nearly resemble Group S-2 occupancies. As such, occupancy separations between a Group I-2 and a Group S-2 are required to be not less than 2-hour fire-resistance-rated construction. The requirement for a 2-hour fire resistance separation is due in part because, in model code, there is no requirement for sprinkler protection of these occupancies.

When considered with an SFM proposed amendment to CBC Table 508.4, this amendment will permit required entrance covers configured in accordance with the provisions for openings for open parking garages to be separated from Group I-2 occupancies by 1-hour fire-resistance-rated construction.

As additions to or extensions of 24-hour care health facilities, covered exterior entrances are already required to be protected by fire sprinkler systems in accordance with California Health and Safety Code, Section (a). Where such covers also accommodate the means of egress for adjacent occupancies protected by automatic sprinklers, sprinkler protection is required at these covered entrances in accordance with Section 1004.4.

The covered entrances are attached to buildings that are protected by existing automatic sprinkler systems. When coupled with a proposed SFM amendment to Table 508.4, the required separation between a Group I-2 and a covered entrance is permitted to be reduced from 2-hour fire-resistance rated construction to 1-hour fire-resistance rated construction.

The SFM amendment includes a fire sprinkler requirement specific to Group I-2 occupancies that is currently enforced. As such, on some occasions, this could decrease the cost of construction and assist in the configuration of designs. The SFM proposed amendment provides direction to owners, designers, contractors and code officials not previously available in the CBC.

The SFM proposed amendment affirms a requirement requiring sprinkler protection of exterior covered entrances, commonly referred to as porte-cocheres, that is currently enforced. When considered with the proposed SFM amendment to CBC Table 508.4, the SFM proposed amendment allows for a reduction in the fire-resistance separation requirement from 2-hour to 1-hour in acknowledgment that such required exterior covered entrances are protected by a sprinkler system.

Item 9-11
Chapter 9, Fire Protection And Life Safety Systems, Section 903.3.1.1.1 Exempt locations, 903.3.1.1.3 Solar photovoltaic power systems

The SFM proposes repeal California amendment and move items 6 and 7 to a new section number. Section 903.3.1.1.1 requires the substitution of smoke detection when sprinklers are not provided. Solar photovoltaic panel structures are installed outdoors. Substituting smoke detectors is not appropriate at such locations.

Related Sections in Part 2, California Building Code 903.1, 903.3, 903.3.1, 907.4.3, 907.4.3.1, 1505.9, 1510.7, 1512, 3005.4.1, 3111

CBC Section 903.3.1.1.1 includes a list of locations where sprinkler protection is permitted to be exempted when smoke detection is provided.

SFM proposed amendment adds a reference to CBC Section 3005.4.1 for specific sprinkler system provisions for passenger elevators and relocates sprinkler exemptions for solar photovoltaic panel structures to a new Subsection 903.3.1.1.3.

The SFM proposed amendment adds a new item 6 to the list of exempt locations in Section 903.3.1.1.1 where sprinkler protection is permitted to be omitted. The SFM proposed amendment adds elevator hoistways, machine rooms, machinery spaces, control spaces, and control rooms in accordance with Section 3005.4.1 of the California Building Code to the list of exempt locations where sprinkler protection is permitted to be omitted. CBC Section 3005.4.1 contains specific provisions for when sprinkler protection is permitted to be omitted from passenger elevator hoistways, machine rooms, machinery spaces, control spaces, and control rooms. The additional reference to Section 3005.4.1 is needed in order to direct owners, designers, contractors and code officials to the specific provisions relevant to the omission of sprinkler protection in passenger elevator hoistways, machine rooms, machinery spaces, control spaces, and control rooms. Without such reference, the list of locations where sprinkler protection is permitted to be omitted is incomplete.

The SFM proposed amendment relocates and renumbers provisions permitting the omission of sprinkler protection for solar photovoltaic panel structures to a new CBC Section 903.3.1.1.3.

The charging statement for CBC Section 903.3.1.1.1 requires the substitution of smoke detection when sprinklers are not provided. Solar photovoltaic panel structures are installed outdoors. Substituting smoke detectors is not appropriate at outdoor locations. The inclusion of outdoor solar photovoltaic panel structures in the items enumerated in CBC Section 903.3.1.1.1 is problematic. The SFM proposed amendment relocates the provisions permitting the omission of fire sprinkler protection for solar photovoltaic panel structures from CBC Section 903.3.1.1.1 Item 6 and Item 7 to a separate new CBC Section 903.3.1.1.3 Item 1 and Item 2. The SFM proposed amendment preserves the provisions that require no storage beneath solar photovoltaic panel structures and includes sufficient openings for ventilation when sprinkler protection is omitted. The SFM amendment deletes a requirement for the installation of smoke detectors in outdoor locations as a substitution for sprinkler protection. The SFM proposed amendment leaves in place appropriate alternatives for the omission of fire sprinkler protection for solar photovoltaic panel structures for owners, designers, contractors and code officials.

This SFM proposed amendment does not establish a new requirement.

Item 9-12
Chapter 9, Fire Protection And Life Safety Systems, Section 903.5 Testing and maintenance

[The SFM proposes add the word automatic to sprinkler systems to make clear the intent.]

SECTION 906
PORTABLE FIRE EXTINGUISHERS

Item 9-13
Chapter 9, Fire Protection And Life Safety Systems, Section 906.1 Where Required

The SFM proposes to carry forward existing amendments and delete new model code language.

Related Sections in Part 2, California Building Code 308.2, 308.3

SFM proposed amendment deletes references to Group I-1 occupancies and Condition 1 describing Group I-2 occupancies.

In accordance with CBC Section 308.2, Occupancy Group I-1 is not used in the California Building Code. In accordance with CBC Section 308.3, conditions modifying Group I-2 occupancies are not used in the CBC.

This SFM proposed amendment corrects the text of CBC Section 906.1 Item 2 by deleting references to Group I-1 and Group I-2 Condition 1 that are not applicable in the CBC.

Irrelevant references to inapplicable criteria are a source of confusion for owners, designers, contractors, and code officials. Deleting such references simplifies the interpretation and understanding of provisions of the code.

The SFM proposed amendment is editorial only. This SFM proposed amendment does not establish a new requirement.

SECTION 907
FIRE ALARM AND DETECTION SYSTEMS

Item 9-14
Chapter 9, Fire Protection And Life Safety Systems, Section 907.2 Where Required-new buildings and structures

The SFM proposes to carry forward existing amendments and correcting a reference number.

Related Sections in Part 2, California Building Code 907.1, 907.2.24, 907.2.25, 907.2.26, 907.2.27, 907.2.28, 907.2.29

SFM proposed amendment to CBC Section 907.2 includes additional sections of the CBC identifying CBC sections inadvertently omitted.

The CBC sections requiring an approved fire alarm system include Sections 907.2.24 through 907.2.29. The existing text of CBC Section 907.2 does not include Sections 907.2.24 through 907.2.29. The SFM proposed amendment adds omitted Sections 907.2.24 through 907.2.29 to the existing language referencing CBC sections when an approved fire alarm is required.

Inaccurate and incomplete references to code criteria are a source of confusion for owners, designers, contractors, and code officials. Correcting such references assists with the interpretation and understanding of provisions of the code.

This SFM proposed amendment is editorial only. This SFM proposed amendment does not establish a new requirement.

Item 9-15
Chapter 9, Fire Protection And Life Safety Systems, Section 907.2.3 Group E

The SFM proposes to carry forward existing amendments and delete new model code language.

Item 9-16
Chapter 9, Fire Protection And Life Safety Systems, Sections 907.2.6.4 Group I-4

The SFM proposes to add smoke detection requirements for Group I-4 occupancies.

Item 9-17
Chapter 9, Fire Protection And Life Safety Systems, Sections 907.2.6.5 Large Family Day-Care

The SFM proposes to renumber Section 907.2.6.4 to follow the addition of I-4 requirements.

Item 9-18
Chapter 9, Fire Protection And Life Safety Systems, Sections 907.2.11.2.1 through 907.2.11.2.5

The SFM proposes to carry forward existing amendments and renumber based on changes to the model code.

Item 9-19
Chapter 9, Fire Protection And Life Safety Systems, Sections 907.2.11.3 and 907.1.11.4

The SFM proposes to carry forward existing amendments and amend the reference Section number based on changes to the model code.

Item 9-20
Chapter 9, Fire Protection And Life Safety Systems, Section 907.2.11.8 Specific Location Requirements

The SFM proposes to modify existing amendments and amend the reference Section number based on changes to both the NFPA 72 standards and the model code.

Item 9-21
Chapter 9, Fire Protection And Life Safety Systems, Section 907.2.23 Energy Storage Systems

The SFM proposes to repeal California amendments and replace with model code language.

Item 9-22
Chapter 9, Fire Protection And Life Safety Systems, Section 907.5 Occupant notification

SFM proposed amendment to CBC Section 907.5 includes additional sections of the CBC representing CBC sections inadvertently omitted from the California Building Code.

The CBC sections requiring compliance with occupant notification requirements include Sections 907.5.1 through 907.5.2.5. The existing text of CBC Section 907.5 does not include Sections 907.5.2.3.4 through 907.5.2.5. The SFM proposed amendment adds omitted Sections 907.5.2.3.4 through 907.5.2.5 to the existing language referencing CBC sections when occupant notification requirements are identified.

Inaccurate and incomplete references to code criteria are a source of confusion for owners, designers, contractors, and code officials. Correcting such references assists with the interpretation and understanding of provisions of the code.

This SFM proposed amendment is editorial only. This SFM proposed amendment does not establish a new requirement.

[Related Sections in Part 2, California Building Code]
907.1, 907.2, 907.5.2.3.4, 907.5.2.4, 907.5.2.5

Item 9-23
Chapter 9, Fire Protection And Life Safety Systems, Section 907.5.1 Alarm activation and annuniciation

To coincide with the renumbering of sections of the 2021 edition of the International Fire Code, the SFM proposed amendment renumbers CFC Section 907.5.1 to Section 907.5.1.1. SFM does not approve fire alarm system functions that delay the activation or transmission of fire alarm signals in a Group I-2, I-2.1 or R-2.1 occupancy.

Related Sections in Part 2, California Building Code 907.1, 907.2, 907.5

Item 9-24
Chapter 9, Fire Protection And Life Safety Systems, Section 907.5.2.1 Audible Alarms

The SFM proposes to renumber California amendments based on changes in the model code.

Related Sections in Part 2, California Building Code 308.3, 907.1, 907.2, 907.5, 907.5.2.5

SFM proposed amendment deletes IBC references to Group I-2 conditions modifying Group I-2 occupancies noted in Exceptions of Section 907.5.2.1. The SFM proposed amendment corrects the referenced section number in Section 907.5.2.1 for Group I-2 audible devices. The SFM proposed amendment deletes reference to CBC Section 907.2.6, Exception 2. The SFM proposed amendment identifies suites as care suites and deletes units from the text.

In the charging statement of CBC Section 907.5.2.1, the CBC Section referencing the CBC Section containing audible alarm requirements for Group I-2 occupancies is incorrectly noted as Section 907.6.6. The SFM proposed amendment corrects the reference from 907.6.6 to 907.5.2.5.

In accordance with CBC Section 308.3, conditions modifying Group I-2 occupancies are not used in the CBC. Where it appears in CBC Section 907.5.2.1 exceptions 1 and 2, the SFM proposed amendment deletes references to condition 2. Conditions modifying Group I-2 occupancies are not part of the CBC.

Where it appears in CBC Section 907.5.2.1 exceptions 1 and 2, the SFM proposed amendment deletes references to IBC Section 907.2.6, Exception 2. IBC Section 907.2.6 is not adopted by the California Building Code. The subject matter of IBC Section 907.2.6, Exception 2 is addressed in the CBC by Section 907.5.2.5. Where it occurs in CBC Section 907.5.2.1, the SFM proposed amendment replaces references to IBC Section 907.2.6, Exception 2 with references to CBC Section 907.5.2.5.

The California Building Code, Section 202 includes provisions identifying two Group I-2 suite categories, care suites and nonpatient-care suites. The International Building Code defines only Group I-2 care suites. New language in the 2021 IBC added units to the

scope of the provisions of CBC Section 907.5.2.1 Exception 2. Neither the IBC nor the CBC defines the meaning of unit. The SFM proposed amendment revises CBC Section 907.5.2.1 Exception 2 is necessary in order to specify the provisions of the exception are applicable only to care suites. The provisions are not applicable to nonpatient-care suites or units. The SFM proposed amendment is consistent with the definitions of suites published in the CBC and the intent of CBC Section 907.5.2.1 as published in the 2019 CBC.

Irrelevant, inconsistent, and incorrect references to inapplicable criteria are a source of confusion for owners, designers, contractors, and code officials. Deleting or correcting such references assists in the interpretation, understanding and application of provisions of the code.

Item 9-25
Chapter 9, Fire Protection And Life Safety Systems, Section 905.2.1.4 Audible alarm signal

The SFM proposes to renumber California amendments based on changes in the model code.

Item 9-26
Chapter 9, Fire Protection And Life Safety Systems, Section 907.5.2.3 Visible Arlarms

The SFM proposes to modify and amend section 907.5.2.3.

Related Sections in Part 2, California Building Code 308.3, 907.1, 907.2, 907.5, 907.5.2.5

SFM proposed amendment deletes IBC references to Group I-2 conditions modifying Group I-2 occupancies noted in the Exception 5 of Section 907.5.2.3. The SFM proposed amendment deletes reference to CBC Section 907.2.6, Exception 2. The SFM proposed amendment identifies suites as care suites and deletes units from the text.

In accordance with CBC Section 308.3, conditions modifying Group I-2 occupancies are not used in the CBC. Where it appears in CBC Section 907.5.2.3 exception 2, the SFM proposed amendment deletes references to condition 2. Conditions modifying Group I-2 occupancies are not part of the CBC.

Where it appears in CBC Section 907.5.2.3 exception 5, the SFM proposed amendment deletes references to IBC Section 907.2.6, Exception 2. IBC Section 907.2.6 is not adopted by the California Building Code. The subject matter of IBC Section 907.2.6, Exception 2 is addressed in the CBC by Section 907.5.2.5. Where it occurs in Section 907.5.2.3, the SFM proposed amendment replaces references to IBC Section 907.2.6, Exception 2 with references to CBC Section 907.5.2.5.

The California Building Code, Section 202 includes provisions identifying two Group I-2 suite categories, care suites and nonpatient-care suites. The International Building Code defines only Group I-2 care suites. New language in the 2021 IBC added units to the scope of the provisions of CBC Section 907.5.2.1 Exception 2. Neither the IBC nor the CBC defines the meaning of unit. The SFM proposed amendment revises CBC Section 907.5.2.3 Exception 5 is necessary in order to specify the provisions of the exception are applicable only to care suites. The provisions are not applicable to nonpatient-care suites or units. The SFM proposed amendment is consistent with the definitions of suites published in the CBC and the intent of CBC Section 907.5.2.3 as published in the 2019 CBC.

Irrelevant, inconsistent, and incorrect references to inapplicable criteria are a source of confusion for owners, designers, contractors, and code officials. Deleting or correcting such references assists in the interpretation, understanding and application of provisions of the code

[Related Sections in Part 2, California Building Code]
308.3, 907.1, 907.2, 907.5**,** 907.5.2.5

Item 9-27
Chapter 9, Fire Protection And Life Safety Systems, Section 907.6.4.4 Notification zoning Schools

The SFM proposes to correct a reference number.

Related Sections in Part 2, California Building Code 308.3, 907.1, 907.2, 907.2.12

Fire alarm requirements for high-rise buildings are located in CBC Section 907.2.12.

SFM proposed amendment corrects a reference to a section number in the CBC.

The SFM proposed amendment corrects CBC Section 907.6.4.4 Exception 1 reference to high-rise building requirements incorrectly identified as Section 907.2.13. The correct reference is 907.2.12. The SFM proposed amendment is editorial only. This SFM proposed amendment does not establish a new requirement.

Incorrect references to inapplicable criteria are a source of confusion for owners, designers, contractors, and code officials. Correcting such references assists in the interpretation, understanding and application of provisions of the code

[Related Sections in Part 2, California Building Code]
308.3, 907.1, 907.2, 907.2.12

Item 9-28
Chapter 9, Fire Protection And Life Safety Systems, Section 907.6.6.3 Group E Schools

The SFM proposes to renumber section 907.6.6.3 based on changes to the model code.

SECTION 908
EMERGENCY ALARM SYSTEMS

Item 9-29
Chapter 9, Fire Protection And Life Safety Systems, Section 908.4 Carbon dioxide Enrichment Systems

The SFM proposes to renumber section 907.6.6.3 based on changes to the model code.

SECTION 911
EXPLOSION CONTROL

Item 9-30
Chapter 9, Fire Protection And Life Safety Systems, Section 911.1 General

The SFM proposes to repeal California amendment and replace with model code language.

Item 9-31
Chapter 9, Fire Protection And Life Safety Systems, Table 911.1 Explosion Control Requirements

The SFM proposes to repeal California amendment and replace with model code language.

Item 9-32
Chapter 9, Fire Protection And Life Safety Systems, Table 911.4 Deflagration Venting

The SFM proposes to repeal California amendment and replace with model code language.

SECTION 913
FIRE PUMPS

Item 9-33
Chapter 9, Fire Protection And Life Safety Systems, Section 913.1 General

The SFM proposes to amend Section 913.1 to correlate the exception reference section to the applicable California Residential Code section number.

Item 9-34
Chapter 9, Fire Protection And Life Safety Systems, Section 913.1 General

The SFM proposes to repeal California amendments that reference Sections that are no longer applicable, relevant or exist.

Item 9-35
Chapter 9, Fire Protection And Life Safety Systems, Section 916 Gas Detection Systems

The SFM proposes to repeal California amendments and replace with model code language.

CHAPTER 10
MEANS OF EGRESS

Item 10-1
Chapter 10, Means Of Egress

The SFM proposes to continue the adoption of chapter 10 and carry forward existing amendments. Modifications are shown below.

Item 10-2
Chapter 10, Means Of Egress, Section 1001.1 General

The SFM proposes an editorial change to get the term townhouse out of parentheses and eliminate the preceding text that describes what a townhouse is.

SECTION 1003
GENERAL MEANS OF EGRESS

Item 10-3
Chapter 10, Means Of Egress, Section 1003.5 Elevation change

The SFM proposes repeal California amendment to exception 1 and adopt model code language.

SECTION 1005
MEANS OF EGRESS SIZING

Item 10-4
Chapter 10, Means Of Egress, Section 1005.7.2 Other projections

The SFM proposes delete model code language.

SFM proposed amendment deletes the exception to IBC Section 1005.7.2.

In accordance with CBC Section 308.3, conditions modifying Group I-2 occupancies are not used in the CBC. IBC Section 407.4.3 is not adopted by the CBC.

The CBC Exception to Section 1005.7.2 modifies projection requirements for Group I-2 Condition 1 occupancies in accordance with IBC Section 407.4.3. Because conditions modifying Group I-2 occupancies are not used in the CBC and the referenced Section 407.4.3 is not adopted by the CBC, the SFM proposed amendment deletes the exception to CBC Section 1005.7.2. This SFM proposed amendment does not establish a new requirement.

Irrelevant, inconsistent and incorrect references to inapplicable criteria are a source of confusion for owners, designers, contractors and code officials. Deleting or correcting such references assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
308.3, 407.1, 407.4.3 *Reserved*, 1001.1, 1001.2, 1003.1, 1003.3.3, 1003.3.3.1, 1003.3.4, 1005.1, 1005.2, 1005.7

SECTION 1006
NUMBERS OF EXITS AND
EXIT ACCESS DOORWAYS

Item 10-5
Chapter 10, Means Of Egress, Section 1006.2.1 Egress based on occupant load and common path of egress travel distance…

The SFM proposes to renumber exception 3, based on changes made to the model code.

Item 10-6
Chapter 10, Means Of Egress, Table 1006.2.1 Spaces with one exit or exit access doorway

CFC Table 1006.2.1 regulates spaces with one exit or exit access doorway. SFM proposed amendment adds footnote i to CFC Table 1006.2.1.

CBC Table 1006.2.1 regulates spaces with one exit or exit access doorway. SFM proposed amendment adds footnote i to CBC Table 1006.2.1.

In accordance with CBC Section 903.2.6 and Health and Safety Code Section 13113(d), many existing Group I-2 occupancies located in Type 1A construction do not require fire sprinkler protection. SFM proposed amendment adds footnote i to CBC Table 1006.2.1 to indicate that existing Group I-2 occupancies located in Type 1A construction do not require fire sprinkler protection when in compliance with Health and Safety Code Section 13113(d).

Because CBC Table 1006.2.1 is intended to regulate new construction, the IBC designation NP in the without sprinkler system column indicates that an unsprinklered Group I-2 is not permitted. For remodels in existing construction, the NP designation is misleading. Existing unsprinklered Group I-2 occupancies are frequently remodeled. In accordance with Health and Safety Code Section 13113(d), these facilities should continue to be permitted. This SFM proposed amendment identifies existing requirements. This SFM proposed amendment does not establish a new requirement.

Inconsistent and incorrect provisions to construction criteria are a source of confusion for owners, designers, contractors and code officials. Deleting or correcting such information assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
903.2.6, 1001.1, 1003.1, 1004, 1006

Item 10-7
Chapter 10, Means Of Egress, Section 1006.2.2.2 Refrigeration machinery rooms

The SFM proposes to correlate and simplify the egress requirements for refrigerated rooms and associated machinery rooms.

Item 10-8
Chapter 10, Means Of Egress, Section 1006.2.2.8

The SFM proposes to add Section 1006.2.2.8 which maintains the clear egress requirements for Group I-4 occupancies. This corresponds with Table 1006.2.1 for all I-4 occupancies.

SECTION 1008
MEANS OF EGRESS ILLUMINATION

Item 10-9
Chapter 10, Means Of Egress, Section 1008.3.2

SFM proposed amendment deletes item 7 from the list of areas in Section 1008.3.2.

The scope of CBC Section 1008.3.2 identifies areas where emergency power is required for egress illumination. CBC Section 1008.3.2 includes an enumerated list of where emergency power is required for egress illumination.

SFM proposed amendment deletes item 7 from the list of areas in Section 1008.3.2.

A publishing error inadvertently placed an SFM amendment to NFPA 72 concerned with patient room smoke detectors in the enumerated list included in CBC Section 1008.3.2 regulating egress illumination as CBC Section 1008.3.2 Item 7. The SFM proposed amendment deletes Item 7 from CBC Section 1008.3.2. This SFM proposed amendment does not establish a new requirement.

Improperly located information is a source of confusion for owners, designers, contractors and code officials. Deleting or correcting such references assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
Chapter 35 Referenced Standards, NFPA 72 National Fire Alarm and Signaling Code, as amended

SECTION 1009
ACCESSIBLE MEANS OF EGRESS

Item 10-10
Chapter 10, Means Of Egress, Section 1009.6.3 Size

The SFM proposes to amend California amendment to reflect changes made in the model code based on revisions made in the 2017 ICC A117.1 document.

Item 10-11
Chapter 10, Means Of Egress, Section 1009.12 Alarms/emergency warning

The SFM proposes to amend in coordination with OSHPD.

The SFM proposed amendment to California Building Code, Section 1009.12 indicates the scope of the provision also includes two-way communication systems and updates the reference to NFPA 72. This Section was originally located in Chapters 11A and 11B of the California Building Code. The Section was relocated to Section 1007 in the 2007 edition of the California Building Code. Prior to the 2007 edition of the CBC, this section was located in Chapters 11A and 11B. In the 2004 edition of the CBC, the section immediately followed the provisions for two-way communication and areas for evacuation assistance; therefore,

the intent that this section was concerned with two-way communication was readily apparent. Standards for the design and installation of area of refuge communication systems were first included in the 2010 edition of NFPA 72. Prior to 2010, there was no reference to two-way communication systems complying with NFPA 72.

In the scope of CBC Section 1009.12, the SFM proposed amendment includes two-way communication systems. The SFM proposed amendment indicates that Section 1009.12 is applicable to alarms, emergency warning systems and two-way communication systems as originally intended. The SFM proposed amendment also acknowledges that standards for the design and installation of two-way communication systems are now included in NFPA 72. The SFM proposed amendment coordinates existing requirements with updates to current format and text in the California Building Code and information in NFPA 72 National Fire Alarm and Signaling Code. The SFM proposed amendment does not establish a new requirement.

Inconsistent and incomplete descriptions related to the scope of provisions to construction criteria are a source of confusion for owners, designers, contractors and code officials. correcting such information assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
1001.1, 1003.1, 1004, 1006, 1007

SECTION 1010
DOORS, GATES AND TURNSTILES

Item 10-12
Chapter 10, Means Of Egress, Section 1010.1.1 Size of doors

The SFM proposes to amend in coordination with OSHPD.

The SFM proposed amendment identifies that the minimum clear width required for one leaf of a pair of doors in Group I-2 or I-2.1 is 44 inches (1118 mm).

The SFM proposed amendment provides in CBC Section 1010.1.1, requirements for determining the minimum clear opening width of Group I-2 or I-2.1 doors used for the movement of beds and stretcher patients. The format of the SFM proposed amendment is identical to similar provisions identified in CBC Section 1010.1.1 for determining the minimum clear opening width of other doors.

The SFM amendment corrects the sentence structure of the paragraph that could otherwise be misleading. The SFM proposed amendment adds a sentence to CBC Section 1010.1.1 that requires the clear opening width of doors in Group I-2 or I-2.1 accommodating the movement of bed or stretcher patients be measured in the same manner as other doors. It has always been the intent to measure the clear opening width required for Group I-2 or I-2.1 doors used for the movement of beds and stretcher patients

in the manner described in the SFM proposed amendment. The SFM proposed amendment is editorial. The SFM proposed amendment does not establish a new requirement.

Inconsistent and incomplete descriptions related to the scope of provisions to construction criteria are a source of confusion for owners, designers, contractors and code officials. correcting such information assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
1001.1, 1003.1, 1004, 1006, 1007, 1009, 1010, 1010.2.6

Item 10-13
Chapter 10, Means Of Egress, Section 1010.1.4 Floor elevation

The SFM proposes to amend in coordination with OSHPD.

Item 10-14
Chapter 10, Means Of Egress, Section 1010.2.5 Bolt locks

The SFM proposes to amend in coordination with OSHPD.

The SFM proposed amendment revises language in Exception 5 of the 2021 edition of IBC Section 1010.2.5. Exception 5 permits self-latching edge or surface mounted bolts on the inactive leaf of pairs of doors serving Group I-2 patient care rooms. The provisions of Exception 5 are concerned with the operation of door hardware on egress doors. The provisions of Exception 5 are often misconstrued to be concerned with opening protection issues. The intent of Exception 5 is often confused with provisions of CBC Section 407.3.1 which require positive latching and CBC Section 1010.2.4.4 and NFPA 101, Section 18.2.3.7(4)(c) which on some occasions, require automatic flush bolts. CBC Section 1010.1.1 contains related information regarding minimum clear opening width requirements for doors and pairs of doors located in Group I-2 occupancies.

The SFM proposed amendment reorganizes the provisions of CBC Section 1010.2.5 Exception 5 to affirm the intent of Exception 5 is to permit self-latching hardware on inactive leaves when the inactive leaf is not needed to provide the minimum clear opening width required by CBC Section 1010.1.1 and provides a reference to CBC Section 1010.1.1 regarding minimum clear opening width requirements for doors and pairs of doors located in Group I-2 occupancies.

Additional editing associated with reformatting CBC Section 1010.2.5 Exception 5 and a reference to existing clear door opening width requirements published in CBC Section 1010.1.1 assures that costly hardware installations can be avoided when such hardware is not needed. This SFM proposed amendment does not establish a new requirement.

Inconsistent and incomplete descriptions related to the scope of provisions to construction criteria are a source of confusion for owners, designers, contractors, and code officials. correcting such information assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
1001.1, 1003.1, 1004, 1006, 1007, 1009, 1010, 1010.1.1

Item 10-15
Chapter 10, Means Of Egress, Section 1010.2.8.1 Special provisions school classrooms

The SFM proposes to renumber based on model code language.

Item 10-16
Chapter 10, Means Of Egress, Section 1010.1.14 Controled egress in Group I-2

The SFM proposes to carry forward existing amendments to Section 1010.1.14 in coordination with OSHPD.

Item 10-17
Chapter 10, Means Of Egress, Section 1010.2.13 Delayed Egress

The SFM proposes to carry forward exiting amendments and modify as shown below.

Item 10-18
Chapter 10, Means Of Egress, Section 1013.6.3 Power source

The SFM proposes to amend in coordination with OSHPD.

In accordance with CBC Section 308.3, conditions modifying Group I-2 occupancies are not used in the CBC. CEC Section 517.30 and CEC Section 517.41 do not permit Group I-2 exit sign illumination powered by unit equipment batteries only.

In CBC Section 1013.6.3, the SFM proposed amendment deletes the reference to condition 2 modifying Group I-2 occupancies. The provisions of CBC Section 1013.6.3 suggest that battery powered exit signs are acceptable in some Group I-2 occupancies. This is not the case. In accordance with CEC 517.30 and CEC 517.41, battery powered exit signs are not permitted in any Group I-2 occupancy. The SFM proposed amendment does not establish a new requirement.

References to inapplicable criteria and provisions in conflict with other provisions of

adopted code are a source of confusion for owners, designers, contractors, and code officials. Correcting such references and eliminating conflicting provisions assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
308.3, 407.11, 1001.1, 1003.1, 1004, 1006, 1007, 1009, 1010, 1013

SECTION 1017
EXIT ACCESS TRAVEL DISTANCE

Item 10-19
Chapter 10, Means Of Egress, Table 1017.2 Exit Access Travel Distance

[The SFM proposes to repeal and replace with model code language.]

Rationale:
The proposal is to correlate and correct section number for special amusement areas. Reference pointer and important for code users to find additional requirements for design and enforcement.

Item 10-20
Chapter 10, Means Of Egress, Table 1020.2 Corridor Fire Resistance rating

SFM proposed amendment revises CBC Table 1020.2 to indicate that Group I-2 and Group I-2.1 occupancies require a 1-hour fire resistance rated corridor.

CBC Table 1020.2 identifies when corridors shall have a fire-resistance rating.

CBC Section 407.3 requires Group I-2 and I-2.1 corridor walls be constructed as one-hour fire-resistance rated fire partitions in accordance with CBC Section 708.

SFM proposed amendment revises CBC Table 1020.2 to indicate that Group I-2 and Group I-2.1 occupancies require a 1-hour fire resistance rated corridor. This is in accordance with CBC Section 407.3 and Section 708. The SFM proposed amendment eliminates requirements in CBC Table 1020.2 that are in disagreement with the requirements of CBC Section 407.3 and Section 708. The SFM proposed amendment coordinates the requirements of the table with adopted provisions located elsewhere in the code. This SFM proposed amendment does not establish a new requirement.

Including subject matter in the code that is inaccurate and in conflict with adopted provisions of the code is misleading, confusing, and frustrating for owners, designers, contractors and code officials. Correcting incorrect and conflicting information assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]

407.1, 407.3, 708, 1001.1, 1003, 1004, 1020

Item 10-21
Chapter 10, Means Of Egress, Table 1020.3 Minimum corridor width

Additional provisions regulating Group I-2 corridor widths are located in CBC Section 1224.4.7.1. In the eighth (last) row of CBC Table 1020.3 regulating the width of corridors serving nonambulatory persons, the SFM proposed amendment includes the addition of footnote a.

CBC Section 1224.4.7.1 requires the minimum width of corridors and hallways shall be 8 feet (2438 mm). The Exception to CBC Section 1224.4.7.1 permits patient-care corridors and hallways in hospitals for psychiatric care of patients who are not bedridden shall have a minimum clear and unobstructed width of 6 feet (1829 mm). For the purposes of this section, bedridden patients shall be defined as patients confined to beds who would be transported or evacuated in beds or litters.

The new footnote a references CBC Section 1224.4.7.1. CBC Section 1224.4.7.1 affirms the dimension requirement provided in row eight of Table 1020.3 and provides additional guidance when a person is considered nonambulatory or bedridden. This SFM proposed amendment does not establish a new requirement.

When similar requirements are published in different locations in the CBC, it is a source of confusion for owners, designers, contractors, and code officials. Providing a reference to a similar requirement located elsewhere in the CBC assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
1001.1, 1003.1, 1004, 1006, 1007, 1009, 1020, 1224.4.7.1

Item 10-22
Chapter 10, Means Of Egress, Section 1020.5 dead ends

In accordance with CBC Section 308.3, conditions modifying Group I-2 occupancies are not used in the CBC or CFC. The SFM proposed amendment deletes a reference in CFC Section 1020. 5, Exception 4 to Condition 2 modifying a Group I-2.

In accordance with CBC Section 308.3, conditions modifying Group I-2 occupancies are not used in the CBC. The SFM proposed amendment deletes a reference in CBC Section 1020. 5, Exception 4 to Condition 2 modifying a Group I-2.

Group I-2.1 is not an IBC occupancy category. Group I-2.1 is not included in the requirements contained in CBC Section 1020.5, Exception 4. The SFM proposed amendment adds Group I-2.1 occupancies to the scope of CBC Section 1020.5, Exception 4.

The SFM amendment does not adopt new 2021 IBC provisions included in IBC Section 1020.5 Exception 4 that increase the length of a dead-end corridor in a Group I-2 or a Group I-2.1 to 30 feet in length when fire sprinkler protection is not provided.

CBC Section 1020.5 limits the length of a dead-end corridor to not more than 20 feet. New IBC provisions provided in CBC Section 1020. 5, Exception 4 permit a dead-end corridor in a Group I-2 30 feet in length. The SFM proposed amendment to CBC Section 1020.5 Exception 4 requires fire sprinkler protection throughout a building before dead-end corridors are permitted to be increased from 20 feet to 30 feet in length. The IBC provisions regulate new construction and therefore contemplate that Group I occupancies constructed in accordance with the 2021 edition of the IBC will, in accordance with other provisions of the IBC, be protected by fire sprinkler systems. When fire sprinkler protection is not provided, as would be the case with Group I-2 buildings of Type I-A construction in existence March 4,1972, in accordance with the California Health and Safety Code Section 13113(d), it is not the intent to increase the permitted length of dead-end corridors. It is the expectation of IBC Section 1020.5 exception 4 that dead-end corridors up to 30 feet in length will be located in new construction in buildings protected by a fire sprinkler system. This concern is applicable only to existing Group I-2 and I-2.1 facilities not protected by a fire sprinkler system originally constructed in accordance with the provisions permitting dead-end corridors no greater than 20 feet in length, when such facilities are remodeled. The SFM amendment affirms that in accordance with CBC Section 1020.5, modifications to floor plans in existing facilities not protected by a fire sprinkler system shall continue to limit the length of dead-end corridors to not exceed 20 feet. This SFM proposed amendment does not establish a new requirement for new construction.

Typically, requirements in the California Building Code and International Building Code are concerned with new construction. There are however, occasions when the provisions of California law include requirements that effect construction in existing facilities. When it occurs, it is helpful to amend such requirements in order to indicate when requirements for existing construction vary from those applicable to new construction. Including subject matter in the code that is inaccurate and in conflict with adopted provisions of the code is misleading, confusing and frustrating for owners, designers, contractors and code officials. Correcting incorrect and conflicting information assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
308.3, 903.2.6, 1001.1, 1003.1, 1004, 1006, 1007, 1009, 1020, 1021

Item 10-23
Chapter 10, Means Of Egress, Section 1020.6 Air movement corridors

The SFM proposes to carry forward existing amendments incorporated within new model code language.

Item 10-24
Chapter 10, Means Of Egress, Section 1022.3 Basements

SFM proposed amendment relocates an exit provision from the exit access section of the CBC to the exit section of the CBC and revises the reference to Section 407.

CBC Section 1016.2.2 is located in the exit access section of Chapter 10 of the CBC; however, CBC Section 1016.2.2 is an exit requirement. CBC Section 1016.2.2 references CBC Section 407 for additional requirements. A more complete reference would be Section 407.4.1.2.

The SFM proposed amendment relocates the basement exit requirement of CBC Exit Access Section 1016.2.2 to CBC Exit Section 1022.3 and revises the reference to CBC Section 407 to CBC Section 407.4.1.2.

The SFM proposed amendment is editorial only. This SFM proposed amendment does not establish a new requirement.

The placement of subject matter in improper locations of the code is a source of confusion and frustration for owners, designers, contractors and code officials. Correcting such placement assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
407.4.1.2, 1001.1, 1003.1, 1006, 1007, 1009, 1010, 1016, 1022, 1022.3(New)

Item 10-25
Chapter 10, Means Of Egress, Section 1024.6 Penetrations

The SFM proposes to repeal California amendment and replace with model code language.

Item 10-26
Chapter 10, Means Of Egress, Section 1030.6.3.2 Public address system

The SFM proposes to renumber based on model code changes.

Item 10-27
Chapter 10, Means Of Egress, Sections 1032.2.1.2 Maintenance, 1032.2.1.3 Examination

The SFM proposes to add maintenance and examination enforceable requirements that all in one place. These requirements are also in Chapter 11 for Existing Buildings.

As stated in Section 1101.2, IFC Chapter 11 contains construction requirements for existing buildings to provide a minimum level of safety. Chapter 11 is not intended to contain maintenance or administrative requirements.
Sections 1104.16.7 and 1104.16.5.1 are clearly maintenance requirements. This code change will relocate the fire escape maintenance requirements to Section 1032 which cover maintenance of means of egress. Therefore, the sections in Chapter 11 are deleted. Section 1032.2.1.1 already contains some fire escape maintenance provisions, so the maintenance requirements from Chapter 11 are relocated here. This places all the maintenance requirements for fire escapes in one location.
Additionally, some jurisdictions do not adopt Chapter 11. Placing the maintenance requirements in Section 1032, will allow them to be applicable and enforceable for existing fire escapes even when Chapter 11 is not adopted.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This simply relocates requirements from one chapter to another.

CHAPTER 11
RESERVED
CHAPTER 11A
HOUSING ACCESSIBILITY

Item 11A-1
Chapter 11A, *Housing Accessibility*

The SFM proposes to **not** adopt Chapter 11A.

CHAPTER 11B
ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLIC HOUSING

Item 11B-1
Chapter 11B, Accessibility To Public Buildings, Public Accommodations, Commercial Buildings And Public Housing

The SFM proposes to **not** adopt Chapter 11B.

CHAPTER 12
INTERIOR ENVIRONMENT

Item 12-1
Chapter 12, Interior Environment

The SFM proposes to adopt only sections 1202, 1204.4, 1204.1, 1204.5, 1204.7, 1204.7.1, 1205, 1208, 1224.3, 1224.4.7.1, 1224.33.2.1 of Chapter 12.

CHAPTER 13
ENERGY EFFICIENCY
Refer to California Energy Code, Title 24, Part 6.

CHAPTER 14
EXTERIOR WALLS

Item 14-1
Chapter 14, Process Piping

The SFM proposes to adopt only sections 1401, 1402, 1403,1404, 1405, 1406, 1407, 1408, 1409 of Chapter 14 and carry forward existing amendments.

CHAPTER 15
ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

Item 15-1
Chapter 15, Roof Assemblies And Rooftop Structures

[The SFM proposes to adopt sections 1501, 1503.3, 1503.3.1, 1503.3.2, 1503.4, 1505, 1506, 1507, 1509, 1510, 1511 of Chapter 15.]

CHAPTER 16
STRUCTURAL DESIGN

Item 16-1
Chapter 16, Structural Design

The SFM proposes to **not** adopt Chapter 16.

CHAPTER 16A
STRUCTURAL DESIGN

Item 16A-1
Chapter 16A, Structural Design

The SFM proposes to **not** adopt Chapter 16A.

CHAPTER 17
SPECIAL INSPECTIONS AND TESTS

Item 17-1
Chapter 17, Special Inspections And Tests

[The SFM proposes to adopt sections 1701, 1702, 1703, 1705.1.1, 1705.3, Table 1705.5.3, 1705.12.1, 1705.12.2, 1705.13.2, 1705.13.3, 1705.15, 1705.16, 1705.18, 1705.19, 1705.20 of Chapter 17 and carry forward existing amendments.]

Item 17-2
Chapter 17, Special Inspections And Tests, Sections 1705.5.3, Table 1705.5.3, 1705.12.1, 1705.12.2, 1705.13.2, 1705.13.3, 1705.15, 1705.16, 1705.20

The SFM proposes to repeal and replace with model code language for Sections 1705.5.3, Table 1705.5.3, 1705.12.1, 1705.12.2, 1705.13.2, 1705.13.3, 1705.15, 1705.16, 1705.20.

Rationale:
This proposal adds special inspection provisions to Section 1705 for mass timber. This new and unique type of construction requires a level of inspection consistent with other large buildings and unique applications where milestone inspections by the jurisdictional inspectors are not rigorous enough to ensure a level of quality control or quality assurance of the construction process. The proposed special inspections are similar to what is required for other prefabricated systems such as pre-cast concrete and structural steel. Special Inspection is the monitoring of materials, installation, fabrication, erection and placement of components and connections that require special expertise that are critical to the integrity of the building structure. The special inspectors are required to ensure compliance with the approved construction documents and referenced standards. The program allows jurisdictions to have access to highly specialized and trained inspectors. Some special inspection activities require construction activities to be continuously inspected, which would be logistically difficult for a typical building inspection program. Special inspection is a vital part of the compliance path for successful and compliant building projects constructed under the California Building Code.

Specific elements
The specific elements requiring special inspection are:

1. Periodic inspection of the connection of mass timber elements to wood foundation elements. These connections are critical to transfer loads from the mass timber elements to the piles, particularly for lateral loading. The connections to concrete foundations are addressed in Table 1705.3, Item #3.

2. Periodic inspection of erection of mass timber elements. Similar to pre-cast concrete (Table 1705.5.3, Item #1), tall wood buildings utilizing prefabricated elements needs to have verification that the correct elements are placed in the right location in accordance with the design drawings.

3. Inspection of specialized connections.

Connections between mass timber products that utilized threaded, bolted, or concealed connections are considered periodic in a similar manner that concrete special inspections are required in Table 1705.5.3. The strength of many connection designs is predicated on specific screw lengths and installation angles. Bolted connections require specific diameters, and for lag bolts, specific lengths. Concealed connectors, many of which are proprietary, must be installed correctly for structural performance. Most of these cannot be verified by the jurisdictional inspector, so special inspections are required.

Adhesive anchorage installed in horizontal or upwardly inclined positions resisting tension loads shall be continuously inspected, again similar to Table 1705.5.3, Item 3.3. This is required because of issues with creep of the adhesives under long-term tension loading discussed in previous code change cycles. However, once again similar to the requirements for precast concrete, all other adhesive anchors need only be inspected periodically (ref. Table 1705.5.3, Item 3.2).

If there are other unusual items not covered in the proposed table, the existing text in Section 1705.1.1 gives the building official the authority to require special inspections for those unusual items. The same section also says the building official can require special inspections where manufacturers' installation instructions prescribe requirements not contained in the code. For example, field-glued mass timber beam or panel splices, while currently rare in North America, may become more prevalent in the future. This is not an item that is covered in the proposed Table 1705.5.3. While the AHC-TWB is not aware of any of those types of splices that are not currently proprietary, Section 1705.1.1 would allow the building official to require special inspections for either proprietary or nonproprietary field-glued splices. Note that many design engineers will also specify the need for special inspections for unusual conditions in their structural notes in the construction documents, or in the statement of special inspections.

No changes are being proposed to address fabrication of mass timber structural elements. Mass timber structural assembled in a fabricator shop should be addressed by sections 1704.2.5 and 1704.2.5.1 of the current codes regarding fabrication.

Buildings of mass timber over 6-stories involve new challenges in the construction of tall buildings, and contractors and inspectors have little or no experience working with these systems of wood material for tall buildings. Due to the importance of connections in the successful fire performance of mass timber systems, and the lack of long term experience

for involved parties constructing these taller buildings, a level of inspection beyond that commonly required of other construction methods is warranted. This is consistent with the intent of Section 1705.1.1 where special inspections are intended for unusual design applications of materials included in the code, or where adherence to manufacturer's instructions for materials and systems are not specified in the code is required. Requiring special inspection of these connections for fire resistance is also similar to the requirements in Section 1705.14, where sprayed fire resistant materials must undergo special inspections and tests to document acceptance. These requirements for mass timber are similar in nature to these special inspections. This proposal adds Section 2304.10.1 to specify how the fire resistance rating of connections for the Types IV-A, IV-B and IV-C construction is to be determined.

Cost Impact: The code change proposal will increase the cost of construction. Since all the code proposals related to Mass Timber products are to address new types of building construction, in theory this will not increase the cost of construction, but rather provides design options not currently provided for in the code. The ICC TWB committee took great care to not change the requirements of the pre-existing construction types, and our changes do not increase the cost of construction using those pre-existing construction types. However, based on a typically residential or office building of typical floor plates an estimate of Special Inspection costs would range from $1,000 to $2,000 per floor. Another approach to the cost of special inspection is a percentage of total construction costs; for typical pre-fabricated construction elements, the cost of special inspection can range between 0.15% to 0.30%, depending on labor cost and complexities of the construction in the building. These estimates are based on responses to surveys of special inspection agencies in the Seattle and Las Vegas areas. (S100-19)

[Sections: 1705.12.1, 1705.12.2, 1705.13.2, 1705.13.3]
Rationale:
The State Fire Marshal is proposing the code changes as a complete code package for the early adoption of the International Code Council's Tall Wood Building committee.

The primary purpose of this proposal is to clarify the intent of the exceptions from special inspection of wood diaphragms and shear walls in high-seismic and high wind areas. The original exception was intended to apply to buildings of light-frame construction where wood studs or joists are sheathed with a variety of structural sheathing materials (e.g. oriented-strand board, plywood, or gypsum board) to form the diaphragm, and where the capacity of shear walls, panels, and diaphragms for resisting wind and seismic loads is defined in the American Wood Council's Special Design Provisions for Wind and Seismic (AWC SDPWS). The exceptions should apply to shear walls, shear panels and diaphragms constructed with traditional 2x dimensional lumber or equivalent products (e.g. I-joists or LVL's) and structural sheathing, or nail-laminated or dowel laminated diaphragms with sheathing, but not to lateral force-resisting systems relying solely on mass timber products for lateral resistance. In evaluating special inspection requirements for mass timber buildings, the ICC Ad-Hoc Committee on Tall Wood Buildings did not feel the exception should apply unless a mass timber building relied on a separate layer of wood structural panel sheathing or other sheathing to provide lateral load resistance. However, since this issue is not specific to tall mass timber buildings, the TWB determined

that proposing changes to the exception was out of its scope and referred the issue to the ICC Building Code Advisory Committee for review and modification as needed.

Similar exceptions to those for special inspection of wood diaphragms and wood shear walls on wood buildings are provided for wood structural panel or steel sheet diaphragms on cold-formed steel buildings. The same clarifications that the fastener spacing is the specified fastener spacing based on the structural engineer's design and tabulated diaphragm and shear wall capacities in the material design standards and that the fastening in question is that at panel edges (or sheet edges for diaphragms and shear walls sheathed with steel sheet) are made for the corresponding wind and seismic special inspections for cold-formed steel buildings.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. The code change does not change the application of the two exceptions to diaphragms and shear walls using sheathing materials currently permitted by the code via the reference to the American Wood Council Special Design Provisions for Wind and Seismic. Thus, there is no cost increase for light-frame buildings that currently qualify for the exception. Mass timber buildings not already permitted under existing limits on Type IV construction must go through an alternate means and methods process to gain approval. The work of the AHC-TWB to gain code recognition for tall wood buildings will reduce the cost of construction for such buildings as they will not require special approval procedures. The corresponding clarifications for cold-formed steel buildings do not change the intended application of those exceptions. (S105-19)

[Section: 1705.15
Rationale:
The installation of Sprayed Fire Resistant Material (SFRM) fireproofing takes place early in the project when there is clear access to the beams, columns, trusses and horizontal assembles. This installation to the manufacturers installation instructions and the listing needs to take place before the installation of the mechanical, electrical, plumbing (MEP) and ceilings takes place. SFRM fireproofing application does not take place while the MEP or ceiling contractors are working. It's not efficient.

This proposal aims to clarify that the fireproofing inspection takes place while the SFRM fireproofing application takes place rather than after. It is much costlier to repair any areas that are not in compliance with the listing if the MEP and ceilings contractors have mobilized.

The State Fire Marshal is proposing to adopt this section as it relates to the fire and life safety of the building. The SFM already currently adopts the section by reference in Chapter 1.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This proposal makes the code reflect the way that SFRM Fireproofing is inspected currently. If the inspection is to take place after the SFRM contractor has demobilized, cost of construction will increase. (S14-18, S15-18 and S16-18)

[Section: 1705.16]

Rationale:
The special inspection of fireproofing needs to take place before the mechanical, electrical and plumbing, sprinkler, suspension systems and ceilings are 'roughed in' or installed. This proposal is to clarify in the code when the inspection is to take place, which is both as the fireproofing is installed and visually after the rough in takes place.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This proposal clarifies that inspection of fireproofing takes place as it currently does now mean no increase in cost. (S19-18)

[Section: 1705.20 (New)]
Rationale:
The code change proposal adds a special inspection requirement to address sealants and adhesives that are a part of the required design of mass timber. There is a need to ensure that the details of construction are adhered to, and the special inspection is seen as a means to ensure that these construction details are adequately emphasized during the construction process.

Cost Impact: The net effect code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (FS6-18)

CHAPTER 17A
SPECIAL INSPECTIONS AND TESTS

Item 17A-1
Chapter 17A, Special Inspections And Tests

The SFM proposes to **not** adopt Chapter 17A.

CHAPTER 18
SOILS AND FOUNDATIONS

Item 18-1
Chapter 18, Soils And Foundations

The SFM proposes to **not** adopt Chapter 18.

CHAPTER 18A
SOILS AND FOUNDATIONS

Item 18A-1
Chapter 18A, Soils And Foundations

The SFM proposes to **not** adopt Chapter 18.

CHAPTER 19
CONCRETE

Item 19-1
Chapter 19, Concrete

The SFM proposes to **not** adopt Chapter 19.

CHAPTER 19A
CONCRETE

Item 19A-1
Chapter 19, Concrete

The SFM proposes to **not** adopt Chapter 19A.

CHAPTER 20
ALUMINUM

Item 20-1
Chapter 20, Aluminum

The SFM proposes to **not** adopt Chapter 20.

CHAPTER 21
MASONRY

Item 21-1
Chapter 21, Masonry

The SFM proposes to adopt existing and carry forward SFM amended Section 2113.9.2 of Chapter 21.

CHAPTER 21A

MASONRY

Item 21A-1
Chapter 21A, Masonry

The SFM proposes to **not** adopt Chapter 21A.

CHAPTER 22
STEEL

Item 22-1
Chapter 22, Steel

The SFM proposes to **not** adopt Chapter 22.

CHAPTER 22A
STEEL

Item 22A-1
Chapter 22A, Steel

The SFM proposes to **not** adopt Chapter 22A.

CHAPTER 23
WOOD

Item 23-1
Chapter 23, Wood

The SFM proposes to adopt Sections 2303.2 – 2303.2.9 of Chapter 23.

Item 23-2
Chapter 23, Wood, Section 2304 General Construction Requirements, Sections 2304.10.1.2, 2304.11.3, 2304.11.4

The SFM proposes to repeal and replace with model code language. The sections have been renumbered based on changes to the mode code.

[Section: 2304.10.1.2]
Rationale:

California Building Code Sections 704.2 and 704.3 require connections of columns and other primary structural members to be protected with materials that have the required fire-resistance rating. This proposed change provides two options for demonstrating compliance with this requirement for connections in Types IV-A, IV-B and IV-C construction: a testing option and a calculation option.

Types IV-A, IV-B and IV-C construction utilize mass timber elements that have inherent fire resistance. The new provisions which added these construction types have explicit fire-resistance ratings and protection requirements. Option 1 allows connections that are part of a successful ASTM E119 fire resistance test to be considered acceptable evidence of meeting the requirements of Sections 704.2 and 704.3.

Some connections used in Types IV-A, IV-B and IV-C construction are not part of the mass timber element or assembly testing. For those connections, an engineering analysis is required. Analysis procedures have been developed that allow the protection of these connections to be designed based on test results of E119 fire tests from protection configurations using the wood member outside of the connection, additional wood cover, and/or gypsum board. The analysis procedures must demonstrate that the protection will limit the temperature rise at any portion of the connection, including the metal connector, the connection fasteners, and portions of the wood member that are necessary for the structural design of the connection. The average temperature rise limit of 250°F (139°C) and maximum temperature rise limit of 325°F (181°C) represent the fire separation and thermal protection requirements for wall and floor assemblies tested per ASTM E119 and ensure that the connection retains most of its initial strength throughout the fire-resistance rating time. Please note the Celsius values in parentheses are for temperature rise calculated as the difference between the final temperature and the initial temperature, not a direct conversion of a Fahrenheit temperature.
California Building Code section 722 permits structural fire-resistance ratings of wood members to be determined using Chapter 16 of the National Design Specification® (NDS®) for Wood Construction. Where a wood connection is required to be fire-resistance rated, NDS Section 16.3 requires all components of the wood connection, including the steel connector, the connection fasteners, and the wood needed in the structural design of the connection, to be protected for the required fire-resistance rating time. NDS permits the connection to be protected by wood, gypsum board or other approved materials. American Wood Council's publication Technical Report 10: Calculating the Fire Resistance of Wood Members and Assemblies (https://www.awc.org/codesstandards/publications/tr10), which is referenced in the NDS Commentary to Chapter 16, has been specifically updated to provide guidance on and examples of connection designs meeting the requirements of IBC 704 and NDS 16.3.

The ICC Ad Hoc Committee for Tall Wood Buildings (AHC-TWB) was created by the ICC Board of Directors to explore the building science of tall wood buildings with the scope to investigate the feasibility of and act on developing code changes for these buildings. Members of the AHC-TWB were appointed by the ICC Board of Directors. Since its creation in January 2016, the AHC-TWB has held 8 open meetings and numerous Work Group conference calls. Four Work Groups were established to address over 80 issues and concerns and review over 60 code proposals for consideration by the AHC-TWB. Members of the Work Groups included AHC-TWB members and other interested parties.

Related documentation and reports are posted on the AHC-TWB website at https://www.iccsafe.org/codes-tech-support/cs/icc-ad-hoc-committee-on-tall-wood-buildings/.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. Since all the code proposals related to Mass Timber products are to address new types of building construction, in theory this will not increase the cost of construction, but rather provides design options not currently provided for in the code. The TWB committee took great care to not change the requirements of the pre-existing construction types, and our changes do not increase the cost of construction using those pre-existing construction types. (S170-19)

[Section: 2304.11.3, 2304.11.4]
Rationale:
The proposal is a correlation with the code change proposal of 604.4.4.4.

The option of having protected concealed spaces in Type IV buildings is important to encourage the adaptive re-use of existing heavy timber buildings as well as to provide for the installation of mechanicals in Type IV cross laminated timber (CLT) construction. In addition to the current requirements for all concealed spaces in combustible construction, this change would require additional protection of the concealed spaces with sprinkler coverage, or eliminating all air space with noncombustible insulation, or covering all combustible surfaces with gypsum. These alternatives are the same protection required for concealed spaces in NFPA 13, except they are slightly more restrictive since 5/8-inch Type X gypsum is required in the one case. In addition, because the provisions are taken from NFPA 13, in order to use these provisions, the entire building must be protected by a sprinkler system complying with NFPA 13.

A similar change was recently successful in NFPA 220 and NFPA 5000. This proposal is more conservative in that it requires 5/8-inch Type X gypsum instead of ½ -inch gypsum in the alternative for sheathing combustible concealed spaces with gypsum in proposed section 602.4.4.4.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. The code change provides the option of having protected concealed spaces in Type IV HT buildings, therefore does not increase the cost of construction. (G109-18)

CHAPTER 24
GLASS AND GLAZING

Item 24-1
Chapter 24, Glass And Glazing

The SFM proposes to adopt Chapter 24.

CHAPTER 25
GYPSUM BOARD, GYPSUM PANEL PRODUCTS AND PLASTER

Item 25-1
Chapter 25, Gypsum Board, Gypsum Panel Products And Plaster

The SFM proposes to **not** adopt Chapter 25.

CHAPTER 26
PLASTIC

Item 26-1
Chapter 26, Plastic

The SFM proposes to adopt Chapter 26.

CHAPTER 27
ELECTRICAL

Item 27-1
Chapter 27, Electrical

The SFM proposes to adopt Chapter 27 and carry forward existing amendments and make the following modifications as shown below.

SECTION 2702
EMERGENCY AND STANDBY POWER SYSTEMS

Item 27-2
Chapter 27, Electrical

An emergency power system complying with Section 2702 shall be provided for the emergency power loads specified in Section 403.4.8.4.

CBC Section 403.1 requires that new high-rise buildings and new Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access shall comply with Sections 403.2 through 403.7.

CBC Section 403.4.8 requires a standby power system complying with Section 2702 and Section 3003 shall be provided for the standby power loads specified in Section 403.4.8.3. An emergency power system complying with Section 2702 shall be provided for the emergency power loads specified in Section 403.4.8.4.

SFM proposed amendment includes requirements for generator fuel line protection for Group I-2 occupancies located more than 75 feet above the lowest level of fire department

vehicle access. This is in accordance with CBC Section 403.1 and CBC Section 403.4.8 requirements for such occupancies and stand by and emergency power systems. The SFM proposed amendment corrects an omission that failed to include Group I-2 occupancies located more than 75 feet above the lowest level of fire department vehicle access in CBC Section 2702.1.2. The SFM proposed amendment coordinates a requirement in Section 2702.1.2 with existing provisions in CBC Sections 403.1 and 403.4.8. This SFM proposed amendment does not establish a new requirement.

The omission of significant provisions from the scope of requirements in the code is significantly misleading for owners, designers, contractors and code officials. Including within the scope, the facilities for which requirements are applicable reduces confusion for owners, designers, contractors and code officials.

[Related Sections in Part 2, California Building Code]
403.1, 403.4.8, 403.4.8.3, 403.4.8.4, 2702, 3003

Item 27-3
Chapter 27, Electrical, Section 2702 Emergency and Standby Power Systems, Section 2702.2.12.1 Group L Occupancy

The SFM proposes to amend the Section 2702.2.12.1. Remembering based on changes to model code.

CHAPTER 28
MECHANICAL SYSTEMS

Item 28-1
Chapter 28, Mechanical Systems

The SFM proposes to adopt Chapter 28 and carry forward existing amendments.

CHAPTER 29
PLUMBING SYSTEMS

Item 29-1
Chapter 29, Plumbing Systems

Not adopted by the State of California. The SFM proposes to **not** adopt Chapter 29.

CHAPTER 30
ELEVATORS AND CONVEYING SYSTEMS

Item 30-1
Chapter 30, Elevators And Conveying Systems

The SFM proposes to adopt Chapter 30 and carry forward existing amendments with modifications as shown below.

Item 30-2
Chapter 30, Elevators And Conveying Systems, 3006.3 Hoistway opening protection

The SFM proposes to correct a reference pointer section 708.7 to the correct section 708.6 for opening protection.

CHAPTER 31
SPECIAL CONSTRUCTION

Item 31-1
Chapter 31, Special Construction

The SFM proposes to adopt sections 3101, 3102, 3103, 3104, 3105, 3106, 3110, 3111, 3115 of Chapter 31 and carry forward existing amendments and make modifications as shown below.

SECTION 3102
MEMBRANE STRUCTURES

Item 31-2
Chapter 31, Special Construction, Section 3102 Membrane Structures, Sections 3102.3 and 3102.6.1.1

The SFM proposes to repeal and replace with model code language.

[Sections: 3102.3, 3102.6.1.1]
Rationale:
This code change will result in consistency with the purpose and scope which was to leave intact the current Type IV heavy timber (HT) provisions. The HT category was created to differentiate the three (3) new categories of “mass timber”, where HT represents the long established heavy timber category that has been in the ICC family of codes, and the predecessor legacy codes, for decades.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the

code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (G146-18)

Item 31-3
Chapter 31, Special Construction

The primary purpose of this proposal is to establish appropriate fire testing and listing criteria for overhead photovoltaic (PV) support structures that could have people or vehicles in the space beneath them. Sometimes referred to as “solar shade structures,” they are most commonly constructed over vehicle parking spaces of surface parking lots, are sometimes built on the uppermost level of parking garages but could be built in a variety of locations with or without cars parked beneath.

Overhead PV structures are referenced in 2021 IBC Section 1607.14.4, and in 2019 California Building Code Section 503.1, but without any definitions.
In 2021 IBC Section 1607.14.4.3, these structures are described as “Structures with open grid framing and without a roof deck or sheathing supporting photovoltaic panel systems.”

In 2019 California Building Code Section 503.1, Exception 2, these structures are described as: “… solar photovoltaic panels supported by a structure with no use underneath…” In Exception 3, there is a more-specific description by location: “… solar photovoltaic panels supported by a structure over parking stalls …”

Ground-mounted photovoltaic panel systems are referenced in the 2021 I-codes, in IBC Sections 1607.4.4 and 3111.3.5; in IRC Section R324.7; and in IFC Section 1205.5.

For the proposed definition of Elevated PV Support Structure note the minimum height threshold of 7’-6” is consistent with IBC 1003.2.

Most PV panels in the marketplace have been fire tested and assigned a “type rating” in accordance with UL 1703. However, some PV panels might not have that fire testing, and could be marked “not fire rated.” This proposal clarifies that PV panels marked “not fire rated” cannot be used on elevated/overhead PV structures that could have people or cars beneath them, with or without a full roof assembly.

Where elevated PV structures have PV panels mounted over open-grid framing with no roof deck or sheathing cannot achieve a “fire classification” because there is no combustible roof covering to ignite in a UL 2703 spread-of-flame or burning brand test. Therefore, it is sufficient protection to install only type-rated modules. The same is true when PV panels are installed directly over noncombustible metal sheathing without a stand-off mounting system. Where elevated PV structures have a roof assembly and PV panels are rooftop mounted over that roof assembly, then those structures must have a fire classification according to Section 1505.9. There are several different stakeholder groups that will benefit from this proposal.

This proposal was prepared by the Sustainable Energy Action Committee (SEAC), a forum for all stakeholders (including, but not limited to, AHJs, designers, engineers, contractors,

first responders, manufacturers, suppliers, utilities, and testing labs) to collaboratively identify and find solutions for issues that affect the installation and use of solar energy systems, energy storage systems, demand response, and energy efficiency. The purpose is to facilitate the deployment and use of affordable, clean and renewable energy in a safe, efficient, and sustainable manner. All recommendations from SEAC are approved by diverse stakeholders through a consensus process.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. It encourages the use of solar without adversely impacting safety.

CHAPTER 31A
SYSTEMS FOR WINDOW CLEANING OR EXTERIOR BUILDING MAINTENANCE

See Title 8, California Code of Regulations, Division 1, Chapter 4, Subchapter 7, General Industry Safety Orders, Group 1, Articles 5 and 6.

CHAPTER 31B
PUBLIC POOLS

Item 31B-1
Chapter 31B, Public Pools

The SFM proposes to **not** adopt Chapter 31B.

CHAPTER 31C
RADIATION

Item 31C-1
Chapter 31C, Radiation

The SFM proposes to **not** adopt Chapter 31C.

CHAPTER 31D
FOOD ESTABLISHMENTS

Item 31D-1
Chapter 31D, Food Establishments

The SFM proposes to **not** adopt Chapter 31D.

CHAPTER 31E
RESERVED

CHAPTER 31F
MARINE OIL TERMINALS

Item 31F-1
Chapter 31F, Marine Terminals

The SFM proposes to **not** adopt Chapter 31F.

CHAPTER 32
ENCROACHMENTS INTO THE PUBLIC RIGHT-OF-WAY

Item 32-1
Chapter 32, Encroachments Into The Public Right-Of-Way

The SFM proposes to adopt Chapter 32.

CHAPTER 32
ENCROACHMENTS INTO THE PUBLIC RIGHT-OF-WAY

Item 32-1
Chapter 32, Encroachments Into The Public Right-Of-Way

The SFM proposes to adopt Chapter 32.

CHAPTER 33
SAFEGUARDS DURING CONSTRUCTION

Item 33-1
Chapter 33, Safeguards During Construction

The SFM proposes to adopt Chapter 33.

CHAPTER 34
RESERVED

CHAPTER 35
REFERENCED STANDARDS

Item 35-1
Chapter 35, Referenced Standards

The SFM proposes to adopt Chapter 35 and carry forward existing amendments with modifications as shown below.

Item 35-2
Chapter 35, Referenced Standards, ASTM F2374 Standard Practice For Design, Manufacture, Operation, and Maintenance Of Inflatable Amusement Devices

This proposal introduces basic safety requirements for inflatable amusement devices also known as “bounce houses”. There have been numerous reported incidents of accidents and injuries involving these devices caused by weather events such as sustained or wind gusts and/or improper set-up, anchorage or use where the “bounce house” is uplifted, carried away and/or overturned with children or adults inside.
A proposal to regulate these devices was presented in the last cycle but there was concern regarding the difference between outdoors and indoors and permits. At the time ASTM F2374 was not written in a way that it could be referenced but that has changed now, and it is in good shape (including all mandatory language). No discussion of either location or permits is included in this proposal. This proposal is much more compact than the earlier one.
Chapter scoping section is modified to reference proposed new section.
This new section simply adds basic fire and electrical safety requirements for the construction, placement, and operation of portable inflatable amusement devices. The section addresses safety requirements for both outdoor and indoor use of these devices.
The electrical safety section simply refers to an existing code section
A definition for inflatable amusement devices is also included to correlate the type of devices covered by these new IFC code requirements.
The information regarding a certificate and affidavit refer to the existing sections for tents.

Item 35-2.1
Chapter 35, Referenced Standards, ASTM D3498-03 Standard Specification for Adhesives for Field Gluing Plywood to Lumber Framing for Floor Systems

Rationale:
The International Code Council (ICC) Ad Hoc Committee on Tall Wood Buildings (TWB) was created by the ICC Board to explore the science of tall wood buildings and take action on developing code changes for tall wood buildings. The ICC TWB has created several

code change proposals with respect to the concept of tall buildings of mass timber. Mass timber has inherent properties of fire resistance, serving both to provide structural fire resistance and to safeguard against the spread of fire and smoke within a building or the spread of fire between structures.

The inclusion of the ASTM standard in the new proposed section 703.9 requires the adoption of an edition for the code user. The proposal for adoption is to correlate with the requirements for the standard as referenced.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This section provides information that was not previously set forth in the code, and does not change the requirements of current code, thus there is no cost impact when compared with present requirements. (FS6-18)

Item 35-3
Chapter 35, Referenced Standards, NFPA 10 Portable Fire Extinguishers

NFPA 10-~~18~~*21*

The SFM is proposing to update the referenced standard to correlate with the other parts of Title 24. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code.

Item 35-4
Chapter 35, Referenced Standards, NFPA 13 Installation of Sprinkler Systems *as amended**

NFPA 13-~~19~~*22*

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code. NFPA 13 National Standard is amended by California to align with State laws and regulations based on California specific topographical, climatic, and geographical issues.

Item 35-5
Chapter 35, Referenced Standards, NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes *as amended**

NFPA 13D-~~19~~*22*

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code. NFPA 13D National Standard is amended by California to align with State laws and regulations based on California specific topographical, climatic, and geographical issues.

Item 35-6
Chapter 35, Referenced Standards, NFPA 13R Standard for the Installation of Sprinkler Systems in Low-rise Residential Occupancies *as amended

NFPA 13R-~~19~~22

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code. NFPA 13R National Standard is amended by California to align with State laws and regulations based on California specific topographical, climatic, and geographical issues.

Item 35-7
Chapter 35, Referenced Standards, NFPA 14 Standard for the Installation of Standpipe and Hose Systems *as amended

NFPA 14-19

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code. NFPA 14 National Standard is amended by California to align with State laws and regulations based on California specific topographical, climatic, and geographical issues.

Item 35-8
Chapter 35, Referenced Standards, NFPA 24 Installation of Private Fire Service Mains and Their Appurtenances *as amended

NFPA 24-~~16~~19 Standard for Installation of Private Fire Service Mains and Their Appurtenances, as amended*

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish

consistency within the parts of the California Buildings Standards Code. NFPA 24 National Standard is amended by California to align with State laws and regulations based on California specific topographical, climatic, and geographical issues.

Item 35-9
Chapter 35, Referenced Standards, NFPA 37 Installation and Use of Stationary Combustion Engines and Gas Turbines

37—~~15~~18: Installation and Use of Stationary Combustion Engines and Gas Turbines

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code.

Item 35-10
Chapter 35, Referenced Standards, NFPA 45 Standard on Fire Protection for Laboratories Using Chemicals (2015 Edition)

SFM proposed to delete NFPA 45, as it conflicts with California Fire Code regulations.

Item 35-11
Chapter 35, Referenced Standards, NFPA 54 National Fuel Gas Code

NFPA ~~54—15~~ 18

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code.

Item 35-12
Chapter 35, Referenced Standards, NFPA 72 National Fire Alarm and Signaling Code, *as amended**

NFPA 72-~~19~~22

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code. NFPA 72 National Standard is amended by California to align with State laws and regulations based on California specific topographical, climatic, and geographical issues.

SFM proposed amendment corrects a publishing error that relocates an amendment to

NFPA 72 that was inadvertently located in the 2019 edition of the CBC Section 1008.3.2 as Item 7.

The scope of CBC Section 1008.3.2 identifies areas where emergency power is required for egress illumination. CBC Section 1008.3.2 includes an enumerated list of where emergency power is required for egress illumination.

The subject of NFPA 72, Section 23.8.1.2.1 is positive alarm features. Positive alarm features delay the transmission of fire alarms. Positive alarm features include presignal features. In accordance with CBC Section 907.5.1.1, presignal features are not permitted in Group I-2, I-2.1 and R-2.1 occupancies. NFPA 72, Section 23.8.1.2.1 indicates that positive alarm features are permitted when approved by the authority having jurisdiction. Where they are provided, it is common practice to connect patient room smoke detectors to nurse call systems. The delay of nurse call signals is not permitted. The SFM proposed amendment does not permit a positive alarm feature associated with the operation of a patient room smoke detector located in a Group I-2 or R-2.1 occupancy and therefore such features shall not be approved. The SFM proposed amendment affirms that it is not the intent of the SFM to permit the delay the activation of fire alarms.

This SFM proposed amendment does not establish a new requirement.

Misleading information is a source of confusion for owners, designers, contractors, and code officials. Deleting or correcting such information assists in the interpretation, understanding and application of provisions of the code.

[Related Sections in Part 2, California Building Code]
907.1, 907.2, 907.5.1.11008.3.2 Item 7(Deleted

Item 35-13
Chapter 35, Referenced Standards, NFPA 111 Standard on Stored Electrical Energy Emergency and Standby Power Systems

NFPA 111-~~16~~19

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code.

Item 35-14
Chapter 35, Referenced Standards, NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems

NFPA 130—~~14~~ 20
The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can

cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code.

Item 35-15
Chapter 35, Referenced Standards, NFPA 289 Standard Method of Fire Test for Individual Fuel Packages

NFPA 289-~~18~~19

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code.

Item 35-16
Chapter 35, Referenced Standards, NFPA 502 Standard for Road Tunnels, Bridges, and Other Limited Access Highways

NFPA 502—~~14~~ 20

The SFM is proposing to update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Buildings Standards Code.

Item 35-17
Chapter 35, Referenced Standards, NFPA 2001 Standard on Clean Agent Fire Extinguishing Systems

2001—18: Standard on Clean Agent Fire Extinguishing Systems *as amended**

Editorial.

APPENDICES

Item A-1
Appendices, Appendix A- H

The SFM proposes to **not** adopt Appendix A - H.

Item A-2
Appendices, Appendix I, Patio Covers

The SFM proposes to adopt Section I101-I103 of Appendix I.

Item A-3
Appendices, Appendix J-P

The SFM proposes to **not** adopt Appendix J-P.

TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS

Government Code Section 11346.2(b)(3) requires an identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the regulation(s).

The SFM did not rely on any technical, theoretical, and empirical study, report, or similar documents outside of those contained in this rulemaking in proposing that CBSC adopt said model code as a reference standard for the placement of existing SFM regulatory amendments for the California Building Standards Codes.

STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS

Government Code Section 11346.2(b)(1) requires a statement of the reasons why an agency believes any mandates for specific technologies or equipment or prescriptive standards are required.

The SFM believes that the amendments to the model code and additional building standards proposed are offered in both a prescriptive and performance base. The nature and format of the model code adopted by reference allow for both methods, the following is a general overview of the model code proposed to be adopted by reference as well as state modifications:

This comprehensive electric code establishes minimum regulations for fire prevention and fire protection systems using prescriptive and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new system designs.

This code is founded on principles intended to establish provisions consistent with the scope of a building and fire code that adequately protects public health, safety and welfare; provisions that do not unnecessarily increase construction costs; provisions that do not restrict the use of new materials, products or methods of construction; and provisions that do not give preferential treatment to types or classes of materials, products or methods of construction.

The International Building Code (IBC) provisions provide many benefits, among which is the model code development process that offers an international forum for building and fire safety professionals to discuss performance and prescriptive code requirements. This forum provides an excellent arena to debate proposed revisions. This model code also encourages international consistency in the application of provisions.

CONSIDERATION OF REASONABLE ALTERNATIVES

Government Code Section 11346.2(b)(4)(A) requires a description of reasonable alternatives to the regulation and the agency's reasons for rejecting those alternatives. In the case of a regulation that would mandate the use of specific technologies or equipment or prescribe specific action or procedures, the imposition of performance standards shall be considered as an alternate. It is not the intent of this paragraph to require the agency to artificially construct alternatives or describe unreasonable alternatives.

The SFM has determined that no alternative considered would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected private persons than the proposed adoption by reference with SFM amendments. Therefore, there are no alternatives available to the SFM regarding the proposed adoption of this code.

REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

Government Code Section 11346.2(b)(4)(B) requires a description of any reasonable alternatives that have been identified or that have otherwise been identified and brought to the attention of the agency that would lessen any adverse impact on small business.

The SFM has determined that no alternative considered would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected private persons than the proposed adoption by reference with SFM amendments. Therefore, there are no alternatives available to the SFM regarding the proposed adoption of this code.

FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS

Government Code Section 11346.2(b)(5)(A) requires the facts, evidence, documents, testimony, or other evidence on which the agency relies to support an initial determination that the action will not have a significant adverse economic impact on business.

The SFM has determined that this proposed action will not have a significant adverse economic impact on business. Health and Safety Code Section 18928 requires the SFM, when proposing the adoption of a model code, national standard, or specification shall reference the most recent edition of the applicable model code, national standard, or specification. Therefore, there are no other facts, evidence, documents, testimony, or other evidence on which the SFM relies to support this rulemaking.

ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION

Government Code Sections 11346.3(b)(1) and 11346.5(a)(10)
The SFM has assessed whether or not and to what extent this proposal will affect the following:

A. The creation or elimination of jobs within the State of California.
These regulations will not affect the creation, or cause elimination, of jobs within the State of California.

B. The creation of new businesses or the elimination of existing businesses within the State of California.
These regulations will not affect the creation or the elimination of existing business within the State of California.

C. The expansion of businesses currently doing business within the State of California.
These regulations will not affect the expansion of business currently doing business within the State of California.

D. The benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment.
These regulations will update and improve minimum existing building standards, which will provide increased protection of public health and safety, worker safety and the environment.

ESTIMATED COST OF COMPLIANCE, ESTIMATED POTENTIAL BENEFITS, AND RELATED ASSUMPTIONS USED FOR BUILDING STANDARDS

Government Code Section 11346.2(b)(5)(B)(i) states if a proposed regulation is a building standard, the initial statement of reasons shall include the estimated cost of compliance, the estimated potential benefits, and the related assumptions used to determine the estimates.

The SFM does not anticipate any significant cost of compliance with the proposed building standards. The regulations are based on the model code. Health & Safety section 18928 requires that building standard be essentially the same as the most recent edition of the uniform industry codes. These regulations benefits are to have clear, concise, complete and update text of the regulations and standards.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

Government Code Section 11346.2(b)(6) requires a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal to describe its efforts, in connection with a proposed rulemaking action, to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues. These agencies may adopt regulations different from these federal regulations upon a finding of one or more of the following justifications: (A) The differing state regulations are authorized by law and/or (B) The cost of differing state regulations is justified by the benefit to human health, public safety, public welfare, or the environment.

The SFM has determined that this proposed rulemaking action does not unnecessary duplicate or conflict with federal regulations contained in the Code of Federal Regulations that address the same issues as this proposed rulemaking.