Significant Changes to the 2010 Florida Building Code

Florida Building Code – Accessibility is now a separate code book (Formerly Chapter 12)

Florida Building Code – Energy Conservation is now a separate code book (Formerly Chapter 13)

Chapter 1 is now split into two parts:
Part 1 is Scope and Application
Part 2 is Administration and Enforcement

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.
(3) A relocated building shall comply with the flood hazard area requirements of the new location, if applicable

102.8 Existing mechanical equipment.
An agency or local government may not require that existing mechanical equipment on the surface of a roof be installed with the requirements of the Florida Building Code until the equipment is require to be removed or replaced.

105.3.7 Applicable Code for Manufactured Buildings. Manufacturers should be permitted to complete all buildings designed and approved prior to the effective date of a new code edition, provided a clear signed contract is in place. The contract shall provide specific data mirroring that required by an application for permit, specifically, without limitation, date of execution, building owner or dealer, and anticipated date of completion. However, the construction activity must commence within 6 months of the contract's execution. The contract is subject to verification by the Department of Community Affairs.

106 Floor and Roof Design Loads (New section)

106.1 Live loads posted.
Where the live loads for which each floor or portion thereof of a commercial or industrial building is or has been designed to exceed 50 psf (2.40 kN/m2), such design live loads shall be conspicuously posted by the owner in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

106.2 Issuance of certificate of occupancy.
A certificate of occupancy required by Section 111 shall not be issued until the floor load signs, required by Section 106, have been installed.

106.3 Restrictions on loading.
It shall be unlawful to place, or cause or permit to be placed, on any floor or roof of a building, structure or portion thereof, a load greater than is permitted by this code.

107.3 Exception 1 to read as follows:
Exceptions:
1. Building plans approved pursuant to Section 553.77(5), Florida Statutes, and state-approved manufactured buildings are exempt from local codes enforcing agency plan reviews except for provisions of the code relating to erection, assembly or construction at the site. Erection, assembly and construction at the site are subject to local permitting and inspections. Photocopies of plans approved according to FAC 9B-1.009, F.A.C., shall be sufficient for local permit application documents of record for the modular building portion of the permitted project.

107.3.5 Minimum plan review criteria for buildings. The examination of the documents by the building official shall include the following minimum criteria and documents: a floor plan; site plan; foundation plan; floor/roof framing plan or truss layout; and all exterior elevations:

Commercial Buildings:
Building
1. Site requirements:
Parking
Fire access
Vehicle loading
Driving/turning radius
Fire hydrant/water supply/post indicator valve (PIV)
Set back/separation (assumed property lines)
Location of specific tanks, water lines and sewer lines
Flood hazard areas, flood zones, and design flood elevations
[Remainder not shown]
8. Structural requirements shall include:
Soil conditions/analysis
110.3 Required inspections. The building official upon notification from the permit holder or his or her agent shall make the following inspections, and shall either release that portion of the construction or shall notify the permit holder or his or her agent of any violations which must be corrected in order to comply with the technical codes. The building official shall determine the timing and sequencing of when inspections occur and what elements are inspected at each inspection.

Building
1. Foundation inspection. To be made after trenches are excavated and forms erected and shall at a minimum include the following building components:
   - Stem-wall
   - Monolithic slab-on-grade
   - Piling/pile caps
   - Footers/grade beams
2. In flood hazard areas, upon placement of the lowest floor, including basement, and prior to further vertical construction, the elevation certification shall be submitted to the authority having jurisdiction.
3. Final inspection. To be made after the building is completed and ready for occupancy.  
4. A description of that portion of the structure for which the certificate is issued.
5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
6. For buildings and structures in flood hazard areas, a statement that documentation of the as-built lowest floor elevation has been provided and is retained in the records of the department of building safety.

111.2 Certificate issued. After the building official inspects the building or structure and finds no violations of the provisions of this code or other laws that are enforced by the department of building safety, the building official shall issue a certificate of occupancy that contains the following:
1. The building permit number.
2. The address of the structure.
3. The name and address of the owner.
4. A description of that portion of the structure for which the certificate is issued.
5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
6. For buildings and structures in flood hazard areas, a statement that documentation of the as-built lowest floor elevation has been provided and is retained in the records of the department of building safety.
7. The name of the building official.
8. The edition of the code under which the permit was issued.
9. The use and occupancy, in accordance with the provisions of Chapter 3.
10. The type of construction as defined in Chapter 6.
11. The design occupant load.
12. If an automatic sprinkler system is provided, whether the sprinkler system is required.
13. Any special stipulations and conditions of the building permit.

112.3 Authority to disconnect service utilities
Now shall comply with 112.1 and 112.2 prior to electrical power being energized.

Section 202 (new definitions)
201.3 Terms defined in other codes (change)

201.4 Terms not defined (same as old Words not defined)

202 Definitions
Aggregate – see Section 1502.1
Ambulatory Health Care Facility
Area (for masonry)
Automatic Smoke Detection System
Ballast
Basement (for other than flood loads)
Basement (for flood loads)
Bearing Wall Structure
Building Element
Carbon Monoxide Alarm
Cell (masonry)
Cell Tier
Child Care Facilities
Clinic, Outpatient
Dangerous
Deep Foundation
Detoxification Facility
Drilled Shaft
Edge Distance
Effective Embedment Depth
Elevator Group
Exit Access Doorway
Exterior Insulation and Finish System (EIFS)
Exterior Insulation and Finish System (EIFS) with Drainage
Fiber Reinforced Polymer
Fixed Base Operator (FBO)
Flight
Frame Structure
Helical Pile
High-Rise Building
Hospitals and Mental Hospitals
Housing Unit
Inert Gas
Interior Floor-Wall Base
Intumescent Fire-Resistant Coatings
Label
Labeled
Light-Frame Construction
Listed
Manufacturer’s Designation
Mark
Mastic Fire-Resistant Coatings
Mental Hospitals
Notification Zone
Nursing Homes
Photoluminescent
Primary Structural Frame
Reflective Plastic Core Foil Insulation
Registered Design Professional In Responsible Charge
A registered design professional engaged by the owner to review and coordinate certain aspects of the project, as determined by the building official, for compatibility with the design of the building or structure, including submittal documents prepared by others, deferred submittal documents and phased submittal documents.
Sallyport
Secondary Members
Self-Luminous
Chapter 3

303.1 Exceptions:
4. Assembly areas that are accessory to Group E occupancies are not considered separate occupancies except when applying the assembly occupancy requirements of the Florida Building Code, Accessibility.
5. Accessory religious educational rooms and religious auditoriums with occupancy loads of less than 100 are not considered separate occupancies.

304.1 Business Group B
Add – Ambulatory health care facilities

304.1.1 Definitions.
The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.
Clinic, Outpatient. Buildings or portions thereof used to provide medical care on less than a 24-hour basis to individuals who are not rendered incapable of self-preservation by the services provided.

305.2 Public and private educational occupancies shall comply with Section 443.

305.3 Public educational occupancies shall comply with Section 423.
SECTION 310

RESIDENTIAL GROUP R

310.1 Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the Florida Building Code, Residential in accordance with Section 101.2. Residential occupancies shall include the following:

**R-1** Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:
- Boarding houses (transient)
- Motels (transient)
- Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

**R-2** Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:
- Apartment houses
- Boarding houses (non-transient)
- Convents
- Dormitories
- Fraternities and sororities
- Hotels (non-transient)
- Live/work units
- Monasteries
- Motels (non-transient)
- Vacation timeshare properties
- Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

**R-3** Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:
- Buildings that do not contain more than two dwelling units.
- Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
- Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
- Congregate living facilities with 16 or fewer persons.
- Adult care and child care facilities that are within a single-family home are permitted to comply with the Florida Building Code, Residential.

**R-4** Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the Florida Building Code, Residential provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.7.

SECTION 402 DEFINITIONS

COVERED MALL BUILDING. A single building enclosing a number of tenants and occupants, such as retail stores, drinking and dining establishments, entertainment and amusement facilities, passenger transportation terminals, offices and other similar uses wherein two or more tenants have a main entrance into one or more malls. For the purpose of this chapter, anchor buildings shall not be considered as a part of the covered mall building. The term “covered mall building” shall include open mall buildings as defined below.

Mall. A roofed or covered common pedestrian area within a covered mall building that serves as access for two or more tenants and not to exceed three levels that are open to each other. The term “mall” shall include open malls as defined below.

Open mall. An unroofed common pedestrian way serving a number of tenants not exceeding three levels. Circulation at levels above grade shall be permitted to include open exterior balconies leading to exits discharging at grade.

Open mall building. Several structures housing a number of tenants, such as retail stores, drinking and dining establishments, entertainment and amusement facilities, offices, and other similar uses, wherein two or more tenants have a main entrance into one or more open malls. For the purpose of Chapter 4 of the Florida Building Code, Building, anchor buildings are not considered as a part of the open mall building.

403.1 Applicability. High-rise buildings shall comply with Sections 403.2 through 403.6. Exception: The provisions of Sections 403.2 through 403.6 shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412.3.
2. Open parking garages in accordance with Section 406.3.
4. Special industrial occupancies in accordance with Section 503.1.1.
5. Buildings with a Group H-1, H-2 or H-3 occupancy in accordance with Section 415.

403.4.4 Emergency responder radio coverage. Emergency responder radio coverage shall be provided in accordance with the Florida Fire Prevention Code.
403.5.2 Additional exit stairway. For buildings other than Group R-2 that are more than 420 feet (128 m) in building height, one additional exit stairway meeting the requirements of Sections 1009 and 1022 shall be provided in addition to the minimum number of exits required by Section 1021.1. The total width of any combination of remaining exit stairways with one exit stairway removed shall not be less than the total width required by Section 1005.1. Scissor stairs shall not be considered the additional exit stairway required by this section.

Exception: An additional exit stairway shall not be required to be installed in buildings having elevators used for occupant self evacuation in accordance with Section 3008.

403.5.5 Luminous egress path markings. Luminous egress path markings shall be provided in accordance with Section 1024.

403.6 Elevators. Elevator installation and operation in high-rise buildings shall comply with Chapter 30 and Sections 403.6.1 and 403.6.2.

403.6.1 Fire service access elevator. In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, a minimum of one fire service access elevator shall be provided in accordance with Section 3007.

403.6.2 Occupant evacuation elevators. Where installed in accordance with Section 3008, passenger elevators for general public use shall be permitted to be used for occupant self-evacuation.

SECTION 3008 OCCUPANT EVACUATION ELEVATORS
3008.1 General.
3008.2 Fire safety and evacuation plan.
3008.3 Operation.
3008.4 Additional exit stairway.
3008.5 Emergency voice/alarm communication system.
3008.5.1 Notification.
3008.6 Automatic sprinkler system.
3008.6.1 Prohibited locations.
3008.6.2 Sprinkler system monitoring.
3008.7 High-hazard content areas.
3008.8 Shunt trip.
3008.9 Hoistway enclosure protection.
3008.10 Water protection.
3008.11 Occupant evacuation elevator lobby.
3008.11.1 Access.
3008.11.2 Lobby enclosure.
3008.11.3 Lobby doorways.
3008.11.3.1 Vision panel.
3008.11.4 Lobby size.
3008.11.5 Signage.
3008.12 Lobby status indicator.
3008.13 Two-way communication system.
3008.13.1 Design and installation.
3008.13.2 Instructions.
3008.14 Elevator system monitoring.
3008.14.1 Elevator recall.
3008.15 Electrical power.

404.4 Fire alarm system. A fire alarm system shall be installed in accordance with Section 907.2.14.

404.9 Travel distance. (add last sentence) The travel distance requirements for areas of buildings open to the atrium and where access to the exits is not through the atrium, shall comply with the requirements of Section 1016.

406.2.3 Guards. Guards shall be provided in accordance with Section 1013. Guards serving as vehicle barrier systems shall comply with Sections 406.2.4 and 1013.

406.2.6 Floor Surface
Exception: (added #2) Floors of Group S-2 parking garages shall not be required to have a sloped surface.

423 State Requirements for Educational Facilities
Some requirements moved to new Section 443 Schools, Colleges, and Universities

STORM SHELTERS
442.1 General. In addition to other applicable requirements in this code, storm shelters shall be constructed in accordance with ICC-500.

442.1.1 Scope. This section applies to the construction of storm shelters constructed as separate detached buildings or constructed as safe rooms within buildings for the purpose of providing safe refuge from storms that produce high winds, such as tornados and hurricanes. Such structures shall be designated to be hurricane shelters, tornado shelters, or combined hurricane and tornado shelters.
442.2 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

STORM SHELTER. A building, structure or portions(s) thereof, constructed in accordance with ICC 500 and designated for use during a severe wind storm event, such as a hurricane or tornado.

Community storm shelter. A storm shelter not defined as a “Residential Storm Shelter.”

Section 443 Schools, Colleges and Universities

443.2 Sites.
443.1 Scope. Florida’s public and private schools, colleges and universities shall comply with all applicable requirements of the code and the following standards. These are minimum standards; boards or owners may impose more restrictive requirements. Additional requirements for public educational facilities in Florida, including public schools and Florida's colleges, are found in Section 423, State Requirements for Educational Facilities.

443.2.1 Soil, grass, and planting beds shall provide positive drainage away from sidewalks, but shall not fall away at more than a 3-percent gradient slope for a minimum distance of 5 feet (1524 mm) from the edge.

443.2.2 Playgrounds and Equipment. Playgrounds and equipment shall be safe, structurally sound, verminproof, and shall not have jagged or sharp projections. Playground equipment shall be anchored to suitable foundations to prevent toppling or dislodgement. Cushioning materials such as mats, wood chips, or sand shall be used under climbing equipment, slides, and swings.

443.2.3 Outdoor waste containers. A smooth nonabsorbent surface shall be provided for outdoor waste containers.

443.3 Building Construction

443.3.1 Rodent proofing. Buildings for Group E occupancies shall be rodent proofed per Appendix F, Rodentproofing.

443.3.2 Glare from natural light. Sources of natural light in instructional spaces shall be glazed with glare reducing materials or shall be shielded to prevent glare that can interfere with seeing task within the instructional space.

443.3.3 Automated external defibrillator. Automated external defibrillators shall be provided in public educational facilities that are a member of the Florida High School Athletic Association.

443.3.4 Diaper changing stations. A diaper changing station shall be located in or adjacent to any classroom where children wearing diapers are in attendance. A hand washing lavatory shall be provided within the changing station area. Access shall be provided to the lavatory without opening doors or touching a handle.

443.3.5 Plumbing
443.3.5.1 Standards. Educational and ancillary facilities shall be provided with toilets, hand washing facilities, and drinking fountains for all occupants, in ratios and accessible as required by the Florida Building Code, Florida law, and federal requirements. Exception: A single unisex toilet room is allowed where provided in child care, pre-kindergarten through grade 3 and ESE classrooms.

443.3.5.2 Teacher toilets. Faculty and staff toilets shall be separate from student toilets. Exception: Separation of faculty/staff and student toilet facilities is not required for colleges and universities.

443.3.5.3 Toilet room access.
443.3.5.3.1 Toilet facilities for pre-K through grade 12 shall be accessible under continuous roof cover from all student occupied areas. Exception: Relocatable classrooms installed for temporary use.

443.3.5.4 Shielding device. The entry to each group toilet room shall be provided with a door, partition, or other shielding device to block from view the occupants in the toilet room. If a door is provided, it shall have a closer and shall swing out in the direction of exit.

443.3.5.5 Walls. Walls in toilet rooms shall be impervious to a height of at least 4 feet (1219 mm) above the floor. Walls in kitchens, sculleries, can wash areas, and shower rooms shall be impervious to a height of at least 6 feet (1829 mm) above the floor. Toilet and shower partitions shall be impervious.

443.3.5.6 Floor drains and hose bibbs. All group toilet rooms shall be provided with at least one floor drain and one easily accessible hose bibb. The floor shall be sloped down to the drain.

443.3.5.7 Handwashing facilities.

443.3.5.7.1 Handwashing facilities shall be located within or adjoining each toilet room.

443.3.5.7.2. Soap dispensers for liquid, foam, or powdered soap shall be provided at all handwashing basins.

443.3.5.7.3 Individual towel dispensers or hot-air hand drying devices shall be provided near handwashing basins.

443.3.5.8 Showers.
Shower heads shall be based on the peak load to be accommodated at one time and provided at the ratio of one shower head for each five students, located a minimum of 30 inches (762 mm) apart.

Floors shall be drained in such a manner that waste water from any shower head will not pass over areas occupied by other bathers.

Water shall be heated and the temperature at the shower head shall not exceed 110°F (43°C) nor be less than 95°F (35°C).

Floors shall be drained in such a manner that waste water from any shower head will not pass over areas occupied by other bathers.

Water shall be heated and the temperature at the shower head shall not exceed 110°F (43°C) nor be less than 95°F (35°C).

Mechanical

Natural ventilation. Natural ventilation shall not be provided in toilet rooms, shower rooms, locker rooms, and storage rooms for athletic equipment or soiled clothes.

Fans and blowers. Fans and blowers shall be sized and designed to provide the required air movement without excessive or disturbing noise that would interfere with the educational program provided in the space being ventilated.

Kilns. Kiln rooms and areas shall be provided with adequate exhaust to dispel emitted heat to the exterior, and they shall not be connected to any other exhaust system.

Chemistry laboratories and science classrooms. HVAC systems in chemistry labs and science classrooms shall be designed and installed to ensure that chemicals originating from the space are not recirculated.
Exception: A high capacity emergency exhaust system providing twenty (20) air changes per hour may be used in chemistry laboratories and science classrooms with fume hoods. Positive ventilation may be provided via doors or windows opening to the exterior. Signs providing operational instructions shall be permanently installed at the emergency exhaust system fan switch and adjacent to the door(s) or window(s) to be opened.

443.3.6.5 Buildings and/or rooms used for the storage, handling and disposal of chemicals used in school. College and university laboratories shall be vented to the exterior. The ventilation system shall not be connected to the air-conditioning return air system, and the rooms shall be kept at moderate temperatures. Chemical storage cabinets, when vented to the exterior, shall be mechanically vented in accordance with NFPA 30 and NFPA 91.

443.3.7 Lighting.

443.3.7.1 Illumination level in classrooms/instructional spaces. Illumination at the normal task level for the type of classroom/instructional space shall be a minimum of forty (40) foot-candles (400 Lux).

423.3.7.2 Illumination uniformity in classrooms/instructional spaces. Luminaries shall have a ceiling arrangement or positioned around the walls such that a uniformed illumination level, within ten (10) foot-candles (100 Lux), is maintained at the students required normal task level for the type of classroom/instructional space.

443.3.7.3 Brightness Ratio in classrooms/instructional spaces. The brightness ratio between the student task level and the instructional area or areas or visual display location shall be one (1) to five (5) or less.

443.3.7.4 Illumination failure of general and means of egress luminaries. Illumination systems shall be designed and maintained so that the failure of any single lighting unit, such as electric luminary, does not leave any occupied space or means of egress in the dark. (See Florida Building Code, Building Section 1006 for additional means of egress requirements.)

443.3.7.5 Glare elimination. Illumination of permanently installed markerboards, chalkboards, and other instruction aids shall be designed to eliminate glare and shadows.

Chapter 5

501.2 Address identification. New and existing buildings shall be provided with approved address numbers or letters. Each character shall be a minimum 4 inches (102 mm) high and a minimum of 0.5 inch (12.7 mm) wide. They shall be installed on a contrasting background and be plainly visible from the street or road fronting the property. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure.

502 Definition:

BASEMENT. A story that is not a story above grade plane (see “Story above grade plane” in Section 202). The definition of “Basement” does not apply to the provisions of Section 1612 for flood loads (see “Basement” in Section 1612.2).

506.1 General

Equation 5-1

\[
A_a = \text{Allowable building area per story (square feet)}
\]

\[
A_t = \text{Tabular building area per story in accordance with Table 503 (square feet)}
\]

506.2.1 Width limits. The value of \( W \) shall be at least 20 feet. Where the value of \( W \) varies along the perimeter of the building, the calculation performed in accordance with Equation 5-2 shall be based on the weighted average of each portion of exterior wall and open space where the value of \( W \) is greater than or equal to 20 feet. Where the value of \( W \) exceeds 30 feet, a value of 30 feet shall be used in calculating the weighted average, regardless of the actual width of the open space. Where two or more buildings are on the same lot, \( W \) shall be measured from the exterior face of a building to the exterior face of an opposing building, as applicable.

Exception: The value of \( W \) divided by 30 shall be permitted to be a maximum of 2 when the building meets all requirements of Section 507 except for compliance with the 60-foot public way or yard requirement, as applicable.

507.4 Two Story. The area of a Group B, F, M or S building no more than two stories above grade plane shall not be limited when the building is equipped throughout with an automatic sprinkler system 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.

507.6 Group A-3 buildings of Type II Construction. The area of a Group A-3 building no more than one story above grade plane, used as a place of religious worship, community hall, dance hall, exhibition hall, gymnasium, lecture hall, indoor swimming pool or tennis court of Type I construction shall not be limited when all of the following criteria are met:

1. The building shall not have a stage other than a platform.

2. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

3. The building shall be surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width.
507.6 Group A-3 buildings of Types III and IV Construction. The area of a Group A-3 building no more than one story above grade plane, used as a place of religious worship, community hall, dance hall, exhibition hall, gymnasium, lecture hall, indoor swimming pool or tennis court of Type III and IV construction shall not be limited when all of the following criteria are met:

1. The building shall not have a stage other than a platform.
2. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. The assembly floor shall be located at or within 21 inches (533 mm) of street or grade level and all exits are provided with ramps complying with Section 1010.1 to the street or grade level.
4. The building shall be surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width.

507.9 Group E buildings. The area of a Group E building no more than one story above grade, 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 five means of egress, with one of the means of egress being a direct exit to the outside of the building complying with Section 1020 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 (2787 m2) 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 (18 288 mm) in width.
4. The building is designed to be connected to the building below by a fire barrier constructed in accordance with Section 707 or a horizontal assembly constructed in accordance with Section 712, or both.
5. An automatic extinguishing system, or both, in accordance with Table 508.2.5, is provided in accordance with Section 707.4.8.3. Doors shall not have air transfer openings and shall not be undercut in excess of the clearance permitted in accordance with NFPA 80. Walls surrounding the incidental accessory occupancy shall not have air transfer openings unless provided with smoke dampers in accordance with Section 711.7.

508.2.5 Separation of incidental accessory occupancies. The incidental accessory occupancies listed in Table 508.2.5 shall be separated from the remainder of the building or equipped with an automatic fire-extinguishing system, or both, in accordance with Table 508.2.5.

Exception: Incidental accessory occupancies within and serving a dwelling unit are not required to comply with this section. Table 508.2.5 specifies a fire-resistance-rated separation; the incidental accessory occupancies shall be separated from the remainder of the building by a fire barrier constructed in accordance with Section 707 or a horizontal assembly constructed in accordance with Section 712, or both. Construction supporting 1-hour fire-resistance-rated fire barriers or horizontal assemblies used for incidental accessory occupancy separations in buildings of Type IIB, IIIB and VB construction are not required to be fire-resistance rated unless required by other sections of this code.

508.2.5.2 Nonfire-resistance-rated separation and protection. Where Table 508.2.5 permits an automatic fire-extinguishing system without a fire barrier, the incidental accessory occupancies shall be separated from the remainder of the building by construction capable of resisting the passage of smoke. The walls shall extend from the top of the foundation or floor assembly below to the underside of the ceiling that is a component of a fire-resistance-rated floor assembly or roof assembly above or to the underside of the floor or roof sheathing, deck or slab above. Doors shall be self- or automatic closing upon detection of smoke in accordance with Section 715.4.8.3. Doors shall not have air transfer openings and shall not be undercut in excess of the clearance permitted in accordance with NFPA 80. Walls surrounding the incidental accessory occupancy shall not have air transfer openings unless provided with smoke dampers in accordance with Section 711.7.

508.2.5.3 Protection. Except as specified in Table 508.2.5 for certain incidental accessory occupancies, where an automatic fire extinguishing system or an automatic sprinkler system is provided in accordance with Table 508.2.5, only the space occupied by the incidental accessory occupancy need be equipped with such a system.

509.2 Horizontal building separation allowance.

This is new

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. Where required to have a fire-resistance rating by Table 601, building elements shall comply with the applicable provisions of Section 703.2. The protection of openings, ducts and air transfer openings in building elements shall not be required unless required by other provisions of this code.
603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

5. Millwork such as doors, door frames, window sashes and frames.
6. Interior wall and ceiling finishes installed in accordance with Sections 801 and 803.
7. Trim installed in accordance with Section 806.

Chapter 7

Section 702 Definitions.

Building Element. A fundamental component of building construction, listed in Table 601, which may or may not be of fire-resistance-rated construction, and is constructed of materials based on the building type of construction.

703.5 Fire-resistance-rated glazing. Fire-resistance-rated glazing, when tested in accordance with ASTM E 119 or UL 263 and complying with the requirements of Section 707, shall be permitted. Fire-resistance-rated glazing shall bear a label or other identification showing the name of the manufacturer, the test standard and the identifier “W-XXX,” where the “XXX” is the fire-resistance rating in minutes. Such label or identification shall be issued by an agency and shall be permanently affixed to the glazing.

703.6 Marking and identification. Fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified with signs or stenciling. Such identification shall:
1. Be located in accessible concealed floor, floor-ceiling or attic spaces;
2. Be repeated at intervals not exceeding 30 feet measured horizontally along the wall or partition; and 3. Include lettering not less than 0.5 inch in height, incorporating the suggested wording: “FIRE AND/OR SMOKE BARRIER—PROTECT ALL OPENINGS,” or other wording.

Exception: Walls in Group R-2 occupancies that do not have a removable decorative ceiling allowing access to the concealed space.

Section 704 Fire-Resistance Rating of Structural Members

2007 Section 714 is now 704

704.13 Sprayed fire-resistant materials (SFRM). Sprayed fire-resistant materials (SFRM) shall comply with Sections 704.13.1 through 704.13.5.

704.13.1 Fire-resistance rating. The application of SFRM shall be consistent with the fire-resistance rating and the listing, including, but not limited to, minimum thickness and dry density of the applied SFRM, method of application, substrate surface conditions and the use of bonding adhesives, sealants, reinforcing or other materials.

704.13.2 Manufacturer’s installation instructions. The application of SFRM shall be in accordance with the manufacturer’s installation instructions. The instructions shall include, but are not limited to, substrate temperatures and surface conditions and SFRM handling, storage, mixing, conveyance, method of application, curing and ventilation.

704.13.3 Substrate condition. The SFRM shall be applied to a substrate in compliance with Sections 704.13.3.1 through 704.13.3.2.

704.13.3.1 Surface conditions. Substrates to receive SFRM shall be free of dirt, oil, grease, release agents, loose scale and any other condition that prevents adhesion. The substrates shall also be free of primers, paints and encapsulants other than those fire tested and listed by a nationally recognized testing agency. Primed, painted or encapsulated steel shall be allowed, provided that testing has demonstrated that required adhesion is maintained.

704.13.3.2 Primers, paints and encapsulants. Where the SFRM is to be applied over primers, paints or encapsulants other than those specified in the listing, the material shall be field tested in accordance with ASTM E 736. Where testing of the SFRM with primers, paints or encapsulants demonstrates that required adhesion is maintained, SFRM shall be permitted to be applied to primed, painted or encapsulated wide flange steel shapes in accordance with the following conditions:
1. The beam flange width does not exceed 12 inches; or
2. The column flange width does not exceed 16 inches; or
3. The beam or column web depth does not exceed 16 inches.
4. The average and minimum bond strength values shall be determined based on a minimum of five bond tests conducted in accordance with ASTM E 736. Bond tests conducted in accordance with ASTM E 736 shall indicate a minimum average bond strength of 80 percent and a minimum individual bond strength of 50 percent, when compared to the bond strength of the SFRM as applied to clean uncoated 1/8-inch-thick steel plate.

704.13.4 Temperature. A minimum ambient and substrate temperature of 40°F shall be maintained during and for a minimum of 24 hours after the application of the SFRM, unless the manufacturer’s installation instructions allow otherwise.

704.13.5 Finished condition. The finished condition of SFRM applied to structural members or assemblies shall not, upon complete drying or curing, exhibit cracks, voids, spalls, delamination or any exposure of the substrate. Surface irregularities of SFRM shall be deemed acceptable.

705.2 Projections.
3. More than 12 inches (305) into areas where openings are prohibited.

705.5 Fire-resistance ratings. Exterior walls shall be fire-resistance rated in accordance with Tables 601 and 602 and this section. The required fire-resistance rating of exterior walls with a fire separation distance of greater than 10 feet shall be rated for exposure to fire from the inside. The required fire-resistance rating of exterior walls with a fire separation distance of less than or equal to 10 feet shall be rated for exposure to fire from both sides.

706.5.1 Exterior walls. Where the fire wall intersects Exterior walls, the fire-resistance rating and opening protection of the exterior walls shall comply with one of the following:
1. The exterior walls on both sides of the fire wall shall have a 1-hour fire-resistance rating with 3/4-hour protection where opening protection is required by Section 705.8. The fire-resistance rating of the exterior wall shall extend a minimum of 4 feet on each side of the intersection of the fire wall to exterior wall. Exterior wall intersections at fire walls that form an angle equal to or greater than 180 degrees do not need exterior wall protection.
2. Buildings or spaces on both sides of the intersecting fire wall shall assume to have an imaginary lot line at the fire wall and extending beyond the exterior of the fire wall. The location of the assumed line in relation to the exterior walls and the fire wall shall be such that the exterior wall and opening protection meet the requirements set forth in Sections 705.5 and 705.8. Such protection is not required for exterior walls terminating at fire walls that form an angle equal to or greater than 180 degrees.

<table>
<thead>
<tr>
<th>FIRE SEPARATION DISTANCE (feet)</th>
<th>DEGREE OF OPENING PROTECTION</th>
<th>ALLOWABLE AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to less than 3 b,c d,e</td>
<td>Unprotected, Nonsprinklered (UP, NS)</td>
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</tr>
<tr>
<td></td>
<td>Not Permitted</td>
<td>Not Permitted</td>
</tr>
<tr>
<td>3 to less than 5 d,e</td>
<td>Unprotected, Nonsprinklered (UP, NS)</td>
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</tr>
<tr>
<td></td>
<td>15%</td>
<td>Not Permitted</td>
</tr>
<tr>
<td></td>
<td>Protected (P)</td>
<td>15%</td>
</tr>
<tr>
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</tr>
<tr>
<td></td>
<td>25%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Protected (P)</td>
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</tr>
<tr>
<td>10 to less than 15 e,f,g</td>
<td>Unprotected, Nonsprinklered (UP, NS)</td>
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</tr>
<tr>
<td></td>
<td>45%</td>
<td>15%</td>
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<td></td>
<td>Protected (P)</td>
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<td>25%</td>
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<td></td>
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<td></td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>Protected (P)</td>
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<tr>
<td></td>
<td>Protected (P)</td>
<td>No Required</td>
</tr>
</tbody>
</table>

706.1.1 Exception: Openings in a party wall separating an anchor building and a mall shall be in accordance with Section 402.7.3.1.

Chapter 708
2007 was Section 707

708.2 Exceptions:
13. In group I-3 occupancies, a shaft enclosure is not required for floor openings in accordance with Section 408.5.
14. A shaft enclosure is not required for elevator hoistways in open or enclosed parking garages that serve only the parking garage.
15. In open or enclosed parking garages, a shaft enclosure is not required to enclose mechanical exhaust or supply duct systems when such duct system is contained within and serves only the parking garage.
7. Enclosed elevator lobbies are not required where the elevator serves only open parking garages in accordance with Section 406.3.

708.14.1.1 Areas of refuge. Areas of refuge shall be provided as required in Section 1007.

708.14.2.2 Rational Analysis. A rational analysis complying with Section 909.4 shall be submitted with the construction documents.

708.14.2.7 Special inspection. Same as 909.18.8 & 909.19

708.14.2.8 Marking and identification. Same as 909.14

708.14.2.9 Control diagrams. Same as 909.15

708.14.2.10 Control panel. Same as 909.16

708.14.2.11 System response time. Same as 909.17

709.1 Residential aircraft hangers has been deleted

Exceptions:
4. Other than dwelling units or sleeping units, walls used to separate individual tenant spaces shall not be required to have a fire-resistance rating when the building is protected by a complete automatic sprinkler system installed in accordance with section 903.3.1.1.

712.4 Continuity.
Exception: In buildings of Type IIB, IIIB or VB construction, the construction supporting the horizontal assembly is not required to be fire-resistance-rated at the following:
   - Horizontal assemblies at the separations of incidental uses as specified by Table 508.2.5, provided the required fire-resistance-rating does not exceed 1 hour.
   - Horizontal assemblies at the separations of dwelling units and sleeping units as required by Section 439.3.
   - Horizontal assemblies at smoke barriers constructed in accordance with Section 710.

712.9 Smoke Barrier. Where horizontal assemblies are required to resist the movement of smoke by other sections of this code in accordance with the definition of smoke barrier, penetrations and joints in such horizontal assemblies shall be protected as required for smoke barriers in accordance with Sections 713.5 and 714.6. Regardless of the number of stories connected by elevator shaft enclosures, doors located in elevator shaft enclosures that penetrate the horizontal assembly shall be protected by enclosed elevator lobbies complying with Section 708.14.1. Openings through the horizontal assemblies shall be protected by shaft enclosures complying with Section 708. Horizontal assemblies shall not be allowed to have unprotected vertical openings.

713.1.1 Ducts and air transfer openings. Penetrations of fire-resistance-rated walls by ducts that are not protected with dampers shall comply with Sections 713.2 through 713.3.3. Penetrations of horizontal assemblies not protected with a shaft as permitted by Exception 4 of Section 708.2, and not required to be protected with fire dampers by other sections of this code, shall comply with Sections 713.4 through 713.4.2.2. Ducts and air transfer openings that are protected with dampers shall comply with Section 716.

713.3.2 Exceptions: 4. Membrane penetrations by boxes other than electrical boxes, provided such penetrating items and the annular space between the wall membrane and the box, are protected by an approved membrane penetration firestop system installed as tested in accordance with ASTM E 814 or UL 1479, with a minimum positive pressure differential of 0.01 inch (2.49 Pa) of water, and shall have an F and T rating of not less than the required fire-resistance-rating of the wall penetrated and be installed in accordance with their listings.

714.4.1 Exterior curtain wall/non-fire-resistance-rated floor assembly intersections. Voids created at the intersection of exterior curtain wall assemblies and non-fire-resistance-rated floor or floor/ceiling assemblies shall be sealed with an approved material or system to retard the interior spread of fire and hot gases between the stories.

715.4.3 Exceptions: 4. Horizontal sliding doors in smoke barriers that comply with Sections 408.3 and 408.8.4 in occupancies in Group I-3.

715.4.5 Fire door frames with transom lights and sidelights. Door frames with transom lights, sidelights, or both, shall be permitted where a 3/4-hour fire protection rating or less is required in accordance with Table 715.4. Where a fire protection rating exceeding ¾-hour is required in accordance with Table 715.4, fire door frames with transom lights, sidelights, or both, shall be permitted where installed with fire-resistance-rated glazing tested as an assembly in accordance with ASTM E119 or UL 263.

715.5.3 Safety glazing. Fire-protection-rated glazing installed in fire window assemblies in areas subject to human impact in hazardous locations shall comply with Chapter 24.
716.1.1.1 Ducts that penetrate non-fire-resistance-rated assemblies. The space around a duct penetrating a non-fire-resistance-rated floor assembly shall comply with 716.6.3.

716.3 Damper testing, ratings and actuation.

716.3.2 Damper rating. Damper ratings shall be in accordance with Sections 716.3.2 through 716.3.2.3.

716.3.2.1 Fire damper ratings. Fire dampers shall have the minimum fire protection rating specified in Table 716.3.2.1 for the type of penetration.

716.3.2.2 Smoke damper ratings. Smoke damper leakage rates shall not be less than Class II. Elevated temperature ratings shall not be less than 250 degrees F (121 degrees C).

716.3.2.3 Combination fire/smoke damper ratings. Combination fire/smoke dampers shall have the minimum fire protection rating specified for fire dampers in Table 716.3.2.1 for the type of penetration and shall also have a minimum Class II leakage rating and a minimum elevated temperature rating of 250 degree F (121 degree C).

716.3.3.3 Ceiling radiation damper actuation. The operating temperature of a ceiling radiation damper actuation device shall be 50 degrees F (27.8 degrees C) above the normal temperature within the duct system, but not less than 160 degrees F (71 degrees C).

716.5.1.1 Horizontal exits. A listed smoke damper designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a fire wall that serves as a horizontal exit.

716.5.2.1 same as 716.5.1.1

716.5.3 Exceptions: 5. Fire dampers and combination fire/smoke dampers are not required in kitchen and clothes dryer exhaust systems when installed in accordance with the Florida Building Code, Mechanical.

716.5.4 Fire partitions. Exceptions:
1. Corridor walls in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the duct is protected as a through penetration in accordance with Section 713.

716.5.6 Exterior walls. Ducts and air transfer openings in fire-resistance-rated exterior walls required to have protected openings in accordance with Section 705.10 shall be protected with listed fire dampers installed in accordance with their listings.

716.5.7 Smoke partitions. A listed smoke damper designed to resist the passage of smoke shall be provided at each point that an air transfer opening penetrates a smoke partition. Smoke dampers and smoke damper actuation methods shall comply with Section 716.3.3.2.

Exception: Where the installation of a smoke damper will interfere with the operation of a required smoke control system in accordance with Section 909, approved alternative protection shall be utilized.

721.2.4.1.1 Concrete strength less than or equal to 12,000 psi. For columns made with concrete having a specified compressive strength, f'c, of less than or equal to 12,000 psi (82.7 MPa), the minimum dimension shall comply with table 721.2.4.

721.2.4.1.2 Concrete strength greater than 12,000 psi. For columns made with concrete having specified compressive strength, f'c, greater than 12,000 psi (82.7 MPa), for fire-resistance ratings of 1-hour to 4-hours the minimum dimension shall be 24 inches (610 mm).

721.2.4.3 Tie and spiral reinforcement. For concrete columns made with concrete having a specified compressive strength, f'c, greater than 12,000 psi (82.7 MPa), tie and spiral reinforcement shall comply with the following:
1. The free ends of rectangular ties terminate with a 135 degree (2.4 rad) standard tie hook.
2. The free ends of circular ties shall terminate with a 90-degree (1.6 rad) standard tie hook.
3. The free ends of spirals, including at lap splices, shall terminate with a 90-degree (1.6 rad) standard tie hook.

The hook extension at the free end of ties and spirals shall be larger of six bar diameters, and the extension required by Section 7.1.3 of ACI 318. Hooks shall project into the core of the column.

801.2 Interior wall and ceiling finish. The provisions of Section 804 shall limit the allowable fire performance and smoke development of interior wall and ceiling finish materials based on occupancy classification.

801.3 Interior floor finish. The provisions of Section 804 shall limit the allowable fire performance of interior floor finish materials based on occupancy classification.

801.5 Applicability. For buildings in flood hazard areas as established in Section 1612.3, interior finishes, trim and decorative materials that extend below the elevation required by Section 1612.4 design flood elevation shall be flood-damage-resistant materials.
802 Definitions.

Site-Fabricated Stretch System. A system, fabricated on site and intended for acoustical, tackable or aesthetic purposes, that is comprised of three elements: (a) a frame) constructed of plastic, wood, metal or other material) used to hold fabric in place, (b) a core material (infill, with the correct properties for the application), and (c) an outside layer, comprised of a textile, fabric or vinyl, that is stretched taut and held in place by tension or mechanical fasteners via the frame.

806.6 Interior floor-wall base. Interior floor-wall base that is 6 inches (152 mm) or less in height shall be tested in accordance with Section 804.2 and shall not be less than Class II. Where a Class I floor finish is required, the floor-wall base shall be Class I. Exception: Interior trim materials that comply with Section 806.5.

Section 807 Insulation

807.1 Insulation. Thermal and acoustical insulation shall comply with Section 719.

Section 808 Acoustical Ceiling Systems

808.1 Acoustical ceiling systems. The quality, design, fabrication and erection of metal suspension systems for acoustical tile and lay-in panel ceilings in buildings or structures shall conform with generally accepted engineering practice, the provisions of this chapter and other applicable requirements of this code.

808.1.1 Materials and installation. Acoustical materials complying with the interior finish requirements of Section 803 shall be installed in accordance with the manufacturer’s recommendations and applicable provisions for applying interior finish.

808.1.1.1 Suspended acoustical ceilings. Suspended acoustical ceiling systems shall be installed in accordance with the provisions of ASTM C 635 and ASTM C 636.

808.1.1.2 Fire-resistance-rated construction. Acoustical ceiling systems that are part of fire-resistance-rated construction shall be installed in the same manner used in the assembly tested and shall comply with the provisions of Chapter 7.

Chapter 9

Section 902 Definitions

Automatic Smoke Detection System. A fire alarm system that has initiation devices that utilize smoke detectors for protection of an area such as a room or space with detectors to provide early warning of fire.

Elevator Group. A grouping of elevators in a building located adjacent or directly across from one another that responds to a common hall call button.

Fire Area. The aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls or horizontal assemblies of a building. Areas of the building not provided with surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above.

903.2.3 Group E

Throughout all Group E fire areas greater than 12,000 square feet (1115 M2) in area.

903.2.7 Group M

A group M occupancy is used for display and sale of upholstered furniture.

903.2.9.1 Repair garages.

A Group S-1 fire area used for repair of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m2).

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

Exceptions:

Single- and two-family dwellings.

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 in Section 406.3. Such garages shall be separated from any other structure by not less than 20 feet (6096 mm). A stand-alone parking garage is one that is solely for the parking of vehicles and does not have any other occupancy group in the building.

Telecommunication spaces located within telecommunication buildings, if spaces are equipped to meet an equivalent fire prevention standard approved by both the Florida Building Commission and the State Fire Marshal.

Telecommunications spaces within telecommunication buildings, if the telecommunications space is equipped with:
Air sampling smoke detection.
Remote, proprietary or central station fire alarm monitoring.
Automatic smoke exhaust system.
One-hour fire-resistance wall separating the telecommunications space from the adjacent areas on the same floor.
Two-hour floor/ceiling assembly separating the telecommunications space from adjacent floors.
All other portions ancillary to the telecommunications equipment area shall be provided with fire sprinkler protection.
Sprinkler systems installed solely as a requirement of Section 903.2.11.3 may be a NFPA 13R or NFPA 13D system in accordance with their scopes.

903.3.1.1 Exempt locations.
5. Fire service access elevator machine rooms and machinery spaces.

905.3.3 Covered mall buildings.
4. At other locations as necessary so that the distance to reach all portions of a tenant space does not exceed 200 feet (60,960 mm) from a hose connection.

905.4 Location of Class I standpipe hose connection.
3. Exception: Where the floor areas adjacent to a horizontal exit are reachable from exit stairway hose connection by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30,480 mm) of hose, a hose connection shall not be required at the horizontal exit.

Section 906 Portable Fire Extinguishers
Whole new section.
906.1 through 906.10

907.1.2 Fire Alarm shop drawings.
3. Locations of alarm notification appliances, including candela ratings for visible alarm notification appliances.
4. Location of fire alarm control unit, transponders and notification power supplies.
13. Classification of the supervising station.

907.2 Where required-new buildings and structures.
Added paragraph
A minimum of one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or waterflow detection devices. Where other sections of this code elimination of the fire alarm boxes due to sprinklers, a single fire alarm box shall be installed.
Exceptions:
The manual fire alarm box is not required for fire alarm systems dedicated to elevator recall control and supervisory service. The manual fire alarm box is not required for Group R-2 occupancies unless required by the fire code official to provide a means for fire watch personnel to initiate an alarm during sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is accessible to the public.

907.2.2 Group B.
Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler waterflow.

909.20.6.1 Ventilation systems.

Exceptions:
Control wiring and power wiring utilizing a 2-hour rated cable or cable system.
Where encased with not less than 2 inches (51 mm) of concrete.

911.1 General. Where required by other sections of this code and in all buildings classified as high-rise buildings by this code, a fire command center for fire department operations shall be provided and shall comply with Sections 911.1.1 through 911.1.5.

911.1.1 Location and access. The location and accessibility of the fire command center shall be approved by the fire chief.

911.1.2 Separation. The fire command center shall be separated from the remainder of the building by no less than a 1-hour fire barrier constructed in accordance with Section 707 or horizontal assembly constructed in accordance with Section 712, or both.

911.1.3 Size. The room shall be a minimum of 200 square feet (19m2) with a minimum dimension of 10 feet (3048 mm).

911.1.4 Layout approval. A layout of the fire command center and all features required by Section 911.1.5 to be contained therein shall be submitted for approval prior to installation.

911.1.5 Required features.
16. Elevator fire recall switch in accordance with ASME A17.1.
17. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.

912.3 Access.

Exception: Fences, where provided with an access gate equipped with a sign complying with the legend requirements of Section 912.4 and a means of emergency operation. The gate and the means of emergency operation shall be approved by the fire chief and maintained operational at all times.

912.3.2 Clear space around connections. A working space of not less than 36 inches (762 mm) in width, 36 inches (914 mm) in depth and 78 inches (1981 mm) in height shall be provided and maintained in front of and to the sides of wall-mounted fire department connections and around the circumference of free-standing fire department connections, except as otherwise required or approved by the fire chief.

912.3.3 Physical protection. Where fire department connections are subject to impact by a motor vehicle, vehicle impact protection shall be provided in accordance with the Florida Fire Prevention Code.

SECTION 913
Fire Pumps
New section 913.1 through 913.5

SECTION 914
EMERGENCY RESPONDER SAFETY FEATURES
New section 914.1 through 914.2

SECTION 915
EMERGENCY RESPONDER RADIO COVERAGE
915.1 General. Emergency responder radio coverage shall be provided in all new buildings in accordance the Florida Fire Prevention Code.

SECTION 916
CARBON MONOXIDE PROTECTION
New section 916.1 through 916.1.3

Chapter 10 Means of Egress

1002 Definitions

Bleachers. Tiered seating supported on a dedicated structural system and two or more rows high and is not a building element (see “Grandstands”).

Exit Access Doorway. A door or access point along the path of egress travel from an occupied room, area or space where the path of egress enters an intervening room, corridor, unenclosed exit access stair or unenclosed exit access ramp.

Flight. A continuous run of rectangular treads, winders or combination thereof from one landing to another.

Folding and Telescopic Seating. Tiered seating having an overall shape and size that is capable of being reduced for purposes of moving or storing and is not a building element.

Grandstand. Tiered seating supported on a dedicated structural system and two or more rows high and is not a building element (see “Bleachers”).

Self-Luminous. Illuminated by a self-contained power source, other than batteries, and operated independently of external power sources.

Suite. A group of patient treatment rooms or patient sleeping rooms contained within Group I-2 occupancies where staff are in attendance within the suite, for supervision of all patients within the suite and the suite is in compliance with the requirements of Sections 1014.2.2 through 1014.2.7.

1003.1 Applicability.
Exceptions:

Ramp headroom in accordance with Section 1010.5.2.
The clear height of floor levels in vehicular and pedestrian traffic areas in parking garages in accordance with Section 406.2.2.
Areas above and below mezzanine floors in accordance with Section 505.1.
1005.3 Door hardware encroachment. Surface-mounted latch release hardware shall be exempt from the inclusion in the 7-inch (178 mm) maximum projection requirement of Section 1005.2 when:

The hardware is mounted to the side of the door facing the corridor width when the door is in the open position; and
The hardware is mounted not less than 34 inches (865 mm) or more than 48 inches (1220 mm) above the finished floor.

1008.1.1.1 Projections into clear width.

Exception: Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.

1008.1.2 Door swing.

Exception:

In other than Group H occupancies, manually operated horizontal sliding doors are permitted in a means of egress from spaces with an occupant load of 10 or less.

1008.1.3 Door opening force.

Split from 1008.1.2

1008.1.3.1 Location of applied forces. Forces shall be applied to the latch side of the door.

1008.1.9.3 Locks and latches.

Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.

1008.1.9.4 Bolt locks.

Exceptions:

Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall contain no doorknobs, panic bars or singular operating hardware.

Where a pair of doors serves a Group B, F or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf provided such inactive leaf is not needed to meet egress width requirements and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.

Where a pair of doors serves patient care rooms in Group I-2 occupancies, self-latching edge- or surface-mounted bolts are permitted on the inactive leaf provided that the inactive leaf is not needed to meet egress requirements and the inactive leaf contains no doorknobs, panic bars or similar operating hardware.

1008.1.9.8 Electromagnetically locked egress doors. Doors in the means of egress that are not otherwise required to have panic hardware in buildings with an occupancy in Group A, B, E, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meets the requirements below:

The listed hardware that is affixed to the door leaf has a obvious method of operation that is readily operated under all lighting conditions.

The listed hardware is capable of being operated with one hand.

Operation of the listed hardware releases to the electromagnetic lock and unlocks the door immediately.

Loss of power to the listed hardware automatically unlocks the door.

1008.1.9.9 Locking arrangements in correctional facilities. In occupancies in Groups A-2, A-3, B, E, F, I-2, I-3, M and S within correctional and detention facilities, doors in means of egress serving rooms or spaces occupied by persons whose movements are controlled for security reasons shall be permitted to be locked when equipped with egress control devices which shall unlock manually and by at least one of the following means.

Activation of an automatic sprinkler system installed in accordance with Section 903.3.1.1;
Activation of an approved manual alarm box; or
A signal from a constantly attended location.

1008.1.10 Panic and fire exit hardware. Doors serving a Group H occupancy and doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.
1008.1.9.3, Item 2. A main exit of a Group A occupancy in compliance with Section 1008.1.9.3, Item 2.

Outdoor gates from residential or commercial swimming pools or swimming pool decks, except where the pool deck serves as a portion of the means of egress of a building or has an occupant load of 300 or greater.

1009.14 Stairway to elevator equipment. Roofs and penthouses containing elevator equipment that must be accessed for maintenance are required to be accessed by a stairway.

1010.9 Edge protection.

Exceptions:

In assembly spaces with fixed seating, edge protection is not required on the sides of ramps where the ramps provide access to the adjacent seating and aisle accessways

SECTION 1011 Exit Signs.

1011.1 Where required. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet (30 480 mm) or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign.

Exceptions:

Exit signs are not required in rooms or areas that require only one exit or exit access.

Main exterior exit doors or gates that are obviously and clearly identifiable as exits need not have exit signs where approved by the building official.

Exit signs are not required in occupancies in Group U and individual sleeping units or dwelling units in Group R-1, R-2 or R-3.

Exit signs are not required in dayrooms, sleeping rooms or dormitories in occupancies in Group I.

In occupancies in Groups A-4 and A-5, exit signs are not required on the seating side of vomitories or openings into seating areas where exit signs are provided in the concourse that are readily apparent from the vomitories. Egress lighting is provided to identify each vomitory or opening within the seating area in an emergency.

1012.3 Handrail graspsability.

Exceptions:

Accessible handrails shall meet the requirements of the Florida Building Code, Accessibility.

1012.3.1 Type I. Handrails with a circular cross section shall have an outside diameter of at least 1 1/4 inches and not greater than 2 inches or shall provide equivalent graspsability. If the handrail is not circular, it shall have a perimeter dimension of at least 4 inches and not greater than 61/4 inches with a maximum cross-section dimension of 21/4 inches. Edges shall have a minimum radius of 0.01 inch.

1012.3.2 Type II. Handrails with a perimeter greater than 61/4 inches shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of 3/4 inch measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch within 7/8 inch below the widest portion of the profile. This required depth shall continue for at least 3/8 inch to a level that is not less than 13/4 inches below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 11/4 inches to a maximum of 23/4 inches. Edges shall have a minimum radius of 0.01 inch.

1012.4 Continuity. Handrail-gripping surfaces shall be continuous, without interruption by newel posts or other obstructions.
Exceptions:

Handrails within dwelling units are permitted to be interrupted by a newel post at a turn or landing. Within a dwelling unit, the use of a volute, turnout, starting easing or starting newel is allowed over the lowest tread. Handrail brackets or balusters attached to the bottom surface of the handrail shall not be considered to be obstructions to graspability, provided that the following conditions are met: that do not project horizontally beyond the sides of the handrail within 1 1/2 inches of the bottom of the handrail shall not be considered obstructions. For each 1/2 inch of additional handrail perimeter dimension above 4 inches (102 mm), the vertical clearance dimension of 1 1/2 inches shall be permitted to be reduced by 1/8 inch.

Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of the handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.

1012.6 Handrail extensions.

Exceptions:

3. Handrails for alternating tread devices and ship ladders are permitted to terminate at a location vertically above the top and bottom risers. Handrails for alternating tread devices and ship ladders are not required to be continuous between flights or to extend beyond the top or bottom risers.

4. Accessible handrail extensions shall be as per the Florida Building Code, Accessibility.

SECTION 1013 – GUARDS

1013.1.1 Glazing. Where glass is used to provide a guard or as a portion of the guard system, the guard shall also comply with Section 2407. Where the glazing provided does not meet the strength and attachment requirements of Section 1607.7, complying guards shall also be located along glazed sides of open-sided walking surfaces.

1013.2 Height.

Exceptions:

2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards whose top rail where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be shall have a height not less than 34 inches and not more than 38 inches measured vertically from a line connecting the leading edges of the stair treads nosing.

4. Along alternating tread devices and ship ladders, guards whose top rail also serves as a handrail, shall have height not less than 30 inches and not more than 34 inches, measured vertically from the leading edge of the device tread nosing.

1013.3 Opening limitations.

Exceptions:

1. From a height of 36 inches (914 mm) to 42 inches (1067 mm), guards shall not have openings which allow passage of a sphere 4 3/8 inches (111 mm) in diameter.

1014.2.3 through 1014.2.7 New Section dealing with suites in patient sleeping areas.

1016.1 Travel Distance limitations.
Exceptions:

In other than occupancy Groups H and I, the exit access travel distance to a maximum of 50 percent of the exits is permitted to be measured from the most remote point within a building to an exit using unenclosed exit access stairways or ramps when connecting a maximum of two stories. The two connected stories shall be provided with at least two means of egress. Such interconnected stories shall not be open to other stories.

In other than occupancy Groups H and I, exit access travel distance is permitted to be measured from the most remote point within a building to an exit using unenclosed exit access stairways or ramps in the first and second stories above grade plane in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The first and second stories above grade plane shall be provided with at least two means of egress. Such interconnected stories shall not be open to other stories.

SECTION 1017
AISLES

1017.1 General. Aisles serving as a portion of the exit access in the means of egress system shall comply with the requirements of this section. Aisles shall be provided from all occupied portions of the exit access which contain seats, tables, furnishings, displays and similar fixtures or equipment. Aisles serving assembly areas shall comply with Section 1028. Aisles serving reviewing stands, grandstands and bleachers shall also comply with Section 1028. The required width of aisles shall be unobstructed.

Exception: Doors complying with Section 1005.2.

1017.2 Aisles in Groups B and M. In Group B and M occupancies, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall not be less than 36 inches (914 mm).

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

1017.3 Aisle accessways in Group M. An aisle accessway shall be provided on at least one side of each element within the merchandise pad. The minimum clear width for an aisle accessway not required to be accessible shall be 30 inches (762 mm). The required clear width of the aisle accessway shall be measured perpendicular to the elements and merchandise within the merchandise pad. The 30-inch (762 mm) minimum clear width shall be maintained to provide a path to an adjacent aisle or aisle accessway. The common path of travel shall not exceed 30 feet (9144 mm) from any point in the merchandise pad.

Exception: For areas serving not more than 50 occupants, the common path of travel shall not exceed 75 feet (22880 mm).

1017.4 Seating at tables. Where seating is located at a table or counter and is adjacent to an aisle or aisle accessway, the measurement of required clear width of the isle or isle accessway shall be made to a line 19 inches (483 mm) away from and parallel to the edge of the table or counter. The 19-inch (483 mm) distance shall be measured perpendicular to the side of the table or counter. In the case of other side boundaries for the aisle or aisle accessway, the clear width shall be measured to walls, edges of seating and tread edges, except that handrail projections are permitted.

Exception: Where tables or counters are served by fixed seats, the width of the aisle accessway shall be measured from the back of the seat.

1017.4.1 Aisle accessway for tables and seating. Aisle accessways serving arrangements of seating at tables or counters shall have sufficient clear width to conform to the capacity requirements of Section 1005.1 but shall not have less than the appropriate minimum clear width specified in Section 1017.4.2.

1017.4.2 Table and seating accessway width. Aisle accessways shall provide a minimum of 12 inches (305 mm) of width plus ½ inch (12.7 mm) of width for each additional 1 foot (205 mm), or fraction thereof, beyond 12 feet (3658 mm) of aisle accessway length measured from the center of the seat farthest from the aisle.

Exception: Portions of an aisle accessway having a length not exceeding 6 feet (1829 mm) and used by a total of not more than four persons.

1017.4.3 Table and seating aisle accessway length. The length of travel along the aisle accessway shall not exceed 30 feet (9144 mm) from any seat to the point where a person has a choice of two or more paths of egress travel to separate exits.

1018.3 Corridor obstruction. The required width of corridors shall be unobstructed.

1018.5 Air movement in corridors.

Exceptions;

Incidental air movement from pressurized rooms within health care facilities, provided that the corridor is not the primary source of supply or return to the room.

1018.4 Dead ends.
Exception;
In occupancies in Groups B, and E, F, I-1, M, R-1, R-2, R-4, S and U, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.1.1, the length of the dead-end corridors shall not exceed 50 feet (15 240 mm).

SECTION 1019
EGRESSBALCONIES

1019.1 General. Balconies used for egress purposes shall conform to the same requirements as corridors for width, headroom, dead ends and projections.

1019.2 Wall separation. Exterior egress balconies shall be separated from the interior of the building by walls and opening protective as required for corridors.

Exception: Separation is not required where the exterior egress balcony is served by at least two stairs and a dead-end travel condition does not require travel past an unprotected opening to reach a stair.

1019.3 Openness. The long side of an egress balcony shall be at least 50 percent open, and the open area above the guards shall be so distributed as to minimize the accumulation of smoke or toxic gases.

SECTION 1021
EXITS FROM STORIES

1021.1 Exits from stories.

Exceptions:
As modified by Section 403.5.2.
As modified by Section 1021.2.
Exit access stairways and ramps that comply with Exception 3 or 4 of Section 1016.1 shall be permitted to provide the minimum number of approved independent exits required by Table 1021.1 on each story.
In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 903.3.1.2.
Within a story, rooms and spaces complying with Section 1015.1 with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit.

1021.1.1 Exits maintained. The required number of exits from any story shall be maintained until arrival at grade or the public way.

1022.2 Termination. Exit enclosures shall terminate at an exit discharge or a public way.
Exception: An exit enclosure Shall be permitted to terminate at an exit passageway complying with Section 1023, provided the exit passageway terminates at an exit discharge or a public way.

1022.2.1 Extension. Where an exit enclosure is extended to an exit discharge or a public way by an exit passageway, the exit enclosure shall be separated from the exit passageway by a fire barrier constructed in accordance with Section 707 or a horizontal assembly constructed in accordance with Section 712, or both. The fire-resistance rating shall be at least equal to that required for the exit enclosure. A fire door assembly complying with Section 715.4 shall be installed in the fire barrier to provide a means of egress from the exit enclosure to the exit passageway. Openings in the fire barrier other than fire door assembly are prohibited. Penetrations of the fire barrier are prohibited.
Exception: Penetrations of the fire barrier in accordance with Section 1022.4 shall be permitted.

1022.8 Floor Identification signs. Only change is “Floor level identification signs in tactile characters complying with ICC A 117.1 shall be located at each floor level landing adjacent to the door leading from the enclosure into the corridor to identify the floor level.

1022.8.1 Signage requirements. Stairway identification signs shall comply with all the following requirements:
1. The signs shall be a minimum size of 18 inches by 12 inches (457 mm by 305 mm).
2. The letters designating the identification of the stair enclosure shall be a minimum of 1 ½ inches (38 mm) in height.
3. The number designating the floor level shall be a minimum of 5 inches (127 mm) in height and located in the center of the sign.
4. All other lettering and numbers shall be minimum of 1 inch (25 mm) in height.
5. Characters and their background shall have a nonglare finish. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.
6. When signs required by Section 1022.8 are installed in interior exit enclosures of buildings subject to Section 1024, the signs shall be made of the same material as required by Section 1024.4.

1022.9.1 Termination and extension. Exceptions:
3. The fire barrier separating the smokeproof enclosure or pressurized stairway from the exit passageway is not required, provided the exit passageway is protected and pressureized in the same manner as the smokeproof enclosure or pressurized stairway.

1023.4 Termination. Exit passageways shall terminate at an exit discharge or a public way.

SECTION 1024
LUMINOUS EGRESS PATH MARKINGS

Whole new section with mandatory locations and requirements for use. The use of photoluminescent or self-illuminating materials to mark the exit path is now required in Group A, B, E, I, M and R-1 occupancies have occupied floors more than 75 feet above the lowest level of fire department vehicle access. The material must meet the requirements of UL 1994, Luminous Egress Path Marking System or ASTM E 2072, Standard Specification for Photoluminescent Safety Marking.

1025.4 Capacity of refuge area. Added – The refuge area into which a horizontal exit leads shall be provided with exits adequate to meet the occupant requirements of this chapter, but not including the added occupant load imposed by persons entering it through horizontal exits from other areas. At least one refuge area exit shall lead directly to the exterior or to an exit enclosure.

Exception: The adjoining compartment shall not be required to have a stairway or door leading directly outside, provided the refuge area into which a horizontal exit leads has stairways or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates.

SECTION 1028
ASSEMBLY

1028.1 General. Occupancies in Group A and assembly occupancies accessory to Group E which contain seats, tables, displays, equipment or other material shall comply with this section.

1028.9 Assembly aisles are required. Every occupied portion of any occupancy in Group A or assembly occupancies accessory to Group E that contain seats, tables, displays, similar fixtures or equipment shall be provided with aisles leading to exits or exit access doorways in accordance with Section 1017.4.

1028.13 Handrails.

Exceptions:
3. Handrail extensions are not required at the top and bottom of aisle stairs and aisle ramp runs to permit crossovers within the aisles.

CHAPTER 11
ACCESSIBILITY

This is no longer in the building code but is now a separate stand alone code.

CHAPTER 12
INTERIOR ENVIRONMENT

SECTION 1207
SOUND TRANSMISSION
1207.2.1 Masonry. The sound transmission class of concrete masonry and clay masonry assemblies shall be calculated in accordance with TMS 0302 or determined through testing in accordance with ASTM E 492.

SECTI0N 1210
SURROUNDING MATERIALS

1210.1 Floors and wall base finish materials. In other than dwelling units, toilet, bathing and shower room floor finish materials shall have a smooth, hard, nonabsorbent surface. The intersections of such floors with walls shall have a smooth, hard, nonabsorbent vertical base that extends upward onto the walls at least 4 inches (102 mm).

CHAPTER 13
ENERGY EFFICIENCY
This is no longer within the building code but is now a standalone code.

CHAPTER 14
EXTERIOR WALLS

1402.1 - DEFINITIONS

EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS). EIFS are nonstructural, nonload-bearing, exterior wall cladding systems that consist of an insulation board attached either adhesively or mechanically, or both, to the substrate; an integrally reinforced base coat and a textured protective finish coat.

EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) WITH DRAINAGE. An EIFS that incorporates a means of drainage applied over a water-resistive barrier.

1404.11 Exterior insulation and finish system. Exterior insulation and finish systems (EIFS) and exterior insulation and finish systems (EIFS) with drainage shall comply with Section 1408.

1405.3 Vapor retarders. Class I or II vapor retarders shall be provided on the interior side of frame walls in Zones 5, 6, 7, 8 and Marine 4.

Exceptions:
1. Basement walls.
2. Below-grade portion of any wall.
3. Construction where moisture or its freezing will not damage the materials.

1405.3.1 Class III vapor retarders. Class III vapor retarders shall be permitted where any of the conditions in Table 1405.3.1 is met.

Table 1405.3.1
Class III Vapor Retarders
New table with zone and Class III vapor retarders permitted for

1405.3.2 Material vapor retarder class. The vapor retarder class shall be based on the manufacturer’s certified testing or a tested assembly.

The following shall be deemed to meet the class specified:
Class I: sheet polyethylene, nonperforated aluminum foil
Class II: Kraft-faced fiberglass batts or paint with a perm rating greater than 0.1 and less than or equal to 1.0.
Class III: Latex or enamel paint.

1405.3.3 Minimum clear airspaces and vented cladding. For the purposes of this section, vented cladding shall include the following minimum clear airspaces.
1. Vinyl lap or horizontal aluminum siding applied over a weather-resistive barrier as specified in this chapter.
2. Brick veneer with a clear airspace as specified in this code.
3. Other approved vented claddings.

1407.8 Fire-resistance rating.

Exception: MCM systems not containing foam plastic insulation, which are installed on the outer surface of a fire-resistance rated exterior wall in a manner such that the attachments do not penetrate through the entire exterior wall assembly, shall not be required to comply with this section.

1407.13 Foam plastic insulation. MCM systems containing foam plastic insulation shall also comply with the requirements of Section 2603.

SECTION 1408 –
EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)
1408.1 General. The provisions of this section shall govern the materials, construction and quality of interior insulation and finish systems (EIFS) for use as exterior wall coverings in addition to other applicable requirements of Chapters 7, 14, 16, 17 and 26.

1408.2 Performance characteristics. EIFS shall be constructed such that it meets the performance characteristics required in ASTM E 2568.

1408.3 Structural design. The underlying structural framing and substrate shall be designed and constructed to resist loads as required by Chapter 16.

1408.4 Weather resistance. EIFS shall comply with Section 1403 and shall be designed and constructed to resist wind and rain in accordance with this section and the manufacturer’s application instructions.

1408.4.1 EIFS with drainage. EIFS with drainage shall have an average minimum drainage efficiency of 90 percent when tested in accordance the requirements of ASTM E 2273 and is required on framed walls of Type V construction and Group R1, R2, R3 and R4 occupancies.

1408.4.1.1 Water-resistive barrier. For EIFS with drainage, the water-resistive barrier shall comply with Section 1404.2 or ASTM E 2570.

1408.5 Installation. Installation of the EIFS and EIFS with drainage shall be in accordance with the EIFS manufacturer’s instructions.

1408.6 Special inspections. Reserved

CHAPTER 15
ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

Section 1502
DEFINITIONS

AGGREGATE. In roofing, crushed stone, crushed slag or water-worn gravel used for surfacing for roof coverings.

BALLAST. In roofing, ballast comes in the form of large stones or paver systems or light-weight interlocking paver systems and is used to provide uplift resistance for roofing systems that are not adhered or mechanically attached to the roof deck.

BUILDING INTERGRA TED PHOTOVOLTIC ROOFING. A roofing product consisting of electricity generating photovoltaic component integrated into a roof covering.

1502.4.1 Secondary drainage required. Secondary (emergency) roof drains or scuppers shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason.

1503.6 Crickets and saddles. A cricket or saddle shall be installed on the ridge side of any chimney or penetration greater than 30 inches (762 mm) wide as measured perpendicular to the slope. Cricket or saddle coverings shall be sheet metal or of the same material as the roof covering.

1507.17.3 Wind resistance. Building integrated roofing photovoltaic modules/shingles shall be tested in accordance with procedures and acceptance criteria in ASTM D 3161 or TAS 107. Building integrated roofing photovoltaic modules/shingles shall comply with the
classification requirements of Table 1507.2.7.1 for the appropriate maximum basic wind speed. Building integrated photovoltaic roofing modules/shingle packaging shall bear a label to indicate compliance with the procedures in ASTM D 3161 or TAS 107 and the required classification from Table 1507.2.7.1.

1509.2.4 Type of construction.

Exceptions:
  4. On buildings of Type I construction, unprotected noncombustible enclosures housing only mechanical equipment and located with a minimum fire separation distance of 20 feet (6096 mm) shall be permitted.
  5. On buildings of Type I construction two stories or less above grade plane or Type II, III, IV, and V construction, unprotected noncombustible or fire-retardant-treated wood enclosures housing only mechanical equipment and located with a minimum fire separation distance of 20 feet (6096 mm) shall be permitted.

CHAPTER 16
STRUCTURAL DESIGN

1603.1 General.
Exception:

3. Ultimate design wind speed, \( V_{ult} \), (3-second gust), miles per hour (mph)(km/hr) and nominal design wind speed, \( V_{asd} \), as determined in accordance with Section 1609.3.1 and wind exposure.

5. Flood design data, if located in flood hazard areas established in Section 1612.3.

6. Design load-bearing values of soils

1603.1.4 Wind design data.
1. Ultimate design wind speed, \( V_{ult} \), (3-second gust), miles per hour (mph) (km/hr) and nominal design wind speed, \( V_{asd} \), as determined in accordance with Section 1609.3.1.

2. Risk Category from Table 1604.5 or Table 1.5-1 of ASCE 7.

1603.1.6 Geotechnical information. The design load-bearing values of soils shall be shown on the construction documents.

1604.8.2 Walls. Walls shall be anchored to floors, roofs and other structural elements that provide lateral support for the wall. Such anchorage shall provide a positive direct connection capable of resisting the horizontal forces specified in this chapter unless the lateral force has otherwise been calculated by the Engineer of Record. Concrete and masonry walls shall be designed to resist bending between anchors where the anchor spacing exceeds 4 feet (1219 mm). Required anchors in masonry walls of hollow units or cavity walls shall be embedded in a reinforced grouted structural element of the wall. See Sections 1609 for wind design requirements.

1604.8.3 Decks.

Connections of decks with cantilevered framing members to exterior walls or other framing members shall be designed for both of the following:

1. The reactions resulting from the dead load and live load specified in Table 1607.1, or the snow load specified in Section 1608, in accordance with Section 1605, acting on all portions of the deck.

2. The reactions resulting from the dead load and live load specified in Table 1607.1, or the snow load specified in Section 1608, in accordance with Section 1605, acting on the cantilevered portion of the deck, and no live load or snow load on the remaining portion of the deck.

1605.1.1 Stability. Regardless of which load combinations are used to design for strength, where overall structure stability (such as stability against overturning, sliding, or buoyancy) is being verified, use of the load combinations specified in Section 1605.2 or 1605.3 shall be permitted. Where the load combinations specified in Section 1605.2 are used, strength reduction factors applicable to soil resistance shall be provided by a registered design professional. The stability of retaining walls shall be verified in accordance with Section 1807.2.3.

1607.9.1.1 One-way slabs. The tributary area, \( A' \), for use in Equation 16-22 for one-way slabs shall not exceed an area defined by the slab span times a width normal to the span of 1.5 times the slab span.

1607.9.2 Alternate floor live load reduction.

2. Exception: For uses other than storage, where approved, additional live load reductions shall be permitted where shown by the registered design professional that a rational approach has been used and that such reductions are warranted.

5. For one-way slabs, the area, \( A \), for use in Equation 16-23 shall not exceed the product of the slab span and a width normal to the span of 0.5 times the slab span.
SECTION 1609
WIND LOADS

1609.1 Applications.
Added – Manufactured soffits shall be labeled in accordance with Section 1715.9 of this code.

1609.1.1 Determination of wind loads. Wind loads on every building or structure shall be determined in accordance with Chapters 26 through 30 of ASCE 7 or the provisions of the alternate all heights method in Section 1609.6.

Exceptions:
1. Subject to the limitations of Section 1609.1.1.1, the provisions of ICC 600 shall be permitted for applicable Group R-2 and R-3 buildings.
2. Formula change – $V_{asd}'$ determined in accordance with Section 1609.3.1 is 150 mph or less.
3. Subject to the limitations of Section 1609.1.1.1, residential structures using the provisions of AISI S230.

5. Wind tunnel tests in accordance with Chapter 31 of ASCE 7.

The wind speeds in Figure 1609A, 1609B and 1609C shall be converted to nominal wind speeds, $V_{asd}$ in accordance with Section 1609.3.1 when the provisions of the standards referenced in Exceptions 1 through 5 and 7 are used unless the wind provisions in the standards are based on Ultimate Wind Speeds as specified in Figures 1609A, 1609B or 1609C of ASCE 7.

1609.1.2 Protection of openings.

1. Added ASTM E 1996
2. Added ASTM E 1996

Exceptions:
1. Added – where $V_{asd}'$ determined in accordance with Section 1609.3.1 does not exceed 140 mph (63 m/s).
2 & 3. Changes Occupancy Category t Risk Category.
4. Exterior balconies or porches under existing roofs or decks enclosed with screen or removable vinyl and acrylic panels complying with Section 2002.3.3 shall not be required to be protected unless required by other provisions of this code.

1609.1.2.1 Louvers.
Added – shall meet the requirements of AMCA 540 or ASTM E 1996.

1609.1.2.3.1 added – or ASCE 7 – The design pressures, as determined by ASCE 7, are permitted to be multiplied by 0.6.

1609.1.2.4 Modifications to ASTM E 1996. Section 6.2.2 of ASTM E 1996 shall be modified as follows:

6.2.2 Unless otherwise specified, select the wind zone based on the basic wind speeds as follows:

6.2.2.1 Wind Zone 1 – 130 mph < basic wind speed<140 mph, and Hawaii.

6.2.2.2 Wind Zone 2 – 140 mph< basic wind speed<150 mph at greater than 1.6 km (one mile) from the coastline. The coastline shall be measured from the mean high water mark.

6.2.2.3 Wind Zone 3 – 150 mph (58 m/s) < basic wind speed<160 mph (63 m/s), or 140 mph (54 m/s) < basic wind speed <160 mph (63 m/s) and within 1.6 km (one mile) of the coastline. The coastline shall be measured from the mean high water mark.

6.2.2.4 Wind Zone 4 – basic wind speed > 160 mph (63 m/s).

1609.1.2.4.1 Table 1 of ASTM E 1886 and ASTM E 1996 shall be modified to read as follows:

<table>
<thead>
<tr>
<th>Air Pressure Cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2 to 0.5 P pos1</td>
</tr>
<tr>
<td>0.0 to 0.6 P pos 1</td>
</tr>
<tr>
<td>0.5 to 0.8 P pos1</td>
</tr>
<tr>
<td>0.3 to 1.0 P pos 1</td>
</tr>
<tr>
<td>0.3 to 1.0 P neg2</td>
</tr>
<tr>
<td>0.5 to 0.8 P neg2</td>
</tr>
<tr>
<td>0.0 to 0.6 P neg2</td>
</tr>
<tr>
<td>0.2 to 0.5 P neg2</td>
</tr>
</tbody>
</table>

Notes:
1. P pos = 0.6 X positive ultimate design load in accordance with ASCE 7.
2. P neg = 0.6 X negative ultimate design load in accordance with ASCE 7.
NEW WIND SPEED MAPS
1609A, 1609B and 1609C

1609.2 Definitions.

HURRICANE-PRONE REGIONS.
1. The U.S. Atlantic Ocean and Gulf of Mexico coasts where the basic wind speed for Risk Category II buildings is greater than 115 mph (40 m/s) and-

WIND-BORNE DEBRIS REGION. Areas within Hurricane-prone regions located:
1. Within 1 mile (1.61 km) of the coastal mean high water line where the ultimate design wind speed $V_{ult}$ is 130 (48 m/s) or greater; or

2. In areas where the ultimate design wind speed $V_{ult}$ is 140 mph (53 m/s) or greater.

For Risk Category II buildings and structures and Risk Category III buildings and structures, except health care facilities, the windborne debris region shall be based on Figure 1609A. For Risk Category IV buildings and structures and Risk Category III health care facilities, the windborne debris region shall be based on Figure 1609B.

WIND SPEED, $V_{ult}$. Ultimate design wind speeds.

WIND SPEED, $V_{asd}$. Nominal design wind speeds.

1609.4.2 Surface roughness categories.

Surface Roughness C. (added) This surface roughness shall also apply to any building located within Surface Roughness B-type terrain where the building in within 100 feet horizontally in any direction of open areas of surface roughness C or D-type terrain that extends more than 600 feet (182.9 m) and width greater than 150 feet in the upwind direction. Short-term (less than two years) changes in the pre-existing terrain exposure, for the purposes of development, shall not be considered surface roughness C. Where development buildout will occur within three years and the resultant condition will meet the definition of surface roughness B, surface roughness B shall be regulating for the purpose of permitting. This category includes flat open country and grasslands and shall extend downwind for a distance of 1500 feet.

Surface Roughness D. Flat, unobstructed areas and water surfaces. This category includes smooth mud flats, salt flats and unbroken ice.

1609.4.3 Exposure categories.

Exposure B. For buildings with a mean roof height of less than or equal to 30 feet. Exposure B shall apply where the ground surface roughness as defined by Surface Roughness B prevails in the upwind direction for a distance of 1,500 ft (457 m). For buildings with a mean roof height greater than 30 feet, Exposure B shall apply where Surface Roughness B prevails in the upwind direction for a distance of at least 2,600 feet (792 m) or 20 times the height of the building, whichever is greater.

Exposure C. Exposure C shall apply for all cases where Exposure B or D do not apply.

Exposure D. Exposure D shall apply where the ground surface roughness, as defined by Surface Roughness D, prevails in the upwind direction for a distance of at least 5,000 feet (1524 m) or 20 times the height of the building, whichever is greater. Exposure D shall extend inland from the shoreline for a distance of 600 feet (183 m) or 20 times the height of the building, whichever is greater from an Exposure D condition as defined in the previous sentence.

1609.5.2 Roof coverings.

Changes – Asphalt shingles installed over a roof deck complying with Section 1609.5.1 shall comply with the wind-resistance requirements of Section 1507.2.7.1.

1609.6 Alternate all-heights method. The alternate wind design provisions in this section are simplifications of Chapter 27, Part 1 – Directional Procedure of ASCE 7.

1609.6.1 Scope. As an alternative to ASCE 7 Chapter 27, Part 1 and Chapter 30, Part 3, the following provisions are permitted to be used to determine the wind effects on regularly shaped buildings, or other structures that are regularly shaped, which meet all of the following conditions:

1. The building or other structure is less than or equal to 75 feet (22 860 mm) in height with a height-to-least-width ratio of 4 or less, or the building or other structure has a fundamental frequency greater than or equal to 1 hertz.

2. The building or other structure is not sensitive to dynamic effects.

3. The building or other structure is not located on a site for which channeling effects or buffeting in the wake of upwind obstructions warrant special consideration.
4. The building shall meet the requirements of a simple diaphragm building as defined in ASCE 7 Section 26.2, where wind loads are only transmitted to the main wind-force-resisting system (MWFRS) at the diaphragms.

5. For open buildings, multispan gable roofs, stepped roofs, sawtooth roofs, domed roofs, roofs with slopes greater than 45 degrees (0.79 rad), solid free-standing walls and solid signs, and rooftop equipment, apply ASCE 7 provisions.

1609.6.1.1 Modifications. The following modifications shall be made to certain subsections in ASCE 7: in Section 1609.6.2, symbols and notations that are specific to this section are used in conjunction with the symbols and notations in ASCE 7 Section 26.3.

1609.6.2 Symbols and variables used in the alternative all-heights method equations are as follows:

\[ C_{\text{net}} \] + Net-pressure coefficient based on \( K_d \) \( [(G) (C_p)-(G C_{p1})] \), in accordance with Table 1609.6.2(2).

\( G \) = Gust effect factor for rigid structures in accordance with ASCE 7 Section 26.9.

\( K_d \) = Wind directionality factor in accordance with ASCE 7 Table 26.6-1.

\( Q_s \) = Wind stagnation pressure in psf (kN/m²) in accordance with Table 1609.6.2(1).

1609.6.3 Design equations. When using the alternative all-heights method, the MWFRS, and components and cladding of every structure shall be designed to resist the effects of wind pressures on the building envelope in accordance with Equation 16-34.

\[ P_{\text{net}} = Q_s K_z C_{\text{net}} [K_z] \quad \text{(Equation 16-34)} \]

Design wind forces for the MWFRS shall not be less than 16 psf (0.77 kN/m²) multiplied by the wall area of the building and 8 psf (0.38 kN/m²) multiplied by the roof area of the building projected on a plane normal to the assumed wind direction (see ASCE 7 Section 27.4.7 for criteria). Design net wind pressure for components and cladding shall not be less than 16 psf (0.77 kN/m²) acting in either direction normal to the surface.

1609.6.4 Design procedure. The MWFRS and the components and cladding of every building or other structure shall be designed for the pressures calculated using Equation 16-34.

1609.6.4.1 Main wind-force-resisting system. The MWFRS shall be investigated for the torsional effects identified in ASCE 7 Figure 27.4-8.

1609.6.4.2 Determination of \( K_z \) and \( K_{zt} \). Velocity pressure exposure coefficient, \( K_z \), shall be determined in accordance with ASCE 7 Sections 27.3 and 30.3 and the topographic factor, \( K_{zt} \), shall be determined in accordance with ASCE 7 Section 26.8.

1. For the windward side of a structure, \( K_z \) and \( K_{zt} \) shall be based on height \( z \).

2. For the leeward and sidewalls, and for windward and leeward roofs, \( K_z \) and \( K_{zt} \) shall be based on mean roof height \( h \).

1609.6.4.3 Determination of net pressure coefficients, \( C_{\text{net}} \). For the design of the MWFRS and for components and cladding, the sum of the internal and external net pressure shall be based on the net pressure coefficient, \( C_{\text{net}} \).

1. The pressure coefficient, \( C_{\text{net}} \), for walls and roofs shall be permitted from Table 1609.6.2(2).

2. Where \( C_{\text{net}} \) has more than one value, the more severe wind load condition shall be used for design.

1609.6.4.4 Application of wind pressures. When using the alternative all-heights method, wind pressures shall be applied simultaneously on, and in a direction normal to, all building envelope wall and roof surfaces.
1609.6.4.4.1 Components and cladding. Wind pressure for each component or cladding element is applied as follows using $C_{\text{net}}$ values based on the effective wind area, $A$, contained within the zones in areas of discontinuity of width and/or length: $a$, "$2a$" or "$4a$" at corners of roofs and walls; edge strips for ridges, rakes and eaves; or field areas on walls or roofs as indicated in figures in tables in ASCE 7 as referenced in Table 1609.6.2(2) in accordance with the following:

1. Calculated pressures at local discontinuities acting over specific edge strips or corner boundary areas.

2. Include "field" (Zone 1, 2 or 4, as applicable) pressures applied to areas beyond the boundaries of the areas of discontinuity.

3. Where applicable, the calculated pressures at discontinuities (Zones 2 or 3) shall be combined with design pressures that apply specifically on rakes or eave overhangs.

1909.8 Rooftop structures and equipment. The lateral force on rooftop structures and equipment with $A_f$ less than $(0.1 \cdot B_h)$ located on buildings of all heights shall be determined from Equation 29.5-1 of ASCE 7 in which the value of $G_{CF}$ shall be taken as 3.1. $G_{CF}$ shall be permitted to be reduced linearly from 3.1 to 1.1 as the value of $A_f$ is increased from $(0.1 \cdot B_h)$ to $(B_h)$. The value of $G$ from Section 26.9 of ASCE 7 shall not be used. Additionally, a simultaneous uplift force shall be applied, given by Equation 29.5-1 of ASCE 7 in which $G_{CF} = 1.5$ and $A_f$ is replaced by the horizontal projected area, $A_r$, of the rooftop structure or equipment. For the uplift force $G_{CF}$ shall be permitted to be reduced linearly from 1.5 to 1.0 as the value of $A_r$ is increased from $(0.1 \cdot B_L)$ to $(B_L)$.

NEW TABLES

Table 1609.6.2(1) Wind Stagnation Pressure ($q_s$) at Standard Height of 33 Feet

Table 1609.6.2(2) Net Pressure Coefficients, $C_{\text{net}}$

Table 1609.7(1) Garage Door and Rolling Door Wind Loads for a Building with a Mean Door Height of 30 feet Located in Exposure B (psf)

Added Figures

Figure 1611.1 100-Year, 1-Hour Rainfall (inches) Eastern, Central, Western United States, Alaska and Hawaii

Whole new Section

SECTION 1612
FLOOD LOADS

1612.1 General
1612.2 Definitions
1612.3 Establishment of flood hazard zones
1612.3.1 Design Flood Elevations.
1612.3.2 Determination of impacts.
1612.4 Design and construction
1612.5 Flood hazard documentation.

New Tables

Table 1612.1 Cross References Defining Flood Resistant Provisions of the Florida Building Code
SECTION 1614
STRUCTURAL INTEGRITY

1614.1 General
1614.2 Definitions.
1614.3 Frame Structures.
1614.3.1 Concrete frame structures
1614.3.2 Structural steel, open web steel joist or joist girder, or composite steel and concrete frame structures.
1614.3.2.1 Columns
1614.3.2.2 Beams
1614.4 Bearing wall structures.
1614.4.1 Concrete wall structures
1614.4.2 Other bearing wall structures.
1614.4.2.1 Longitudinal ties.
1614.4.2.2 Transverse Ties
1614.4.2.3 Perimeter ties.
1614.4.2.4 Vertical ties.

Chapter 17
STRUCTURAL TESTS AND SPECIAL INSPECTIONS

SECTION 1702
Definitions

INTUMESCENT FIRE-RESISTANT COATINGS. Thin film liquid mixture applied to substrates by brush, roller, spray or trowel which expands into a protective foamed layer to provide fire-resistant protection of the substrates when exposed to flame or intense heat.

MASTIC FIRE-RESISTANT COATINGS. Liquid mixture applied to a substrate by brush, roller, spray or trowel that provides fire-resistant protection of a substrate when exposed to flame or intense heat.

SECTION 1715
PRECONSTRUCTION LOAD TESTS

1715.5.1 (add) The design pressures, as determined from ASCE 7, are permitted to be multiplied by 0.6.

CHAPTER 18
SOILS AND FOUNDATIONS

Section 1802
DEFINITIONS (added)

Section 1803
GEOTECHNICAL INVESTIGATIONS (renamed)

This chapter has been revised in its entirety

CHAPTER 19
CONCRETE

Italics are used for text within Sections 1903 through 1908 of this code to indicate provisions that differ from ACI 318.

CHAPTER 21
MASONRY

2101.3 Construction documents.
(added)
5. Loads used in the design of masonry.

6. Specified compressive strength of masonry at stated ages or stages of construction for which masonry is designed, except where specifically exempted by this code.

7. Details of anchorage of masonry to structural members, frames and other construction, including type, size and location of connectors.

8. Size and location of conduits, pipes and sleeves.

9. The minimum level of testing and inspection as defined in Chapter 17, or an itemized testing and inspection program that meets the requirements of Chapter 17.