

Land Use Services Department Building and Safety Division

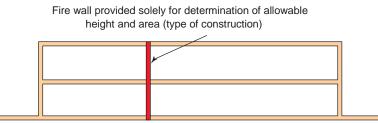
#### SIGNIFICANT CHANGES 2019 CALIFORNIA BUILDING CODES PART 2, VOLUMES 1 & 2 FOR RESIDENTIAL CODE SEE CRC SIGNIFICANT CHANGES

### **BUILDING & RESIDENTIAL CODES:**

• CBC Sections 503.1 & 706.1

# Scope of Fire Wall Use

**CHANGE SIGNIFICANCE:** Fire walls are considered as the most protective of the various fire separation elements set forth in the CBC. The structural stability, materials, fire-resistance, and continuity requirements for fire walls provide for a substantial expectation that the fire separation created by a fire wall is at the highest level. There has always been some confusion as to the extent of a fire wall's use regarding the separation of a single structure into two or more smaller buildings. A fundamental concept of the code is that larger buildings typically have more restrictive requirements than smaller buildings. Therefore, using fire walls to create multiple smaller buildings under the same roof allows each small building to be regulated independently rather than as one large building. An issue was the extent of provisions in the CBC that can be applied to the smaller buildings created by one or more fire walls. The use of fire walls is now strictly limited to only the determination of permissible types of construction, based upon allowable building area and height.



Both Sections 503.1 and 706.1 previously indicated that the portions of a structure separated by one or more fire walls were required to be considered as separate buildings. Although it was possible to consider that the requirement located in Section 503.1 was limited in scope due to its inclusion in Chapter 5 addressing general building heights and areas, the statement in Section 706.1 was global in nature and implied that the smaller buildings created by fire walls were to be regulated as unique and individual buildings for all purposes of the code. In addition, there was an often-applied opinion that the various elements and systems on each side of a fire wall must be completely self-contained. The revised provisions now indicate that the use of a fire wall is solely predicated on the determination of the maximum allowable height and area calculations per Chapter 5. Using the provisions to control other building features or elements such as means of egress, fire protection systems, or building utilities is no longer appropriate.

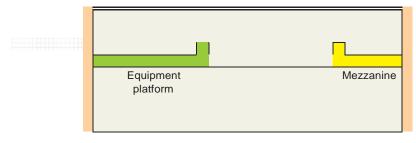
### • CBC Section 502.2.1.1

#### **Mezzanine and Equipment Platform Area Limitations**

**CHANGE SIGNIFICANCE:** Where a floor level is relatively small com- pared to the floor level below, it may be possible to consider the upper floor level as a mezzanine rather than a story. A mezzanine is granted several significant allowances, including that it not be considered as contributing to allowable floor area or number of stories. As a general rule, the aggregate area of mezzanines cannot be larger than one-third the area of the room in which it is located. A greater allowance is available where the elevated areas are equipment platforms, up to two-thirds of the area of the room below. Provisions have been clarified where both a mezzanine and an equipment platform are located in the same room.

Historically, where a mezzanine and an equipment platform are located in the same room, their total floor area is permitted to be up to two-thirds the floor area of the room in which they are located. Where the equipment platform is relatively small, the mezzanine could be much larger than permitted by the base requirement in the code (one-third the floor area) and still meet the two-thirds limitation. For example, the equipment platform could be 5% of the floor area of the room below, allowing the floor area of the mezzanine to be almost 62% of the area below. This potential result was not the intended application of the two- thirds allowance and the revised code text provides a clarification of the original intent. The reformatting and additional language now clearly indicates that the general limitation for mezzanines cannot be exceeded when applying the two-thirds allowance.

Example: Assume both an equipment platform and a mezzanine are located in the same 24,000 sq. ft. room.



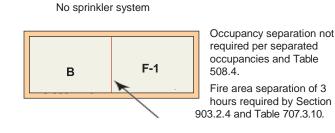
Permitted aggregate size of equipment platform and mezzanine limited to 16,000 sq. ft. (based on  $2^{/}$  3 limitation) Permitted size of mezzanine limited to 8,000 sq. ft. (based on  $1^{/}$  3 limitation) Mezzanine and equipment platform example

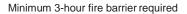
### • CBC Section 508.4.1, Table 508.4

### **Separated Occupancies vs. Fire Area Separations**

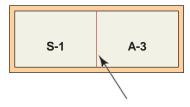
**CHANGE SIGNIFICANCE:** Where a building contains multiple occupancies, Section 508 requires that at least one of three established methodologies be applied to address the varied hazards. Separated occupancies, one of the three available methods, is based upon the similarities, or dissimilarities, of hazards posed by the occupancies being regulated. Where the hazards are deemed to be sufficiently dissimilar, some degree of fire- resistance-rated separation is required by Table 508.4. However, no fire- resistive separation is required by the table where the occupancies pose hazards that are somewhat similar.

Examples: Nonsprinklered mixed occupancy buildings regulated under separated occupancy provisions of Section 508.4





No sprinkler system



Occupancy separation of 2 hours required per separated occupancies and Table 508.4. Fire area separation of 3 hours required by Sections 903.2.1.3 and 903.2.9 and Table

occupancies/fire area examples

707.3.10.Separated

Minimum 3-hour fire barrier required

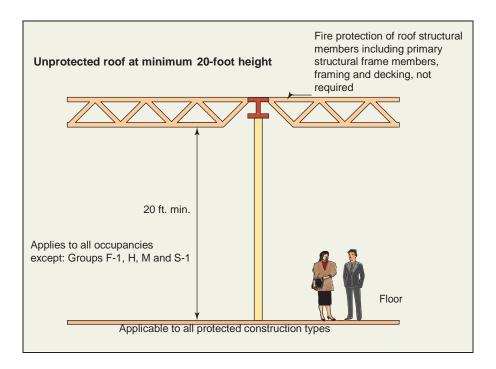
Fire area separations, as regulated by Section 901.7, are selectively used to divide a building into limited-size compartments so as to not exceed the limits established in Section 903 for requiring an automatic sprinkler system. The fire area concept is based on a time-tested approach to limiting the spread of fire in a building. The degree of required fire separation, provided by fire barriers, horizontal assemblies, or both, is set forth in Section 707.3.10. New provisions in Section 508.4.1 and Table clarify that the fire separations used for mixed-occupancy purposes and those used for fire area purposes address different concerns, and as such the most restrictive fire-resistance-rated conditions shall apply.

As an example, where using the separated occupancies method to address a mixedoccupancy building containing both Group F-1 and Group S-1 occupancies, no fire separation is mandated by Table 508.4 due to the similarity in hazards. However, if the fire area concept is applied to create conditions under which a sprinkler system is not required in the building, Table 707.3.10 would require a separation composed of mini- mum 3-hour fire barriers and/or horizontal assemblies. Therefore, the most restrictive condition, the minimum 3-hour separation, must be provided.

# • CBC Table 601, Note b

### **Fire Protection of Structural Roof Members**

**CHANGE SIGNIFICANCE:** The provisions of Chapter 6 in regard to fire resistance are intended to address the structural integrity of the building elements under fire conditions. As a building increases in floor area, height and/or fire hazard, the fire-resistive protection of building elements is often required. The basic fire-resistance ratings for the various

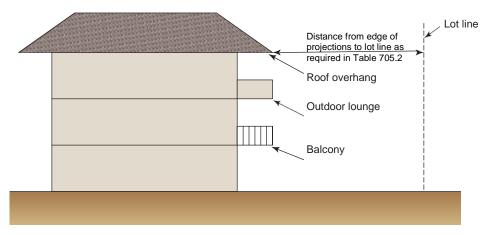


types of construction are established in Table 601. Footnote b has historically modified the base requirements in the table, as they relate to the roof construction, by selectively eliminating the requirement for protecting roof structural members where the roof construction is at least 20 feet above the floor below. The reduction, applicable to all occupancies other than Groups F-1, H, M and S-1, recognizes that the temperatures at this elevation during most fire incidents are quite low. Because footnote b was only applicable to the building element "roof construction and associated secondary members," and was not referenced in the requirements for "primary structural frame," its use was often not applied to roof girders, beams and similar primary structural members. By expanding the scope of the footnote to primary structural frame elements, as well as specifically mentioning in the footnote its application to primary structural frame members, it is very clear that all portions of the roof construction are exempt from fire-resistance requirements based on Table 601.

### • CBC Table 705.2

# **Extent of Projections**

**CHANGE SIGNIFICANCE:** Where architectural projections such as eave overhangs and balconies extend from walls in close proximity to a lot line, they create problems that are due to trapping the convected heat from a fire in an adjacent building. As this trapped heat increases the hazard for the building under consideration, the code mandates a minimum distance the leading edge of the projecting element must be separated from the line used to determine fire separation distance. The permitted extent of projections is established by Table 705.2 and based solely on the clear distance between the building's exterior wall and an interior lot line, centerline of a public way or assumed imaginary line between two buildings on the same lot. The minimum required clearance set forth in Table 705.2 between the edge of a projection and the line used to determine the fire separation distance has been greatly decreased from the clearance required by the 2016 CBC. Projections are allowed to extend beyond the exterior wall, but only for a limited distance. The modification



occurs where the fire separation distance is between 5 feet and 30 feet, with the change becoming more significant as the distance approaches 30 feet. Where an exterior wall of a building has a fire separation distance of 30 feet, the 2016 CBC requires a minimum clearance fire separation distance of 20 feet measured from the edge of the projection. For that same condition, the 2019 CBC will only require a clearance of 40 inches between the projection's leading edge and the line used to determine the fire separation distance.

Provisions established in the 2016 edition of the CBC were intended to simplify the projection distance provisions by formatting the requirements in a table. The 2016 change attempted to address an identified anomaly within the table. However, that change created a much more restrictive requirement than what was in the 2013 CBC and earlier editions. It was determined that there was no technical justification for this more restrictive requirement. The maximum required separation of 40 inches has been reestablished and the table has been slightly reformat- ted in a manner that more consistently identifies the distance at which the provisions are to be a p p i e d.

#### • CBC Section 706.1.1

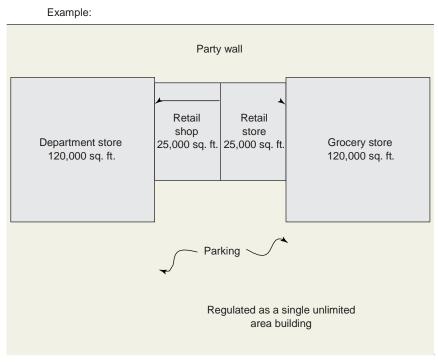
#### Party Walls Not Constructed as Fire Walls

**CHANGE SIGNIFICANCE:** Where two separate structures are each built at a lot line, the opposing exterior walls of each structure are to be regulated individually based upon zero fire separation distance. This will result in each wall having a fire-resistance rating with no openings per-mitted. As an option, the code recognizes the presence of a joint-use party wall constructed without openings. The party wall is typically required to be regulated as a fire wall. Construction as a fire wall is no longer required for the common wall at the lot line provided the aggregate height and area of the opposing buildings are compliant with Chapter 5 and applicable easements and agreements are established addressing the maintenance of all fire and life safety systems of both buildings.

The new allowance recognizes the increasing frequency of property being subdivided with a lot line for ownership purposes. This concept has historically been acceptable for covered mall buildings, where anchor stores have lot lines specific to the anchor store established for financial purposes along the wall that separates the mall from the anchor store. However, this condition has not previously been addressed for other types of buildings and as a result, designers, building owners, and building officials have been left to deal with the issue on a case-by-case basis outside of the code.

The new exception specifies that where a party wall divides a building for ownership purposes, and the aggregate building height and area complies with the code, then the party wall does not need to be constructed as a fire wall. In other words, if the party wall did not exist, the entire building would comply with the allowable height in feet (Section 504.3), the allowable number of stories (Section 504.4), and the allowable area (Section 506.2).

In order to approve this approach, documents for easements and con- tracts between the various property owners shall be provided to the building official. These documents would be considered part of the construction documents. It is important that in dealing with fire and life safety issues the two buildings are considered as one, thus requiring access between buildings for the maintenance of all fire and life safety systems.



Use of party walls

### • CBC Section 708.4

### **Continuity of Fire Partitions**

**CHANGE SIGNIFICANCE:** Fire partitions provide a limited degree of fire-resistive protection and are only mandated in very specific instances. Such wall assemblies are selectively required when separating dwelling units and sleeping units, separating tenant spaces in mall buildings, creating a fire-resistance-rated corridor, providing an elevator lobby separation and providing egress balcony separation. The continuity requirements for fire partitions have been reformatted to provide for increased clarity of their construction requirements.

The requirements for fire partitions have been reformatted through the splitting of the section into three separate issues. Section 708.4 now only addresses the continuity of fire partitions in regard to their enclosure limits. Section 708.4.1 deals with the construction components supporting fire partitions, while Section 708.4.2 now addresses the fireblocking and draftstopping of fire partitions of combustible construction. All three of these issues were previously addressed in the single section.

The required extent of a fire partition begins at the top of the foundation or floor/ceiling assembly below. The upper terminus of the fire partition is now clearly stated as needing to terminate at either the underside of the floor or sheathing, deck or slab above, or the underside of the fire-resistance-rated floor/ceiling or roof/ceiling assembly, provided the rating is equivalent or greater than required for the fire partition.

As a part of the reformatting effort, the continuity exceptions were reworded to a limited degree. In addition, Exception 2 was expanded to allow another option where the fire partition need not extend above the lower membrane of a corridor ceiling. This vertical extent of the fire partition is now also not required where automatic sprinkler protection is extended to the concealed horizontal space above the top of the fire partition.

#### • CBC Section 708.4.2

#### **Fireblocking and Draftstopping at Fire Partitions**

**CHANGE SIGNIFICANCE:** Fireblocking and draftstopping are required in combustible construction to cut off concealed draft openings (both vertical and horizontal). Experience has shown that some of the greatest dam- age occurs to conventional wood-framed buildings during a fire where the fire travels unimpeded through such concealed areas. Both fireblocks and draftstops are selectively required in combustible construction, including where fire partitions are provided, in order to limit the spread of fire, smoke and hot gases. The firestopping provisions previously located in Section 708.4 and the draftstopping provisions previously found in Sections 718.3.2 and 718.4.2 have been relocated to Section 708.4.2 as a part of the reformat of Section 708.4. In addition, a number of technical provisions were revised or added.

Section 708.4.2 is a new section which combines and relocates requirements from other sections of the code addressing fireblocking and draftstopping.

The new Exception 1 in Section 708.4.2 is a combination of the previous Exception 6 in Section 708.4, Exceptions 1 and 2 in Section 718.3.2 and Exceptions 2 and 4 in Section 718.4.2. This exception has been revised to specify that where the automatic sprinkler system is designed to NFPA 13R, and sprinklers are provided within the attic space, the sprinkler design in the attic space must comply with NFPA 13 *Standard for the Installation of Sprinkler Systems*. NFPA 13R does not contain criteria for installing sprinklers in the entire attic space, so the designer must go to NFPA 13 for that design.

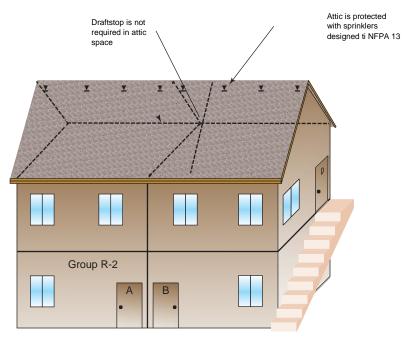
Note that when Exception 1 is applied, the installation of sprinklers in the attic space when the building is protected with an automatic sprinkler system designed to NFPA 13R *Standard for the Installation of Sprinkler Systems in Low Rise Residential Occupancies* also complies with the new Section 903.3.1.2.3 regarding attic protection in Group R occupancies over 55 feet in height (Section 903.3.1.2.3, Item 3) and all Group R-4, Condition 2 occupancies (Section 903.3.1.2.3, Item 4).

The new Exception 2 in Section 708.4.2 was Exception 1 in Section 718.4.2.

The new Exception 3 in Section 708.4.2 comes from the charging language in previous Sections 718.3.2 and 718.4.2. This exception has also been revised. Previously, draftstopping or fireblocking was required in Group R-2 occupancies with three or more units. The new exception removes the draftstopping and fireblocking requirement from Group R-2 occupancies with three units or less.

The new Exception 4 in Section 708.4.2 was previously located in Section 708.4, Exception 5 and Section 718.4.2, Exception 3. This new exception has also been revised to include the limitation of 60 feet in height. This revision correlates with the scope of NFPA 13R. The standard is limited to application in buildings not exceeding four stories or 60 feet in height. As previously written, Section 718.4.2, Exception 3 could be applied to buildings that are taller than 60 feet, which was not intended.

The new Exception 5 in Section 708.4.2 comes from the charging language in previous Sections 718.3.2 and 718.4.2. This exception has also been revised. Previously, floor/ceiling assemblies were required to be protected in Group R-3 occupancies with two or more units. The new exception requires draftstopping and fireblocking for floor/ceiling assemblies in Group R-3 occupancies with three or more units.



Building is sprinklered with NFPA 13D

#### • CBC Section 903.2.1

#### **Sprinklers Required in Group A Occupancies**

**CHANGE SIGNIFICANCE:** Assembly occupancies with sizable occupant loads or floor areas, as well as those located above or below the discharge level, require sprinkler protection due to the additional time needed for occupant egress. In addition, conditions such as low light levels, overcrowding and multiple instances of potential obstructions can lead a hazardous environment that can be effectively addressed through the presence of an automatic sprinkler system. In order to provide further clarity as to the extent of such sprinkler protection, the conditions under which automatic sprinkler systems are required in Group A occupancies have been clarified. Furthermore, revised language details requirements for the fire sprinkler system used to protect spaces on the level of exit discharge. Previous code language created an inconsistency among Sections 903.2.1through 903.2.1.4. Section 903.2.1 stated sprinklers were required on the story with the Group A occupancy and on all stories to, and including, the level of exit discharge serving the Group A occupancy. Sections through 903.2.1.4 use the term "intervening" floors when referring to the same requirement. However, the definition of "intervene" is "to occur or be between two things." Stories "intervening" or "between" the Group A occupancy and the level of exit discharge did not include the level of exit discharge. The conflicting provisions were revised to correct that inconsistency and relocate this key code provision into each section where it applies.

Section 903.2.1.5.1 was also added to clarify that the general sprinkler provisions of Section 903.2.1.5 include enclosed accessory spaces under grandstands and bleachers requirements. In addition, reference is made to Section 1029.1.1.1 regarding the protection methods available where the enclosed space beneath the grandstand or bleacher does not exceed 1,000 square feet. In such cases, all spaces under bleachers or grandstands, except toilet rooms and ticket booths less than 100 square feet, must be separated from the assembly seating areas by minimum 1-hour fire barriers and/or horizontal assemblies.

Section 903.2.1.5.1 Item 1 provides an alternative of fire sprinkler protection in lieu of the required fire-resistance-rated construction if the enclosed area does not exceed 1,000 square feet. In concert with Section 903.2.1.5, Item 2 of Section 903.2.1.5.1 requires enclosed spaces more than 1,000 square feet to be equipped with automatic sprinklers.

As a companion change, Section 1029.1.1.1 was revised to read as follows:

**1029.1.1.1 Spaces under grandstands and bleachers.** Spaces under grandstands or bleachers shall be separated by fire barriers complying with Section 707 and horizontal assemblies complying with Section 711 with not less than 1-hour fire-resistance-rated construction.

Exceptions:

- 1. Ticket booths less than 100 square feet (9.29 m<sup>2</sup>) in area.
- 2. Toilet rooms.
- 3. Other accessory use areas 1,000 square feet (92.9 m<sup>2</sup>) or less in area and equipped with an automatic sprinkler system in accordance with Section 903.3.1.1.

Automatic	
sprinkler system	
required on the	
story with the	
Group A	

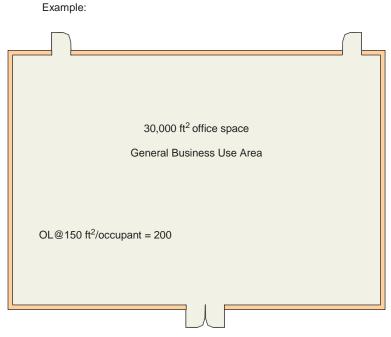
Automatic sprinkler system required on all stories to all levels of exit discharge serving the Group A

### • CBC Table 1004.5, 1004.8

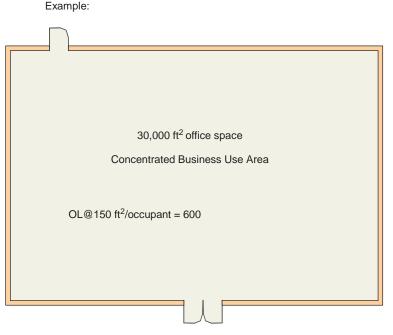
### **Occupant Load Calculation in Business Use Areas**

CHANGE SIGNIFICANCE: Business uses have historically been viewed as having a density level of one person per 100 square feet when used in the calculation of design occupant load. It seems likely that this occupant load factor is the result of a National Bureau of Standards (NBS) [now referred to as National Institute of Standards and Technology (NIST)] study published in 1935. The occupant load factor of 100 square feet per occupant was specified for office, factory and workroom areas. All occupant load factors were based on the gross floor area of the building, such that no deduction was permitted for corridors, closets, restrooms or other areas of the building. Since the initial NBS study in 1935, several other studies have been conducted to determine occupant load factors for various occupancies. One common finding was that all of the subsequent studies have concluded that the factor of 100 square feet per occupant for business occupancies is conservative. Studies conducted between 1966 and 1992 have indicated that occupant load factors in business occupancies ranged from 150 to 278 square feet per occupant. A more recent project to study the appropriateness of the 100-square-feet-per-occupant factor was undertaken by the NFPA Fire Protection Research Foundation. The study was conducted by WPI undergraduate students. The recommendations of this study also supported an increase to the occupant load factor in business occupancies. Based on this information, it was deemed appropriate that the factor be increased to 150 square feet per occupant.

The NFPRF study also recommended creating a new occupant load sub-category for concentrated business use areas. New Section 1004.8 cites examples of these occupancies, including telephone call centers,



General business use occupant load determination



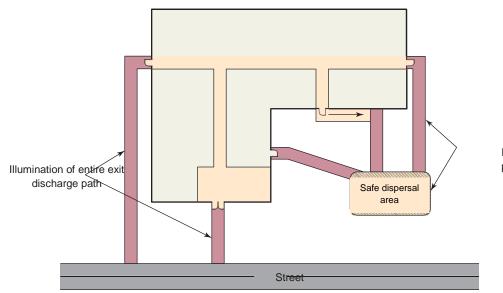
Concentrated business use occupant load

Trading floors and electronic data processing centers. Essentially, the reduced factor is applicable to those business areas where a higher density of occupants would normally be expected. The actual number can be used when approved by the building official; however, the occupant load must be established at a minimum of one occupant for each 50 square feet. For both applications of the business area occupant load calculations, the gross floor areas shall be used. Gross floor area is defined in Chapter 2 as the entire floor area, other than vent shafts and courts, within the exterior perimeter walls of the building under consideration.

# • CBC Section 1008.2.3

# Illumination of the Exit Discharge

**CHANGE SIGNIFICANCE:** In order for the egress system to afford a safe path of travel and for the building occupant to be able to negotiate the system efficiently, it is necessary that the entire egress system be provided with a certain minimum amount of illumination. Without such lighting, it would be impossible for building occupants to identify and follow the appropriate path of travel. The lack of adequate illumination would also be the cause of various other concerns, such as an increase in evacuation time, a greater potential for injuries during the egress process, and most probably an increased level of panic to those individuals trying to exit the building. General illumination has always been required throughout the means of egress system, which would include the exit discharge portion. This requirement has been further emphasized through the introduction



Illumination of exit discharge path and safe dispersal area

Exterior egress illumination

of illumination provisions specific to the exit discharge portion of the means of egress. In addition, new language recognizes a long-held allowance for the use of safe dispersal areas and the necessary illumination where such areas are provided.

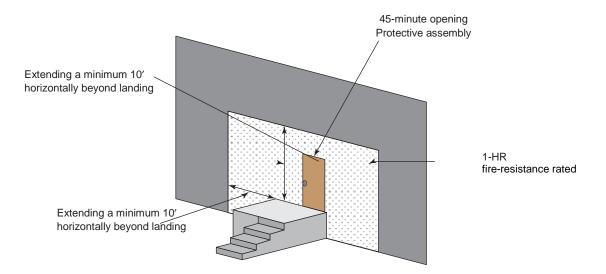
Section 1008.1 mandates that illumination throughout the means of egress. Although the exit discharge is considered as a portion of the means of egress, the new provisions clearly specify that the required illumination must be provided for the entire exit discharge path to the public way. There are conditions under which the exit discharge is extensive and the use of a safe dispersal area is an acceptable alternative. Through a reference to Section 1028.5, a safe dispersal area must be located at least 50 feet from the building and provide adequate area to accommodate the anticipated occupant load. A minimum level of 1 footcandle is required to, and within, the safe dispersal area.

Note that this section does not require emergency illumination be provided for the exit discharge path or the safe dispersal area. Exterior emergency illumination is only required at exterior landings at exit doors as stated in Section 1008.3.2.

# • CBC Section 1009.7.2

# **Protection of Exterior Areas of Assisted Rescue**

**CHANGE SIGNIFICANCE:** An exterior area of assisted rescue must be provided where the exit discharge path does not consist of an accessible path from an exit at the level of exit discharge completely to a public way. The exterior area of assisted rescue provides a location for the mobility-impaired person to wait for assistance. As a general requirement, an area of assisted rescue is to be protected from the interior of the building by a minimum 1-hour fire-resistance-rated exterior wall with opening protectives. If the building is equipped with an automatic sprinkler system designed to NFPA 13 or 13R, the required fire separation and opening protection are no longer required.



Exterior area of assisted rescue in nonsprinklered application

Section 1009.3.3, Exception 2 allows for the elimination of areas of refuge in stairways and, where applicable, at elevators if the building is fully sprinklered. The new exception to Section 1009.7.2 is based on the area of refuge concept in that if the person is adequately protected inside the building because it was sprinklered, now that the person is outside the building, the level of protection should be equivalent at the least.

This exception only allows the elimination of the fire-resistance-rated separation if the building is fully sprinklered. It does not eliminate the need to provide the exterior area of assisted rescue. The exterior area of assisted rescue must still be sized to provide one wheelchair space for every 200 occupants, or portion thereof. It must also continue to be at least 50 percent open to the outside air.

# • CBC Section 2304.10.5

#### **Fasteners in Treated Wood**

**CHANGE SIGNIFICANCE:** During the last two code cycles, staples have been added as an alternative fastener for use in various types of wood-to- wood connections. The phrase "other than nails and timber rivets" has now been rewritten to include staples as a code-accepted solution. Staples are also now specifically limited to stainless steel where exposed to corrosive environments. The thin wire gages used in staple fasteners (16ga– 14ga) are much thinner than those used in nails, and are consequentially more susceptible to corrosion. Due to the thin gage, stainless steel staples are currently the only option in installations requiring increased corrosion resistance.

#### • CBC Section 2304.12.2.5, 2304.12.2.6

#### Supporting Members for Permeable Floors and Roofs

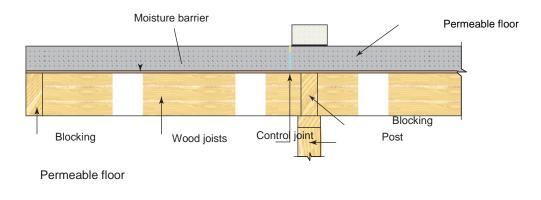
**CHANGE SIGNIFICANCE:** A key requirement of impervious moisture barrier systems installed under permeable floor systems exposed to water are elements that provide for drainage of water passed through the permeable floor system. Without a properly functioning method to transport this water out, the floor assembly can stay saturated for long periods of time, potentially contributing to failure of the supporting wood structure. 2016 CBC Section 2304.12.2.5 requires an impervious moisture barrier when wood that is not preservative-treated or naturally durable sup- ports moisture-permeable floors or roofs exposed to weather such as concrete and masonry

slabs. When such assemblies are a roof, and there is a leak in the impervious barrier, the occupants typically know about it and repairs are made. When the assembly supports a walking surface such as a balcony, there may be no early warning of a leak or decay because leaks can be located over unoccupied areas outside of the structure's building envelope.

The 2016 CBC requirement called for separation of the floor and sup-porting walls by an impervious moisture barrier when the supporting wood is not preservative-treated or naturally durable. The 2019 CBC further requires that the impervious moisture barrier system protect the substructure supporting a floor by providing a positive drainage mechanism for water.

Section 1203 of the 2016 CBC is generally applied by many to require ventilation where wood supports a balcony and is enclosed. The key word is *enclosed*. Whenever the wood framing supporting such structures is enclosed it is more difficult for water in the assembly to depart regardless of the source of the water. It is critical to provide ventilation to enclosed areas, especially to the wood substructure supporting an elevated balcony exposed to the weather.

For the 2019 CBC, the concept in Chapter 12 is duplicated Chapter 23 to emphasize that the requirement for ventilation applies to wood construction and specifically to enclosed balconies. Additionally, the provision clarifies that when a balcony or elevated walking surface serves as a weather-resistant barrier and the joist spaces below are enclosed, cross ventilation is required similar to enclosed rafter spaces in roofs.



# • CBC Section 3314

# Fire Watch During Construction

**CHANGE SIGNIFICANCE:** Some of the most hazardous conditions related to buildings often are present during the construction process. Recent fires that have occurred at construction sites during times of no activity have demonstrated the need for early notification that can only be provided by fire watch personnel. The lack of fire alarm and detection devices during the construction process requires an alternative approach to identifying and communicating the presence of a fire event. In order to protect adjacent properties from fire in a building of considerable height when under construction, new provisions have been established to give authority to the fire code official to require a fire watch during those hours where no construction work is being done.

Fires in sizable buildings under construction have the potential for significant heat release due to the fire loading created by building components and other materials used in the building's construction. For this reason, when required by the fire code official, a fire watch is to be provided where the height of construction exceeds 40 feet above the lowest adjacent grade. The 40-foot threshold is consistent with other fire and life safety requirements for buildings under

construction, such as the provisions for standpipes and means of egress stairways.

It is expected that the new requirement will apply only to new construction. It is not intended for the provisions to be applied to alterations and other types of minor construction activity. Existing buildings would be regulated by a comprehensive fire safety plan. Although the potential for a sizable fire load requiring implementation of a fire watch program would be more probable for a building of combustible construction, there are no conditions based on the building's construction type. All new buildings, regardless of occupancy or type of construction, that exceed the 40-foot threshold are subject to the fire watch requirement if man- dated by the fire code official.

Although the primary benefit of identifying a fire early in its development will typically be the protection of adjoining properties and neigh- boring buildings, the reduction in property loss and protection of fire personnel are also important aspects of a fire watch activity.



Building under construction

#### **Office Hours during Holiday Seasons:**

 <u>County Government Center</u> Mon (Dec 23, 2019), Office Hour: 8:00 AM – 4:30 PM

Th-Fri (Dec 26 to Dec 27, 2019), Office Hour: 8:00 AM - 4:30 PM

 Jerry Lewis High Desert Government Center Mon (Dec 23, 2019), Office Hour: 8:00 AM – 12:00 PM and 1:00 PM – 4:30 PM

Th-Fri (Dec 26 to Dec 27, 2019), Office Hour: 8:00 AM - 12:00 PM and 1:00 PM - 4:30 PM

- Big Bear Office & Joshua Tree Office Closed
- <u>Twin Peaks Office</u> Mon (Dec 23, 2019), Office Hour: 8:00 AM – 12:00 PM and 1:00 PM – 4:30 PM

Th & Fri (Dec 26 & 27, 2019), Office Hour: 8:00 AM - 12:00 PM and 1:00 PM - 4:30 PM