

# **FLORIDA BUILDING CODE**

## **Building / Structural Summary**

### **Participant Guide**

**June 2004**

**Version 1.0 (50 minutes)**



**Florida Building Commission  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100  
(850) 487-1824**

## Preface

This document supports the **2004 Florida Building Code, Building**. These instructional materials are not intended to provide basic code training but rather to highlight differences between the 2001 *Florida Building Code* and the 2004 *Florida Building Code, Building*. The 2004 *Florida Building Code, Building* is based on the *International Building Code*®, which represents a significant change in the Florida Building Code. This module is the result of the work of a number of professionals and is intended for a 1-hour continuing education program.

The Florida Building Commission Building/Structural Technical Advisory Committee members have been provided copies of these materials for solicitation of their feedback.

A special thank-you is extended to Mr. Mo Madnai, Department of Community Affairs, Codes and Standards, for his input, review and feedback.

Products referenced in this course are for illustration only and are not an endorsement, warrant, or representation by the author or instructor that the product meets the requirements of the 2004 *Florida Building Code, Building*. Use of all products requires the approval of the local jurisdictional authority.

For more information regarding the Florida Building Code contact:

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To obtain a complete copy of the 2004 *Florida Building Code* contact The Florida Department of Community Affairs Building Code Information System web site:

<http://www.floridabuilding.org>

The Florida Energy Extension Service worked with Building A Safer Florida, Inc. under contract to the Florida Building Commission through the Florida Department of Community Affairs to develop version 1.0 of this program. Mr. Craig Miller coordinated development of the program and Ms. Barbara Haldeman provided layout and design services.

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## 2004 Florida Building Code, Building Building/Structural Summary

**50-minutes (1 CEH)**

### ***2004 Florida Building Code, Building***

#### ***Building/Structural Summary of code changes.***

*The following presentation is an overview of the those changes in the 2001 Florida Building Code that have been identified as significant. The changes highlighted in this presentation are by no means a complete overview of the changes in the 2004 Florida Building Code. It is advised that each participant review the 2004 Florida Building Code in it's entirety.*

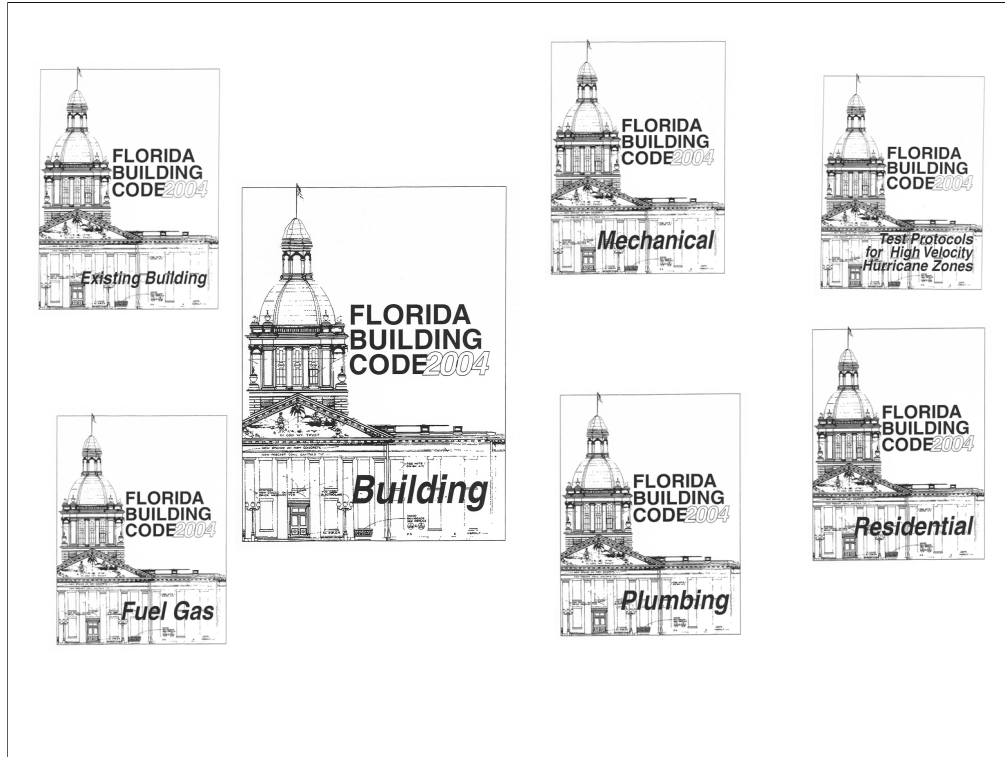
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## Florida Department of Community Affairs

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*The overall responsibility for the Florida Building Code is the Florida Building Commission. The Florida Building Commission works directly with the Department of Community Affairs in determining both legislative and legal aspects of the building code. The Building/Structural Technical Advisory Committee is responsible for parts of the building code that address existing and new construction for buildings and structures. Mo Madani, of the Department of Business and Professional Regulations, Codes and Standards, is the liaison between the Florida Building Commission on the Department of Community Affairs.*



*It should be noted that the 2004 Florida Building Code has the following “parts”:*

- Florida Building Code, Building
- Florida Building Code, Residential
- Florida Building Code, Plumbing
- Florida Building Code, Fuel Gas
- Florida Building Code, Mechanical
- Florida Building Code, Existing Buildings
- Florida Building Code, Test Protocol for High Velocity Hurricane Zones

*This presentation will review those changes relevant **only** to the Florida Building Code, Building.*

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## Building/Structural Summary

- The following Summary of the *Florida Building Code, Building* provides an overview of changes from the 2001 *Florida Building Code*. The changes are extensive because:
  - The 2003 *International Building Code, Building* is the base code (new for the 2004 version of the *Florida Building Code*)
  - Residential construction will comply with the **2003 *Florida Building Code, Residential***, which uses the 2003 *International Building Code* as the base code (new)

*It is significant that the 2004 Florida Building Code uses the International Building Code (2003 edition) as a "base code". The 2001 Florida Building Code used the Standard Building Code as the "base code" and represents an entirely different building code. Although there are some similarities it should be noted that there are many differences.*

*The format for the code is also different, with a separate code document for Residential Construction. The Florida Building Commission adopted the International Building Code, Residential for Florida. The 2004 Florida Building Code, Residential (based on the International Building Code edition) shall govern all residential construction.*

*A complete review of the 2004 Florida Building Code, Residential should be done by all professionals designing and building residential structures.*



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## Building/Structural Summary

- It is **important** that residential construction follow the provisions in the 2003 *Florida Building Code, Residential*.
- An overview of the *Florida Building Code, Residential* is separate and provided in:
  - **2004 Florida Building Code, Residential Technical Core (4-hour course)**
  - **Summary of the 2004 Florida Building Code, Residential (1-hour course)**

*The Florida Building Commission has directed the development of several education courses that will provide overviews of the 2004 Florida Building Code. These currently include:*

- 2004 Florida Building Code, Residential (4-hour course)
- 2004 Florida Building Code, Residential Summary (1-hour course)
- 2004 Florida Building Code, Mechanical/Energy Technical Core Update (4-hour course)
- 2004 Florida Building Code, Mechanical/Energy Summary (1-hour course)
- 2004 Florida Building Code, Plumbing/Fuel Gas Technical Core Update (4-hour course)
- 2004 Florida Building Code, Plumbing/Fuel Gas Summary (1-hour course)
- 2004 Florida Building Code, Building/Fire Technical Core Update (4-hour course)

*Each participant should decide to what extent they feel they should participate in any or all of these educational courses for review and update of the 2004 Florida Building Code.*

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## Building/Structural Summary

- The *Florida Building Code, Building* provisions apply to every building except:
  - Detached one- and two-family dwellings, and townhouses of not more than 3 stories
    - Refer to the *Florida Building Code, Residential*
  - Existing buildings
    - Refer to the *Florida Building Code, Existing Buildings*.

*The 2004 Florida Building Code, Building will apply to all buildings and structures, with exceptions.*

### CHAPTER 1 ADMINISTRATION

#### SECTION 101 GENERAL

**101.2 Scope.** The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

**Exceptions:**

1. Detached one- and two-family dwellings and multiple single-family dwellings (town houses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the Florida Building Code, Residential.
2. Existing buildings undergoing repair, alterations or additions and change of occupancy shall be permitted to comply with the Chapter 34, Florida Existing Building Code.

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## Building/Structural Summary

- The *Florida Building Code, Residential* refers to the following references in the *Florida Building Code, Building*
  - Chapter 1: Administration
    - Defers to *Florida Building Code, Building, Chapter 1: Administration*
  - Chapter 11: Energy Efficiency
    - Defers to *Florida Building Code, Building, Chapter 13: Energy Efficiency*

*The 2004 Florida Building Code, Residential does defer to the 2004 Florida Building Code, Building for the following chapters:*

*Chapter 1, Administration—defers to Chapter 1, Administration*

*Chapter 11, Energy Efficiency—defers to Chapter 13, Energy Efficiency*

*There are other code provisions in the Residential Code that defer to the Florida Building Code, Building and should be noted.*

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# Chapter 1: Administration

## **102 APPLICABILITY**

- 102.2.6 This section does not apply to swings and other play-ground equipment accessory to a one – or two-family dwelling.
  - **Exception:** Electrical service to such playground equipment shall be in accordance with Chapter 27 of this code.

## **CHAPTER 1 ADMINISTRATION**

### **102 APPLICABILITY**

**102.2.6** This section does not apply to swings and other playground equipment accessory to a one- or two-family dwelling.

**Exception:** Electrical service to such playground equipment shall be in accordance with Chapter 27 of this code.

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# Chapter 1: Administration

## **102 APPLICABILITY**

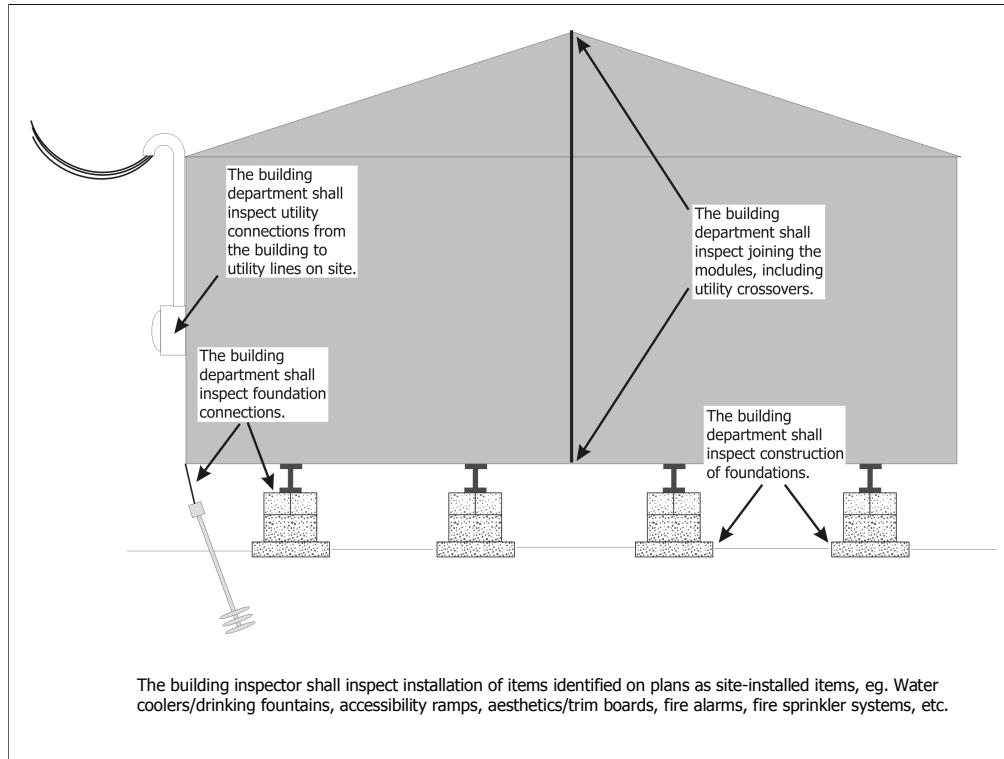
- 102.7 Relocation of manufactured buildings.
  - Relocation of an existing manufactured building does not constitute an alteration.
  - A relocated building shall comply with wind speed requirements of the new location, using the appropriate wind speed map. If the existing building was manufactured in compliance with the Standard Building Code (prior to March 1, 2002), the wind speed map of the Standard Building Code shall be applicable.

## **CHAPTER 1 ADMINISTRATION**

### **SECTION 102 APPLICABILITY**

**102.7 Relocation of manufactured buildings.** (1) Relocation of an existing manufactured building does not constitute an alteration.

(2) A relocated building shall comply with wind speed requirements of the new location, using the appropriate wind speed map. If the existing building was manufactured in compliance with the Standard Building Code (prior to March 1, 2002), the wind speed map of the Standard Building Code shall be applicable. If the existing building was manufactured in compliance with the Florida Building Code (after March 1, 2002), the wind speed map of the Florida Building Code shall be applicable.



## CHAPTER 1 ADMINISTRATION

### SECTION 102 APPLICABILITY

**102.7 Relocation of manufactured buildings.** (1) Relocation of an existing manufactured building does not constitute an alteration.

(2) A relocated building shall comply with wind speed requirements of the new location, using the appropriate wind speed map. If the existing building was manufactured in compliance with the Standard Building Code (prior to March 1, 2002), the wind speed map of the Standard Building Code shall be applicable. If the existing building was manufactured in compliance with the Florida Building Code (after March 1, 2002), the wind speed map of the Florida Building Code shall be applicable.

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# Chapter 1: Administration

## **109 INSPECTIONS**

### **■ 109.3 Required inspections.**

- 8. Manufactured buildings.
  - The building department shall inspect construction of foundations; connecting buildings to foundations; installation of parts identified on plans as site installed items, joining the modules, including utility crossovers; utility connections from the building to utility lines on site; and any other work done on site which requires compliance with the Florida Building Code. Additional inspections may be required for public educational facilities. See 423.27.20.

## **CHAPTER 1 ADMINISTRATION**

### **SECTION 109 INSPECTIONS**

#### **109.3 Required inspections.**

##### **Building**

- 8. The building department shall inspect construction of foundations; connecting buildings to foundations; installation of parts identified on plans as site installed items, joining the modules, including utility crossovers; utility connections from the building to utility lines on site; and any other work done on site which requires compliance with the *Florida Building Code*. Additional inspections may be required for public educational facilities. See §423.27.20.

## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### OVERVIEW

- Classification based on commonality of fire risk present and expected ability of occupants to respond to this risk.
- **Assembly Group A** is subdivided (5-divisions) by the assembly use.
- **Groups B, M and S** classifications are similar to the Florida Building Code
- **Factory** – three categories (moderate-hazard, low hazard, and special purpose)
- **High-Hazard Group H** – divided into five groups (detonable material, materials that present a rapid burning hazard, materials that readily support combustion, health hazards, and semiconductor fabrication facilities.

*...continued on next slide*

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

*This chapter is different in the 2004 Florida Building Code, Building than that in the 2001 Florida Building Code.*

### SECTION 302 CLASSIFICATION

**302.1 General.** Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed below. Structures with multiple uses shall be classified according to Section 302.3. Where a structure is proposed for a purpose which is not specifically provided for in this code, such structure shall be classified in the group which the occupancy most nearly resembles, according to the fire safety and relative hazard involved.

- |                               |                    |  |
|-------------------------------|--------------------|--|
| 1. Assembly                   | (see Section 303): | Groups A-1, A-2, A-3, A-4 and A-5                            |
| 2. Business                   | (see Section 304): | Group B  |
| 3. Educational                | (see Section 305): | Group E  |
| 4. Factory and Industrial     | (see Section 306): | Groups F-1 and F-2   |
| 5. High Hazard                | (see Section 307): | Groups H-1, H-2, H-3, H-4 and H-5                            |
| 6. Institutional              | (see Section 308): | Groups I-1, I-2, I-3 and I-4                                 |
| 7. Mercantile                 | (see Section 309): | Group M  |
| 8. Residential                | (see Section 310): | Groups R-1, R-2, R-3 as applicable in Section 101.2, and R-4 |
| 9. Storage                    | (see Section 311): | Groups S-1 and S-2   |
| 10. Utility and Miscellaneous | (see Section 312): | Group U  |



## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### OVERVIEW *(cont'd)*

- **Institutional Group I** – include facilities used for health and wellness care, correctional institutions, mental institutions, and child care.
- I-4 Adult care facilities were replaced by **Group D**.
- **Utility and Miscellaneous Group U** – intended as a catch all category for buildings not specifically categorized in other use groups.

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 308 INSTITUTIONAL GROUP I

#### Group I-1

- Residential board and care facilities
- Assisted living facilities
- Half-way houses
- Group homes
- Congregate care facilities
- Social rehabilitation facilities
- Alcohol and drug centers
- Convalescent facilities

#### Group I-2

- Hospitals
- Nursing homes
- Mental hospitals
- Detoxification facilities
- Infant care (24-hour basis)

#### Group I-3

- Prisons
- Jails
- Reformatories
- Detention centers
- Correction centers
- Pre-release centers

#### Group I-4

- Adult custodial care facilities
- Child custodial care facilities

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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### **312 UTILITY & MISCELLANEOUS GROUP U**

- Aircraft hangers (accessory to R)
- Barns
- Carports
- Fences more than 6 feet in height
- Greenhouses
- Livestock shelters
- Private garages
- Retaining walls
- Sheds
- Stables
- Tanks
- Towers

## **CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION**

### **SECTION 312 UTILITY AND MISCELLANEOUS GROUP U**

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

## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### 303 ASSEMBLY GROUP A

- 303.1.1 Restaurants and drinking establishments with an occupant load of less than 50 persons shall be classified as Group M, Mercantile.

#### CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

##### SECTION 303 ASSEMBLY GROUP A

###### Group A-1

- Motion picture theaters
- Theaters

###### Group A-2

- Banquet halls
- Night clubs
- Restaurants
- Taverns

###### Group A-3

- Art galleries
- Churches
- Community halls
- Conference rooms
- Exhibition halls
- Gymnasiums
- Lecture halls
- Libraries
- Museums
- Passenger stations

###### Group A-4

- Arenas
- Skating rinks
- Swimming pools

###### Group A-5

- Bleachers
- Grandstands
- Stadiums

303.1.1 Restaurants and drinking establishments with an occupant load of less than 50 persons shall be classified as Group M, Mercantile

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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### 302 CLASSIFICATION

#### ■ 302.1.1 Incidental use areas.

- Area listed in Table 302.1.1 must be separated or protected, or both, in accordance with the Table, or
- Must be classified as a mixed occupancy and comply with Table 302.3.2.
- Must be classified in accordance with the main occupancy of the portion of the building in which the incidental use area is located.
  - **Exception:** Incidental use areas within and serving a dwelling unit are not required to comply with this section.

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 302 CLASSIFICATION

**302.1.1 Incidental use areas.** Spaces which are incidental to the main occupancy shall be separated or protected, or both, in accordance with Table 302.1.1 or the building shall be classified as a mixed occupancy and comply with Section 302.3. Areas that are incidental to the main occupancy shall be classified in accordance with the main occupancy of the portion of the building in which the incidental use area is located.

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

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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### 302 CLASSIFICATION

#### ■ 302.1.1.1 Separation.

- Table 302.1.1
  - The incidental use area must be separated from the remainder of the building with a fire barrier, or
  - Must be provided with an automatic fire-extinguishing system with smoke barrier.
- Doors:
  - Must be self-closing or automatic-closing upon detection of smoke.
  - Must not have air transfer openings, and
  - Must not have undercut in excess of the clearance permitted in accordance with NFPA 80.

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 302 CLASSIFICATION

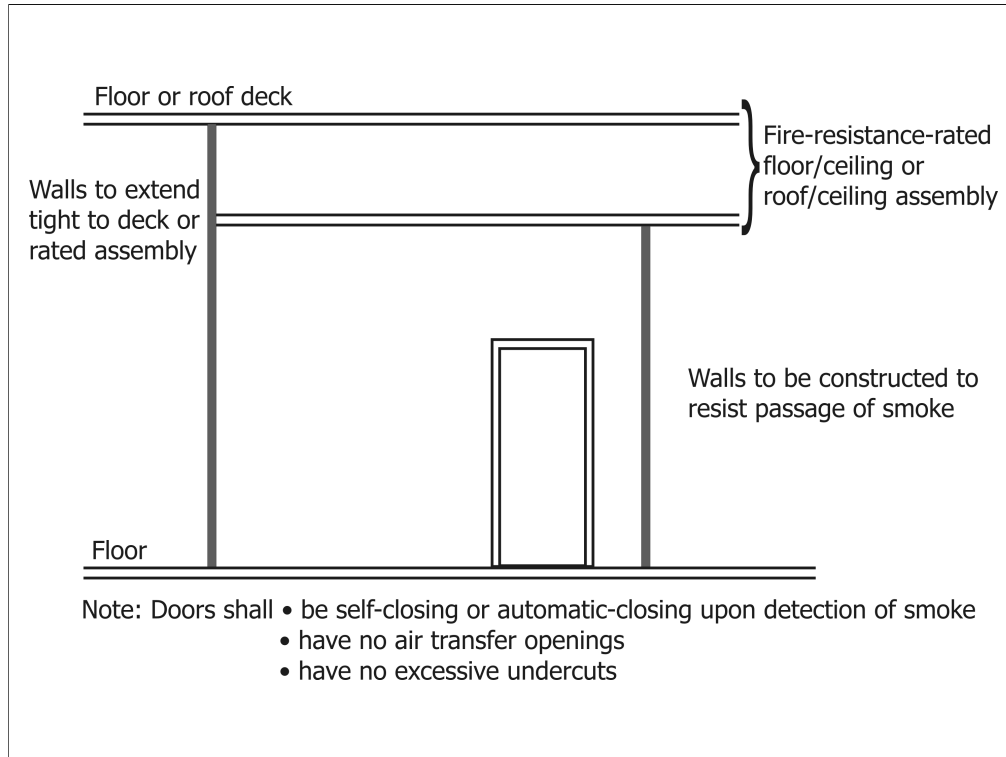
**302.1.1.1 Separation.** Where Table 302.1.1 requires a fire-resistance-rated separation, the incidental use area shall be separated from the remainder of the building with a fire barrier. Where Table 302.1.1 permits an automatic fire-extinguishing system without a fire barrier, the incidental use area shall be separated by construction capable of resisting the passage of smoke. The partitions shall extend from the floor to the underside of the fire-resistance-rated floor/ceiling assembly or fire-resistance-rated roof/ceiling assembly or to the underside of the floor or roof deck above. Doors shall be self-closing or automatic-closing upon detection of smoke. Doors shall not have air transfer openings and shall not be undercut in excess of the clearance permitted in accordance with NFPA 80.

TABLE 302.1.1: INCIDENTAL USE AREAS

ROOM OR AREA	SEPARATION <sup>a</sup>
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system
Rooms with any boiler over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system
Refrigerant machinery rooms	1 hour or provide automatic sprinkler system
Parking garage (Section 406.2)	2 hours; or 1 hour and provide automatic fire-extinguishing system
Hydrogen cut-off rooms	1-hour fire barriers and floor/ceiling assemblies in Group B, F, H, M, S and U occupancies. 2-hour fire barriers and floor/ceiling assemblies in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic fire-extinguishing system
Laboratories and vocational shops, not classified as Group H, located in Group E or I-2 occupancies	1 hour or provide automatic fire-extinguishing system
Laundry rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Storage rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Group I-3 cells equipped with padded surfaces	1 hour
Group I-2 waste and linen collection rooms	1 hour
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Stationary lead-acid battery systems having a liquid capacity of more than 100 gallons used for facility standby power, emergency power or uninterrupted power supplies	1-hour fire barriers and floor/ceiling assemblies in Group B, F, H, M, S and U occupancies. 2-hour fire barriers and floor/ceiling assemblies in Group A, E, I and R occupancies

For SI: 1 sq ft = 0.0929 m<sup>2</sup>, 1 lb per sq in = 6.9 kPa, 1 British thermal unit = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L.

<sup>a</sup> Where an automatic fire-extinguishing system is provided, it need only be provided in the incidental use room or area.



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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### **302 CLASSIFICATION**

#### **■ 302.2 Accessory use areas.**

- Can be of any occupancy except Group H and incidental use areas.
- When combined, total areas can not exceed 10% of the area of the story in which they are located and the limitation of Table 503.
- Are not required to be separated by a fire barrier as per Table 302.3.2.

## **CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION**

### **SECTION 302 CLASSIFICATION**

**302.2 Accessory use areas.** A fire barrier shall be required to separate accessory use areas classified as Group H in accordance with Section 302.3.2, and incidental use areas in accordance with Section 302.1.1. Any other accessory use area shall not be required to be separated by a fire barrier provided the accessory use area occupies an area not more than 10 percent of the area of the story in which it is located and does not exceed the tabular values in Table 503 for the allowable height or area for such use.



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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### **302 CLASSIFICATION**

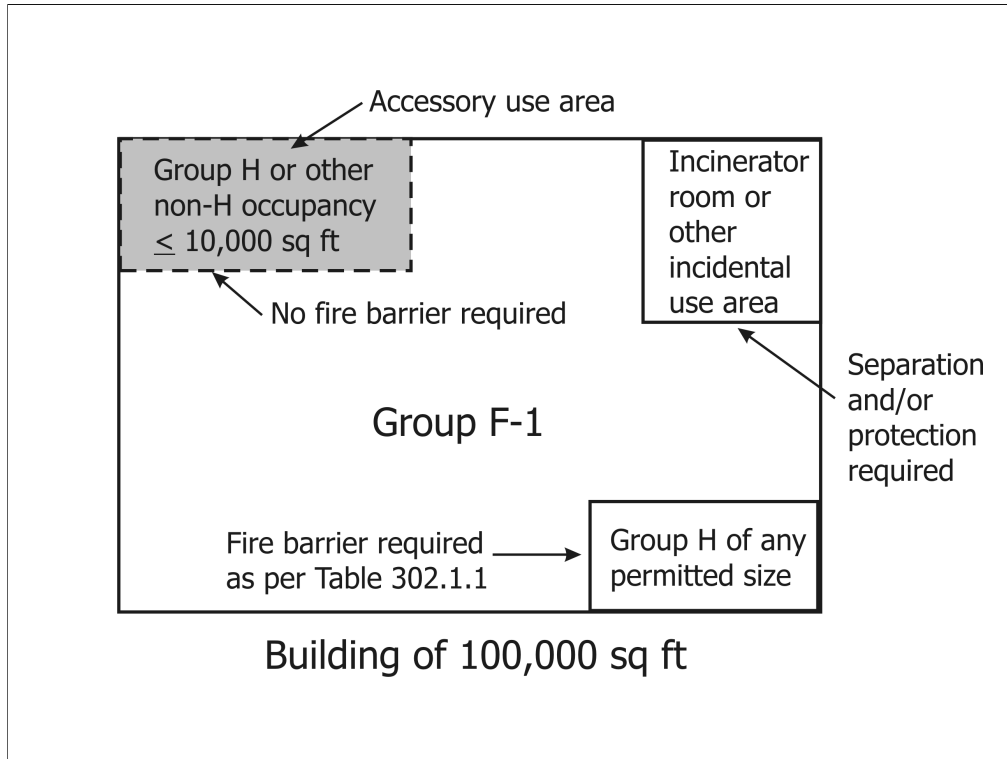
#### **■ 302.2.1 Assembly areas.**

- Accessory assembly areas are not considered separate occupancies when:
- The floor area is equal to or less than 750 square feet (69.7 m<sup>2</sup>).
- Assembly areas are accessory to Group E.
- Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100.

## **CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION**

### **SECTION 302 CLASSIFICATION**

**302.2.1 Assembly areas.** Accessory assembly areas are not considered separate occupancies if the floor area is equal to or less than 750 square feet. Assembly areas that are accessory to Group E are not considered separate occupancies. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 are not considered separate occupancies.



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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### **302 CLASSIFICATION**

#### **■ 302.3 Mixed occupancies.**

- When a building is occupied by two or more uses the building must meet:
  - Either one of the exceptions of Section 302.3 or
  - Be designed as:
    - A Non-Separated Use (Section 302.3.1) or
    - Separated Use (Section 302.3.2) or
    - A combination of these sections.

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## **CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION**

### **SECTION 302 CLASSIFICATION**

**302.3 Mixed occupancies.** Where a building is occupied by two or more uses not included in the same occupancy classification, the building or portion thereof shall comply with Section 302.3.1 or 302.3.2 or a combination of these sections.

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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### **302 CLASSIFICATION**

#### **■ 302.3 Mixed occupancies. (cont'd)**

##### **■ Exceptions:**

- 1. Occupancies separated in accordance with Section 508.
- 2. Areas of Group H-2, H-3, H-4 or H-5 occupancies shall be separated from any other occupancy in accordance with Section 302.3.2.
- 3. Where required by Table 415.3.2, areas of Group H-1, H-2 or H-3 occupancy shall be located in a separate and detached building or structure.
- 4. Accessory use areas in accordance with Section 302.2.
- 5. Incidental use areas in accordance with Section 302.1.1.

## **CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION**

### **SECTION 302 CLASSIFICATION**

#### **302.3 Mixed occupancies.(cont'd)**

##### **Exceptions:**

1. Occupancies separated in accordance with Section 508.
2. Areas of Group H-2, H-3, H-4 or H-5 occupancies shall be separated from any other occupancy in accordance with Section 302.3.2.
3. Where required by Table 415.3.2, areas of Group H-1, H-2 or H-3 occupancy shall be located in a separate and detached building or structure.
4. Accessory use areas in accordance with Section 302.2.
5. Incidental use areas in accordance with Section 302.1.1.

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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### 302 CLASSIFICATION

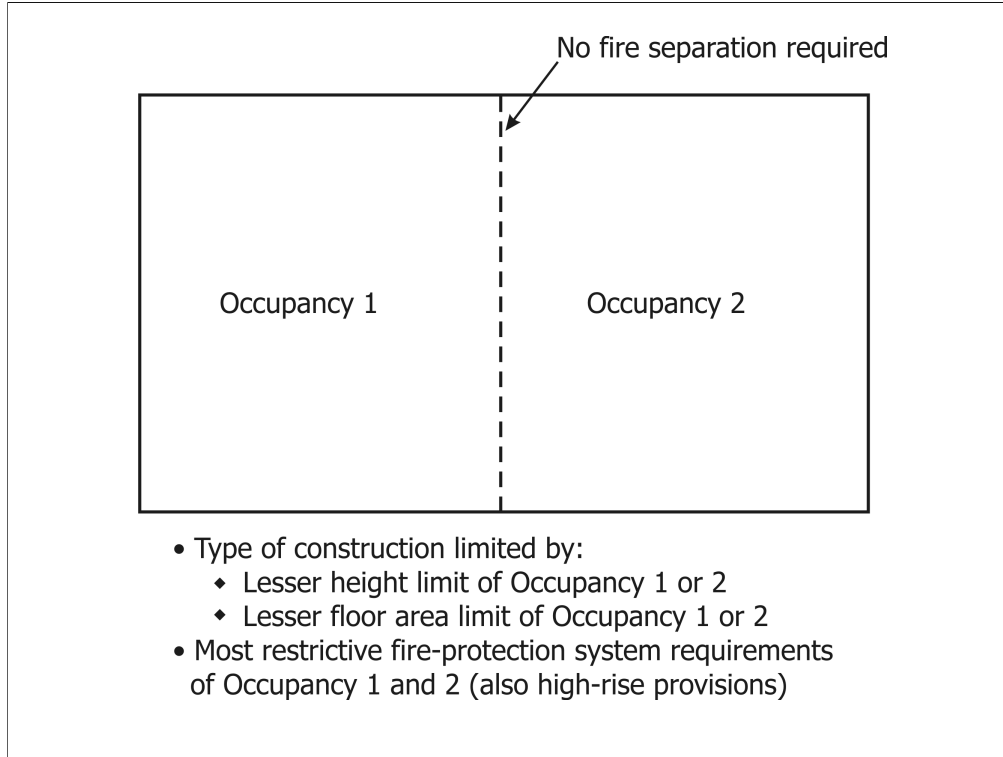
#### ■ 302.3.1 Nonseparated uses.

- Each portion of the building must be classified as to use.
- Required type of construction shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building.
- Most restrictive type of construction must apply to the entire building.
- All other code requirements shall apply to each portion of the building based on the use of that space except that the most restrictive applicable provisions.
- Fire separations are not required between uses, except as required by other provisions.

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 302 CLASSIFICATION

**302.3.1 Nonseparated uses.** Each portion of the building shall be individually classified as to use. The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building. All other code requirements shall apply to each portion of the building based on the use of that space except that the most restrictive applicable provisions of Section 403 and Chapter 9 shall apply to these nonseparated uses. Fire separations are not required between uses, except as required by other provisions.



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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### 302 CLASSIFICATION

#### ■ 302.3.2 Separated uses.

- Each portion of the building must be classified as to use and shall be completely separated from adjacent areas by fire barrier walls or horizontal assemblies or both having a fire-resistance rating determined in accordance with Table 302.3.2 for uses being separated.
- Each fire area shall comply with this code based on the use of that space.
- Each fire area shall comply with the height limitations based on the use of that space and the type of construction

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## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 302 CLASSIFICATION

**302.3.2 Separated uses.** Each portion of the building shall be individually classified as to use and shall be completely separated from adjacent areas by fire barrier walls or horizontal assemblies or both having a fire-resistance rating determined in accordance with Table 302.3.2 for uses being separated. Each fire area shall comply with this code based on the use of that space. Each fire area shall comply with the height limitations based on the use of that space and the type of construction classification. In each story, the building area shall be such that the sum of the ratios of the floor area of each use divided by the allowable area for each use shall not exceed one.

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## CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

### **302 CLASSIFICATION**

#### ■ **302.3.2 Separated uses.** *(cont'd)*

##### ■ **Exception:**

- Permission to reduce the fire- resistance rating by one hour for sprinklered buildings.
- Does not apply to Group H and Group I-2 use areas.

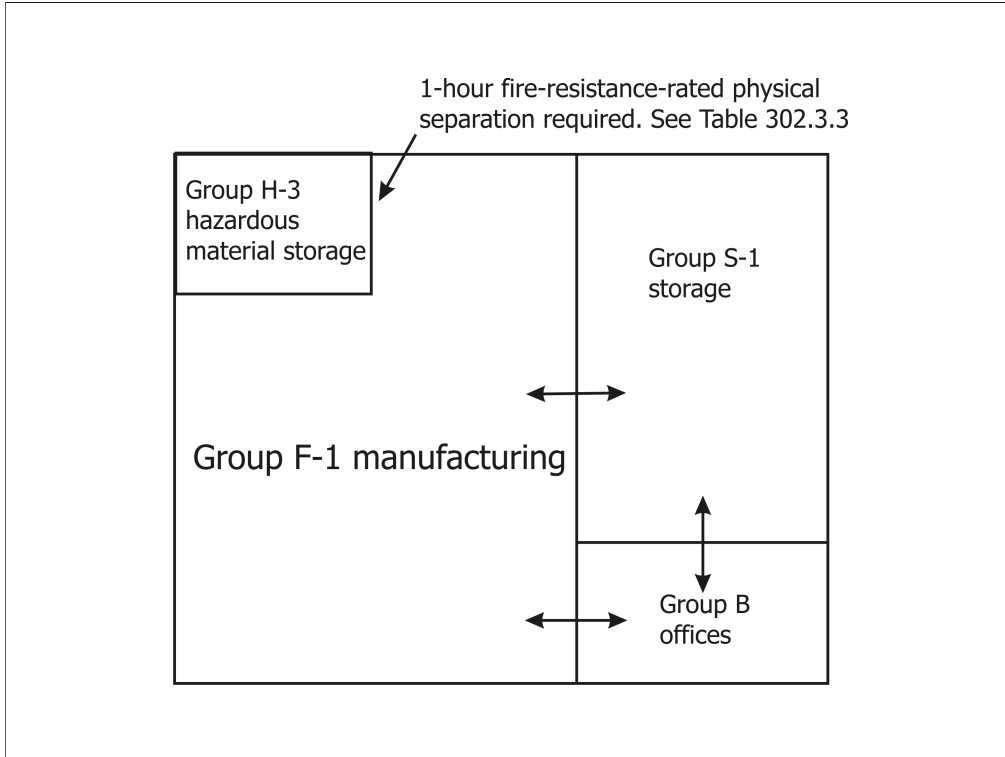
## **CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION**

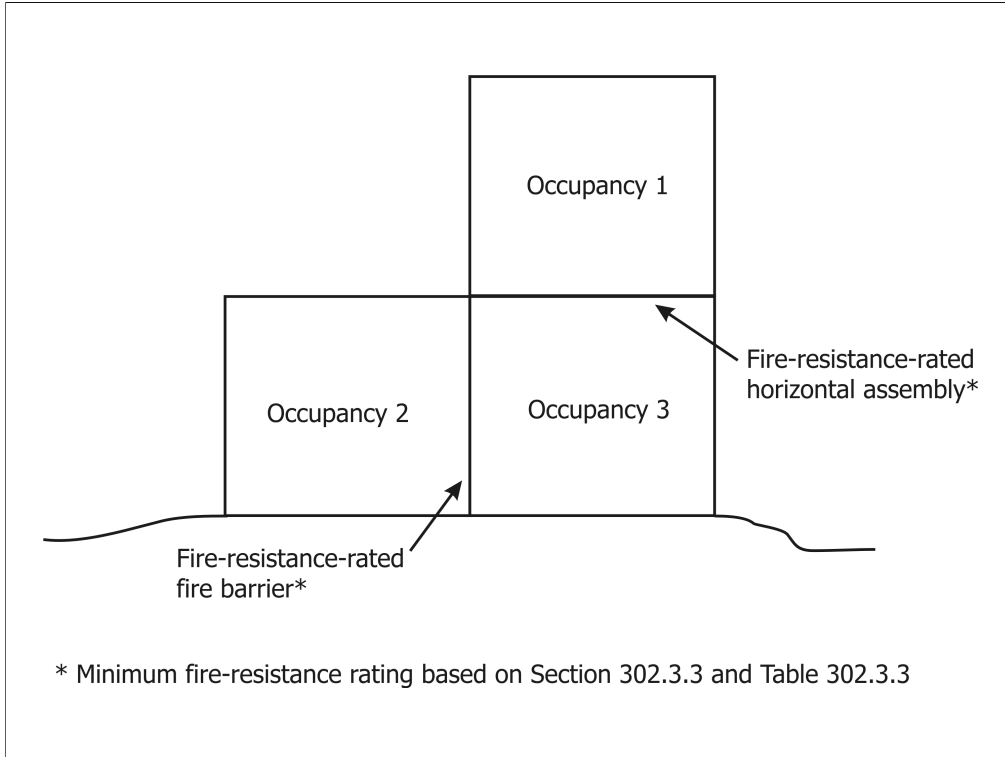
### **SECTION 302 CLASSIFICATION**

#### **302.3.2 Separated uses.** *(cont'd)*

**Exception:** Except for Group H and I-2 areas, where the building is equipped throughout with an automatic sprinkler system, installed in accordance with Section 903.3.1.1, the fire-resistance ratings in Table 302.3.2 shall be reduced by 1 hour but to not less than 1 hour and to not less than that required for floor construction according to the type of construction.







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## Chapter 4: Special Detailed Requirements Based on Use and Occupancy

### OVERVIEW

- Adds sections addressing:
  - **Adult Day Care** (433)
  - **Assisted Living Facilities** (434)
  - **Control of Radiation Hazards** (435)
- Occupancy use provisions expanded in all special occupancies.
- Includes relevant definition per occupancy.
- Swimming Pools and Bathing Places brought forth from 2001 *Florida Building Code* and modified (10 changes)

## Chapter 4: Special Detailed Requirements Based on Use and Occupancy

### **424 SWIMMING POOLS AND BATHING PLACES**

#### **■ 424.1.3.1 Decks and Walkways.**

- 424.1.3.1.9. All public pools shall be surrounded by a minimum 48 inch in height fence.
- The fence shall be continuous.
- Access through the barrier other than from doored exits of adjacent building(s) shall be through self-closing self-latching lockable gates of 48 inches.
- Safety Covers that comply with ASTM Standard F1346 do not satisfy this requirement.

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

### **SECTION 424 SWIMMING POOLS AND BATHING PLACES (PUBLIC AND PRIVATE)**

**424.1.3.1.9** All public pools shall be surrounded by a minimum 48 inch in height fence. The fence shall be continuous around the perimeter of the pool area that is not otherwise blocked or obstructed by adjacent buildings or structures and shall adjoin with itself or abut to the adjacent members. Access through the barrier other than from doored exits of adjacent building(s) shall be through self-closing self-latching lockable gates of 48 inch minimal height with the latch located near the top. Consideration shall be given to the U.S. Consumer Product Safety Commission (CPSC) Pub. No. 362 guidelines. Safety Covers that comply with ASTM Standard F1346 do not satisfy this requirement.

## Chapter 4: Special Detailed Requirements Based on Use and Occupancy

### 424 SWIMMING POOLS & BATHING PLACES

#### ■ 424.2.17.1.16 Adjacent Waterways.

- Permanent natural/permanent man-made features (bulkheads, canals, lakes, navigable waterways, etc.) adjacent to a public or private swimming pool/spa may be permitted as a barrier when approved by the authority having jurisdiction, if:
  - Barrier feature is not subject to natural changes, deviations, or alterations and is capable of providing an equivalent level of protection
  - The barrier feature clearly impedes, prohibits or restricts access to the swimming pool or spa.

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

### SECTION 424 SWIMMING POOLS AND BATHING PLACES (PUBLIC AND PRIVATE)

**424.2.17.1.16 Adjacent Waterways.** Permanent natural or permanent man-made features such as bulkheads, canals, lakes, navigable waterways, etc., adjacent to a public or private swimming pool or spa may be permitted as a barrier when approved by the authority having jurisdiction. When evaluating such barrier features, the authority may perform on-site inspections and review evidence such as surveys, aerial photographs, water management agency standards and specifications, and any other similar documentation to verify, at a minimum, the following:

1. The barrier feature is not subject to natural changes, deviations, or alterations and is capable of providing an equivalent level of protection as that provided by the code.
2. The barrier feature clearly impedes, prohibits or restricts access to the swimming pool or spa.

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## Chapter 5: General Building Heights and Areas

### **OVERVIEW**

- Table 503, Allowable Height and Building Areas new/different
- Section 501.2, Premises Identification, requires a building to be provided with approved numbers or address clearly visible from the street.
- Landscaping around the perimeter of a building may be important in determining allowable heights and areas, since grade plane is used in determining the allowable height of the building.

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## Chapter 5: General Building Heights and Areas

### **503 GENERAL HEIGHT AND AREA LIMITATIONS**

- Portions of a building within exterior walls and fire walls are permitted to be considered as separate buildings.
- Table 503, Allowable Height and Building Areas, provides allowable height and building areas in story based on the occupancy group and type of construction.
- Special industrial occupancies housing low-hazard processes that require larger areas and unusual heights are allowed to be exempt from the height and area limitation of Table 503.

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## Chapter 5: General Building Heights and Areas

- Table 503: Allowable Height and Building Areas
  - See Tables in Appendix (in the Participant Guide)



## Chapter 5: General Building Heights and Areas

### **503 GENERAL HEIGHT AND AREA LIMITATIONS**

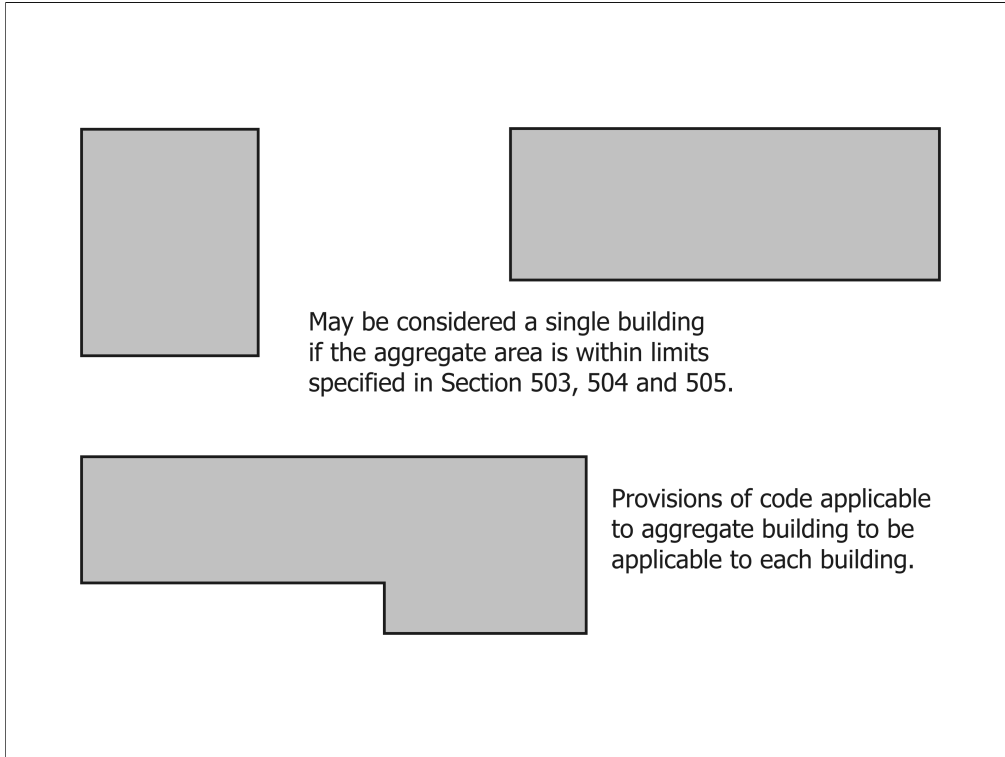
- **503.1.3 Buildings on same lot.**
  - Requires two or more buildings on the same lot to be treated as separate buildings unless the aggregate area and height of the two buildings together meet the requirements of Table 503, Allowable Height and Building Areas.
- **503.1.4 Type I construction.**
  - Table 503 allows unlimited heights and areas for Type I buildings of most groups

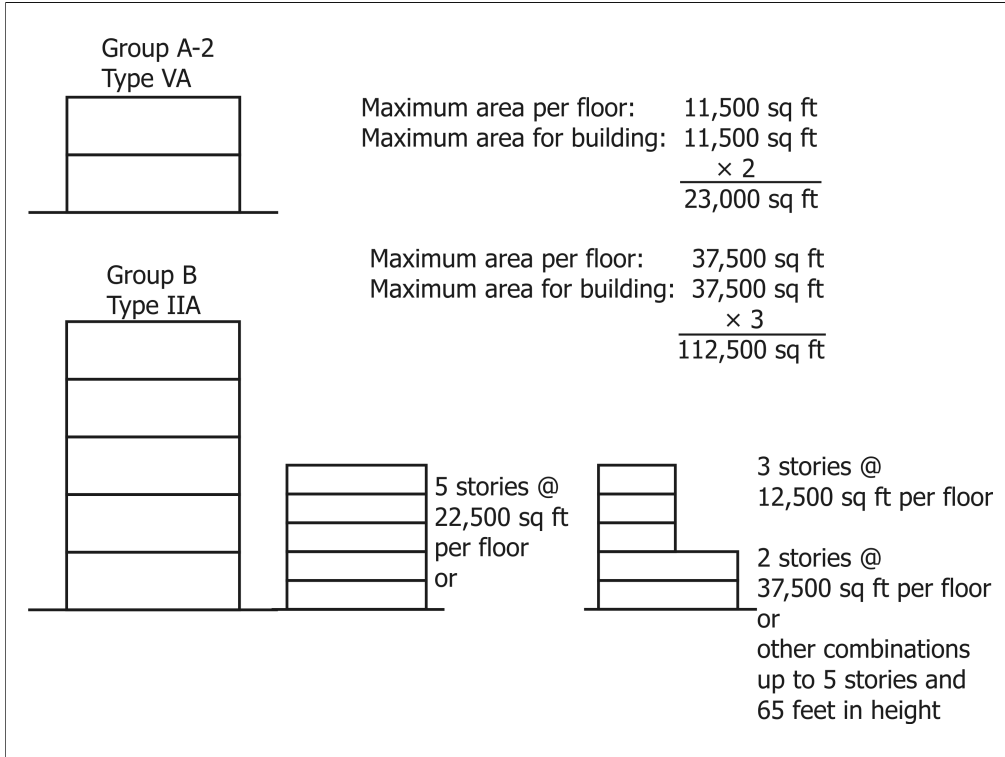
## **CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS**

### **503 GENERAL HEIGHT AND AREA LIMITATIONS**

**503.1.3 Buildings on same lot.** Two or more buildings on the same lot shall be regulated as separate buildings or shall be considered as portions of one building if the height of each building and the aggregate area of buildings are within the limitations of Table 503 as modified by Sections 504 and 506. The provisions of this code applicable to the aggregate building shall be applicable to each building.

**503.1.4 Type I construction.** Buildings of Type I construction permitted to be of unlimited tabular heights and areas are not subject to the special requirements that allow unlimited area buildings in Section 507 or unlimited height in Sections 503.1.2 and 504.3 or increased height and areas for other types of construction.





## Chapter 5: General Building Heights and Areas

### 504 HEIGHT MODIFICATIONS

#### ■ 504.1 Special unlimited height.

- Group B, Group M and Group R occupancies of Type I-B , provided:
  - Fire resistance of all columns must be not less than 3 hours
  - Other structural members including floors must be not less than 2 hours, except that roofs and their supporting beams, girders, trusses and arches shall be not less than 1½ hours.
    - Exceptions for Aircraft hangers

## CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

### 504 HEIGHT MODIFICATIONS

**504.1 Special unlimited height.** The height of Group B, Group M and Group R occupancies of Type I-B construction shall not be limited, provided the fire resistance of all columns shall be not less than 3 hours and the other structural members including floors shall be not less than that shown in Chapter 6, but in no case less than 2 hours except that roofs and their supporting beams, girders, trusses and arches shall be not less than 1½ hours.

**Exception:** The height of one-story aircraft hangars, aircraft paint hangars and buildings used for the manufacturing of aircraft shall not be limited if the building is provided with an automatic fire extinguishing system in accordance with Chapter 9 and is entirely surrounded by public ways or yards not less in width than one and one-half times the height of the building (see metric fire supplement).

## Chapter 5: General Building Heights and Areas

### 504 HEIGHT MODIFICATIONS

#### ■ 504.2 Automatic sprinkler system increase.

- Where a building is equipped throughout with an approved automatic sprinkler system,
- The value specified in Table 503 for maximum height may be increased by 20 feet and
- The maximum number of stories may be increased by one story.
- These increases are permitted in addition to the area increase in accordance with Sections 506.2 and 506.3.

## CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

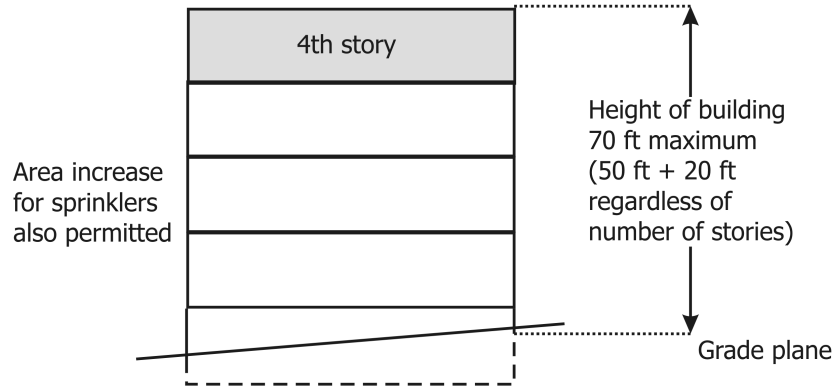
### 504 HEIGHT MODIFICATIONS

**504.2 Automatic sprinkler system increase.** Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum height is increased by 20 feet and the maximum number of stories is increased by one story. These increases are permitted in addition to the area increase in accordance with Sections 506.2 and 506.3. For Group R buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum height is increased by 20 feet and the maximum number of stories is increased by one story, but shall not exceed four stories or 60 feet, respectively.

#### **Exceptions:**

1. Group I-2 of Type IIB, III, IV or V construction.
2. Group H-1, H-2, H-3 or H-5.
3. Fire-resistance rating substitution in accordance with Table 601, Note d.

Maximum height and number of stories based upon occupancy and type of construction as set forth in Table 503.  
 Given: a type VA office building is permitted to be 3 stories and 50 feet in height per Table 503.  
 If sprinkler system installed per Section 504.2, the story limit may be increased by one story, and the height can exceed the limit in Table 503 by 20 feet.



Increase does not apply when sprinkler installed under following conditions:

1. Group I-2 of Type IIB, III, IV or V construction
2. Group H-1, H-2, H-3 or H-5.

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## Chapter 5: General Building Heights and Areas

### **504 HEIGHT MODIFICATIONS**

#### **■ 504.3 Roof structures.**

- Towers, spires, steeples and other roof structures.
- Such structures shall not be used for habitation or storage.
- The structures shall be unlimited in height if of noncombustible materials and shall not extend more than 20 feet above the allowable height if of combustible materials (see Chapter 15 for additional requirements).

## **CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS**

### **504 HEIGHT MODIFICATIONS**

**504.3 Roof structures.** Towers, spires, steeples and other roof structures shall be constructed of materials consistent with the required type of construction of the building except where other construction is permitted by Section 1509.2.1. Such structures shall not be used for habitation or storage. The structures shall be unlimited in height if of noncombustible materials and shall not extend more than 20 feet above the allowable height if of combustible materials (see Chapter 15 for additional requirements).

## Chapter 5: General Building Heights and Areas

### 506 AREA MODIFICATIONS

#### ■ 506.1 General.

- The areas limited by Table 503 shall be permitted to be increased due to:
  - Frontage ( $I_f$ ) and
  - Automatic sprinkler system protection ( $I_s$ ) in accordance with Equation 5-1.

## CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

### 506 AREA MODIFICATIONS

**506.1 General.** The areas limited by Table 503 shall be permitted to be increased due to frontage ( $I_f$ ) and automatic sprinkler system protection ( $I_s$ ) in accordance with the following:

$$A_a = A_t + \left[ \frac{A_t I_f}{100} \right] + \left[ \frac{A_t I_s}{100} \right] \quad \text{(Equation 5-1)}$$

where:

- $A_a$  = Allowable area per floor (square feet).
- $A_t$  = Tabular area per floor in accordance with Table 503 (square feet).
- $I_f$  = Area increase due to frontage (percent) as calculated in accordance with Section 506.2.
- $I_s$  = Area increase due to sprinkler protection (percent) as calculated in accordance with Section 506.3.



## Chapter 5: General Building Heights and Areas

### 506 AREA MODIFICATIONS

#### ■ 506.2 Frontage increase.

- To receive an area increase for frontage:
  - Building must adjoin or have access to a public way.
  - Where a building has more than 25 percent of its perimeter on a public way or open space having a minimum width of 20 feet, the frontage increase must as per Equation 5-2.

## CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

### 506 AREA MODIFICATIONS

**506.2 Frontage increase.** Every building shall adjoin or have access to a public way to receive an area increase for frontage. Where a building has more than 25 percent of its perimeter on a public way or open space having a minimum width of 20 feet, the frontage increase shall be determined in accordance with the following:

$$I_f = 100 \left[ \frac{F}{P} - 0.25 \right] \frac{W}{30} \quad \text{(Equation 5-2)}$$

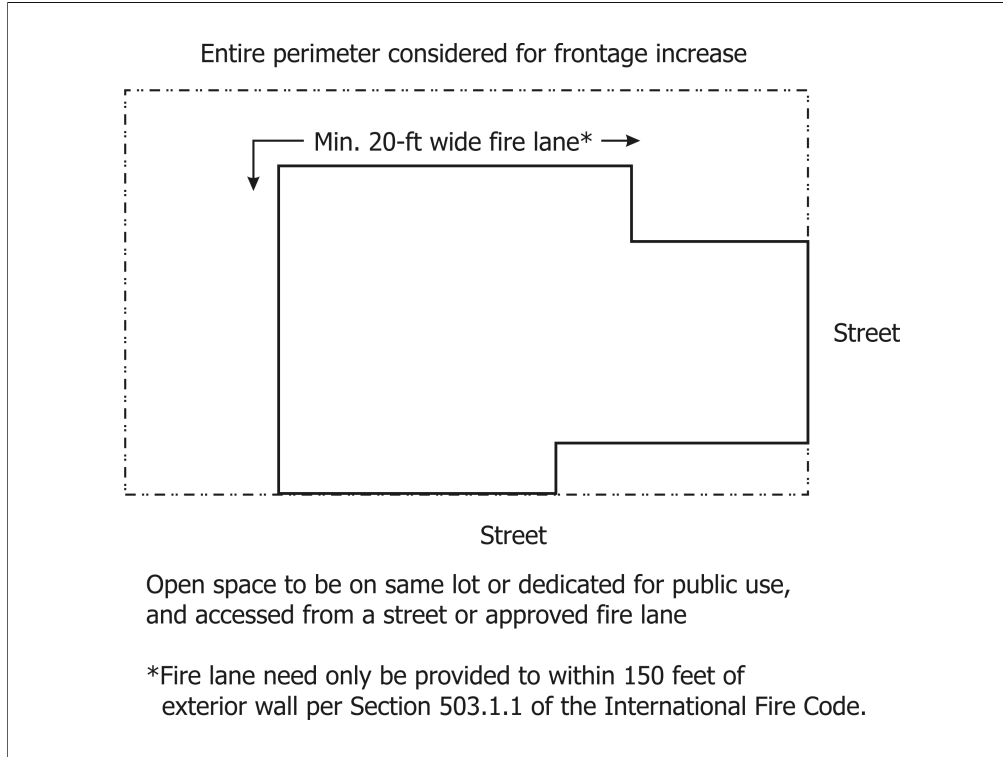
where:

$I_f$  = Area increase due to frontage.

$F$  = Building perimeter which fronts on a public way or open space having 20 feet open minimum width (feet).

$P$  = Perimeter of entire building (feet).

$W$  = Width of public way or open space (feet) in accordance with Section 506.2.1.



## Chapter 5: General Building Heights and Areas

### 506 AREA MODIFICATIONS

- **506.3 Automatic sprinkler system increase.**
  - Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the area limitation in Table 503 is permitted to be increased by
    - An additional 200 percent ( $I_s = 200$  percent) for multistory buildings and
    - An additional 300 percent ( $I_s = 300$  percent) for single-story buildings.
  - Exceptions are: H-1, H-2 and H-3.

## CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

### 506 AREA MODIFICATIONS

**506.3 Automatic sprinkler system increase.** Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the area limitation in Table 503 is permitted to be increased by an additional 200 percent ( $I_s = 200$  percent) for multistory buildings and an additional 300 percent ( $I_s = 300$  percent) for single-story buildings. These increases are permitted in addition to the height and story increases in accordance with Section 504.2.

#### Exceptions:

1. Buildings with an occupancy in Group H-1, H-2 or H-3.
2. Fire-resistance rating substitution in accordance with Table 601, Note d.

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## Chapter 5: General Building Heights and Areas

- Example:
  - Given: Group B occupancy single-story  
Type VB construction  
No open yards available
  - Find: Total allowable area
  - Basic allowable area = 9,000 sq ft (Table 503)  
Sprinkler increase ( $I_s$ ) = 27,000 sq ft (300%)  
Total allowable area = 36,000 sq ft

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## Chapter 5: General Building Heights and Areas

- Example: *(cont'd)*
  - Given: Same situation, however, 2 stories in height
  - Find: Total allowable area
  - Basic allowable area = 9,000 sq ft (Table 503)  
Sprinkler increase ( $I_s$ ) = 18,000 sq ft (200%)  
Total allowable area = 27,000 sq ft

## Chapter 5: General Building Heights and Areas

### 507 UNLIMITED AREA BUILDINGS

#### ■ 507.2 Sprinklered, one story.

- The area of a one-story, Group B, F,M or S building or a one-story Group A-4 building of other than Type V construction shall not be limited when the building is provided with:
  - An automatic sprinkler system throughout, and
  - Surrounded and adjoined by public ways or yards not less than 60 feet in width.
    - **Exceptions**

## CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

### 507 UNLIMITED AREA BUILDINGS

**507.2 Sprinklered, one story.** The area of a one-story, Group B, F,M or S building or a one-story Group A-4 building of other than Type V construction shall not be limited when the building is provided with an automatic sprinkler system throughout in accordance with Section 903.3.1.1, and is surrounded and adjoined by public ways or yards not less than 60 feet in width.

#### **Exceptions:**

1. Buildings and structures of Type I and II construction for rack storage facilities which do not have access by the public shall not be limited in height provided that such buildings conform to the requirements of Section 507.1 and NFPA 231C.
2. The automatic sprinkler system shall not be required in areas occupied for indoor participant sports, such as tennis, skating, swimming and equestrian activities, in occupancies in Group A-4, provided that:
  - 2.1 Exit doors directly to the outside are provided for occupants of the participant sports areas, and
  - 2.2 The building is equipped with a fire alarm system with manual fire alarm boxes installed in accordance with Section 907.

## Chapter 5: General Building Heights and Areas

### 507 UNLIMITED AREA BUILDINGS

#### ■ 507.8 Group E buildings.

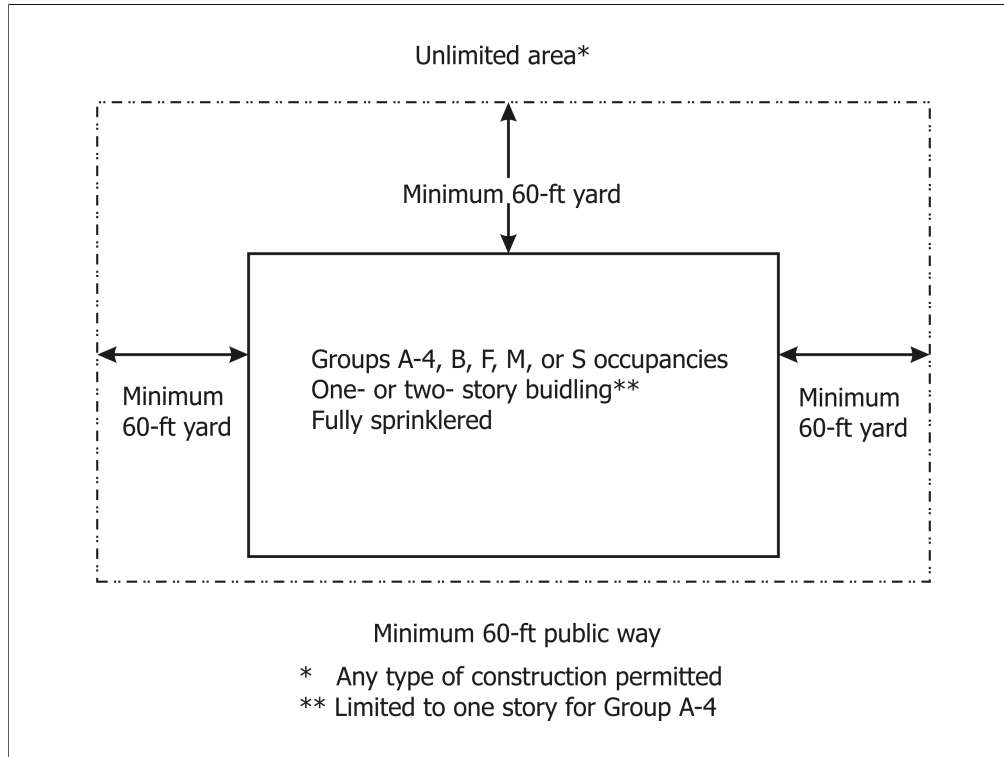
- The area of a one-story Group E building of Type II, IIIA or IV construction shall not be limited when the following criteria are met:
  - 1. Each classroom must have two means of egress, or the building is provided with smoke barriers having a minimum 1-hour fire-resistance rating dividing the building into areas not to exceed 30,000 square feet in floor area.
  - 2. The building is equipped throughout with an automatic sprinkler system.
  - 3. The building is surrounded and adjoined by public ways or yards not less than 60 feet in width.

## CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

### 507 UNLIMITED AREA BUILDINGS

**507.8 Group E buildings.** The area of a one-story Group E building of Type II, IIIA or IV construction shall not be limited when the following criteria are met:

1. Each classroom shall have not less than two means of egress, with one of the means of egress being a direct exit to the outside of the building complying with Section 1017 or the building is provided with smoke barriers having a minimum 1-hour fire-resistance rating dividing the building into areas not to exceed 30,000 square feet in floor area.
2. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. The building is surrounded and adjoined by public ways or yards not less than 60 feet in width.





## Chapter 6: Type of Construction

### **602 CONSTRUCTION CLASSIFICATION**

#### **■ 602.1 General.**

- Buildings and structures erected or to be erected, altered or extended in height or area shall be classified in one of **the five construction types** defined in Sections 602.2 through 602.5.

## **CHAPTER 6 TYPES OF CONSTRUCTION**

### **SECTION 602 CONSTRUCTION CLASSIFICATION**

**602.1 General.** Buildings and structures erected or to be erected, altered or extended in height or area shall be classified in one of the five construction types defined in Sections 602.2 through 602.5. The building elements shall have a fire-resistance rating not less than that specified in Table 601 and exterior walls shall have a fire-resistance rating not less than that specified in Table 602.

**602.1.1 Minimum requirements.** A building or portion thereof shall not be required to conform to the details of a type of construction higher than that type, which meets the minimum requirements based on occupancy even though certain features of such a building actually conform to a higher type of construction.

## Chapter 6: Type of Construction

### **602 CONSTRUCTION CLASSIFICATION**

#### ■ **602.2 Types I and II.**

- Types of construction in which the building elements listed in Table 601 are of noncombustible materials.

#### ■ **602.3 Type III.**

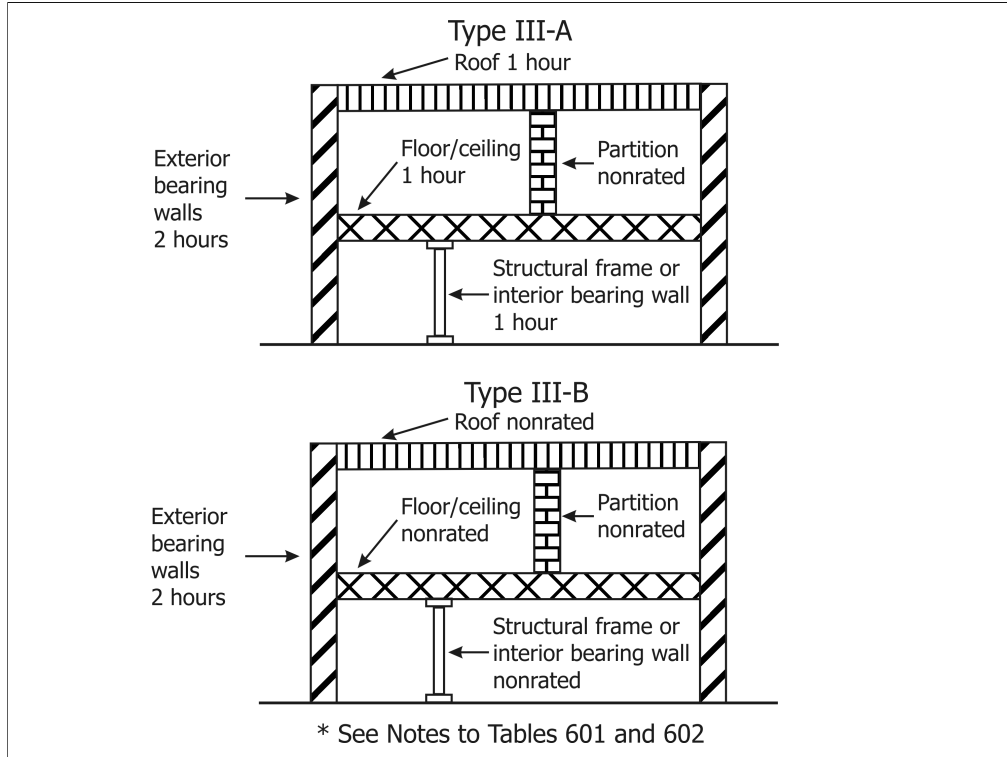
- The exterior walls are of noncombustible materials and the interior building elements are of any material permitted by this code.
- Fire-retardant-treated wood framing are permitted within exterior wall assemblies of a 2-hour rating or less.

## **CHAPTER 6 TYPES OF CONSTRUCTION**

### **SECTION 602 CONSTRUCTION CLASSIFICATION**

**602.2 Types I and II.** Type I and II construction are those types of construction in which the building elements listed in Table 601 are of noncombustible materials.

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



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## Chapter 6: Type of Construction

### **602 CONSTRUCTION CLASSIFICATION**

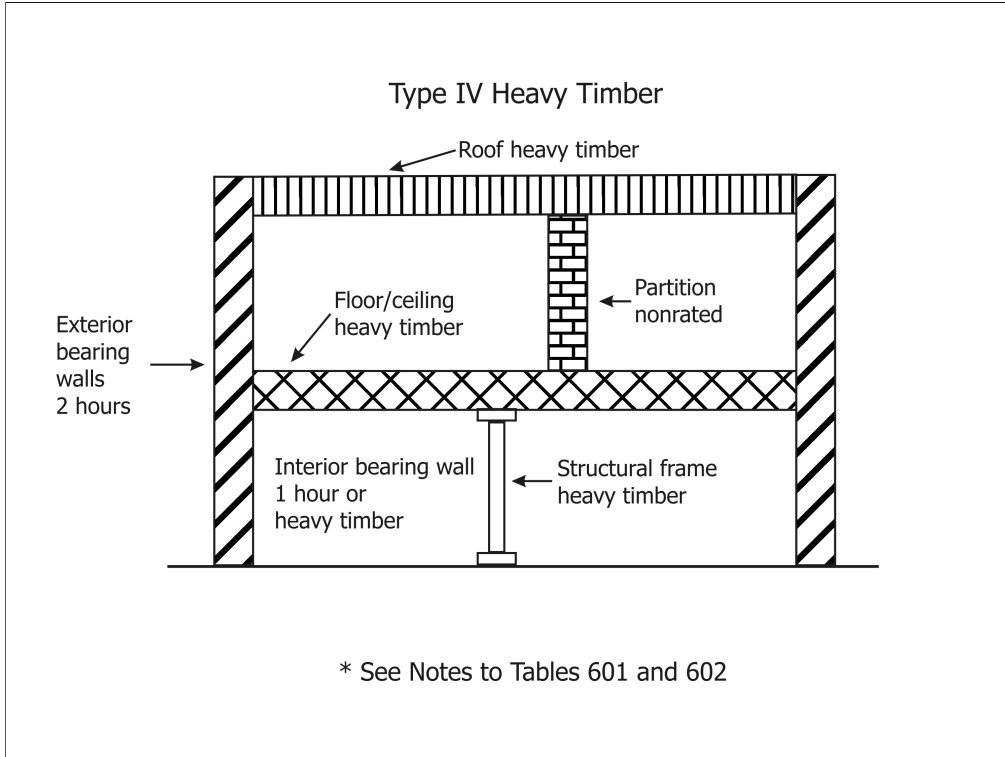
#### **■ 602.4 Type IV.**

- Type IV construction (Heavy Timber, HT).
- The exterior walls are of noncombustible materials.
- The interior building elements are of solid or laminated wood without concealed spaces.
- Fire-retardant-treated wood framing are permitted within exterior wall assemblies with a 2-hour rating or less.

## **CHAPTER 6 TYPES OF CONSTRUCTION**

### **SECTION 602 CONSTRUCTION CLASSIFICATION**

**602.4 Type IV.** Type IV construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid or laminated wood without concealed spaces. The details of Type IV construction shall comply with the provisions of this section. Fire-retardant-treated wood framing complying with Section 2303.2 shall be permitted within exterior wall assemblies with a 2-hour rating or less.



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## Chapter 6: Type of Construction

### **602 CONSTRUCTION CLASSIFICATION**

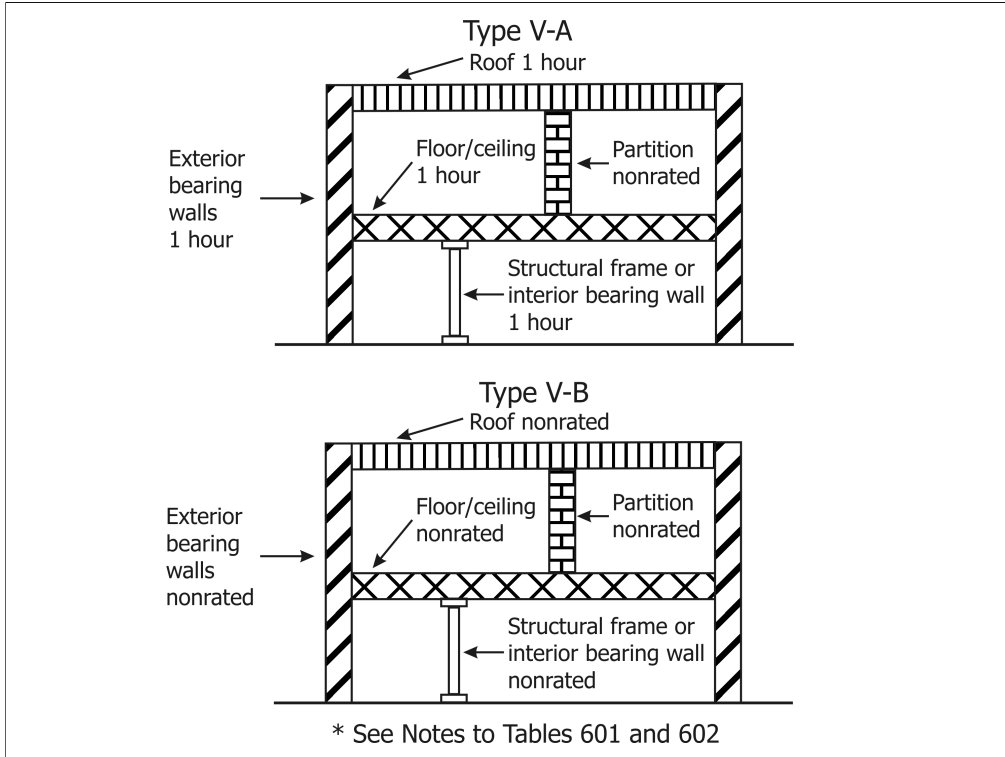
#### **■ 602.5 Type V.**

- Type V construction is that type of construction in which the structural elements, exterior walls and interior walls are of any materials permitted by this code.

## **CHAPTER 6 TYPES OF CONSTRUCTION**

### **SECTION 602 CONSTRUCTION CLASSIFICATION**

**602.5 Type V.** Type V construction is that type of construction in which the structural elements, exterior walls and interior walls are of any materials permitted by this code.



## SUMMARY TABLE

Noncombustible	Exterior and interior (bearing or nonbearing) walls, floors, roofs and structural elements to be of noncombustible materials	I	A	B
		II	A	B
Combustible	Exterior walls to be of noncombustible materials	III	A	B
		IV	A	B
		V	A	B

Characteristics of combustion types



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## Chapter 6: Type of Construction

- Combustion materials permitted in buildings of Type I and Type II construction in the following applications:
  - Fire-retardant-treated wood in:
    - nonbearing partitions with fire-resistance rating  $\leq 2$  hours
    - nonbearing exterior walls requiring no fire rating
  - Thermal and acoustical insulation with limited flame spread
  - Foam plastics per Chapter 26

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Combustion materials permitted in buildings of **Type I** and **Type II** construction in the following applications:

- Fire-retardant-treated wood in:
  - nonbearing partitions with fire-resistance rating  $< 2$  hours
  - nonbearing exterior walls requiring no fire rating
- Thermal and acoustical insulation with limited flame spread
- Foam plastics per Chapter 26

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## Chapter 6: Type of Construction

- Combustion materials permitted in buildings of Type I and Type II construction in the following applications: *(cont'd)*
  - A, B, or C roof coverings
  - Interior floor finish, trim, millwork, doors, frames, etc.
  - Platforms per Section 410
  - Blocking for handrails, cabinets, fixtures, etc.
  - Light-transmitting plastics per Chapter 26
  - Nailing or furring strips per Section 803.3
  - Heavy timber for specific components
  - Additional applications as specified

Combustion materials permitted in buildings of **Type I** and **Type II** construction in the following applications: *(cont'd)*

- A, B, or C roof coverings
- Interior floor finish, trim, millwork, doors, frames, etc.
- Platforms per Section 410
- Blocking for handrails, cabinets, fixtures, etc.
- Light-transmitting plastics per Chapter 26
- Nailing or furring strips per Section 803.3
- Heavy timber for specific components
- Additional applications as specified

## 2004 FLORIDA EXISTING BUILDINGS CODE, APPENDIX D

<b>Type of Construction</b>	
<b>2001 Florida Building Code</b>	<b>2004 Florida Building Code</b>
Type I	Type I-A
Type II	Type I-B
Type III	Type IV
Type IV 1-hour protected	Type II-A
Type IV Unprotected	Type II-B
Type V 1-hour protected	Type III-A
Type V Unprotected	Type III-B
Type VI 1-hour protected	Type V-A
Type VI Unprotected	Type V-B

Source: *2003 Life Safety Code Handbook*, Commentary Table 8.1,  
Cross-Reference of Building Construction Types.

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## Chapter 6: Type of Construction

### **TABLE 601: FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS**

- Provide fire-resistive requirements for building elements by construction types.
- Elements include structural frame, bearing walls, non-bearing walls and partitions, floor construction, and roof construction.
- The fire-resistive rating are provided in hours.

### **TABLE 601: FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS**

- Provide fire-resistive requirements for building elements by construction types.
- Elements include structural frame, bearing walls, non-bearing walls and partitions, floor construction, and roof construction.
- The fire-resistive rating are provided in hours.

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

BUILDING ELEMENTS	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	B	A	B	HT	A	B
Structural frame <sup>a</sup> Including columns, girders, trusses	3 <sup>b, g</sup>	2 <sup>b</sup>	1	0	1	0	HT	1	0
Bearing walls									
Exterior <sup>f</sup>	4	3	1	0	2	2	2	1	0
Interior	4 <sup>b</sup>	3 <sup>b</sup>	1	0	1	1	2 <sup>b</sup> / HT	1	0
Nonbearing walls and partitions	See Table 602 See Section 602								
Exterior									
Interior <sup>e</sup>									
Floor construction									
Including supporting beams and joists	3 <sup>g</sup>	2	1 <sup>d</sup>	0 <sup>d</sup>	1 <sup>d</sup>	0 <sup>d</sup>	HT	1	0
Roof construction									
Including supporting beams and joists	1½ <sup>c, d</sup>	1 <sup>c</sup>	1 <sup>c</sup>	0	1 <sup>c</sup>	0	HT	1 <sup>c</sup>	0

For SI: 1 foot = 304.8 mm.

- <sup>a</sup> The structural frame shall be considered to be the columns and the girders, beams, trusses and spandrels having direct connections to the columns and bracing members designed to carry gravity loads. The members of floor or roof panels which have no connection to the columns shall be considered secondary members and not a part of the structural frame.
- <sup>b</sup> Fire-resistance ratings of the structural frame and bearing walls are permitted to be reduced by 1 hour where supporting one floor or one roof only.
- <sup>c</sup>
1. Except in Factory-Industrial (F-1), Hazardous (H), Institutional (I), Mercantile (M) and Moderate-Hazard Storage (S-1) occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below.
  2. In Type I and II construction, fire-retardant-treated wood shall be allowed in buildings including girders and trusses as part of the roof construction when the building is:
    - i. Two stories or less in height;
    - ii. Type II construction over two stories; or
    - iii. Type I construction over two stories and the vertical distance from the upper floor to the roof is 20 feet or more.
- <sup>d</sup> Group B and M occupancies of Type II or III construction five or more stories in height shall be required to have a minimum 2-hour fire resistance rating for the floor construction located over the basement.
- <sup>e</sup> Not less than the fire-resistance rating required by other sections of this code.
- <sup>f</sup> Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- <sup>g</sup> For Group A, B, E, F and R occupancies and parking garages, the required fire-resistance ratings for the structural frame, floor and roof construction, including supporting beams and joists, shall be permitted to be reduced by 1-hour where the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, but the fire resistance rating shall not be less than 1-hour.
- <sup>h</sup> For unsprinklered Group E occupancies of Type, II-B, III-B, IV or V-B construction, the floor construction located immediately above useable space in basements shall have a fire-resistance rating of not less than 1-hour.

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## Chapter 6: Type of Construction

### **TABLE 602: FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE**

- Addresses exterior wall fire-resistance based upon setbacks to property lines ranging from less than five feet to greater than thirty feet.
- The fire-resistive requirements of exterior walls are a function of both construction type and occupancy classification. The rating range from four hours to zero hours.

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## Chapter 6: Type of Construction

**TABLE 602: FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (cont'd)**

- Table 602 regulates exterior walls only
- Table 602 used in conjunction with 601 for fire resistance of exterior bearing walls
- Only Table 602 used for nonbearing exterior walls
- Based primarily on occupancy type
- Highest required rating for exterior wall is 3 hours
- Final threshold at  $\geq 30$  feet
- Additional provisions for exterior walls and openings in Section 704

**TABLE 602: FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE <sup>a</sup>**

FIRE SEPARATION DISTANCES (feet)	TYPE OF CONSTRUCTION	GROUP H	GROUP F-1, M, S-1	GROUP A, B, E, F-2, I, R <sup>b</sup> , S-2, U
< 5 <sup>c</sup>	<u>I-A, I-B, III-A, III-B, IV</u> Others	$\frac{3}{3}$	$\frac{3}{2}$	$\frac{3}{1}$
$\geq 5$ < 10	<u>I-A, I-B, III-A, III-B, IV</u> Others	3 2	2 1	$\frac{2}{1}$
$\geq 10$ < <u>20</u>	<u>I-A, I-B, III-A, III-B, IV</u> II-B, V-B Others	2 1 1	$\frac{2}{0}$ 1	$\frac{2}{0}$ 1
$\geq 20$ $\leq 30$	<u>I-A, I-B, III-A, III-B, IV</u> Others	$\frac{1}{1}$	$\frac{1}{0}$	$\frac{1}{0}$
$\geq 30$	All	0	0	0

For SI: 1 foot = 304.8 mm.

<sup>a</sup> Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.

<sup>b</sup> Group R-3 and Group U when used as accessory to Group R-3, as applicable in Section 101.2 shall not be required to have a fire-resistance rating where the fire separation distance is 3 feet or more.

<sup>c</sup> See Section 503.2 for party walls.

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## CHAPTER 7: FIRE-RESISTANCE-RATED CONSTRUCTION

### CHAPTER 7:

- Does not mandate specific fire-resistance ratings, but rather how to apply the specific requirements to safeguard against the spread of fire and smoke from building to building and within buildings.
- Provides prescriptive fire-resistance and calculated fire-resistance.

## CHAPTER 7 FIRE-RESISTANCE-RATED CONSTRUCTION

### SECTION 701 GENERAL

**701.1 Scope.** The provisions of this chapter shall govern the materials and assemblies used for structural fire resistance and fire-resistance-rated construction separation of adjacent spaces to safeguard against the spread of fire and smoke within a building and the spread of fire to or from buildings.



## CHAPTER 7: FIRE-RESISTANCE-RATED CONSTRUCTION

### 703 FIRE-RESISTANCE RATING AND FIRE TESTS

- Rating of assemblies and structural elements are required to meet ASTM E 119, a test that evaluates the ability of an assembly to meet structural integrity and fire containment criteria.

## CHAPTER 7 FIRE-RESISTANCE-RATED CONSTRUCTION

### SECTION 703 FIRE-RESISTANCE RATINGS AND FIRE TESTS

**703.1 Scope.** Materials prescribed herein for fire resistance shall conform to the requirements of this chapter.

**703.2 Fire-resistance ratings.** The fire-resistance rating of building elements shall be determined in accordance with the test procedures set forth in ASTM E 119 or in accordance with Section 703.3. Where materials, systems or devices that have not been tested as part of a fire-resistance-rated assembly are incorporated into the assembly, sufficient data shall be made available to the building official to show that the required fire-resistance rating is not reduced. Materials and methods of construction used to protect joints and penetrations in fire-resistance-rated building elements shall not reduce the required fire-resistance rating.

**Exception:** In determining the fire-resistance rating of exterior bearing walls, compliance with the ASTM E 119 criteria for unexposed surface temperature rise and ignition of cotton waste due to passage of flame or gases is required only for a period of time corresponding to the required fire-resistance rating of an exterior nonbearing wall with the same fire separation distance, and in a building of the same group. When the fire-resistance rating determined in accordance with this exception exceeds the fire-resistance rating determined in accordance with ASTM E 119, the fire exposure time period, water pressure, and application duration criteria for the hose stream test of ASTM E 119 shall be based upon the fire-resistance rating determined in accordance with this exception.

**CHAPTER 7:  
FIRE-RESISTANCE-RATED CONSTRUCTION**

**704 EXTERIOR WALLS**

- Address the exterior enclosures of buildings to prevent the spread of fire between buildings and between stories in a buildings.
- **Table 704.8: Maximum Area of Exterior Wall Openings** (*see notes*)

**CHAPTER 7 FIRE-RESISTANCE-RATED CONSTRUCTION**

**SECTION 704 EXTERIOR WALLS**

**704.1 General.** Exterior walls shall be fire-resistance rated and have opening protection as required by this section.

**Table 704.8  
MAXIMUM AREA OF EXTERIOR WALL OPENINGS <sup>a</sup>**

CLASSIFICATION OF OPENING	FIRE SEPARATION DISTANCE (feet)							
	0 to 3 <sup>e, h</sup>	>3 to 5 <sup>b</sup>	>5 to 10 <sup>d, f</sup>	>10 to 15 <sup>c, d, f</sup>	>15 to 20 <sup>c, f</sup>	>20 to 25 <sup>c, f</sup>	>25 to 30 <sup>c, f</sup>	>30
Unprotected	Not permitted <sup>g</sup>	Not permitted <sup>b, g</sup>	10% <sup>g</sup>	15% <sup>g</sup>	25% <sup>g</sup>	45% <sup>g</sup>	70% <sup>g</sup>	No limit
Protected	Not permitted	15%	25%	45%	75%	No limit	No limit	No limit

For SI: 1 foot = 304.8 mm.

<sup>a</sup> Values given are percentage of the area of the exterior wall.

<sup>b</sup> For occupancies in Group R-3, as applicable in Section 101.2, the maximum percentage of unprotected and protected exterior wall openings shall be 25 percent.

<sup>c</sup> The area of openings in an open parking structure with a fire separation distance of greater than 10 feet shall not be limited.

<sup>d</sup> For occupancies in Group H-2 or H-3, unprotected openings shall not be permitted for openings with a fire separation distance of 15 feet or less.

<sup>e</sup> For requirements for fire walls for buildings with differing roof heights, see Section 705.6.1.

<sup>f</sup> The area of unprotected and protected openings is not limited for occupancies in Group R-3, as applicable in Section 101.2, with a fire separation distance greater than 5 feet.

<sup>g</sup> Buildings whose exterior bearing wall, exterior nonbearing wall and exterior structural frame are not required to be fire-resistance rated shall be permitted to have unlimited unprotected openings.

<sup>h</sup> Includes accessory buildings to Group R-3 as applicable in Section 101.2.

## CHAPTER 7: FIRE-RESISTANCE-RATED CONSTRUCTION

### 705 FIRE WALLS

#### ■ 705.1 General.

- For the purposes of determining height and area in accordance with Table 503, fire walls dividing buildings into separate buildings shall provide a 4-hour fire resistance rating. The extent and location of such fire walls shall provide a complete separation. Where a fire wall also separates groups that are

#### ■ 705.4.1 Townhouse fire separation

## CHAPTER 7 FIRE-RESISTANCE-RATED CONSTRUCTION

### SECTION 705 FIRE WALLS

**705.1 General.** Each portion of a building separated by one or more fire walls that comply with the provisions of this section shall be considered a separate building. For the purposes of determining height and area in accordance with Table 503, fire walls dividing buildings into separate buildings shall provide a 4-hour fire resistance rating. The extent and location of such fire walls shall provide a complete separation. Where a fire wall also separates groups that are required to be separated by a fire barrier wall, the most restrictive requirements of each separation shall apply. Fire walls located on lot lines shall also comply with Section 503.2. Such fire walls (party walls) shall provide a 4-hour fire resistance rating and shall be constructed without openings.

#### **705.4.1 Townhouse fire separation.**

**705.4.1.1** Each townhouse shall be considered a separate building and shall be separated from adjoining townhouses by a party wall complying with Section 503.2 or by the use of separate exterior walls meeting the requirements of Tables 601 and 602 for zero clearance from property lines as required for the type of construction. Separate exterior walls shall include one of the following:

1. A parapet not less than 18 inches above the roof line.
2. Roof sheathing of noncombustible material or fire retardant treated wood, for not less than a 4 ft width on each side of the exterior dividing wall.
3. One layer of 5/8 inch Type X gypsum board attached to the underside of roof decking, for not less than a 4 ft width on each side of the exterior dividing wall.

**TABLE 705.4:  
FIRE WALL FIRE-RESISTANCE RATINGS <sup>c</sup>**

<b>GROUP</b>	<b>FIRE-RESISTANCE RATING (hours)</b>
A, B, D, E, H-4, I, R-1, R-2, U	3 <sup>a</sup>
F-1, H-3 <sup>b</sup> , H-5, M, S-1	3
H-1, H-2	4 <sup>b</sup>
F-2, S-2, R-3, R-4	2

<sup>a</sup> Walls shall be not less than 2-hour fire-resistance rated where separating buildings of Type II or V construction.

<sup>b</sup> For Group H-1, H-2 or H-3 buildings, also see Sections 415.4 and 415.5.

<sup>c</sup> For the purposes of determining height and area in accordance with Table 503, fire walls dividing buildings into separate building shall provide a 4-hour fire resistance rating.

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## CHAPTER 7: FIRE-RESISTANCE-RATED CONSTRUCTION

### **706 FIRE BARRIERS**

- Assemblies with required fire resistance rating used to separate fire areas, exits, and mixed use areas.
- Similar to requirements for fire walls, but less restrictive.
- The locations of fire barriers are generally provided in other sections of the Code, such as Chapter 10 for exits and Chapter 3.

## **CHAPTER 7 FIRE-RESISTANCE-RATED CONSTRUCTION**

### **SECTION 706 FIRE BARRIERS**

**706.1 General.** Fire barriers used for separation of shafts, exits, exit passageways, horizontal exits or incidental use areas, to separate different occupancies, to separate a single occupancy into different fire areas, or to separate other areas where a fire barrier is required elsewhere in this code or the Florida Fire Prevention Code, shall comply with this section.

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CHAPTER 7:  
FIRE-RESISTANCE-RATED CONSTRUCTION

**709 SMOKE BARRIERS**

- Divide buildings into smoke compartments and are required to be of one-hour construction, except as permitted by the exception for steel barriers in Group I-3 occupancies.

**CHAPTER 7 FIRE-RESISTANCE-RATED CONSTRUCTION**

**SECTION 709 SMOKE BARRIERS**

**709.1 General.** Smoke barriers shall comply with this section.

**709.2 Materials.** Smoke barriers shall be of materials permitted by the building type of construction.

**709.3 Fire-resistance rating.** A1-hour fire-resistance rating is required for smoke barriers.

**Exception:** Smoke barriers constructed of minimum 0.10-inch-thick steel in Group I-3 buildings.

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## CHAPTER 7: FIRE-RESISTANCE-RATED CONSTRUCTION

### **720 PRESCRIPTIVE RESISTANCE**

#### **■ 720.1 General.**

- The provisions of this section contain prescriptive details of fire-resistance-rated building elements. The materials of construction listed in Tables 720.1(1), 720.1(2), and 720.1(3) shall be assumed to have the fire-resistance ratings prescribed therein.

## **CHAPTER 7 FIRE-RESISTANCE-RATED CONSTRUCTION**

### **SECTION 720 PRESCRIPTIVE FIRE RESISTANCE**

**720.1 General.** The provisions of this section contain prescriptive details of fire-resistance-rated building elements. The materials of construction listed in Tables 720.1(1), 720.1(2), and 720.1(3) shall be assumed to have the fire-resistance ratings prescribed therein. Where materials that change the capacity for heat dissipation are incorporated into a fire-resistance-rated assembly, fire test results or other substantiating data shall be made available to the building official to show that the required fire-resistance-rating time period is not reduced.

## CHAPTER 8: INTERIOR FINISHES

### 801 GENERAL

- 801.1 Scope.
  - Governs the use of materials used as interior finishes, trim and decorative materials.
  - Intent is to control the rapidity of fire development and spread in a building due to finishes applied to walls, ceilings, and floors.
  - Classifies interior finishes in Classes A, B, C.

## CHAPTER 8 INTERIOR FINISHES

### SECTION 801 GENERAL

**801.1 Scope.** Provisions of this chapter shall govern the use of materials used as interior finishes, trim and decorative materials.

### SECTION 803 WALL AND CEILING FINISHES

**803.1 General.** Interior wall and ceiling finishes shall be classified in accordance with ASTM E 84. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-developed index.

Class A: Flame spread index 0-25; Smoke-developed index 0-450.

Class B: Flame spread index 26-75; Smoke-developed index 0-450.

Class C: Flame spread index 76-200; Smoke-developed index 0-450.

**Exception:** Materials, other than textiles, tested in accordance with Section 803.2.



**TABLE 803.5:  
INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY <sup>k</sup>**

GROUP	SPRINKLERED <sup>i</sup>			UNSPRINKLERED		
	Vertical exits and exit passageways <sup>a, b</sup>	Exit access corridors and other exitways	Rooms and enclosed spaces <sup>c</sup>	Vertical exits and exit passageways <sup>a, b</sup>	Exit access corridors and other exitways	Rooms and enclosed spaces <sup>c</sup>
A-1 and A-2	B	B	C	A	A <sup>d</sup>	B <sup>e</sup>
A-3 <sup>f</sup> , A-4, A-5	B	B	C	A	A <sup>d</sup>	C
B, D, E, M, R-1, R-4	B	C	C	A	B	C
F	C	C	C	B	C	C
H	B	B	C <sup>g</sup>	A	A	B
I-1	B	C	C	A	B	B
I-2	B	B	B <sup>h, i</sup>	A	A	B
I-3	A	A	C	A	A	B
I-4	B	B	B <sup>h, i</sup>	A	A	B
R-2	C	C	C	B	B	C
R-3	C	C	C	C	C	C
S	C	C	C	B	B	C
U	No restrictions			No restrictions		

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m<sup>2</sup>.

- <sup>a</sup> Class C interior finish materials shall be permitted for wainscoting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by Section 803.3.1.
- <sup>b</sup> In vertical exits of buildings less than three stories in height of other than Group I-3, Class B interior finish for unsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted.
- <sup>c</sup> Requirements for rooms and enclosed spaces shall be based upon spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered enclosing spaces and the rooms or spaces on both sides shall be considered one. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.
- <sup>d</sup> Lobby areas in A-1, A-2 and A-3 occupancies shall not be less than Class B materials.
- <sup>e</sup> Class C interior finish materials shall be permitted in places of assembly with an occupant load of 300 persons or less.
- <sup>f</sup> For churches and places of worship, wood used for ornamental purposes, trusses, paneling or chancel furnishing shall be permitted.
- <sup>g</sup> Class B material required where building exceeds two stories.
- <sup>h</sup> Class C interior finish materials shall be permitted in administrative spaces.
- <sup>i</sup> Class C interior finish materials shall be permitted in rooms with a capacity of four persons or less.
- <sup>j</sup> Class B materials shall be permitted as wainscoting extending not more than 48 inches above the finished floor in exit access corridors.
- <sup>k</sup> Finish materials as provided for in other sections of this code.
- <sup>i</sup> Applies when the vertical exits, exit passageways, exit access corridors or exitways, or rooms and spaces are protected by a sprinkler system installed in accordance with Section 903.3.1.1 or Section 903.3.1.2.

## Chapter 9: Fire Protection Systems

### 903 AUTOMATIC SPRINKLER SYSTEMS

- 903.2.1.2 Group A-2.
  - An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:
    1. The fire area exceeds 5,000 sq ft.
    2. The fire area has an occupant load of 300 or more.
    3. The fire area is located on a floor other than the level of exit discharge.
    4. Nightclubs or similar usage when occupant load is 100 or more.

## CHAPTER 9 FIRE PROTECTION SYSTEMS

### SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

**903.2.1.2 Group A-2.** An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet.
2. The fire area has an occupant load of 300 or more.

**Exception:** Nightclubs or similar usage when occupant load is 100 or more.

3. The fire area is located on a floor other than the level of exit discharge.

# Chapter 9: Fire Protection Systems

## 903 AUTOMATIC SPRINKLER SYSTEMS

### ■ 903.6 Buildings three stories or more in height.

- **903.6.1** Any building which is of three stories or more in height shall be equipped with an approved automatic sprinkler system installed in accordance with §903.1.

## CHAPTER 9 FIRE PROTECTION SYSTEMS

### SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

#### 903.6 Buildings three stories or more in height.

**903.6.1** Any building which is of three stories or more in height shall be equipped with an approved automatic sprinkler system installed in accordance with §903.1.

#### Exceptions:

1. Single-family and two-family dwellings.
2. A stand-alone parking garage constructed with noncombustible materials, the design of which is such that all levels of the garage are uniformly open to the atmosphere on all sides with the percentages of openings equal to or greater than those specified at Section 406.3. Such garages shall be separated from any other structure by not less than 20 ft.
3. Telecommunication spaces located within telecommunication buildings, if the spaces are equipped to meet an equivalent fire- prevention standard approved by both the Florida Building Commission and the State Fire Marshal.
4. Telecommunications spaces within telecommunication buildings, if the telecommunications space is equipped with:
  1. Air sampling smoke detection.
  2. Remote, proprietary or central station fire alarm monitoring.
  3. Automatic smoke exhaust system.
  4. One hour fire resistance wall separating the telecommunications space from the adjacent areas on the same floor.
  5. Two-hour floor/ceiling assembly separating the telecommunications space from adjacent floors.
  6. All other portions ancillary to the telecommunications equipment area shall be provided with fire sprinkler protection.
  7. Sprinkler systems installed solely as a requirement of S.903.6 may be a NFPA13R or NFPA13E system in accordance with their scopes.

# Chapter 9: Fire Protection Systems

## 905 STAND PIPE SYSTEMS

### ■ 905.3.1 Building height.

- Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet above the lowest level of fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet below the highest level of fire department vehicle access. High-rise buildings shall be protected throughout by a Class I standpipe system.
- Added Exception number 5.

## CHAPTER 9 FIRE PROTECTION SYSTEMS

### SECTION 905 STANDPIPE SYSTEMS

**[F] 905.3 Required installations.** Standpipe systems shall be installed where required by Sections 905.3.1 through 905.3.6 and in the locations indicated in Sections 905.4, 905.5 and 905.6. Standpipe systems are permitted to be combined with automatic sprinkler systems.

**Exception:** Standpipe systems are not required in Group R-3 occupancies as applicable in Section 101.2.

**[F] 905.3.1 Building height.** Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet above the lowest level of fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet below the highest level of fire department vehicle access. High-rise buildings shall be protected throughout by a Class I standpipe system.

#### Exceptions:

1. Class I standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet above the lowest level of fire department vehicle access.
3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5.
4. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.
5. In buildings less than 75 feet in height which are protected throughout with an approved and maintained fire sprinkler system, a manual wet standpipe, as defined in the National Fire Protection Association Standard 14, Standard for the Installation of Standpipe, Private Hydrant, and Hose Systems, shall be allowed.

# CHAPTER 10: MEANS OF EGRESS

## 1001 ADMINISTRATION

- **[F] 1001.3 Maintenance.** Means of egress shall be maintained in accordance with the *Florida Fire Prevention Code*.
- **1001.4 Alterations.** A building shall not hereafter be altered to reduce the capacity of the means of egress to less than required by this chapter nor shall any change of occupancy be made in any building unless such building conforms with the requirements of this chapter.
  - **Exception:** Existing stairs shall be permitted to remain in use provided they comply with the requirements of the building code in effect at the time of original construction.
- **1001.5** Where approved by the Building Official, existing stairs shall be permitted to be rebuilt in accordance with the dimensional criteria of the building code in effect at the time of original construction provided: (see notes)

## CHAPTER 10 MEANS OF EGRESS

### SECTION 1001 ADMINISTRATION

**1001.1 General.** Buildings or portions thereof shall be provided with a means of egress system as required by this chapter. The provisions of this chapter shall control the design, construction and arrangement of means of egress components required to provide an approved means of egress from structures and portions thereof.

**[F] 1001.3 Maintenance.** Means of egress shall be maintained in accordance with the *Florida Fire Prevention Code*.

**1001.4 Alterations.** A building shall not hereafter be altered to reduce the capacity of the means of egress to less than required by this chapter nor shall any change of occupancy be made in any building unless such building conforms with the requirements of this chapter.

**Exception:** Existing stairs shall be permitted to remain in use provided they comply with the requirements of the building code in effect at the time of original construction.

**1001.5** Where approved by the Building Official, existing stairs shall be permitted to be rebuilt in accordance with the dimensional criteria of the building code in effect at the time of original construction provided:

1. Handrails shall comply with 1009.11 and,
2. Guardrails shall comply with 1012, and,
3. The elevation of the floor surfaces on both sides of the door shall comply with 108.1.4.

# CHAPTER 10: MEANS OF EGRESS

## 1003 GENERAL MEANS OF EGRESS

### ■ 1003.2 Ceiling height.

- The means of egress shall have a ceiling height of not less than 7 feet 6 inches.

The following sections were revised for consistency with FFPC:

### ■ 1003.3.3 Horizontal projections.

### ■ 1003.4 Floor surface.

- Walking surfaces shall be slip resistant

## CHAPTER 10 MEANS OF EGRESS

### 1003 General Means of Egress

**1003.2 Ceiling height.** The means of egress shall have a ceiling height of not less than 7 feet 6 inches.

#### Exceptions:

1. Sloped ceilings in accordance with Section 1208.2.
2. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1208.2.
3. Allowable projections in accordance with Section 1003.3.
4. Stair headroom in accordance with Section 1009.2.

**1003.3.3 Horizontal projections.** Elements cannot project over a walking surface more than four inches when they are located between 27 and 80 inches above the floor. Handrails can project up to four and a half inches from the wall.

**1003.4 Floor surface.** Walking surfaces shall be slip resistant under foreseeable conditions. The walking surface of each element in the means of egress shall be uniformly slip resistant along the natural path of travel.

# CHAPTER 10: MEANS OF EGRESS

## 1003 GENERAL MEANS OF EGRESS

- **1003.5 Elevation change.**
  - Minimum tread depth of such stair shall be 13 inches
  - **1003.5.3 Accessibility.**
    - See §11-4.3.8.
- **Table 1004.3.2.1: Corridor Fire-Resistance Rating**

## 1006 MEANS OF EGRESS ILLUMINATION AND SIGNS

- **New section**

## CHAPTER 10 MEANS OF EGRESS

### 1003 GENERAL MEANS OF EGRESS

**1003.5 Elevation change.** Change in level in means of egress shall be either by a ramp or a stair. The presence and location of ramped walkways shall be readily apparent.

**1003.5.1** Where a change in level means of egress not exceeding 21 inches is achieved by a stair, the minimum tread depth of such stair shall be 13 inches and the presence and location of each step shall be readily apparent.

**Exception:** One- and two-family dwellings and within dwelling level.

**1003.5.2** Where change in elevation of 12 inches or less occurs in exit access corridors, exits and exit discharge, ramps complying with Section 1010 shall be provided.

**Exception:** One- and two-family dwellings and within dwelling level.

**1003.5.3 Accessibility.** For accessibility provisions related to changes in levels, see §11-4.3.8.

## CHAPTER 10: MEANS OF EGRESS

### **1008 DOORS, GATES AND TURNSTILES**

- **1008.1.3.6.** The temporary installation or closure of storm shutters, panels in Group R
- **1008.1.8.2 Hardware height.**
  - Releasing mechanism for any latch shall be located at least 34 inches and not more than 48 inches above the finished floor.

## **CHAPTER 10 MEANS OF EGRESS**

### **SECTION 1008 DOORS, GATES AND TURNSTILES**

**1008.1.3.6** The temporary installation or closure of storm shutters, panels, and other approved hurricane protection devices shall be permitted on emergency escape and rescue openings in Group R occupancies during the threat of a storm. Such devices shall not be required to comply with the operational constraints of Section 1025.4. While such protection is provided, at least one means of escape from the dwelling or dwelling unit shall be provided. The means of escape shall be within the first floor of the dwelling or dwelling unit and shall not be located within a garage. Occupants in any part of the dwelling or dwelling unit shall be able to access the means of escape without passing through a lockable door not under their control.

**1008.1.8.2 Hardware height.** A latch or other fastening device on a door shall be provided with a releasing device having an obvious method of operation under all lighting conditions. The releasing mechanism for any latch shall be located at least 34 inches and not more than 48 inches above the finished floor. Doors shall be openable with not more than one releasing operation.

**Exception:** Egress doors from individual living units and guest rooms of residential occupancies shall be permitted to be provided with devices that require not more than 1 additional releasing operation if such device is operable from the inside without the use of a key or tool and is mounted at a height not more than 48 in. above the finished floor.



# CHAPTER 10: MEANS OF EGRESS

## 1009 STAIRWAYS AND HANDRAILS

- **1009.5.3 Stair identification.**
- **1009.9 Spiral stairways.**

## 1010 RAMPS

- **Table 1015.1: Exit Access Travel Distance** (*see upcoming slide*)
  - Other changes including special requirements for certain occupancies.

## CHAPTER 10 MEANS OF EGRESS

### SECTION 1009 STAIRWAYS AND HANDRAILS

**1009.5.3 Stair identification.** An approved sign shall be located at each floor level landing in all enclosed stairways of buildings four or more stories in height. The sign shall indicate the floor level and the availability of roof access from that stairway and an identification of the stairway. The sign shall also state the floor level of and direction to exit discharge. The sign shall be located approximately 5 ft above the floor landing in a position which is readily visible when the door is in the open or closed position. The floor level designation shall also be tactile in accordance with Chapter 11.

**1009.9 Spiral stairways.** Where permitted by this section or in specific occupancies in accordance with Sections 1024 and 1026 through 1033, spiral stairs complying with this section shall be permitted as a component in a means of egress.

**1009.9.1** Spiral stairs complying with the following shall be permitted:

1. Riser heights shall not exceed 7 in.
2. The stairway shall have a tread depth of not less than 11 in. for a portion of the stairway width sufficient to provide the egress capacity for the occupant load served in accordance with 1004.1.
3. At the outer side of the stairway, an additional 10½ in. of width shall be provided clear to the other handrail, and this width shall not be included as part of the required egress capacity.
4. Handrails complying with 1009.11 shall be provided on both sides of the spiral stairway.
5. The inner handrail shall be located within 24 in. measured horizontally, of the point where a tread depth not less than 11 in. is provided.
6. The turn of the stairway shall be such that descending users have the outer handrail at their right side.

**TABLE 1005.1:  
EGRESS WIDTH PER OCCUPANT SERVED**

<b>OCCUPANCY</b>	<b>WITHOUT SPRINKLER SYSTEM</b>		<b>WITH SPRINKLER SYSTEM <sup>a</sup></b>	
	Stairways (inches/occupant)	Other egress components (inches/occupant)	Stairways (inches/occupant)	Other egress components (inches/occupant)
Occupancies other than those listed below	0.3	0.2	<u>0.3</u>	<u>0.2</u>
Hazardous: H-1, H-2, H-3 and H-4	0.7	0.4	<u>0.7</u>	<u>0.4</u>
<u>Health care</u>	<u>0.6</u>	<u>0.5</u>	<u>0.3</u>	<u>0.2</u>
Institutional: I-2	0.6	0.5	<u>0.3</u>	<u>0.2</u>

For SI: 1 inch = 25.4 mm. NA = Not applicable.

<sup>a</sup> Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

TABLE 1006: EMERGENCY LIGHTING REQUIREMENTS

OCCUPANCY	CONDITIONS	EXCEPTIONS
Assembly		Private party tents < 1200 sq ft
Educational	For interior stairs and corridors, normally occupied spaces, flexible and open-plan area, interior or windowless portions, shops, and labs	Exempted from administrative areas, general classrooms, mechanical rooms, and storage rooms
Group I-1 and I-2	If using life-support systems, supply the required power from life safety branch of electricals as required by NFPA 99	None
Outpatient clinics, ambulatory	If using life-support systems for other than emergency purposes, supply the required power essentials electrical system as required by NFPA 99	None
Group I-3	None	None
Hotels and dormitories	> 25 rooms	All rooms direct to grade
Apartment buildings	> 12 units or > 3 stories	All apartments direct to grade
R-4, Large facilities	> 25 rooms	All rooms direct to grade
Mercantile	> 1 story > 3000 sq ft gross sales area and malls	None
Business	> 2 stories above LED, or $\geq$ 50 people above or below LED, or $\geq$ 300 people total	None
Industrial	None	When approved by the building official, special purpose without routine occupancy, or daylight operations with windows
Storage	None	When approved by the building official, not normally occupied, or daylight operations with windows
Daycare centers	For interior stairs and corridors, normally occupied spaces, flexible and open-plan area, interior or windowless portions, shops, and labs	Exempted from administrative areas, general classrooms, mechanical rooms, and storage rooms

TABLE 1014.1:  
SPACES WITH ONE MEANS OF EGRESS

OCCUPANCY	MAXIMUM OCCUPANT LOAD
A, B, D, E, F, M, U	50
H-1, H-2, H-3	3
H-4, H-5, I-1, I-3, I-4, R	10
S	30

**TABLE 1015.1:  
EXIT ACCESS TRAVEL DISTANCE <sup>a</sup>**

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (ft)	WITH SPRINKLER SYSTEM (ft)
A, E	<u>150</u>	<u>200</u> <sup>b</sup>
B	200	300 <sup>c</sup>
I-1	<u>Not permitted</u>	250 <sup>c</sup>
I-2	<u>Not permitted</u>	200 <sup>c</sup>
I-3	150	200 <sup>c</sup>
D	150	200 <sup>c</sup>
M	<u>150</u>	250 <sup>c</sup>
R	<u>175</u>	250 <sup>b</sup>
S-2	Unlimited	Unlimited
S-1, F-1, F-2	200	250 <sup>c</sup>
F-3	300	400 <sup>c</sup>
H-1	Not permitted	75 <sup>c</sup>
H-2, H-3, H-4, H-5	Not permitted	100 <sup>c</sup>

For SI: 1 foot = 304.8 mm.

- <sup>a</sup> See the following sections for modifications to exit access travel distance requirements:
- Section 402: For the distance limitation in malls.
  - Section 404: For the distance limitation through an atrium space.
  - Section 1015.2: For increased limitation in Groups F-1 and S-1.
  - Section 1024.7: For increased limitation in assembly seating.
  - Section 1024.7: For increased limitation for assembly open-air seating.
  - Section 1018.2: For buildings with one exit.
  - Chapter 31: For the limitation in temporary structures.
- <sup>b</sup> Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where sprinkler systems according to Section 903.3.1.2 are permitted.
- <sup>c</sup> Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

**TABLE 1016.1:  
CORRIDOR FIRE-RESISTANCE RATING**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system <sup>c</sup>
H-1, H-2, H-3	All	1	1
A, H-4, H-5	Greater than 30	1	1
B, D, E, F, M, S, U	Greater than 30	1	0
R	Greater than 30	1	1
I-2 <sup>a</sup> , I-4	All	Not permitted	0
I-1, I-3	All	Not permitted	1 <sup>b</sup>

<sup>a</sup> For requirements for occupancies in Group I-2, see Section 407.3.

<sup>b</sup> For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.7.

<sup>c</sup> Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.

TABLE 1018.1:  
MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD

<b>OCCUPANT LOAD</b>	<b>MINIMUM NUMBER OF EXITS</b>
1-500	2
501-1,000	3
More than 1,000	4

**TABLE 1018.2:  
BUILDINGS WITH ONE EXIT**

OCCUPANCY	MAXIMUM HEIGHT OF BUILDING ABOVE GRADE PLANE	MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER FLOOR AND TRAVEL DISTANCE
A, B <sup>d</sup> , D, E, F, M, U	1 story	50 occupants and 75 feet travel distance
H-2, H-3	1 story	3 occupants and 25 feet travel distance
H-4, H-5, I, R	1 story	10 occupants and 75 feet travel distance
S <sup>a</sup>	1 story	30 occupants and 100 feet travel distance
B <sup>b</sup> , F, M, S <sup>a</sup>	2 stories	30 occupants and 75 feet travel distance
R-2	2 stories <sup>c</sup>	4 dwelling units and 50 feet travel distance

For SI: 1 foot = 304.8 mm.

- <sup>a</sup> For the required number of exits for open parking structures, see Section 1018.1.1.
- <sup>b</sup> For the required number of exits for air traffic control towers, see Section 412.1.
- <sup>c</sup> Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1025 shall have a maximum height of three stories above grade.
- <sup>d</sup> Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 with an occupancy in Group B shall have a maximum travel distance of 100 feet.



**TABLE 1024.6.2:  
WIDTH OF AISLES FOR SMOKE-PROTECTED ASSEMBLY**

<b>TOTAL NUMBER OF SEATS IN THE SMOKE-PROTECTED ASSEMBLY OCCUPANCY</b>	<b>INCHES OF CLEAR WIDTH PER SEAT SERVED</b>			
	Stairs & aisle steps with handrails within 30 inches	Stairs & aisle steps without handrails within 30 inches	Passageways, doorways and ramps not steeper than 1-in-10 slope	Ramps steeper than 1-in-10 slope
≥ 5,000	0.200	0.250	0.150	0.165
10,000	0.130	0.163	0.100	0.110
15,000	0.096	0.120	0.070	0.077
20,000	0.076	0.095	0.056	0.062
≤ 25,000	0.060	0.075	0.044	0.048

For SI: 1 inch = 25.4 mm

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CHAPTER 12: INTERIOR ENVIRONMENT  
CHAPTER 13: ENERGY EFFICIENCY

**CHAPTER 12 INTERIOR ENVIRONMENT**

- Addresses ventilation, attic spaces, temperature control and lighting

**CHAPTER 13 ENERGY EFFICIENCY**

- Changes covered in the *Mechanical/Energy Core Update*

**CHAPTER 12 INTERIOR ENVIRONMENT**

**SECTION 1201 GENERAL**

**1201.1 Scope.** The provisions of this chapter shall govern ventilation, temperature control, lighting, yards and courts, sound transmission, room dimensions, surrounding materials and rodent proofing associated with the interior spaces of buildings.

**CHAPTER 13 ENERGY EFFICIENCY**

- Changes are presented in the 2004 *Florida Building Code, Mechanical/Energy Core Update*.
- Sub-chapter 4 was revised for consistency with 1999 ASHRAE 90.1

# CHAPTER 14: EXTERIOR WALLS

## 1401 GENERAL

### ■ 1401.1 Scope.

- Minimum requirements for exterior walls, exterior wall coverings, exterior wall openings, exterior windows and doors, architectural trim, balconies and bay windows
- Vapor Retarder (1403.3)
- Includes minimum fire separation for combustible veneers
- Metal composite materials (MCM) section
- Florida-specific sections related to termites and flood resistance brought forth from 2001 Florida Building Code

## CHAPTER 14 EXTERIOR WALLS

### SECTION 1401 GENERAL

**1401.1 Scope.** The provisions of this chapter shall establish the minimum requirements for exterior walls, exterior wall coverings, exterior wall openings, exterior windows and doors, architectural trim, balconies and bay windows.

**Exception:** Buildings and structures located within the High Velocity Hurricane Zone shall comply with the provisions of Sections 1403.8 and 1408.

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## Chapter 15: Roof Assemblies and Rooftop Structures

### Overview

- Prescriptive requirements expanded to 110 mph
- **1503.4.2 Scupper.**
  - Where required
- **1503.6 Protection against decay and termites.**
  - Removes language related to irrigation within 1 foot

## CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

### SECTION 1503 WEATHER PROTECTION

**1503.4.2 Scupper.** Where required for roof drainage, a scupper shall be placed level with the roof surface in a wall or parapet. The scupper shall be located as determined by the slope and the contributing area of the roof. The exterior facing or lining of a scupper, if metal, shall be the same as flashing material required by 1503 through 1510 for the particular type of covering specified for the building. For other type materials, follow manufacturer's specifications.

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## CHAPTER 16: STRUCTURAL DESIGN

- Wind Loading Requirements updated
- ASCE 7-98 minimum
- 1606.2 Simplified provisions retained
- Definitions consistent with 2001 *Florida Building Code*

### CHAPTER 16 STRUCTURAL DESIGN

#### SECTION 1601 GENERAL

**1601.1 Scope.** The provisions of this chapter shall govern the structural design of buildings, structures and portions thereof regulated by this code.

**Exception:** Buildings and structures located within the high-velocity hurricane zone shall comply with the provisions of Sections 1624 through 1639.

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## CHAPTER 17: STRUCTURAL TESTS & SPECIAL INSPECTIONS

- Expands testing protocol
- Exterior windows and doors per 2001 *Florida Building Code*
- Deletes all provisions related to special inspections and quality assurance

## CHAPTER 17 STRUCTURAL TESTS AND SPECIAL INSPECTIONS

### SECTION 1701 GENERAL

**1701.1 Scope.** The provisions of this chapter shall govern the quality, workmanship and requirements for materials covered. Materials of construction and tests shall conform to the applicable standards listed in this code.

*Changes in Chapter 17: Structural Tests and Special Inspections:*

- *Expands testing protocol*
- *Exterior windows and doors same*
- *Deletes all provisions related to special inspections and quality assurance*

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## CHAPTER 18: SOILS & FOUNDATIONS

## CHAPTER 19: CONCRETE

### CHAPTER 18 SOILS & FOUNDATIONS

- Prescriptive
- 1806 Retaining Walls
- 1813 Termite protection

### CHAPTER 19 CONCRETE

- 1911.2 Joints.
- 1917 Lightweight Insulation Concrete Fill
- 1918 Special Wind Provisions for Concrete

## CHAPTER 18 SOILS AND FOUNDATIONS

### SECTION 1801 GENERAL

**1801.1 Scope.** The provisions of this chapter shall apply to building and foundation systems in those areas not subject to scour or water pressure by wind and wave action. Buildings and foundations subject to such scour or water pressure loads shall be designed in accordance with Chapter 16.

**Exception:** Buildings and structures located within the High Velocity Hurricane Zone shall comply with the provisions of s. 1813 and 1817 through 1834.

## CHAPTER 19 CONCRETE

### SECTION 1901 GENERAL

**1901.1 Scope.** The provisions of this chapter shall govern the materials, quality control, design and construction of concrete used in structures.

**Exception:** Buildings and structures located within the high-velocity hurricane zone shall comply with the provisions of S. 1917 and 1919 through 1929.

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## CHAPTER 20: LIGHT METAL ALLOYS

### 2002 STRUCTURAL ALUMINUM

#### ■ 2002.2 Structural aluminum construction.

- The design, fabrication and assembly of structural aluminum for buildings or structures shall conform to AAASM 35 and Specifications for Aluminum Structures, Aluminum Design Manual, Part 1-A and 1-B, of the Aluminum Association. The use of aluminum alloys not listed in the manual shall be permitted provided their standard of performance is not less than those required in the manual and the performance is substantiated to the satisfaction of the building official.

#### ■ 2002.3 Screen enclosures.

## CHAPTER 20 LIGHT METAL ALLOYS

### 2002 STRUCTURAL ALUMINUM

**2002.2 Structural aluminum construction.** The design, fabrication and assembly of structural aluminum for buildings or structures shall conform to AAASM 35 and Specifications for Aluminum Structures, Aluminum Design Manual, Part 1-A and 1-B, of the Aluminum Association. The use of aluminum alloys not listed in the manual shall be permitted provided their standard of performance is not less than those required in the manual and the performance is substantiated to the satisfaction of the building official.

#### 2002.3 Screen enclosures.

**2002.3.1** Actual wall thickness of extruded aluminum members shall be not less than 0.040 inch.

**2002.3.2** Screen density shall be a maximum of 20 x 20 mesh.

**2002.3.3** Vinyl and acrylic panels shall be removable. Removable panels shall be identified as removable by a decal. The identification decal shall essentially state “Removable panel SHALL be removed when wind speeds exceed 75 mph (34 m/s)”. Decals shall be placed such that the decal is visible when the panel is installed.



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## CHAPTER 21: MASONRY

## CHAPTER 22: STEEL

### **CHAPTER 21 MASONRY**

- Empirical design to 110 mph
- Adobe construction

### **CHAPTER 22 STEEL**

- ANSI-NASPEC

### **CHAPTER 21 MASONRY**

Empirical Design allow to 110 mph and Adobe Construction provisions added. Termite provisions (section 2114) and Special Wind Provisions (Section 2115) also included.

### **CHAPTER 22 STEEL**

References ANSI-NASPEC.

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**CHAPTER 23: WOOD**  
**CHAPTER 24: GLASS & GLAZING**

**CHAPTER 23 WOOD**

- Prescriptive limited to 100 mph—see table footnotes

**CHAPTER 24 GLASS AND GLAZING**

- ASTM E1300
- Wired/patterned and sandblasted glass

**CHAPTER 23 WOOD**

Prescriptive limited to 100 mph - see table footnotes

**CHAPTER 24 GLASS AND GLAZING**

ASTM E1300 referenced

Wired/patterned and sandblasted glass provisions included

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CHAPTER 25: GYPSUM BOARD & PLASTER  
CHAPTER 26: PLASTICS  
CHAPTER 27: ELECTRICAL

**CHAPTER 25 GYPSUM BOARD & PLASTER**

- Provisions for stucco and interior and exterior plaster
- Gypsum board in showers and water closets

**CHAPTER 26 PLASTICS**

- Similar as 2001 Florida Building Code

**CHAPTER 27 ELECTRICAL**

- NFPA 70 except Article 80

**CHAPTER 25 GYPSUM BOARD AND PLASTER**

Provisions that address stucco and interior and exterior plaster and Gypsum board in showers and water closets.

**CHAPTER 26 PLASTICS**

Similar as 2001 Florida Building Code

**CHAPTER 27 ELECTRICAL**

NFPA 70, National Electrical Code, except Article 80

## CHAPTER 30: ELEVATORS AND CONVEYING SYSTEMS

### 3001 GENERAL

#### ■ 3001.1 Scope.

- This chapter governs the design, construction, installation, alteration and repair of elevators and conveying systems and their components.

#### ■ Note:

- Other administrative and programmatic provisions may apply. See the Department of Business and Professional Regulation [DBPR] Chapter 399, Florida Statutes, and 61C-5, Florida Administrative Code. The regulation and enforcement of the following sections of the adopted codes, and their addenda, are preempted to the Bureau of Elevator Safety of the Department of Business and Professional regulation: ASME A 17.1, Chapter 10; ASME A 17.1, Chapter 11; ASME A 17.1, Section 1206; ASME A17.3, Sections 1.2, 1.5; ASME A18.1, Chapter 10.

## CHAPTER 30 ELEVATORS AND CONVEYING SYSTEMS

### SECTION 3001 GENERAL

**3001.1 Scope.** This chapter governs the design, construction, installation, alteration and repair of elevators and conveying systems and their components.

**Note:** Other administrative and programmatic provisions may apply. See the Department of Business and Professional Regulation [DBPR] Chapter 399, Florida Statutes, and 61C-5, Florida Administrative Code. The regulation and enforcement of the following sections of the adopted codes, and their addenda, are preempted to the Bureau of Elevator Safety of the Department of Business and Professional regulation: ASME A 17.1, Chapter 10; ASME A 17.1, Chapter 11; ASME A 17.1, Section 1206; ASME A17.3, Sections 1.2, 1.5; ASME A18.1, Chapter 10.

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## CHAPTER 31: SPECIAL CONSTRUCTION

### ■ **Awning**

- Any rigid or movable roof-like structure, cantilevered, or otherwise entirely supported from a building. An awning is comprised of a lightweight rigid or removable skeleton structure over which an approved cover is attached.

### ■ **Canopy**

- Any fixed roof-like structure, not movable like an awning, and which is cantilevered in whole or in part self-supporting, but having no side walls or curtains other than valances not more than 18 inch deep. Fixed umbrellas and similar structures are included in this classification. Structures having side walls or valances more than 18 inch deep shall be classified as a tent as set forth herein.

## CHAPTER 31: SPECIAL CONSTRUCTION

### 3105 AWNINGS AND CANOPIES

#### ■ 3105.1 Fabric Awnings and Fabric covered Frames.

- Fabric must be flame resistance as per NFPA 701 except for R3.
- Design of frame as per Ch. 16.
  - Wind design load for quick removal/breakaway fabric at wind 75 mph (90 mph and I: .77).
  - Wind design load for permanent fabric—Ch. 16/ I: 0.77.

## CHAPTER 31 SPECIAL CONSTRUCTION

### SECTION 3105 Awnings and Canopies

**3105.1 Fabric Awnings and Fabric Covered Frames.** Fabric awnings and fabric covered frames shall comply with the provisions of 3105 as applicable.

#### 3105.4 Design.

**3105.4.1** Design of the framing members shall not be based on removal or repositioning of parts, or the whole, during periods of 75 mph wind velocity.

**3105.4.2** Design of the structural framing members shall be based on rational analysis, using the applicable wind loads of Chapter 16 as shown below:

**3105.4.2.1** The wind design loads for any fabric or membrane covered structure designed with a quick removal or breakaway membrane or fabric at wind velocities of 75 m.p.h., shall be based on the following criteria:

1. Minimum wind velocity of 3 sec wind gust 90 m.p.h.
2. Importance factor based on low hazard to human life of 0.77
3. Exposure Category B for or C as defined in Chapter 16.

**3105.4.2.2** The wind design loads for any fabric or membrane covered structure designed with a permanent or non-removable fabric or membrane, shall be based on the following criteria:

1. Minimum wind velocity as required in chapter 16.
2. Importance factor based on low hazard to human life of 0.77.
3. Exposure Category B or C as defined in Chapter 16

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## CHAPTER 31: SPECIAL CONSTRUCTION

### ■ **3105.5 Rigid Awnings and Canopy Shutters**

- Wind design load—Chapter 16, except for those intended to be removed during high wind (90 mph + 10 psf roof live load).

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## REMAINING CHAPTERS

**CHAPTER 32: ENCROACHMENT INTO THE  
PUBLIC RIGHT OF WAY**

**CHAPTER 33: SAFEGUARDS DURING  
CONSTRUCTION**

**CHAPTER 34: EXISTING STRUCTURES**

**CHAPTER 35: REFERENCED STANDARDS**

**CHAPTER 36: FLORIDA FIRE PREVENTION  
CODE**



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2004 Florida Building Code, Building  
Building/Structural Summary

**Please complete course evaluations**



# Tables

**TABLE 503  
ALLOWABLE HEIGHT AND BUILDING AREAS**

Height limitations shown as stories and feet above grade plane. Area limitations as determined by the definition of "Area, building," per floor.

GROUP	Hgt (ft) Hgt (S)	TYPE OF CONSTRUCTION								
		Type I		Type II		Type III		Type IV	Type V	
		A	B	A	B	A	B	HT	A	B
		UL	160	65	55	65	55	65	50	40
A-1	S A	UL UL	5 UL	3 15,500	2 8,500	3 14,000	2 8,500	3 15,000	2 11,500	1 5,500
A-2	S A	UL UL	11 UL	3 15,500	2 9,500	3 14,000	2 9,500	3 15,000	2 11,500	1 6,000
A-3	S A	UL UL	11 UL	3 15,500	2 9,500	3 14,000	2 9,500	3 15,000	2 11,500	1 6,000
A-4	S A	UL UL	11 UL	3 15,500	2 9,500	3 14,000	2 9,500	3 15,000	2 11,500	1 6,000
A-5	S A	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL
B	S A	UL UL	11 UL	5 37,500	4 23,000	5 28,500	4 19,000	5 36,000	3 18,000	2 9,000
E / D	S A	UL UL	5 UL	3 26,500	2 14,500	3 23,500	2 14,500	3 25,500	1 18,500	1 9,500
F-1	S A	UL UL	11 UL	4 25,000	2 15,500	3 19,000	2 12,000	4 33,500	2 14,000	1 8,500
F-2 / F-3	S A	UL UL	11 UL	5, 37,500	3 23,000	4 28,500	3 18,000	5 50,500	3 21,000	2 13,000
H-1	S A	1 21,000	1 16,500	1 11,000	1 7,000	1 9,500	1 7,000	1 10,500	1 7,500	NP NP
H-2	S A	UL 21,000	3 16,500	2 11,000	1 7,000	2 9,500	1 7,000	2 10,500	1 7,500	1 3,000
H-3	S A	UL UL	6 60,000	4 26,500	2 14,000	4 17,500	2 13,000	4 25,500	2 10,000	1 5,000
H-4	S A	UL UL	7 UL	5 37,500	3 17,500	5 28,500	3 17,500	5 36,000	3 18,000	2 6,500
H-5	S A	3 UL	3 UL	3 37,500	3 23,000	3 28,500	3 19,000	3 36,000	3 18,000	2 9,000
I-1	S A	UL UL	9 55,000	4 19,000	3 10,000	4 16,500	3 10,000	4 18,000	3 10,500	2 4,500
I-2	S A	UL UL	4 UL	2 15,000	1 11,000	1 12,000	NP NP	1 12,000	1 9,500	NP NP
I-3	S A	UL UL	4 UL	2 15,000	1 10,000	2 10,500	1 7,500	2 12,000	2 7,500	1 5,000
M	S A	UL UL	11 UL	4 21,500	4 12,500	4 18,500	4 12,500	4 20,500	3 14,000	1 9,000
R-1	S A	UL UL	11 UL	4 24,000	4 16,000	4 24,000	4 16,000	4 20,500	3 12,000	2 7,000
R-2 <sup>a</sup>	S A	UL UL	11 UL	4 24,000	4 16,000	4 24,000	4 16,000	4 20,500	3 12,000	2 7,000
R-3 <sup>a</sup>	S A	UL UL	11 UL	4 UL	4 UL	4 UL	4 UL	4 UL	3 UL	3 UL
R-4	S A	UL UL	11 UL	4 24,000	4 16,000	4 24,000	4 16,000	4 20,500	3 12,000	2 7,000
S-1	S A	UL UL	11 48,000	4 26,000	3 17,500	3 26,000	3 17,500	4 25,500	3 14,000	1 9,000
S-2 <sup>b,c</sup>	S A	UL UL	11 79,000	5 39,000	4 26,000	4 39,000	4 26,000	5 38,500	4 21,000	2 13,500
U <sup>c</sup>	S A	UL UL	5 35,500	4 19,000	2 8,500	3 14,000	2 8,500	4 18,000	2 9,000	1 5,500

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m<sup>2</sup> UL = Unlimited, NP = Not permitted.

<sup>a</sup> As applicable in Section 101.2

<sup>b</sup> For open parking structures, see Section 406.3

<sup>c</sup> For private garages, see Section 406.1

**TABLE 702.1 (1)**  
**MINIMUM PROTECTION OF STRUCTURAL PARTS BASED ON**  
**TIME PERIODS FOR VARIOUS NONCOMBUSTIBLE INSULATING MATERIALS <sup>m</sup>**

STRUCTURAL PARTS TO BE PROTECTED	ITEM NUMBER	INSULATING MATERIAL USED	MINIMUM THICKNESS OF INSULATING MATERIAL FOR THE FOLLOWING FIRE-RESISTANCE PERIODS (inches)			
			4 hr	3 hr	2 hr	1 hr
1 Steel columns and all of primary trusses	1-1.1	Carbonate, lightweight and sand-lightweight aggregate concrete, members 6" × 6" or greater (not including sandstone, granite and siliceous gravel). <sup>a</sup>	2½	2	1½	1
	1-1.2	Carbonate, lightweight and sand-lightweight aggregate concrete, members 8" × 8" or greater (not including sandstone, granite and siliceous gravel). <sup>a</sup>	2	1½	1	1
	1-1.3	Carbonate, lightweight and sand-lightweight aggregate concrete, members 12" × 12" or greater (not including sandstone, granite and siliceous gravel). <sup>a</sup>	1½	1	1	1
	1-1.4	Siliceous aggregate concrete and concrete excluded in Item 1-1.1, members 6" × 6" or greater. <sup>a</sup>	3	2	1½	1
	1-1.5	Siliceous aggregate concrete and concrete excluded in Item 1-1.1, members 8" × 8" or greater. <sup>a</sup>	2½	2	1	1
	1-1.6	Siliceous aggregate concrete and concrete excluded in Item 1-1.1, members 12" × 12" or greater. <sup>a</sup>	2	1	1	1
	1-2.1	Clay or shale brick with brick and mortar fill. <sup>a</sup>	3¾	—	—	2¼
	1-3.1	4" hollow clay tile in two 2" layers; ½" mortar between tile and column; ⅜" metal mesh 0.046" wire diameter in horizontal joints; tile fill. <sup>a</sup>	4	—	—	—
	1-3.2	2" hollow clay tile; ¾" mortar between tile and column; ⅜" metal mesh 0.046" wire diameter in horizontal joints; limestone concrete fill; <sup>a</sup> plastered with ¾" gypsum plaster.	3	—	—	—
	1-3.3	2" hollow clay tile with outside wire ties 0.08" diameter at each course of tile or ⅜" metal mesh 0.046" diameter wire in horizontal joints; limestone or trap-rock concrete fill <sup>1</sup> extending 1" outside column on all sides.	—	—	3	—
	1-3.4	2" hollow clay tile with outside wire ties 0.08" diameter at each course of tile with or without concrete fill; ¾" mortar between tile and column.	—	—	—	2
	1-4.1	Cement plaster over metal lath wire tied to ¾" cold-rolled vertical channels with 0.049" (No. 18 B.W. gage) wire ties spaced 3" to 6" on center. Plaster mixed 1:2½ by volume, cement to sand.	—	—	2½ <sup>b</sup>	7/8
	1-5.1	Vermiculite concrete, 1:4 mix by volume over paperbacked wire fabric lath wrapped directly around column with additional 2" × 2" 0.065"/0.065" (No. 16/16 B.W. gage) wire fabric placed ¾" from outer concrete surface. Wire fabric tied with 0.049" (No. 18 B.W. gage) wire spaced 6" on center for inner layer and 2" on center for outer layer.	2	—	—	—
	1-6.1	Perlite or vermiculite gypsum plaster over metal lath wrapped around column and furred 1¼" from column flanges. Sheets lapped at ends and tied at 6" intervals with 0.049" (No. 18 B.W. gage) tie wire. Plaster pushed through to flanges.	1½	1	—	—
	1-6.2	Perlite or vermiculite gypsum plaster over self-furring metal lath wrapped directly around column, lapped 1" and tied at 6" intervals with 0.049" (No. 18 B.W. gage) wire.	1¾	1¾	1	—

STRUCTURAL PARTS TO BE PROTECTED	ITEM NUMBER	INSULATING MATERIAL USED	MINIMUM THICKNESS OF INSULATING MATERIAL FOR THE FOLLOWING FIRE-RESISTANCE PERIODS (inches)			
			4 hr	3 hr	2 hr	1 hr
1. Steel columns and all of primary trusses	1-6.3	Pperlite or vermiculite gypsum plaster on metal lath applied to 3/4" cold-rolled channels spaced 24" apart vertically and wrapped flatwise around column.	1 1/2	—	—	—
	1-6.4	Pperlite or vermiculite gypsum plaster over two layers of 1/2" plain full-length gypsum lath applied tight to column flanges. Lath wrapped with 1" hexagonal mesh of No. 20 gage wire and tied with doubled 0.035" diameter (No. 18 B.W. gage) wire ties spaced 23" on center. For three-coat work, the plaster mix for the second coat shall not exceed 100 pounds of gypsum to 2 1/2 cubic feet of aggregate for the 3-hour system.	2 1/2	2	—	—
	1-6.5	Pperlite or vermiculite gypsum plaster over one layer of 1/2" plain full-length gypsum lath applied tight to column flanges. Lath tied with doubled 0.049" (No. 18 B.W. gage) wire ties spaced 23" on center and scratch coat wrapped with 1" hexagonal mesh 0.035" (No. 20 B.W. gage) wire fabric. For three-coat work, the plaster mix for the second coat shall not exceed 100 pounds of gypsum to 2 1/2 cubic feet of aggregate.	—	2	—	—
	1-7.1	Multiple layers of 1/2" gypsum wallboard <sup>c</sup> adhesively <sup>d</sup> secured to column flanges and successive layers. Wallboard applied without horizontal joints. Corner edges of each layer staggered. Wallboard layer below outer layer secured to column with doubled 0.049" (No. 18 B.W. gage) steel wire ties spaced 15" on center. Exposed corners taped and treated.	—	—	2	1
	1-7.2	Three layers of 5/8" Type X gypsum wallboard. <sup>c</sup> First and second layer held in place by 1/8" diameter by 1 3/8" long ring shank nails with 5/16" diameter heads spaced 24" on center at corners. Middle layer also secured with metal straps at mid-height and 18" from each end, and by metal corner bead at each corner held by the metal straps. Third layer attached to corner bead with 1" long gypsum wallboard screws spaced 12" on center.	—	—	1 7/8	—
	1-7.3	Three layers of 5/8" Type X gypsum wallboard, <sup>c</sup> each layer screw attached to 1 3/8" steel studs 0.018" thick (No. 25 carbon sheet steel gage) at each corner of column. Middle layer also secured with 0.049" (No. 18 B.W. gage) double-strand steel wire ties, 24" on center. Screws are No. 6 by 1" spaced 24" on center for inner layer, No. 6 by 1 5/8" spaced 12" on center for middle layer and No. 8 by 2 1/4" spaced 12" on center for outer layer.	—	1 7/8	—	—
	1-8.1	Wood-fibered gypsum plaster mixed 1:1 by weight gypsum-to-sand aggregate applied over metal lath. Lath lapped 1" and tied 6" on center at all end, edges and spacers with 0.049" (No. 18 B.W. gage) steel tie wires. Lath applied over 1/2" spacers made of 3/4" furring channel with 2" legs bent around each corner. Spacers located 1" from top and bottom of member and a maximum of 40" on center and wire tied with a single strand of 0.049" (No. 18 B.W. gage) steel tie wires. Corner bead tied to the lath at 6" on center along each corner to provide plaster thickness.	—	—	1 5/8	—
Webs or flanges of steel beams and girders	2-1.1	Carbonate, lightweight and sand-lightweight aggregate concrete (not including sandstone, granite and siliceous gravel) with 3" or finer metal mesh placed 1" from the finished surface anchored to the top flange and providing not less than 0.025 square inch of steel area per foot in each direction.	2	1 1/2	1	1
	2-1.2	Siliceous aggregate concrete and concrete excluded in Item 2-1.1 with 3" or finer metal mesh placed 1" from the finished surface anchored to the top flange and providing not less than 0.025 square inch of steel area per foot in each direction.	2 1/2	2	1 1/2	1

STRUCTURAL PARTS TO BE PROTECTED	ITEM NUMBER	INSULATING MATERIAL USED	MINIMUM THICKNESS OF INSULATING MATERIAL FOR THE FOLLOWING FIRE-RESISTANCE PERIODS (inches)			
			4 hr	3 hr	2 hr	1 hr
2. Webs or flanges of steel beams and girders	2-2.1	Cement plaster on metal lath attached to 3/4" cold-rolled channels with 0.049" (No. 18 B.W. gage) wire ties spaced 3" to 6" on center. Plaster mixed 1:2½ by volume, cement to sand.	—	—	2½ <sup>b</sup>	7/8
	2-3.1	Vermiculite gypsum plaster on a metal lath cage, wire tied to 0.165" diameter (No. 8 B. W. gage) steel wire hangers wrapped around beam and spaced 16" on center. Metal lath ties spaced approximately 5" on center at cage sides and bottom.	—	7/8	—	—
	2-4.1	Two layers of 5/8" Type X gypsum wallboard <sup>e</sup> are attached to U-shaped brackets spaced 24" on center. 0.018" thick (No. 25 carbon sheet steel gage) 1 5/8" deep by 1" galvanized steel runner channels are first installed parallel to and on each side of the top beam flange to provide a 1/2" clearance to the flange. The channel runners are attached to steel deck or concrete floor construction with approved fasteners spaced 12" on center. U-shaped brackets are formed from members identical to the channel runners. At the bent portion of the U-shaped bracket, the flanges of the channel are cut out so that 1 5/8" deep corner channels can be inserted without attachment parallel to each side of the lower flange. As an alternate, 0.021" thick (No. 24 carbon sheet steel gage) 1" × 2" runner and corner angles may be used in lieu of channels, and the web cutouts in the U-shaped brackets may be omitted. Each angle is attached to the bracket with 1/2"-long No. 8 self-drilling screws. The vertical legs of the U-shaped bracket are attached to the runners with one 1/2" long No. 8 self-drilling screw. The completed steel framing provides a 2 1/8" and 1 1/2" space between the inner layer of wallboard and the sides and bottom of the steel beam, respectively. The inner layer of wallboard is attached to the top runners and bottom corner channels or corner angles with 1 1/4"-long No. 6 self-drilling screws spaced 16" on center. The outer layer of wallboard is applied with 1 3/4"-long No. 6 self-drilling screws spaced 8" on center. The bottom corners are reinforced with metal corner beads.	—	—	1 1/4	—
	2-4.2	Three layers of 5/8" Type X gypsum wallboard <sup>e</sup> attached to a steel suspension system as described immediately above utilizing the 0.018" thick (No. 25 carbon sheet steel gage) 1" × 2" lower corner angles. The framing is located so that a 2 1/8" and 2" space is provided between the inner layer of wallboard and the sides and bottom of the beam, respectively. The first two layers of wallboard are attached as described immediately above. A layer of 0.035" thick (No. 20 B.W. gage) 1" hexagonal galvanized wire mesh is applied under the soffit of the middle layer and up the sides approximately 2". The mesh is held in position with the No. 6 1 5/8"-long screws installed in the vertical leg of the bottom corner angles. The outer layer of wallboard is attached with No. 6 2 1/4"-long screws spaced 8" on center. One screw is also installed at the mid-depth of the bracket in each layer. Bottom corners are finished as described above.	—	1 7/8	—	—
3. Bonded pretensioned reinforcement in prestressed concrete <sup>e</sup>	3-1.1	Carbonate, lightweight, sand-lightweight and siliceous <sup>f</sup> aggregate concrete Beams or girders Solid slabs <sup>h</sup>	4 <sup>g</sup>	3 <sup>g</sup> 2	2 1/2 1 1/2	1 1/2 1

STRUCTURAL PARTS TO BE PROTECTED	ITEM NUMBER	INSULATING MATERIAL USED	MINIMUM THICKNESS OF INSULATING MATERIAL FOR THE FOLLOWING FIRE-RESISTANCE PERIODS (inches)			
			4 hr	3 hr	2 hr	1 hr
4. Bonded or unbonded post-tensioned tendons in prestressed concrete <sup>a,i</sup>	4-1.1	Carbonate, lightweight, sand-lightweight and siliceous <sup>f</sup> aggregate concrete Unrestrained members: Solid slabs <sup>h</sup> Beams and girders <sup>j</sup> 8" wide greater than 12" wide	—  3	2  4½ 2½	1½  2½ 2	—  ¾ 1½
	4-1.2	Carbonate, lightweight, sand-lightweight and siliceous aggregate Restrained members: <sup>k</sup> Solid slabs <sup>h</sup> Beams and girders <sup>j</sup> 8" wide greater than 12" wide	1¼  2½ 2	1  2 1¾	¾  1¾ 1½	—  — —
5. Reinforcing steel in reinforced concrete columns, beams, girders and trusses	5-1.1	Carbonate, lightweight and sand-lightweight aggregate concrete, members 12" or larger, square or round. (Size limit does not apply to beams and girders monolithic with floors.)	1½	1½	1½	1½
		Siliceous aggregate concrete, members 12" or larger, square or round. (Size limit does not apply to beams and girders monolithic with floors.)	2	1½	1½	1½
6. Reinforcing steel in reinforced concrete joists <sup>l</sup>	6-1.1	Carbonate, lightweight and sand-lightweight aggregate concrete.	1¼	1¼	1	¾
	6-1.2	Siliceous aggregate concrete.	1¾	1½	1	¾
7. Reinforcing and tie rods in floor and roof slabs <sup>l</sup>	7-1.1	Carbonate, lightweight and sand-lightweight aggregate concrete.	1	1	¾	¾
	7-1.2	Siliceous aggregate concrete.	1¼	1	1	¾

For SI: 1 inch = 25.4 mm, 1 square inch = 645.2 mm<sup>2</sup>, 1 cubic foot = 0.0283 m<sup>3</sup>.

- a. Reentrant parts of protected members to be filled solidly.
- b. Two layers of equal thickness with a ¼-inch airspace between.
- c. For all of the construction with gypsum wallboard described in Table 720.1(1), gypsum base for veneer plaster of the same size, thickness and core type shall be permitted to be substituted for gypsum wallboard, provided attachment is identical to that specified for the wallboard and the joints on the face layer are reinforced, and the entire surface is covered with a minimum of 1/16-inch gypsum veneer plaster.
- d. An approved adhesive qualified under ASTM E 119.
- e. Where lightweight or sand-lightweight concrete having an oven-dry weight of 110 pounds per cubic foot or less is used, the tabulated minimum cover shall be permitted to be reduced 25 percent, except that in no case shall the cover be less than ¾ inch in slabs or 1½ inches in beams or girders.
- f. For solid slabs of siliceous aggregate concrete, increase tendon cover 20 percent.
- g. Adequate provisions against spalling shall be provided by U-shaped or hooped stirrups spaced not to exceed the depth of the member with a clear cover of 1 inch.
- h. Prestressed slabs shall have a thickness not less than that required in Table 720.1(3) for the respective fire resistance time period.
- i. Fire coverage and end anchorages shall be as follows: Cover to the prestressing steel at the anchor shall be ½ inch greater than that required away from the anchor. Minimum cover to steel-bearing plate shall be 1 inch in beams and ¾ inch in slabs.
- j. For beam widths between 8 inches and 12 inches, cover thickness shall be permitted to be determined by interpolation.
- k. Interior spans of continuous slabs, beams and girders shall be permitted to be considered restrained.
- l. For use with concrete slabs having a comparable fire endurance where members are framed into the structure in such a manner as to provide equivalent performance to that of monolithic concrete construction.
- m. Generic fire-resistance ratings (those not designated as PROPRIETARY\* in the listing) in GA 600 shall be accepted as if herein listed.



**TABLE 1004.1.2  
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

OCCUPANCY	FLOOR AREA IN SQ FT PER OCCUPANT
Aircraft hangers	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats	
Concentrated (chairs only—not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms—other than fixed seating areas	40 net
Daycare	20 net
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
Exercise rooms with equipment	50 gross
Exercise rooms without equipment	15 gross
H-5 fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	
Multiple street floors—each (Footnote 1)	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Swimming pool deck	30 gross
Swimming pool water surface	50 gross
Stages and platforms	15 net
Accessory storage areas, mechanical equipment room	300 gross
Warehouses	500 gross

For SI: 1 square foot = 0.0929 m<sup>2</sup>

Footnote: 1. For the purpose of determining occupant load in mercantile occupancies where, due to differences in grade of streets on different sides, two or more floors directly accessible from streets exist, each such floor shall be considered a street floor. The occupant load factor shall be one person for each 40 ft<sup>2</sup> (3.7 m<sup>2</sup>) of gross floor area of sales space.



# Course Evaluation

**Course Title:** FBC Building / Structural Summary

**Course #:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Location:** \_\_\_\_\_

Please circle your response:	Strongly Disagree				Strongly Agree
Question 1: The course objectives were accomplished.	1	2	3	4	5
Question 2: The course started and finished on time.	1	2	3	4	5
Question 3: The instructor(s) was well-versed in their topic and well-prepared.	1	2	3	4	5
Question 4: The materials presented were effective.	1	2	3	4	5
What did you like most about the course?					
What did you like least about the course?					
Please list other comments about this course, including ways to improve the course or suggestions for other courses.					

