

# CHAPTER 6 – TYPE IV MATERIALS

**Change:** Member dimension table (Chapter 23-2304.11)

**TABLE 2304.11  
MINIMUM DIMENSIONS OF HEAVY TIMBER STRUCTURAL MEMBERS**

SUPPORTING	HEAVY TIMBER STRUCTURAL ELEMENTS	MINIMUM NOMINAL SOLID SAWN SIZE		MINIMUM GLUED-LAMINATED NET SIZE		MINIMUM STRUCTURAL COMPOSITE LUMBER NET SIZE	
		Width, inch	Depth, inch	Width, inch	Depth, inch	Width, inch	Depth, inch
Floor loads only or combined floor and roof loads	Columns; Framed sawn or glued-laminated timber arches that spring from the floor line; Framed timber trusses	8	8	6 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>4</sub>	7	7 <sup>1</sup> / <sub>2</sub>
	Wood beams and girders	6	10	5	10 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>2</sub>
Roof loads only	Columns (roof and ceiling loads); Lower half of: wood-frame or glued-laminated arches that spring from the floor line or from grade	6	8	5	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>
	Upper half of: wood-frame or glued-laminated arches that spring from the floor line or from grade	6	6	5	6	5 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>
	Framed timber trusses and other roof framing; <sup>a</sup> Framed or glued-laminated arches that spring from the top of walls or wall abutments	4 <sup>b</sup>	6	3 <sup>b</sup>	6 <sup>7</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub> <sup>b</sup>	5 <sup>1</sup> / <sub>2</sub>

For SI: 1 inch = 25.4 mm.

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

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

## CHAPTER 6 – TYPE IV MATERIALS

**Change:** CLT specifically expanded under Type IV considerations.



### **602.4.2 Cross-laminated timber in exterior walls.**

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

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



## REMINDER – TALL WOOD PROVISIONS

**Change:** SAM 18-01 being incorporated as an optional design path  
In the 2019 OSSC – Appendix P.

Based on portions of the ICC's Ad Hoc Committee on Tall Wood Buildings work.

Three new types of construction are introduced under this method, all three of  
Which are organized under Type IV construction. The new types of construction:

### **Type IV A    -----    Type IV B    -----    Type IV C**

**Type IV A:** Buildings with an automatic sprinkler system require 3-hour fire-resistance-rated Primary structural frame elements and bearing walls, with 2-hour fire-resistance-rated floors.  
[Exposed timber surfaces must be entirely encapsulated.](#)

**Type IV B:** Buildings with an automatic sprinkler system require 2-hour fire-resistance-rated Primary structural frame elements and bearing walls, with 2-hour fire-resistance-rated floors.  
[A calculated percentage of the exposed timber surfaces may remain exposed under this type.](#)

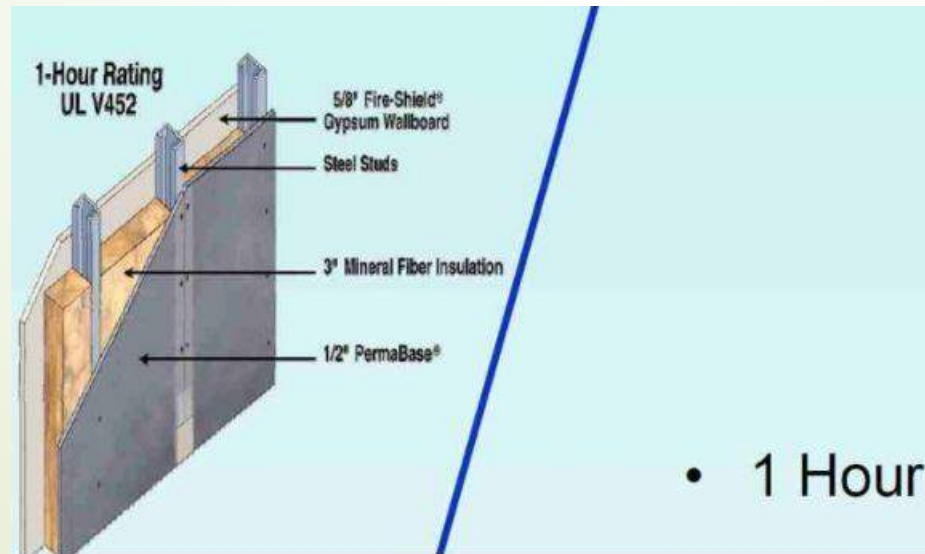
**Type IV C:** Buildings with an automatic sprinkler system require 2-hour fire-resistance-rated Primary structural frame elements and bearing walls, with 2-hour fire-resistance-rated floors.  
[Exposed timber surfaces are permitted to remain entirely exposed under this type.](#)



## CHAPTER 7 – 703.2.4 SUPPLEMENTAL FEATURES

**Change:** A new section has been added that addresses features Added to a listed fire-resistance-rated assembly.

**703.2.4 Supplemental features.** Where materials, systems or devices that have not been tested as part of a fire-resistance-rated assembly are incorporated into the building element, component or assembly, sufficient data shall be made available to the building official to show that the required fire-resistance rating is not reduced.



## CHAPTER 7 – 704.2 & 704.4.1. COLUMN PROTECTION

**Change:** There was a modification made that addresses the protection Of columns in light-frame construction.



### 704.2 Column protection.

**Exception:** Columns that meet the limitations of Section 704.4.1.

**704.4.1 Light-frame construction.** Studs, columns and boundary elements that are integral elements in walls of light-frame construction and are located entirely between the top and bottom plates or tracks shall be permitted to have required *fire-resistance ratings* provided by the membrane protection provided for the wall.

## CHAPTER 7 – 705.2 PROJECTION DISTANCE

**Change:** Modification that re-establishes the maximum 40 inch separation distance.

TABLE 705.2 MINIMUM DISTANCE OF PROJECTION	
FIRE SEPARATION DISTANCE-FSD (feet)	MINIMUM DISTANCE FROM LINE USED TO DETERMINE FSD
<del>0 feet to 2 feet</del> <u>0 to less than 2</u>	Projections not permitted
<del>Greater than 2 feet to 3 feet</del> <u>2 to less than 3</u>	24 inches
<del>Greater than 3 feet to less than 30 feet</del> <u>3 to less than 5</u>	24 inches plus 8 inches for every foot of FSD beyond 3 feet or fraction thereof
<del>30 feet or greater</del> <u>5 or greater</u>	<del>20 feet</del> <u>40 inches</u>

### Notes:

- Fixes the 2015 IBC change intended to simplify the provisions by creating a table.
- The change inadvertently created a much more restrictive requirement.



## CHAPTER 7 – 705.6 STRUCTURAL STABILITY

**Change:** Change was made to help clarify the structural stability requirements For interior structural elements.

**705.6 Structural stability.** ~~The wall~~ Exterior Walls shall extend to the height required by Section 705.11 ~~and shall have sufficient structural stability such that it will remain in place for the duration of time indicated by the required fire-resistance rating. Where exterior walls have a minimum fire separation distance of not less than 30 feet (9144 mm),~~ interior structural elements ~~which~~ that brace the exterior wall but ~~which~~ that are not located within the plane of the exterior wall shall have the minimum *fire-resistance rating* required in Table 601 for that structural element. Structural elements ~~which~~ that brace the exterior wall but are located outside of the exterior wall or within the plane of the exterior wall shall have the minimum *fire-resistance rating* required in Tables 601 and 602 for the Exterior wall.

- Notes:**
- The new code section makes clarification that the interior structural Elements that are bracing an exterior fire-rated wall are not automatically Required to have the same rating.
  - The structural stability language has been removed as it is covered by ASTM E 119.

# CHAPTER 7 – 705.8.1 ALLOWABLE AREA OF OPENINGS

**Change:** This change was made to make clear that the amount of allowable Openings is to be based on the FSD per story, individually.

705.8.1 Allowable area of openings. The maximum area of unprotected and Protected openings permitted in an exterior wall in any story of a building Shall not exceed the percentages specified in Table 705.8 based on the Fire separation distance of each individual story.





## CHAPTER 7 – 706.2 STRUCTURAL STABILITY

**Change:** The change allows the floor or roof sheathing to go through the light frame double walls.

**706.2 Structural Stability.** Fire walls shall be designed and constructed to allow collapse of the structure on either side without collapse of the wall under fire conditions. Fire walls designed and constructed in accordance with NFPA 221 shall be deemed to comply with this section.

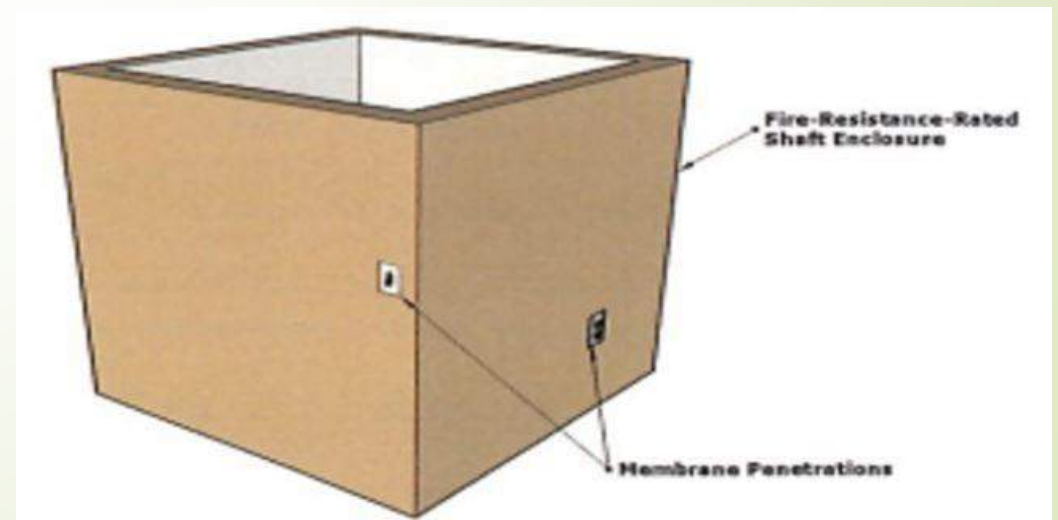
**Exception:** In Seismic Design Categories D through F, where double fire walls are used in accordance with NFPA 221, floor and roof sheathing not exceeding  $\frac{3}{4}$  inch (19.05 mm) thickness shall be permitted to be continuous through the wall assemblies of light frame construction.

## CHAPTER 7 – 713.8.1 SHAFT MEMBRANE PENETRATIONS

**Change:** A change was added to allow membrane penetrations On the outside of the shaft that is not related to the shaft.

713.8.1. Prohibited penetrations. Penetrations other than those necessary For the purpose of the shaft shall not be permitted in shaft enclosures.

**Exception:** Membrane penetrations shall be permitted on the Outside of shaft enclosures. Such penetrations shall be protected In accordance with 714.4.2.



## CHAPTER 7 – 714.5.2 MEMBRANE PENETRATIONS

**Change:** A change that makes modification to a double top Plate interrupting a horizontal assembly.

**714.5.2 Membrane penetrations.** Penetrations of membranes that are part of a *horizontal assembly* shall comply with Section 714.5.1.1 or 714.5.1.2. Where floor/ceiling assemblies are required to have a *fire-resistance rating*, recessed fixtures shall be installed such that the required *fire resistance* will not be reduced.

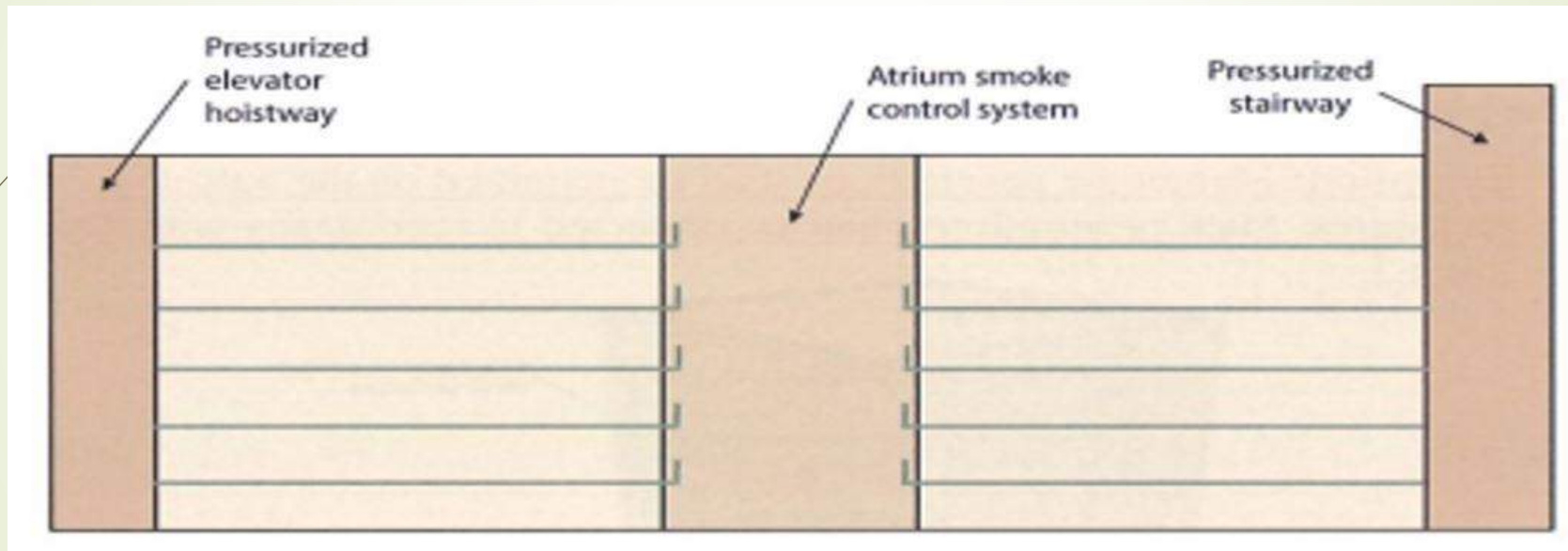
**Exception: (Please Note this is the old code section modified to match the new)**

7. The ceiling membrane of 1- and 2-hour fire-resistance-rated horizontal assemblies is permitted to be interrupted with the double wood top plate of a ~~fire-resistance-rated~~ wall assembly that is sheathed with Type x gypsum wallboard, provided that all penetrating items through the double top plates are protected in accordance with Section ~~714.4.1.1.1~~ 714.5.1.1 or 714.5.1.2 and the Ceiling membrane is tight to the top plates.



## CHAPTER 9 – 901.6.2 INTEGRATED SYSTEM TESTING

**Change:** This change is an addition that is related to the testing of Integrated fire protection systems and life safety systems.

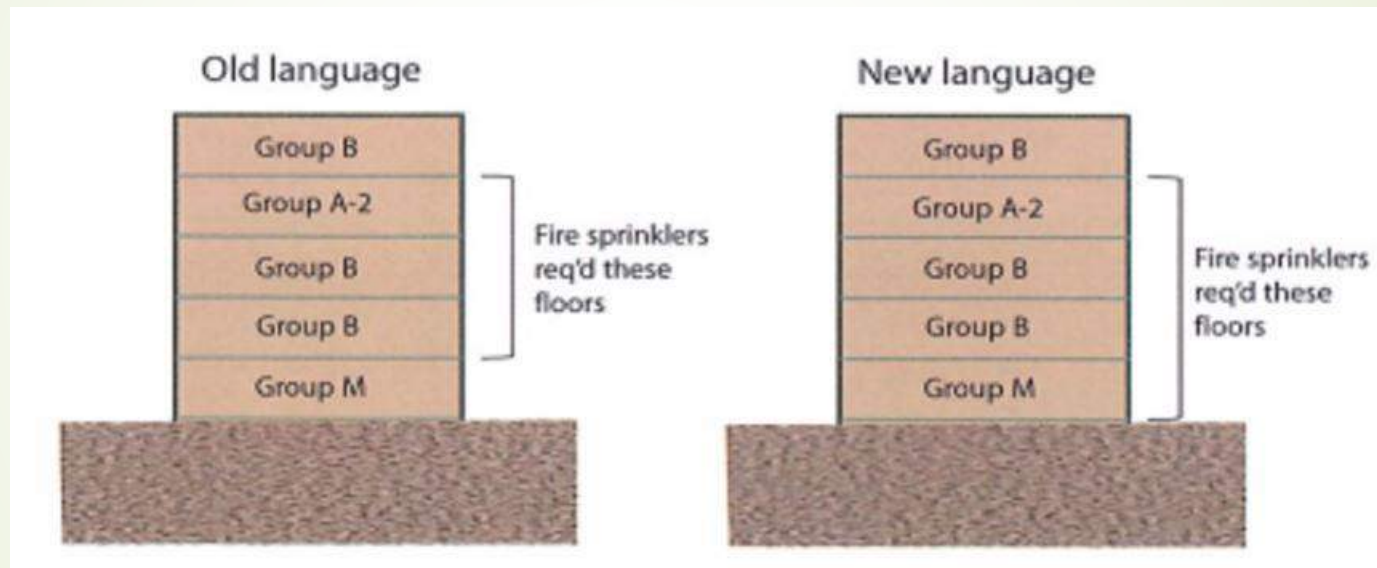


### Notes:

- The change requires integrated systems to be tested independently and as a whole
- Please reference NFPA 4 for high-rise buildings and smoke control systems.

## CHAPTER 9 – 903.2.1 GROUP A FIRE SPRINKLERS

**Change:** There was language added to clarify fire sprinkler requirements for Group A occupancies.



- Notes:**
- The 2015 code language used the term intervening which ended up excluding the floor at the level of exit discharge.
  - The new language reads “including the level of exit discharge”

## CHAPTER 9 – 902.1 FIRE PUMP & RISER ROOMS

**Change:** There was language added that is related to the design requirements For fire pump and fire sprinkler riser rooms. There is also an amendment that is Related to energy requirements.

### **902.1 Pump and riser room size...** (there is no change here)

**902.1.1 Access.** Automatic sprinkler system risers, fire pumps and controllers shall be provided with ready access. Where located in a fire pump room or automatic sprinkler system riser room, the door shall be permitted to be locked provided that the key is available at all times.

**902.1.2 Marking on access doors.** Access doors for automatic sprinkler system riser rooms and fire pump rooms shall be labeled with an approved sign. The lettering shall be in contrasting color to the background. Letters shall have a minimum height of 2 inches (51 mm) with a minimum stroke of 3/8 inch (10 mm).

**902.1.3 Environment.** Automatic sprinkler system riser rooms and fire pump rooms shall be maintained at a temperature of not less than 40°F (4°C). Heating units shall be permanently installed. Pump and riser rooms heated solely for freeze protection shall be considered low-energy buildings and shall not be considered a conditioned space.

**902.1.4 Lighting.** Permanently installed artificial illumination shall be provided in the automatic sprinkler System riser rooms and fire pump rooms.



## CHAPTER 9 – 903.2.1.6 ASSEMBLY OCCUPANCIES ON ROOFS

**Change:** There was a change made to assembly occupancies that relates to fire sprinkler requirements on occupied roofs of Assembly occ.

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

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

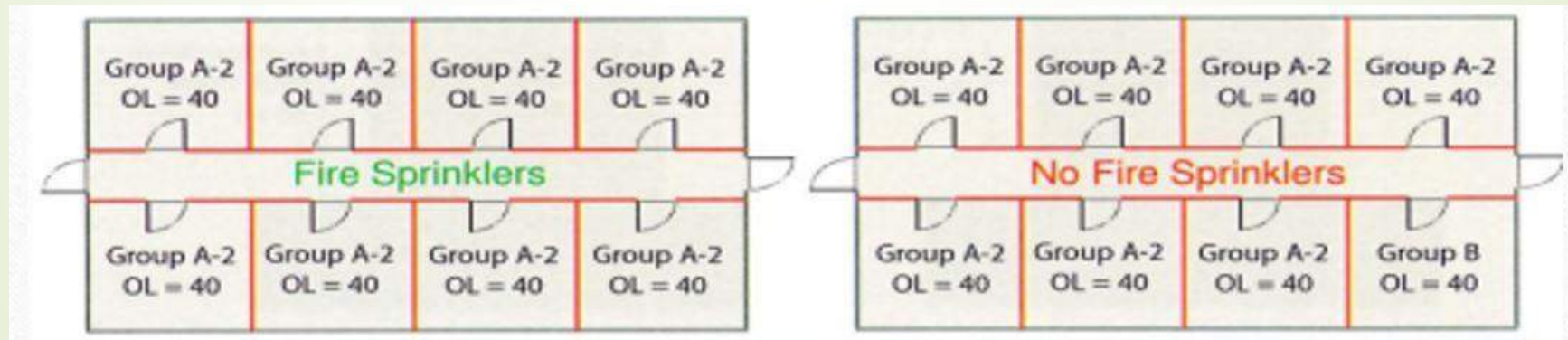
**Notes:** - This change only applies to Group A  
- There is no protection required on roof level.



## CHAPTER 9 – 903.2.1.7 GROUP A MULTIPLE FIRE AREAS

**Change:** The change was language that was added that relates to fire sprinkler requirements for Assembly occupancies fire areas that share egress.

**903.2.1.7 Multiple fire areas.** An automatic sprinkler system shall be provided where Multiple fire areas of Group A-1, A-2, A-3, or A-4 occupancies share exit or exit access Components and the combined occupant load of these fire areas is 300 or more.



- Notes:**
- All of the fire areas must be group A
  - Occupant load must be 300 or more
  - All 300 occupants must share exits or exit access
  - Applies even when Group A spaces have FRR Separations

## CHAPTER 9 – 903.2.3. GROUP E FIRE SPRINKLERS

**Change:** Change was made related to fire sprinkler requirements for Group E occupancies.

**903.2.3. Group E.** An automatic sprinkler system shall be provided for Group E Occupancies as follows:

1. Throughout all Groups E fire areas greater than 12,000 square feet (1115m) In area.
2. Throughout every portion of educational buildings below the lowest level of exit Discharge Serving that portion of the building. The Group E fire area is located on a Floor other than a level of exit discharge serving such occupancies.

**Exception:** An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout The building has not fewer than one exterior exit door at ground level. In buildings Where every classroom has not fewer than one exterior exit door at ground level, an Automatic sprinkler system is not required in any area below the lowest level of exit Discharge serving that area.

3. The Group E fire area has an occupant load of 300 or more.



## CHAPTER 9 – 903.3.1.2.1 BALCONIES AND DECKS

**Change:** Model clarification and Oregon Amendment to NFPA 13R Requirements for decks and balconies.

**903.3.1.2.1 Balconies and decks.** Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units where ~~the building is of Type V construction. Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch (25 mm) to 6 inches (152 mm) below the structural members and a maximum distance of 14 inches (356 mm) below the deck of the exterior balconies and decks that are constructed of open wood joist construction~~ either of the following conditions exist.

1. The building is of Type V construction, ~~provided that there is a roof or deck above.~~
2. Exterior balconies, decks and ground floor patios of dwelling units and sleeping units Constructed in accordance with Section 705.2.3.1 and Exception 3.

Sidewall sprinklers that are used to protect such areas shall be permitted to be located Such that their deflectors are within 1 inch (25mm) to 6 inches (152 mm) below the Structural members and a maximum distance of 14 inches (356 mm) below the deck of The exterior balconies and decks that are constructed of open wood joist construction.

**Section 705.2.3.1 Exception 3 – Balconies and similar projections on buildings of Types III IV and V Construction shall be permitted to be of Type V construction and shall not be Required to have a fire-resistance rating where sprinkler protection is extended to these Areas.**

## CHAPTER 9 – 903.3.1.2.3 ATTIC SPRINKLERS

**Change:** Oregon amendment and model addition of provisions for NFPA 13R attic sprinkler requirements

New language has been added to address fires originating in attics or on The exterior

This change is primarily applicable to pedestal buildings

1. Mirrors the NFPA 13R requiring sprinklers in attics w/living or storage space
2. Mirrors NFPA 13R requiring one head over fuel-fired equipment
3. This change is new:
  - Applies to Type III, IV or V
  - Roof assembly greater than 55 feet above lowest level of required FDVA
  - Not otherwise required by item 1.

**Item 3 options include the following:**

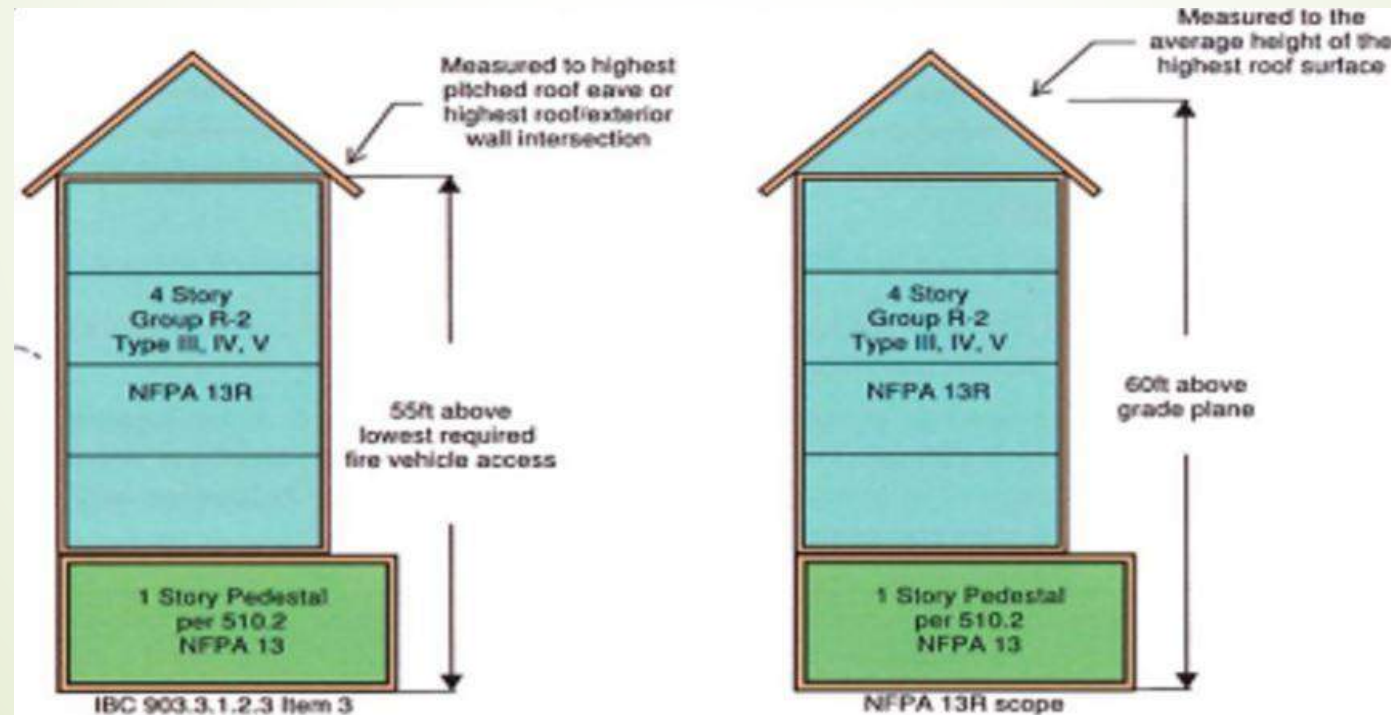
- **Fire sprinklers**
- **Noncombustible attic construction**
- **Fire-retardant-treated wood construction**
- **Fill attic with noncombustible insulation**



## CHAPTER 9 – 903.3.1.2.3 ATTIC SPRINKLERS CONTINUED

**Change:** Oregon amendment and model addition of provisions for NFPA 13R attic sprinkler requirements.

### Scope of Section 903.3.1.2.3 Item 3 vs NFPA 13R





# CHAPTER 9 – 904.13 DOMESTIC COOKING SYSTEMS

**Change:** Change is an Oregon amendment that modifies the provisions for domestic cooking systems.

**904.13 Domestic cooking system** ~~In Group I-2 Condition 1, In Groups I-2 condition 1, Occupancies where cooking facilities area installed in accordance with Section 407.2.6 Of this code, the domestic cooking hood provided over the cooktop or range shall be Equipped with an automatic fire-extinguishing system of a type recognized for protection Of domestic cooking equipment, Pre-engineered automatic extinguishing systems shall Be tested in accordance with UL 300A and listed and labeled for the intended application in system shall be installed in accordance with this code, its listing and the manufacturers Instructions. Cooktops and ranges installed in the following occupancies shall be protected In accordance with Section 904.13.1;~~

1. In Group I-1 occupancies where domestic cooking facilities are installed in accordance with Section 420.8.
2. In Group I-2, Condition 1 occupancies where domestic cooking facilities area installed in accordance with Section 407.2.6.
3. In Group R-2 college dormitories operated by a college or university for student housing were domestic cooking facilities are installed in accordance with Section 420.10.

## CHAPTER 9 – 904.13.1 PROTECTION FROM FIRE

**Change:** Changes to the provisions for domestic cooking system fire-extinguishing system.

### **904.13.1 Manual system operation and interconnection. Protection from fire.**

Manual actuation and system interconnection for the hood suppression systems shall be installed in accordance with Sections 904.12.1 and 904.12.2, respectively. Cooktops and ranges shall be protected in accordance with Sections 904.13.1.1 Or 904.13.1.2.

**904.13.1.1. Automatic fire-extinguishing system.** The domestic Recirculating or exterior vented cooking hood provided over the cooktop or range shall be equipped with an approved automatic fire-extinguishing system complying with the following:

1.The automatic fire-extinguishing system shall be of a type recognized for protection of domestic cooking equipment. Pre-engineered automatic fire-extinguishing systems shall be listed and labeled in accordance with UL 300A and installed in accordance with the manufacturer's instructions.

2. Manual actuation of the fire-extinguishing system shall be provided in accordance with Section 904.12.1.

3. Interconnection of the fuel and electric power supply shall be in accordance with Section 904.12.2.

## CHAPTER 9 – 904.13.1.2 IGNITION PREVENTION

**Change:** Changes made to the provisions of range ignition prevention and domestic cooktops.

904.13.1.2. Ignition prevention. Cooktops and ranges shall include burners that have been and listed to prevent ignition of cooking oil with burners turned on to their maximum heat settings and allowed to operated for 30 minutes.

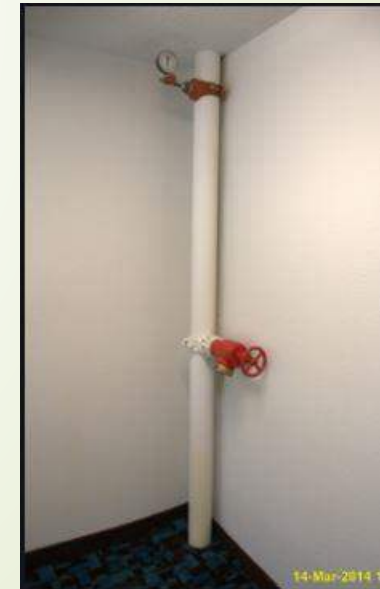
**Note:** This standard was required to become effective June 2018 for all new household ranges to meet the requirements of UL 858.



## CHAPTER 9 – 905 STANDPIPE SYSTEMS

**Change:** An Oregon Amendment change that was done to clarify the authority of the fire official to determine standpipe connection locations.

Note: Consistent with the purpose and scope of application authorized in ORS 455.020, only the installation and construction standards for Standpipe hose connections are adopted by the State Of Oregon Building Code Division as part of the state building code. Standpipe hose Connection locations shall be determined by the fire official.





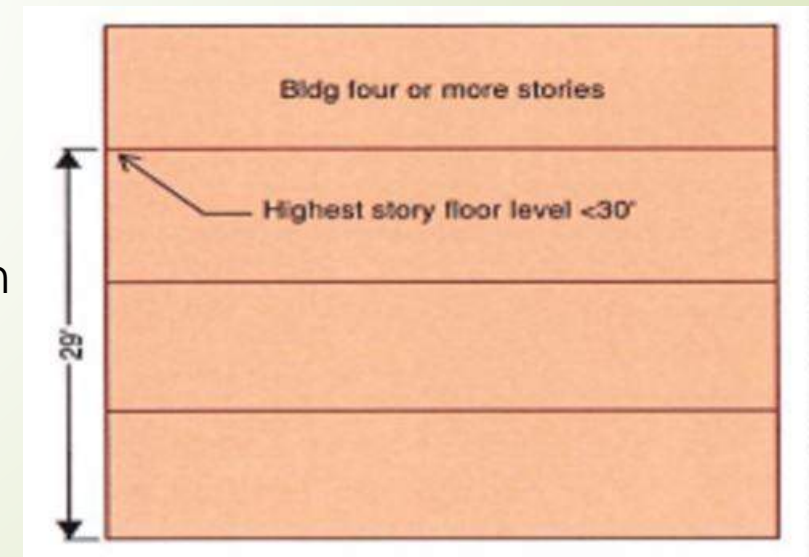
## CHAPTER 9 – 905.3.1 CLASS III STANDPIPE SYSTEMS

**Change:** Class III standpipes are required in buildings of four or more stories.

905.3.1 Height. Class III standpipe systems shall Be installed throughout buildings where ~~the floor Level of the highest story is located more than 30 Feet (9144 mm) above the lowest level of fire Department vehicle access, or where the floor level Of the lowest story is located more than 30 feet (9144 mm) below the highest level of fire Department Vehicle access~~ any of the following conditions exist:

1. Four or more stories are above or below grade plane.
2. The floor level of the highest story is located more than 30 feet (9144mm) above the lowest level of fire Department vehicle access.
3. The floor level of the lowest story is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access.

Standpipe systems required due to Number of stories even though Highest floor level is less than 30 feet



## CHAPTE 9 – 905.4 STANDPIPE CONNECTIONS

**Change:** A change was made for the provisions for the location of standpipe connections.

905.4 Location of Class I standpipe hose connections. Class I standpipe Hose connections shall be provided in all of the following locations.

1. In every required interior exit stairway, a hose connection shall be provided For each story above and below grade plane. Hose connections shall be Located at ~~an intermediate landing between stories~~, the main floor landing ~~Between stories~~, unless otherwise approved by the fire ~~code~~ official.

**Exception:** A single hose connection shall be permitted to be installed in the open Corridor or open breezeway between open stairs that are not greater than 75 feet (22860 mm) apart.

2 thru 6... (no change)

**Notes:**

- Aligns with NFPA 14 locations
- ICC no longer addresses fire department operational needs
- Old language requires separate risers for sprinklers and standpipes
- New exception allows a single connection for open stairs

## CHAPTER 9 – 907.2.1 GROUP A MANUAL FIRE ALARMS

**Change:** Change made for Group A occupancies manual fire alarm systems.

**907.2.1 Group A.** A manual fire alarm system that activates the occupant notification System in accordance with Section 907.5 shall be installed in Group A occupancies Where the occupant load due to the assembly occupancy is 300 or more, or where the Group A occupant load is more than 100 persons above or below the lowest level of exit Discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 shall be considered as a single occupancy for the purposes of applying This section. Portions of Group E occupancies occupied for assembly purposes shall be Provided with a fire alarm system as required for the Group E occupancy.

**Exception:** Manual fire alarm boxes are not required where the building is equipped Throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the Notification zones upon sprinkler water flow.

**Notes:**

- Matches manual fire alarm thresholds for Groups B & M
- Was previously less restrictive than Groups B & M
- The exception still applies

## CHAPTER 9 – 907.2.9.3 COLLEGES & UNIVERSITIES

**Change:** This change makes clarification for the scope of college and university building fire alarm requirements.

**907.2.9.3 Group R-2 college and university buildings.** An automatic smoke Detection system that activates the occupant notification system in Accordance with Section 907.5 shall be installed in Group R-2 occupancies Operated by a college and or university buildings for student or staff housing In all of the following locations:

- 1....(no change)
- 2....(no change)
- 3....(no change)





## CHAPTER 9 – 907.2.9.10 GROUP R-4 FIRE ALARMS

**Change:** A change was made that deleted Group R-4 fire alarm system requirements entirely.

**Notes:** Group R-4 fire alarm requirements deleted entirely for the following reasons:

- Limited number of residents (6-16).
- Residents are capable of self-preservation
- Environment similar to a Group R-3

**But single and multi-station smoke alarms are still required.**

### **Groups R-4, Condition 1**

- Congregate living facilities
- Halfway Houses
- Social rehabilitation facilities

### **Groups R-4, Condition 2**

- Alcohol & Drug centers
- Assisted living facilities with or without memory care
- Residential care facilities with or without memory care
- Residential treatment facilities
- Group homes and facilities

## CHAPTER 9 – DEDICATED FUNCTION FIRE ALARM SYSTEM

**SUMMARY:** There was clarification added to clarify building fire alarm system Versus dedicated function fire alarm system.

### **NFPA 72 Definition**

3.3.105.4.2 Dedicated Function Fire Alarm System. A protected premise fire alarm system installed Specifically to perform emergency control function(s) **where a building fire alarm system is not reqd.**

904.3.5 Monitoring. **Where a building fire alarm system is installed**, automatic fire-extinguishing systems Shall be monitored by the building fire alarm system in accordance with NFPA 72.

903.4.2 Alarms. An approved audible device, located on the exterior of the building is an approved Location, shall be connected to each automatic sprinkler system. Such sprinkler water flow alarm Devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest Orifice size installed in the system. **Where a fire alarm system is installed**, actuation of the automatic Sprinkler system shall actuate **the building fire alarm system**.

907.5.2.3.2. Groups I-1, and R-1, and R-4. Habitable spaces in dwelling units and sleeping units in Group I-1, R-I and R-4 occupancies in accordance with Table 907.5.2.3.2 shall be provided with visible alarm Notification in accordance with Table 907.5.2.3.2 and the accessibility requirements of ICC A117.1. Visible alarms shall be activated by the in-room smoke alarm and the **building fire alarm system**, as Applicable.

## CHAPTER 9 – 907.2.10.3 COOKING APPLIANCES

**Change:** There was language added to the 2015 IBC that was intended to Address nuisance alarms near cooking appliances.

### 907.2.10.3 Installation near cooking appliances.

Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm in a location required by Section 907.2.10.1 or 907.2.10.2:

1. Ionization smoke alarms shall not be installed less than 20 feet (6096 mm) horizontally from a permanently installed cooking appliance.
2. Ionization smoke alarms with an alarm-silencing switch shall not be installed less than 10 feet (3048 mm) horizontally from a permanently installed cooking appliance.
3. Photoelectric smoke alarms shall not be installed less than 6 feet (1829 mm) horizontally from a permanently installed cooking appliance.

### **NOTES:**

- Intended to reduce nuisance alarms.
- Provisions are consistent With NFPA 72





## CHAPTER 9 – 910 SMOKE AND HEAT REMOVAL

**Change:** Change that was a complete rewrite for heat and smoke removal.

-The changes have resulted from a study done from the ICC CTC Roof vent study group.

-Mechanical smoke removal now allowed as designer's choice  
**-Manual activation only.**

-Smoke removal is now not required when control mode sprinklers Are used.

-The draft curtain requirements have been removed.

-New vent area calculations

- 1 ft. sq. per 9,000 cubic feet of volume sprinklered
- 1 ft. sq. per 50 ft. sq. of floor area nonsprinklered



## CHAPTER 9 – 912 FIRE DEPARTMENT CONNECTIONS

**Change:** There was a change to the Oregon Amendment that was done To clarify the authority of the fire official to determine fire department Connection locations.

Note: Consistent with the purpose and scope of application authorized In ORS 455.020, only the installation and construction standards for Standpipe hose connections are adopted by the State of Oregon Building Code Division as part of the state building code. Standpipe Hose connection locations shall b determined by the fire code official.



## CHAPTER 9 – 917 MASS NOTIFICATION SYSTEMS

**Change:** Change requires a model addition for risk analysis for mass notification systems for colleges and university campuses.

**917.1 College and university campuses.** Prior to construction of a new building requiring a fire alarm system on a multiple-building college or university campus having a cumulative building occupant load of 1,000 or more, a mass notification risk analysis shall be conducted in accordance with NFPA 72. Where the risk analysis determines a need for mass notification, an *approved* mass notification system shall be provided in accordance with the findings of the risk analysis

- Notes:**
- This applies to buildings that require a fire alarm system, or that have multiple building campuses with an occupant load greater than 1,000.
  - The risk analysis has to be per NFPA 72
  - System is only required if the analysis indicates that it is needed.

## CHAPTER 9 – 918 Emergency Responder Radio Coverage

**Change:** Oregon has modified provisions for Emergency Responder Radio Coverage. (New Model Section 2702.2.3.)

### **Applies to buildings as noted below**

- Buildings over 5 stories
- Buildings over 50,000 square feet
- Underground Buildings
- Buildings with a basement or below-grade level

### **OSSC Form 918 is required to be completed**

#### **Exceptions are as follows:**

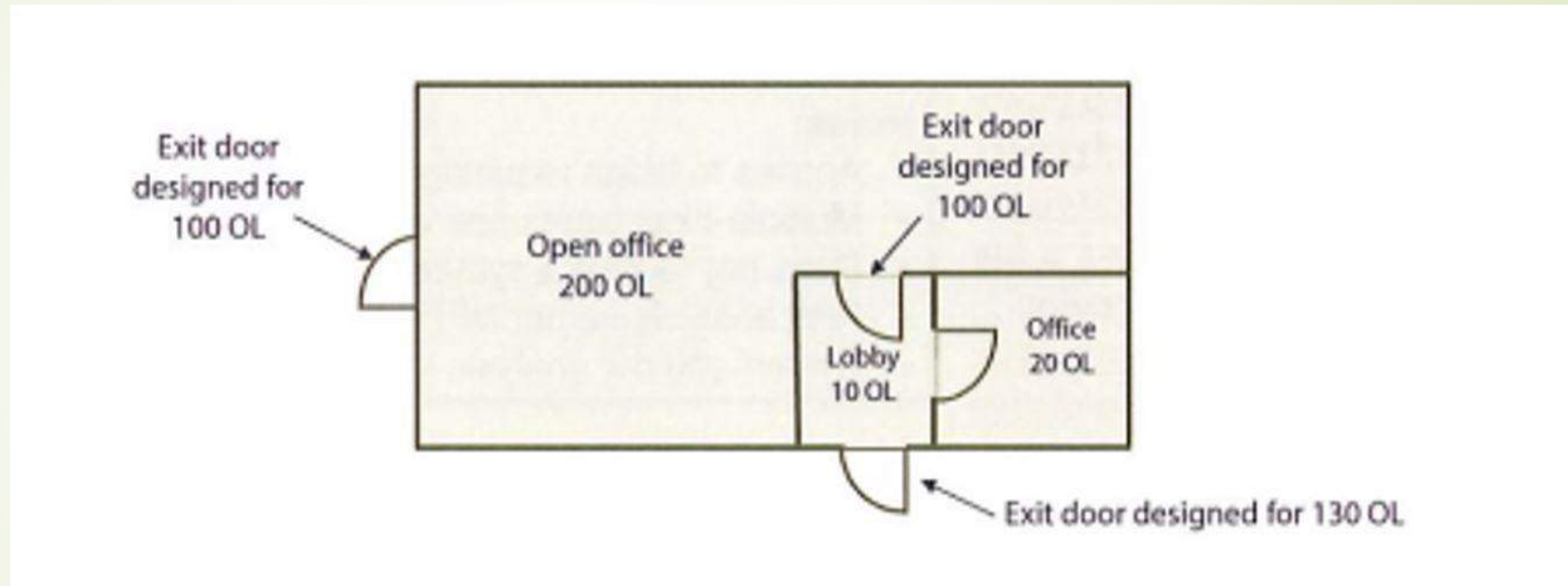
- Where performance tested done indicates radio coverage is adequate
- Wired system
- When the Fire Official indicates that a system is not necessary.

### **2702.2.3 Emergency responder radio coverage systems.**

Standby power shall be provided for emergency responder radio coverage systems required in Section 918. The standby power supply shall be capable of operating the emergency responder radio coverage system for a duration of not less than 12 hours at 100-percent system operation capacity.

## CHAPTER 10 – 1004.2 CUMULATIVE OCCUPANT LOADS

**Change:** Change was made to help clarify the cumulative occupant load calculation.



- Notes:**
- Adjacent stories not cumulative except for converging provisions Section 1005.6.
  - Exit access design must account for all areas, rooms and spaces.
  - The Mezzanine occupant load is cumulative if egressing through the adjacent room.



## CHAPTER 10 – 1004.8 BUSINESS OCCUPANT LOAD

**Change:** There is a model addition for a new occupant load calculation category for concentrated business areas.

**1004.8 Concentrated business use areas.** The occupant load factor for concentrated business use shall be applied to telephone call centers, trading floors, electronic data processing centers and similar business use areas with a higher density of occupants than would normally be expected in a typical business occupancy environment. Where approved by the building official, the occupant load for concentrated business use areas shall be the actual occupant load, but not less than one occupant per 50 square feet (4.65 m<sup>2</sup>) of gross occupiable floor space.

**Table 1004.5.**

Business areas	150 gross
Concentrated business use areas	See Section 1004.8

# CHAPTER 10 – 1006 COMMON PATH OF EGRESS TRAVEL

**Change:** Common path of egress travel definition has been revised.

OLD

**COMMON PATH OF EGRESS TRAVEL.** That portion of the exit access which The occupants are required to traverse before two separate and distinct paths of Egress travel to two exits are available. Paths that merge are common paths of Travel. Common paths of egress travel shall be included within the permitted Travel distance.

NEW

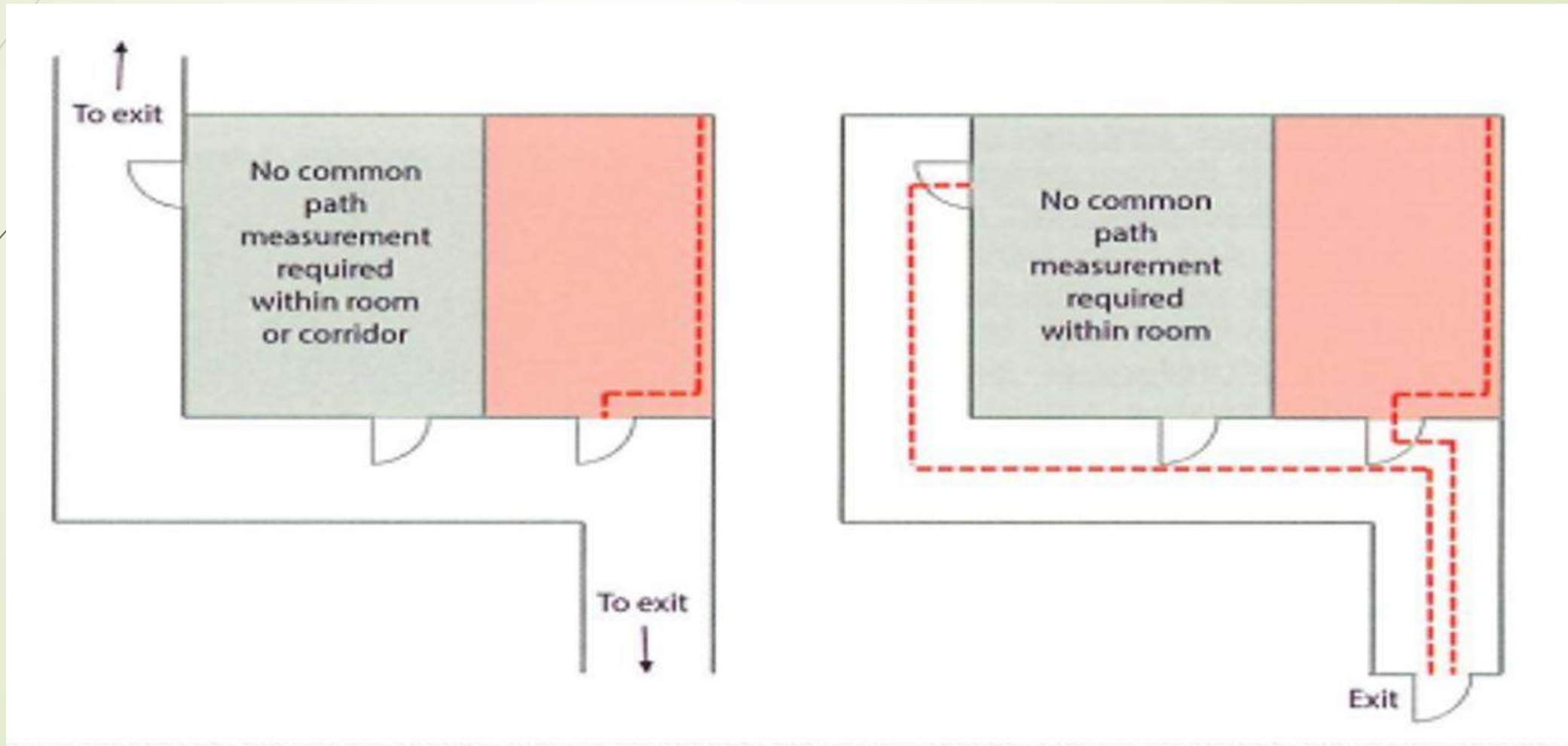
**COMMON PATH OF EGRESS TRAVEL.** That portion of exit access travel Distance measured from the most remote point of each room, area or space to That point where the occupants have separate and distinct access to two exits or Exit access doorways,

## Notes:

- Makes more clarification that measurement is taken from each space independently.
- Clarifies that access is to two exits or exit access doors.
- Language has been revised to more closely align with the definition for Exit Access Travel Distance.

## CHAPTER 10 – 1006 COMMON PATH OF EGRESS TRAVEL

**Change:** A revision was made to the definition for common path of egress travel.



# CHAPTER 10 – 1006.2.1 NUMBER OF EXITS

**Change:** Table 1006.2.1 is a consolidation of the (old table 1014.3) for common path of egress travel and of the (old table 1015.2) spaces with one exit or exit access doorway.

**TABLE 1006.2.1**  
**SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**

OCCUPANCY	MAXIMUM OCCUPANT LOAD OF SPACE	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)		
		Without Sprinkler System (feet)		With Sprinkler System (feet)
		Occupant Load		
		OL ≤ 30	OL > 30	
A <sup>c</sup> , E, M	49	75	75	75 <sup>a</sup>
B	49	100	75	100 <sup>a</sup>
F	49	75	75	100 <sup>a</sup>
H-1, H-2, H-3	3	NP	NP	25 <sup>b</sup>
H-4, H-5	10	NP	NP	75 <sup>b</sup>
I-1, I-2 <sup>d</sup> , I-4	10	NP	NP	75 <sup>a</sup>
I-3	10	NP	NP	100 <sup>a</sup>
R-1	10	NP	NP	75 <sup>a</sup>
R-2	20	NP	NP	125 <sup>a</sup>
R-3 <sup>e</sup>	20	NP	NP	125 <sup>a, g</sup>
R-4 <sup>e</sup>	20	NP	NP	125 <sup>a, g</sup>
S <sup>f</sup>	29	100	75	100 <sup>a</sup>
U	49	100	75	75 <sup>a</sup>



## CHAPTER 10 – 1006.3 EGRESS FROM STORIES

**Change:** Change was made for exit and exit access calculations for occupant loads from adjacent stories.

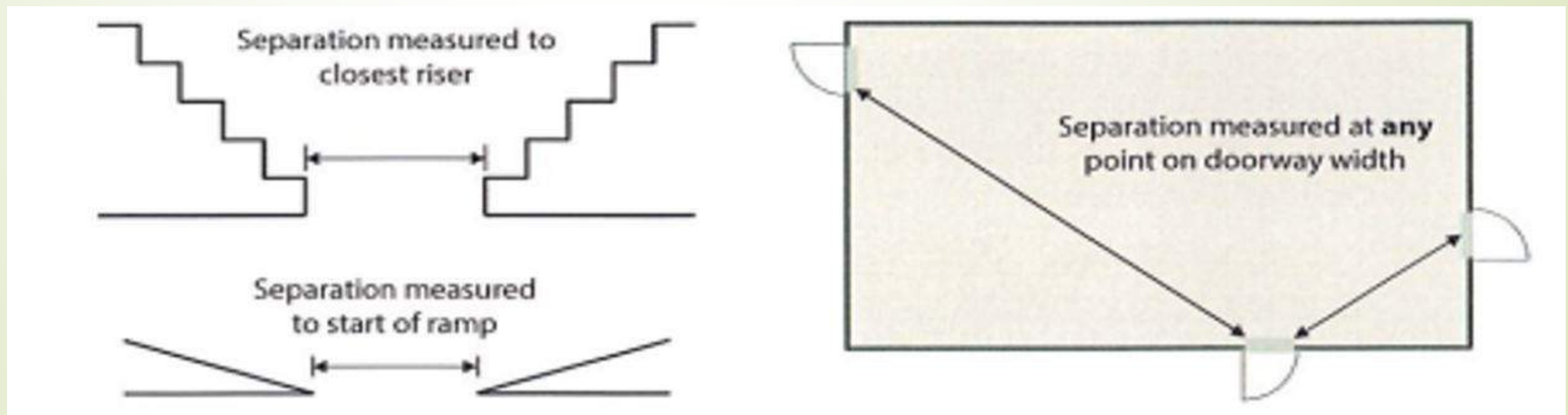
**1006.3 Egress from stories or occupied roofs.** The *means of egress* system serving any *story* or occupied roof shall be provided with the number of separate and distinct exits or access to exits based on the aggregate occupant load served in accordance with this section. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required number of exits or access to exits serving that story.

## CHAPTER 10 – 1007.1 EXIT DOORWAY CONFIGURATION

**Change:** A change was made that defines specific measuring points for exit or exit access doorways.

**1007.1.1.1 Measurement point.** The separation distance required in Section 1007.1.1 shall be measured in accordance with the following:

1. The separation distance to exit or exit access doorways shall be measured to any point along the width of the doorway.
2. The separation distance to exit access stairways shall be measured to the closest riser.
3. The separation distance to exit access ramps shall be measured to the start of the ramp run.



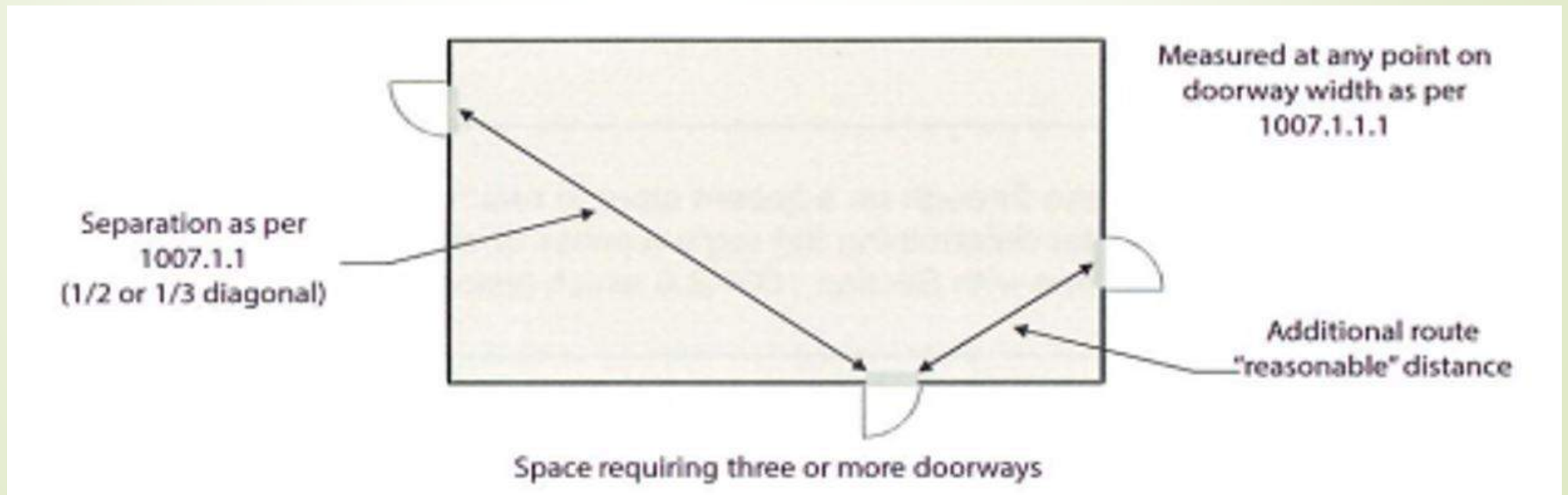
## CHAPTER 10 – 1007.1.2 EXIT DOORWAY CONFIGURATION

**Change:** There was an addition to the code to clarify exit configuration for three or more exits or exit access doorways.

### **1007.1.2 Three or more exits or exit access doorways.**

Where access to three or more exits is required, not less than two exit or exit access doorways shall be arranged in accordance with the provisions of Section 1007.1.1.

Additional required exit or exit access doorways shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available.



## CHAPTER 10 – 1008.2.3 EXIT DISCHARGE ILLUMINATION

**Change:** Exit discharge illumination.

**1008.2.3 Exit discharge.** Illumination shall be provided along the path of travel for the *exit discharge* from each exit to the *public way*.

**Exception:** Illumination shall not be required where the path of the *exit discharge* meets both of the following requirements:

1. The path of exit discharge is illuminated from the exit to a safe dispersal area complying with Section 1028.5.
2. A dispersal area shall be illuminated to a level not less than 1 footcandle (11 lux) at the walking surface

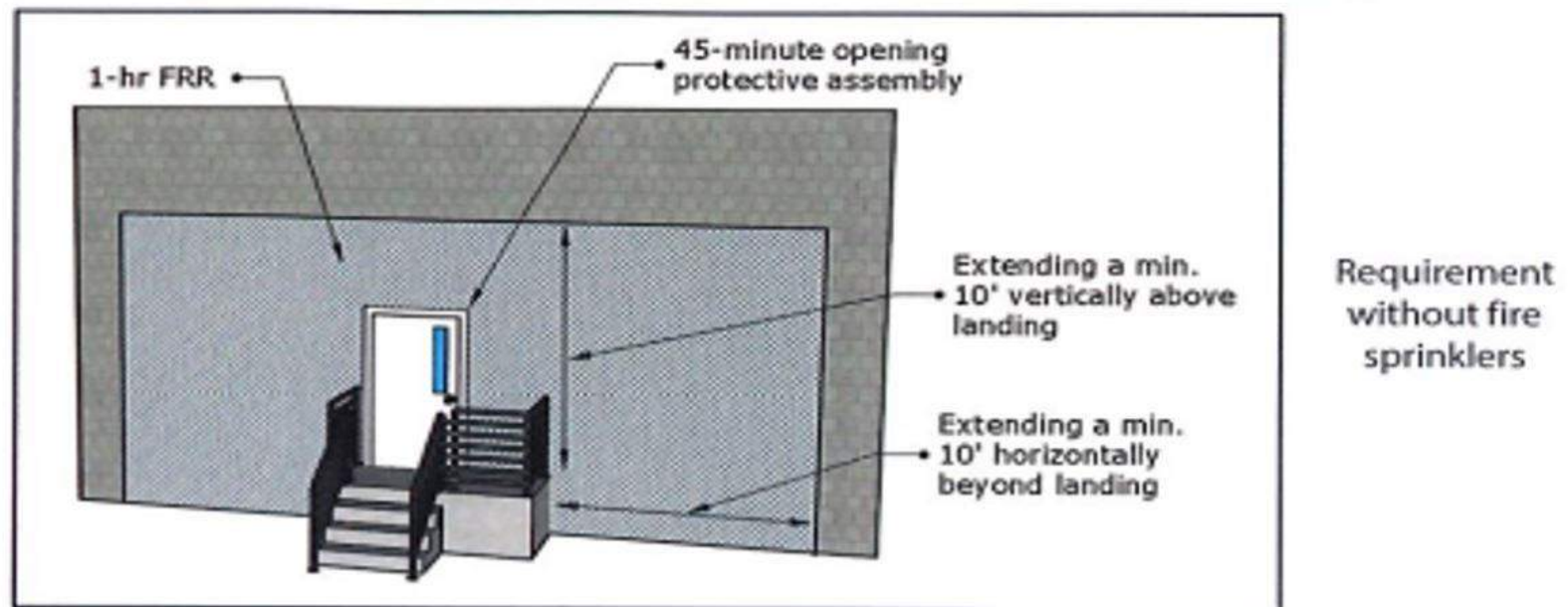


## CHAPTER 10 – 1009.7.2 EXTERIOR AAR

**Change:** A change was made that eliminated the FRR of exterior areas of assisted rescue in buildings with NFPA 13 or 13R systems.

**1009.7.2 Separation.** Exterior walls separating the exterior area of assisted Rescue...

Exception: The fire-resistance rating and opening protectives are not required in the exterior wall where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.



## CHAPTER 10 – 1010.1.4.4. LOCKING ARRANGEMENTS

**Change:** Changes made that provide guidance for enhanced security in Group E & B educational occupancies.

### **1010.1.4.4 Locking arrangements in educational occupancies.**

In Group E and Group B educational occupancies, egress doors from classrooms, offices and other occupied rooms shall be permitted to be provided with locking arrangements designed to keep intruders from entering the room where all of the following conditions are met:

1. The door shall be capable of being unlocked from outside the room with a key or other approved means.
2. The door shall be openable from within the room in accordance with Section 1010.1.9.
3. Modifications shall not be made to listed *panic hardware*, fire door hardware or door closers.

**1010.1.4.4.1 Remote operation of locks.** Remote operation of locks complying with Section 1010.1.4.4 shall be permitted.

## CHAPTER 10 – 1010.1.9.4 LOCKS AND LATCHES

**Change:** Changes were made that modify the provisions for key-operated locks and sign requirements for main door(s).

**1010.1.9.4 Locks and latches.** Locks and latches shall be permitted to prevent operation of doors where any of the following exist:

1. Places of detention or restraint.
2. In buildings in occupancy Group A having an *occupant load* of 300 or less, Groups B, F, M and S, and in *places of religious worship*, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
  - 2.1. The locking device is readily distinguishable as locked.
  - 2.2. A readily visible durable sign is posted on the egress side on or adjacent to the Door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING THIS SPACE IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.
  - 2.3. The use of the key-operated locking device is revocable by the *building official* for due cause.

**3-5 (unchanged)**

6. Doors serving roofs not intended to be occupied shall be permitted to be locked Preventing entry to the building from the roof.

## CHAPTER 10 – 1010.1.9.8 DELAYED EGRESS

**Change:** A change allowing delayed egress in Group E occupancies and certain A-3 courtroom doors.

**1010.1.9.8 Delayed egress.** Delayed egress locking systems shall be permitted to be installed on doors serving the following occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved automatic smoke or heat detection system* installed in accordance with Section 907.

1. Group B, F, I, M, R, S and U occupancies.

2. Group E classrooms with an occupant load of less than 50.

**Exception:** Delayed egress locking systems shall be permitted to be installed on exit or exit access doors, other than the main exit or exit access door, serving a courtroom in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.



## CHAPTER 10 – 1010.3.2 SECURITY ACCESS TURNSTILES

**Change:** Model addition of certain conditions that must exist to allow security access turnstiles that obstruct the means of egress.

**Turnstiles are allowed as a component of means of egress, as follows:**

- A minimum clear passage lane of 22"
- Lanes that are less than 32" are credited for a maximum of 50 occupants
- NFPA 13 fire sprinkler system installed
- Barriers shall automatically retract or swing as follows:
  - Upon sprinkler activation
  - Upon loss of power
  - Upon building fire alarm activation
  - There needs to be a manual release on egress side or approved location



## CHAPTER 10 – 1011.12 STAIRWAY TO ROOF

**Change:** An Oregon amendment was made that is related to additional stairway signage and construction material for ladders and alternating tread devices.

**1011.12 Stairway to roof.** In buildings four or more stories above *grade plane*, one *stairway* shall extend to the roof surface unless the roof has a slope steeper than four units vertical in 12 units horizontal (33-percent slope). Such stairway shall be marked at street and floor levels with a sign indicating that the stairway continues to the roof. Where roofs are used for roof gardens or for other purposes, stairways shall be provided as required for such occupancy classification.

**Exception:** Other than where required by Section 1011.12.1, in buildings without an occupied roof, access to the roof from the top story shall be permitted to be by an *alternating tread device*, a ship's ladder or a permanent ladder that is constructed of ~~steel~~ noncombustible material; is a minimum of 30 inches (762 mm) between handrails; has a rise and run of the stair or ladder of 12 inches (305 mm) maximum and 4 inches (102 mm) minimum, respectively; and has handrails provided on both sides of the stair or ladder.

## CHAPTER 10 – 1011.16 LADDERS

**Change:** There was an addition made that gives a list of six locations where a permanent ladder is allowed for access. This section also references Section 306.5 of the Mechanical Code for ladder construction reqs.

**1011.16 Ladders.** Permanent ladders shall not serve as a part of the means of egress from occupied spaces within a building. Permanent ladders shall be constructed in Accordance with Section 306.5 of the Mechanical Code. Permanent ladders shall be permitted to provide access to the following areas:

1. Spaces frequented only by personnel for maintenance, repair or monitoring of Equipment.
2. Non-occupiable spaces accessed only by catwalks, crawl spaces, freight elevators or very narrow passageways.
3. Raised areas used primarily for purposes of security, life safety or fire safety including, but not limited to, observation galleries, prison guard towers, fire towers or lifeguard stands.
4. Elevated levels in Group U not open to the general public.
5. Non-occupied roofs that are not required to have stairway access in accordance with Section 1011.12.1.
6. Where permitted to access equipment and appliances in accordance with Section 306.5 of the Mechanical Code.

## CHAPTER 10 – 1017.2.2. TRAVEL DISTANCE FOR F-1 & S-1

**Change:** That was a change made that allows an increase in travel distance for Groups F-1 & S-1 Occupancies

**1017.2.2 Groups F-1 and S-1 increase.** The maximum exit access travel distance shall be 400 feet (122 m) in Group F-1 or S-1 occupancies where all of the following conditions are met:

1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height.
2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm).
3. The building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.



## CHAPTER 10 – 1018.3 AISLE IN GROUPS B & M

**Change:** Change was made to increase the width of aisles from 36" to 44" In Group B & M occupancies when the aisles serve 50 or more.

### 1018.3 Aisles in Groups B & M.

In Group B and M occupancies, the Minimum clear aisle width shall be Determined by Section 1005.1 for The occupant load served, but shall

~~Not~~ be not less than ~~36 inches (914mm)~~  
That required for corridors by Section 1020.2.

**Exception:** Nonpublic aisles serving less than 50 people and not required to be accessible by Chapter 11 need not exceed 28 inches (711 mm) in width.

TABLE 1020.2  
MINIMUM CORRIDOR WIDTH

OCCUPANCY	MINIMUM WIDTH (inches)
Any facility not listed in this table	44
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24
With an occupant load of less than 50	36
Within a <i>dwelling unit</i>	36
In Group E with a <i>corridor</i> having an occupant load of 100 or more	72
In <i>corridors</i> and areas serving stretcher traffic in <i>ambulatory care facilities</i>	72
Group I-2 in areas where required for bed movement	96

# CHAPTER 10 – 1023.3.1 STAIRWAY EXTENSION

**Change:** Changes made to provide the designer with two options For the elimination of the separation between a stairway and a exit Passageway.

## 1023.3.1 Extension...(no change)

### Exceptions:

1. Penetrations of the fire barrier in accordance with Section 1023.5 Shall be permitted.

2.. Separation between an interior exit stairway or ramp and the exit exit passageway extension shall not be required where there are no openings into the exit passageway extension.

3. Separation between an interior exit stairway or ramp and the exit passageway extension shall not be required where the interior exit stairway and the exit passageway extension are pressurized in accordance with 909.19.5.

