

A WALK THROUGH
THE
LIFE SAFETY CODE CHANGES
FROM
THE FLORIDA BUILDING CODE 2010
TO
THE FLORIDA BUILDING CODE 2013

A WALK THROUGH
THE
LIFE SAFETY CODE CHANGES
FROM
THE FLORIDA BUILDING CODE 2010
TO
THE FLORIDA BUILDING CODE 5th EDITION (2014)

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Member of the Florida Building Commission

Member of the International Code Council

Means of Egress Committee

for the 2012 International Building Code, IBC

**Development and Adoption
of the
Florida Building Code 5th Edition, 2014**

**Development and Adoption
of the
Florida Building Code 5th Edition, 2014**

FBC 2010

**FLORIDA AMENDMENTS in FBC 2010
removed**

EXPIRED

to be on the effective date of the 2013 FBC

RELATED

**to state agency regulations
to the High-Velocity Hurricane Zone**

Development and Adoption

**Conducted a comprehensive comparison of
the 2012 changes to
the National Fire Protection Association (NFPA) 101 Life Safety Code**

and

the 2012 International Building Code,

including reference standards,

**for the purpose of determining potential conflicts and necessary changes to both the
proposed**

2013 Florida Fire Prevention Code (FFPC)

and

2013 Florida Building Code (FBC)

for the purpose of making both codes consistent.

**A conflict is defined as a Code requirement that compliance in one code would prevent
compliance with the other code**

Development and Adoption

NONE FOUND

Development and Adoption

EXPIRED

To be added back into the next Edition

The 2011 Florida Legislature, HB 849, amended the approval criteria for accepting code change proposals to include the following criteria.

- ◆ Are the provisions contained in the proposed amendment are addressed in the applicable international code.
- ◆ The amendment demonstrates by evidence of data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code.
- ◆ The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process.

Development and Adoption

EXPIRED

To be added back into the next Edition

**Most of the amendments not added back where there for correlation with the
Florida Fire Prevention Code**

Development and Adoption

Florida specific code changes mandated by law – with no re-evaluation required:

Chapter 1: Administration – correlation with the law including Commission’s initiatives.

Florida Accessibility Code

Airport noise standard

Wind mitigation / opening protection

Mechanical equipment on roof

IRC/R313 – fire sprinkler not to be included in the FBC

Group S2 occupancies of Type II construction - calculation mezzanines area

Fire protection – Mini-warehouses

Carbon monoxide

Building less than 400 SF – door exemption

Roofing – permitting aggregate on roofs

Private swimming pools and correlation with Ch. 515, FS.

Plumbing – potty parity

Threshold building act.

Commission’s interpretations, declaratory statements, local technical amendments

Development and Adoption

Base Code

International Building Code 2012

The logo consists of the text "IBC 2012" centered within a rounded rectangular border. The interior of the border is filled with a light gray diagonal hatching pattern.

IBC 2012

with removal of

Seismic and Snow

provisions from the foundation code

**Development and Adoption
of the
Florida Building Code 5th Edition, 2014**

IBC 2012

**FLORIDA AMENDMENTS in FBC 5th Edition
added**

RE-EVALUATED
accepted

RELATED
to state agency regulations
to the High-Velocity Hurricane Zone

**FBC 5th Edition, 2014
December 31 2014**

Code from FBC 2010 that has been
removed is shown shaded.

Code that has been
added is underlined.

105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code. Permits shall not be required for the following:

Building:

1. **One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area is not greater than 120 square feet (11 m²).**
2. **Fences not over 7 feet (2134 mm) high.**
3. Oil derricks.
4. **Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.**
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. **Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or story below and are not part of an *accessible route*.**
7. **Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.**
8. Temporary motion picture, television and theater stage sets and scenery.
9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, are not greater than 5,000 gallons (18 925 L) and are installed entirely above ground.
10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
11. **Swings and other playground equipment** accessory to detached one- and two-family *dwellings*.
12. **Window awnings in Group R-3 and U occupancies**, supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
13. **Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.**

105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code. Permits shall not be required for the following:

Building:

**All Definitions moved to Chapter 2.
Still listed in Chapters but referencing
Chapter 2**

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 303 Assembly Group A

303.1 Assembly Group A.

Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption or awaiting transportation.

303.1.1 Small buildings and tenant spaces.

A building or tenant space used for assembly purposes with an *occupant load* of less than 50 persons shall be classified as a Group B occupancy.

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

303.1.2 Small assembly spaces.

The following rooms and spaces shall not be classified as Assembly occupancies:

1. A room or space used for assembly purposes with an *occupant load* of less than 50 persons and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
2. A room or space used for assembly purposes that is less than 750 square feet (70 m²) in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.

303.1.3 Associated with Group E occupancies.

A room or space used for assembly purposes that is associated with a Group E occupancy is not considered a separate occupancy.

303.1.4 Accessory to places of religious worship.

Accessory religious educational rooms and religious auditoriums with *occupant loads* of less than 100 are not considered separate occupancies.

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 303 Assembly Group A

303.2 Assembly Group A-1.

303.3 Assembly Group A-2.

Assembly uses intended for food and/or drink consumption including, but not limited to:

Banquet halls

Casinos (gaming areas)

Nightclubs

Restaurants, **cafeterias and similar dining facilities (including associated commercial kitchens)**

Taverns and bars

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 306 Factory Group F

306.2 Moderate-hazard factory industrial, Group F-1.

Food processing and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities

306.4 Special purpose F-3.

Factory-industrial occupancy includes industrial operations in buildings designed for and suitable only for particular types of operations, characterized by a relatively low density of employee population, with much of the area occupied by machinery or equipment. Group F-3 special purpose factory-industrial occupancy shall include, among others, the occupancies listed in this section: steel mills, paper plants and generating plants.

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 307 High Hazard Group H

307.4 High-hazard Group H-2.

Combustible dusts where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 308 Institutional Group I

24-HOUR CARE. (new)

CUSTODIAL CARE. (new)

DETOXIFICATION FACILITIES. (revised)

CHILD FOSTER CARE FACILITIES. (revised)

HOSPITALS AND MENTAL PSYCHIATRIC HOSPITALS. (revised)

INCAPABLE OF SELF-PRESERVATION. (new)

MEDICAL CARE. (new)

NURSING HOMES (revised)

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 308 Institutional Group I

308.4 Institutional Group I-2.

This occupancy shall include buildings and structures used for *medical, surgical, psychiatric, nursing or custodial care* **on a 24-hour basis** for **more than five** persons who are *incapable of self-preservation*. This group shall include, but not be limited to, the following:

Foster care facilities

Detoxification facilities

Hospitals

Nursing homes

Psychiatric hospitals

308.4.1 Five or fewer persons receiving care.

A facility such as the above with five or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the *Florida Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *Florida Residential Code*.

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 308 Institutional Group I

308.6 Institutional Group I-4, day care facilities.

This group shall include buildings and structures occupied by more than five persons of any age who receive *custodial care* for fewer than 24 hours per day by persons other than parents or guardians, relatives by blood, marriage or adoption, and in a place other than the home of the person cared for. This group shall include, but not be limited to, the following:

Adult day care

Child day care

308.6.1 Classification as Group E.

A child day care facility that provides care for more than five but no more than 100 children 2¹/₂ years or less of age, where the rooms in which the children are cared for are located on a *level of exit discharge* serving such rooms and each of these child care rooms has an *exit* door directly to the exterior, shall be classified as Group E.

308.6.2 Within a place of religious worship.

Rooms and spaces within *places of religious worship* providing such care during religious functions shall be classified as part of the primary occupancy.

308.6.3 Five or fewer persons receiving care.

A facility having five or fewer persons receiving *custodial care* shall be classified as part of the primary occupancy.

308.6.4 Five or fewer persons receiving care in a dwelling unit.

A facility such as the above within a *dwelling unit* and having five or fewer persons receiving *custodial care* shall be classified as a Group R-3 occupancy or shall comply with the *Florida Residential Code*.

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 309 Mercantile Group M

309.1 Mercantile Group M.

Mercantile Group M occupancy includes, among others, the use of a building or structure or a portion thereof, for the display and sale of merchandise and involves stocks of goods, wares or merchandise incidental to such purposes and accessible to the public. Mercantile occupancies shall include, but not be limited to, the following:

Department stores

Drug stores

Markets

Motor fuel-dispensing facilities

Retail or wholesale stores

Restaurants and drinking establishments with an occupant load of less than 50 persons

Sales rooms

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 310 Residential Group R

310.3 Residential Group R-1.

Residential occupancies containing *sleeping units* where the occupants are primarily *transient* in nature, including:

Boarding houses (transient) **with more than 10 occupants**

Congregate living facilities (transient) with more than 10 occupants

Hotels (*transient*)

Motels (*transient*)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 310 Residential Group R

310.4 Residential Group 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 (nontransient) **with more than 16 occupants**

Congregate living facilities (nontransient) with more than 16 occupants

Convents

Dormitories

Fraternities and sororities

Hotels (nontransient)

Live/work units

Monasteries

Motels (nontransient)

Vacation timeshare properties

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 310 Residential Group R

310.5 Residential Group 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*

Boarding houses (nontransient) with 16 or fewer occupants

Boarding houses (transient) with 10 or fewer occupants

Care facilities that provide accommodations for five or fewer persons receiving care

Congregate living facilities (nontransient) with 16 or fewer occupants

Congregate living facilities (transient) with 10 or fewer occupants

310.5.1 Care facilities within a dwelling.

Care facilities for five or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the *Florida Building Code, Residential* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *Florida Building Code, Residential*

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 310 Residential Group R

310.6 Residential Group R-4.

This occupancy shall include buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive custodial care. The persons receiving care are capable of self-preservation. This group shall include, but not be limited to, the following:

Alcohol and drug centers

Assisted living facilities

Congregate care facilities

Convalescent facilities

Group homes

Halfway houses

Residential board and custodial care facilities

Social rehabilitation facilities

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 903.2.8.

Chapter 3 USE AND OCCUPANCY CLASSIFICATION : Section 313 Daycare Group D

DAY CARE OCCUPANCY GROUP D

313.1 Scope.

Group D occupancy is the use of a building or structure, or any portion thereof, in which three or more clients receive care, maintenance and supervision, by other than their relative(s) or legal guardian(s), for less than 24 hours per day. Occupancies that include part-day preschools, kindergartens and other schools whose purpose is primarily educational even though the children are of preschool age shall comply with the provisions for Group E occupancies.

313.2 Subclassifications.

313.2.1 Family day care home.

313.2.2 Group day care home.

313.2.3 Adult day care.

313.2.4 Group D occupancies.

Group D occupancies shall include, among others, the following:

Child day care occupancies

Adult day care occupancies, except where part of a health care occupancy

Nursery schools

Day care homes

Kindergarten classes that are incidental to a child day care occupancy

Chapter 4 Requirements Based on Occupancy : Section 403 HIGH-RISE BUILDINGS

403.4.6 Smoke removal.

Smoke control shall be provided in accordance with Section 909.

Exception: I-2 occupancies that comply with Sections 407, 419.3.7 and 420.3.17 shall not require smoke control systems in accordance with Section 909.

Chapter 4 Requirements Based on Occupancy : Section 406 MOTOR-VEHICLE RELATED OCCUPANCIES

406.5 Open parking garages

406.5.2.1 Openings below grade.

Where openings below grade provide required natural *ventilation*, the outside horizontal clear space shall be one and one-half times the depth of the opening. The width of the horizontal clear space shall be maintained from grade down to the bottom of the lowest required opening.

Chapter 4 Requirements Based on Occupancy : Section 406 MOTOR-VEHICLE RELATED OCCUPANCIES

406.5 Open parking garages

406.5.5 Area and height increases

The allowable area and height of *open parking garages* shall be increased in accordance with the provisions of this section.

.....the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier. **For purposes of calculating the interior area of the side, the height shall not exceed 7 feet (2134 mm).**

,.....For a side to be considered open under the above provisions, the total area of openings along the side shall not be less than 50 percent of the interior area of the side at each tier and such openings shall be equally distributed along the length of the tier. **For purposes of calculating the interior area of the side, the height shall not exceed 7 feet**

Chapter 4 Requirements Based on Occupancy : Section 420 GROUPS I-1, R-1, R-2, R-3

420.4 Automatic sprinkler system.

Group R occupancies shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.2.8. Group I-1 occupancies shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.2.6. Quick-response or residential automatic sprinklers shall be installed in accordance with Section 903.3.2.

420.5 Smoke detection and fire alarm systems.

Fire alarm systems and smoke alarms shall be provided in Group I-1, R-1 and R-2 occupancies in accordance with Sections 907.2.6, 907.2.8 and 907.2.9, respectively. Single-or multiple-station *smoke alarms* shall be in accordance with Section 907.2.11.

Chapter 4 Requirements Based on Occupancy : Section 424 CHILDREN'S PLAY STRUCTURES

424.1 Children's play structures.

Children's play structures installed **inside** all occupancies covered by this code that exceed 10 feet (3048 mm) in height and 150 square feet (14 m²) in area shall comply with Sections 424.2 through 424.5.

Chapter 4 Requirements Based on Occupancy : Section 425-448

Sections 425 through 448 is Reserved

The Florida State Agency's requirements start at 449.

Chapter 5 General Building Height and Areas : Section 503 Table 503

503.1.4 Basements.

A basement of a building shall not count as a story when applying Table 503 for allowable building height.

503.1.5 Group A and E basements.

Group A and E basements used as classrooms or assembly rooms shall be counted as a story.

Chapter 5 General Building Height and Areas : Section 505 Mezzanines and Equipment Platforms

505.1 General.

Mezzanines shall comply with Section 505.2. *Equipment platforms* shall comply with Section 505.3.

505.2.2 Means of egress.

The *means of egress* for *mezzanines* shall comply with the applicable provisions of Chapter 10 .

Each occupant of a mezzanine shall have access to at least two independent means of egress where the common path of egress travel exceeds the limitations of Section 1014.3. Where a stairway provides a means of exit access from a mezzanine, the maximum travel distance includes the distance traveled on the stairway measured in the plane of the tread nosing. Accessible means of egress shall be provided in accordance with Section 1007.

Exception: A single means of egress shall be permitted in accordance with Section 1015.1.

Chapter 5 General Building Height and Areas : Section 506 BUILDING AREA MODIFICATIONS

506.2.1 Width limits.

To apply this section the value of W shall be not less than 20 feet (6096 mm). 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 calculated in accordance with Equation 5-3 for portions of the exterior perimeter walls where the value of W is greater than or equal to 20 feet (6096 mm). Where the value of W is greater than 30 feet (9144 mm), a value of 30 feet (9144 mm) shall be used in calculating the weighted average, regardless of the actual width of the open space. W shall be measured perpendicular from the face of the building to the closest interior lot line. **Where the building fronts on a public way, the entire width of the public way shall be used.** Where two or more buildings are on the same lot, W shall be measured from the exterior face of each building to the opposing exterior face of each adjacent building, as applicable.

Weighted average $W = (L_1 \times w_1 + L_2 \times w_2 + L_3 \times w_3 \dots) / F$. (Equation 5-3)

L_n Length of a portion of the exterior perimeter wall.

w_n Width of open space associated with that portion of the exterior perimeter wall.

F Building perimeter that fronts on a public way or open space having a width of 20 feet (6096 mm) or more.

Chapter 5 General Building Height and Areas : Section 507 UNLIMITED AREA BUILDINGS

SECTION 507

507.1 General.

The area of buildings of the occupancies and configurations specified in Sections 507.1 through 507.12 shall not be limited.

Exception: Other occupancies shall be permitted in unlimited area buildings in accordance with the provisions of Section 508.2

Where Sections 507.2 through 507.12 require buildings to be surrounded and adjoined by *public ways* and *yards*, those open spaces shall be determined as follows:

- 1. *Yards* shall be measured from the building perimeter in all directions to the closest interior *lot lines* or to the exterior face of an opposing building located on the same *lot*, as applicable.**
- 2. Where the building fronts on a *public way*, the entire width of the *public way* shall be used.**

Chapter 5 General Building Height and Areas : Section 509 INCIDENTAL USES

509.1 General

Incidental uses located within single occupancy or mixed occupancy buildings shall comply with the provisions of this section. Incidental uses are ancillary functions associated with a given occupancy that generally pose a greater level of risk to that occupancy and are limited to those uses listed in Table 509.

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

509.2 Occupancy classification.

Incidental uses shall not be individually classified in accordance with Section 302.1. Incidental uses shall be included in the building occupancies within which they are located.

509.3 Area limitations.

Incidental uses shall not occupy more than 10 percent of the *building area* of the *story* in which they are located.

509.4 Separation and protection.

The incidental uses listed in Table 509 shall be separated from the remainder of the building or equipped with an *automatic sprinkler system*, or both, in accordance with the provisions of that table.

Chapter 6 Types of Construction : Section 601 General

TABLE 601

FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours)

- a. Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting one floor or one a roof only. (Type I)
- d. Group B and M occupancies of Type II or III construction five or more stories in height shall be required to have a minimum 2-hour fire-resistance rating for the floor construction located over the basement.
- h. For Group A, B, E, F and R occupancies and parking garages, the required fire-resistance ratings for the structural frame, floor and roof construction, including supporting beams and joists, shall be permitted to be reduced by 1-hour where the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, but the fire resistance rating shall not be less than 1-hour.
- i. For unsprinklered Group E occupancies of Type II-B, III-B, IV or V-B construction, the floor construction located immediately above useable space in basements shall have a fire-resistance rating of not less than 1-hour.
- d. An approved automatic sprinkler system in accordance with Section 903.3.1.1 shall be allowed to be substituted for 1-hour fire-resistance-rated construction, provided such system is not otherwise required by other provisions of the code or used for an allowable area increase in accordance with Section 506.3 or an allowable height increase in accordance with Section 504.2. The 1-hour substitution for the fire resistance of exterior walls shall not be permitted. (Type IIA, IIIA, VA)**

Chapter 6 Types of Construction : Section 601 General

TABLE 601

	TYPE I	
	A	B
Bearing walls		
Exterior	4 <u>3</u>	3 <u>2</u>
Interior	4 <u>3</u>	3 <u>2</u>
Floor construction	3 <u>2</u>	

Chapter 6 Types of Construction : Section 602 Construction Classification

TABLE 602 FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE ^{a, e, h}

h. Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.

Chapter 7 Fire and Smoke Protection Features : Section 701 GENERAL

701.2 Multiple use fire assemblies.

Fire assemblies that serve multiple purposes in a building shall comply with all of the requirements that are applicable for each of the individual fire assemblies.

Chapter 7 Fire and Smoke Protection Features : Section 703 FIRE-RESISTANCE RATINGS AND FIRE TESTS

703.7 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 located within 15 feet (4572 mm) of the end of each wall and at intervals not exceeding 30 feet (9144 mm) measured horizontally along the wall or partition; and
3. Include lettering not less than 3 inches (76 mm) in height with a minimum 3/8 inch (9.5 mm) stroke in a contrasting color 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.

Chapter 7 Fire and Smoke Protection Features : Section 704 FIRE-RESISTANCE RATING OF STRUCTURAL MEMBERS

704.11 Bottom flange protection.

Fire protection is not required at the bottom flange of lintels, shelf angles and plates, spanning not more than 6 feet **4 inches** (1931 mm) whether part of the primary structural frame or not, and from the bottom flange of lintels, shelf angles and plates not part of the structural frame, regardless of span.

Chapter 7 Fire and Smoke Protection Features : Section 705 EXTERIOR WALLS

705.2 Projections.

Cornices, eave overhangs, exterior balconies and similar projections extending beyond the exterior wall shall conform to the requirements of this section and Section 1406. Exterior egress balconies and exterior exit stairways and ramps shall also comply with Section 1019 and 1026, respectively. Projections shall not extend **any closer to the line used to determine the fire separation distance than shown in Table 705.2.**

Exception: Buildings on the same lot and considered as portions of one building in accordance with Section 705.3 are not required to comply with this section.

TABLE 705.2 MINIMUM DISTANCE OF PROJECTION

<u>FIRE SEPARATION DISTANCE (FSD)</u>	<u>MINIMUM DISTANCE FROM LINE USED TO DETERMINE FSD</u>
<u>0 feet to less than 2 feet</u>	<u>Projections not permitted</u>
<u>2 feet to less than 5 feet</u>	<u>24 inches</u>
<u>5 feet or greater</u>	<u>40 inches</u>

Chapter 7 Fire and Smoke Protection Features : Section 705 EXTERIOR WALLS

705.2.3 Combustible projections.

Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance*, or located where openings are not permitted, or where protection of some openings is required shall be of at least 1-hour fire-resistance-rated construction, Type IV construction, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

705.3 Buildings on the same lot.

For the purposes of determining the required wall and opening protection, **projections** and roof-covering requirements, buildings on the same lot shall be assumed to have an imaginary line between them.

Chapter 7 Fire and Smoke Protection Features : Section 706 FIRE WALLS

706.2 Structural stability.

Fire walls shall have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall for the duration of time indicated by the required *fire-resistance rating* **or shall be constructed as double fire walls in accordance with NFPA 221.**

4 hour = two 3 hour

3 hour = two 2 hour

2 hour = two 1 hour

Chapter 7 Fire and Smoke Protection Features : Section 706 FIRE WALLS

706.6 Vertical continuity.

Fire walls shall extend from the foundation to a termination point at least 30 inches (762 mm) above both adjacent roofs.

Exceptions: 1-5 unchanged

6. Buildings with sloped roofs in accordance with Section 706.6.2

706.6.2 Buildings with sloped roofs.

Where a *fire wall* serves as an interior wall for a building, and the roof on one side or both sides of the fire wall slopes toward the fire wall at a slope greater than two units vertical in 12 units horizontal (2:12), the *fire wall* shall extend to a height equal to the height of the roof located 4 feet (1219 mm) from the *fire wall* plus 30 inches (762 mm). In no case shall the extension of the fire wall be less than 30 inches (762 mm).

Chapter 7 Fire and Smoke Protection Features : Section 707 FIRE BARRIERS

707.8 Joints.

Joints made in or between *fire barriers*, and joints made at the intersection of *fire barriers* with underside of a fire-resistance rated floor or roof sheathing, slab, or deck above, and the exterior vertical wall intersection shall comply with Section 715.

707.9 Voids at intersections.

The voids created at the intersection of a *fire barrier* and a **non-fire-resistance-rated roof** assembly shall be filled. An approved material or system shall be used to fill the void, shall be securely installed in or on the intersection for its entire length so as not to dislodge, loosen or otherwise impair its ability to accommodate expected building movements and to retard the passage of fire and hot gases.

Chapter 7 Fire and Smoke Protection Features : Section 708 FIRE PARTITIONS

708.1 General.

The following wall assemblies shall comply with this section.

1. Walls separating dwelling units in the same building as required by Section 438.2.
2. Walls separating sleeping units in the same building as required by Section 438.2.
3. Walls separating tenant spaces in covered **and open** mall buildings as required by Section 402.7.2.
4. Corridor walls as required by Section 1018.1.
5. Elevator lobby separation as required by Section 708.14.1.
6. Wall separating individual tenant spaces.

Exceptions:

1. In Group B and S occupancies, walls used to separate tenants shall not be required to have a fire-resistance rating, provided no area between fire partitions having a 1-hour fire-resistance rating exceeds 3,000 square feet (279 m²).
2. In aircraft hangar occupancies, walls used to separate tenants shall not be required to have a fire-resistance rating, provided the aircraft hangar is constructed in accordance with the requirements of Section 412.4.
3. In mini-warehouses/self-storage buildings, walls used to separate tenants shall not be required to have fire-resistance rating, provided a sprinkler system meeting the requirements of Ordinary Hazard Group II as defined by NFPA 13, is installed employing quick response heads.
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.

Chapter 7 Fire and Smoke Protection Features : Section 708 FIRE PARTITIONS

708.4.1 Roof Construction.

When the fire partition is continuous to the underside of the roof sheathing in occupancies of Groups R-1, R-2 and R-3 as applicable in Section 101.2, in Type III, IV and V construction the following shall be provided:

708.4.1.1 Roof Sheathing.

The roof sheathing or deck shall be of approved noncombustible materials or of fire-retardant-treated wood, for a distance of 4 feet (1220 mm); or

708.4.1.2 Roof Protection.

The roof shall be protected with 0.625-inch (15.88 mm) Type X gypsum board directly beneath the underside of the roof sheathing or deck, supported by a minimum of nominal 2-inch (51 mm) ledgers attached to the sides of the roof framing members, for a minimum distance of 4 feet (1220 mm).

Chapter 7 Fire and Smoke Protection Features : Section 709 SMOKE BARRIERS

709.4 Continuity.

Smoke barriers shall form an effective membrane continuous from outside wall to outside wall

Exceptions:

1. (ceiling)

2. *Smoke barriers* used for elevator lobbies in accordance with Section 405.4.3, 3007.4.2 or 3008.11.2 are not required to extend from outside wall to outside wall.

3. *Smoke barriers* used for areas of refuge in accordance with Section 1007 are not required to extend from outside wall to outside wall.

Chapter 7 Fire and Smoke Protection Features : Section 712 & 713

SECTION 712 SHAFT ENCLOSURES VERTICAL OPENINGS

SECTION 713 SHAFT ENCLOSURES

Chapter 7 Fire and Smoke Protection Features : Section 714 PENETRATIONS

714.4.1.1.2 Through-penetration firestop system.

Through penetrations shall be protected by an *approved through-penetration firestop system* installed and tested in accordance with ASTM E 814 or UL 1479, with a minimum positive pressure differential of 0.01 inch of water (2.49 Pa). The system shall have an F rating/T rating of not less than 1 hour but not less than the required rating of the floor penetrated.

Exceptions:

1. Floor penetrations contained and located within the cavity of a wall above the floor or below the floor do not require a T rating.

2. Floor penetrations by floor drains, tub drains or shower drains contained and located within the concealed space of a horizontal assembly do not require a T rating.

Chapter 7 Fire and Smoke Protection Features : Section 714 PENETRATIONS

714.4.1.2 Membrane penetrations.

Penetrations of membranes that are part of a *horizontal assembly* shall comply with Section 714.4.1.1.1 or Section 714.4.1.1.2. Where floor/ceiling assemblies are required to have a *fire-resistance rating*, recessed fixtures shall be installed such that the required *fire resistance* will not be reduced.

Exceptions:

1-5 unchanged

6. Noncombustible items that are cast into concrete building elements and that do not penetrate both top and bottom surfaces of the element.

7. The ceiling membrane of 1- and 2-hour fire-resistance-rated horizontal assemblies is permitted to be interrupted with the double wood top plate of a *fire-resistance-rated* wall assembly, provided that all penetrating items through the double top plates are protected in accordance with Section 714.4.1.1.1 or Section 714.4.1.1.2. The *fire-resistance rating* of the wall shall not be less than the rating of the horizontal assembly.

Chapter 7 Fire and Smoke Protection Features : Section 714 PENETRATIONS

L RATING. The air leakage rating of a *through penetration firestop system* or a fire-resistant *joint system* when tested in accordance with UL 1479 or UL 2079, respectively.

714.5 Penetrations in smoke barriers.

Penetrations in *smoke barriers* shall be protected by an approved *through-penetration firestop system* installed and tested in accordance with the requirements of UL 1479 for air leakage. The **L rating** of the system measured at 0.30 inch (7.47 Pa) of water in both the ambient temperature and elevated temperature tests, shall not exceed:

1. 5.0 cfm per square foot ($0.025\text{m}^3 / \text{s} \cdot \text{m}^2$) of penetration opening for each *through-penetration firestop system*; or
2. A total cumulative leakage of 50 cfm ($0.024\text{m}^3/\text{s}$) for any 100 square feet (9.3m^2) of wall area, or floor area.

Chapter 7 Fire and Smoke Protection Features : Section 715 FIRE-RESISTANT JOINT SYSTEMS

715.4 Exterior curtain wall/floor intersection.

Where fire resistance-rated floor or floor/ceiling assemblies are required, voids created at the intersection of the exterior curtain wall assemblies and such floor assemblies shall be sealed with an *approved* system to prevent the interior spread of fire. Such systems shall be securely installed and tested in accordance with ASTM E 2307 to provide an *F rating* for a time period at least equal to the *fire-resistance rating* of the floor assembly. Height and fire-resistance requirements for curtain wall spandrels shall comply with Section 705.8.5.

Exception: Voids created at the intersection of the exterior curtain wall assemblies and such floor assemblies where the vision glass extends to the finished floor level shall be permitted to be sealed with an approved material to prevent the interior spread of fire. Such material shall be securely installed and capable of preventing the passage of flame and hot gases sufficient to ignite cotton waste where subjected to ASTM E 119 time-temperature fire conditions under a minimum positive pressure differential of 0.01 inch (0.254 mm) of water column (2.5 Pa) for the time period at least equal to the *fire-resistance rating* of the floor assembly.

Chapter 7 Fire and Smoke Protection Features : Section 715 FIRE-RESISTANT JOIUNT SYSTEMS

715.6 Fire-resistant joint systems in smoke barriers.

Fire-resistant joint systems in *smoke barriers*, and joints at the intersection of a horizontal *smoke barrier* and an exterior curtainwall, shall be tested in accordance with the requirements of UL 2079 for air leakage. The **L rating** of the joint system shall not exceed 5 cfm per linear foot (0.00775 m³/s m) of joint at 0.30 inch (7.47 Pa) of water for both the ambient temperature and elevated temperature tests.

Chapter 7 Fire and Smoke Protection Features : Section 716.3

716.3 Marking fire-rated glazing assemblies.

Fire-rated glazing assemblies shall be marked in accordance with Tables 716.3, 716.5, and 716.6.

TABLE 716.3 MARKING FIRE-RATED GLAZING ASSEMBLIES

FIRE TEST STANDARD	MARKING	DEFINITION OF MARKING
ASTM E 119 or UL 263	W	Meets wall assembly criteria.
NFPA 257 or UL 9	OH	Meets fire window assembly criteria including the hose stream test.
NFPA 252 or UL 10B or UL 10C	D H T	Meets fire door assembly criteria. Meets fire door assembly "Hose Stream" test. Meets 450°F temperature rise criteria for 30 minutes
	XXX	The time in minutes of the fire resistance or fire protection rating of the glazing assembly

Chapter 7 Fire and Smoke Protection Features : Section 701.2

TABLE 716.6 FIRE WINDOW ASSEMBLY FIRE PROTECTION RATINGS

TYPE OF WALL ASSEMBLY	REQUIRED WALL ASSEMBLY RATING (hours)	MINIMUM FIRE WINDOW ASSEMBLY RATING (hours)	FIRE-RATED GLAZING MARKING
Interior walls			
Fire walls	All	NP ^a	W-XXX ^b
Fire barriers	>1 1	NP ^a NP ^a	W-XXX ^b W-XXX ^b
Incidental use areas (707.3.7), Mixed occupancy separations (707.3.9)	1	3/4	OH-45 or W-60
Fire partitions	1 0.5	3/4 1/3	OH-45 or W-60 OH-20 or W-30
Smoke barriers	1	3/4	OH-45 or W-60
Exterior walls	>1 1 0.5	1 1/2 3/4 1/3	OH-90 or W-XXX ^b OH-45 or W-60 OH-20 or W-30
Party wall	All	NP	Not Applicable

a. Not permitted except fire-resistance-rated glazing assemblies tested to ASTM E 119 or UL 263, as specified in

b. XXX = The fire rating duration period in minutes, which shall be equal to the fire-resistance rating required for the wall assembly.

Chapter 7 Fire and Smoke Protection Features : Section 717 DUCTS AND AIR TRANSFER OPENINGS

717.5.4 Fire Partitions

Exceptions:

1-3 unchanged

4. Such walls are penetrated by ducted HVAC systems, have a required *fire-resistance rating* of 1 hour or less, and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than No. 26 gage thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals.

Chapter 9 Fire Protection Systems : Section 903 AUTOMATIC SPRINKLER SYSTEMS

903.3.5.1.1 Limited area sprinkler systems.

Limited area sprinkler systems serving ~~six~~ **20** sprinklers or less on any single connection are permitted to be connected to the domestic service where a wet automatic standpipe is not available. Limited area sprinkler systems connected to domestic water supplies shall comply with each of the following requirements:

1. Valves shall not be installed between the domestic water riser control valve and the sprinklers.

Exception: An *approved* indicating control valve supervised in the open position in accordance with Section 903.4.

2. The domestic service shall be capable of supplying the simultaneous domestic demand and the sprinkler demand required to be hydraulically calculated by NFPA 13, NFPA 13D or NFPA 13R.

Chapter 9 Fire Protection Systems : Section 906 PORTABLE FIRE EXTINGUISHERS

906.1 Where required.

Portable fire extinguishers shall be installed in the following locations.

1. In Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.

Exception: In Group R-2 occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each *dwelling unit* is provided with a portable fire extinguisher having a minimum rating of 1-A:10-B:C.

2. Within 30 feet (9144 mm) of commercial cooking equipment.

3. In areas where flammable or combustible liquids are stored, used or dispensed.

4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 3315.1 of the *Florida Building Code*.

5. Where required by the *Florida Building Code* sections indicated in Table 906.1.

6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the fire code official.

Chapter 9 Fire Protection Systems : Section 907 FIRE ALARM AND DETECTION SYSTEMS

907.2.2 Group B.

A manual fire alarm system in accordance with Section 907 shall be provided in all business occupancies where any one of the following conditions exists:

1. The building is two or more stories in height above the level of exit discharge.
2. The occupancy is subject to 50 or more occupants above or below the level of exit discharge.
3. The occupancy is subject to 300 or more total occupants.

907.2.2 Group B.

A manual fire alarm system shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B *occupant load* of all floors is 500 or more.
2. The Group B *occupant load* is more than 100 persons above or below the lowest level of exit discharge.
3. The *fire area* contains an ambulatory care facility.

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.

Chapter 9 Fire Protection Systems : Section 907 FIRE ALARM AND DETECTION SYSTEMS

907.2.4 Group F.

A fire alarm system shall be required in accordance with Section 907 for industrial occupancies, unless the total capacity of the building is under 100 persons and of these fewer than 25 persons are above or below the level of exit discharge.

907.2.4 Group F.

A manual fire alarm system that activates the occupant notification system in accordance with shall be installed in Group F occupancies where both of the following conditions exist:

1. The Group F occupancy is two or more *stories* in height; and
2. The Group F occupancy has a combined *occupant load* of 500 or more above or below the lowest level of exit discharge.

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.

Chapter 9 Fire Protection Systems : Section 909 SMOKE CONTROL SYSTEMS

909.20 Smokeproof enclosures.

909.20.5 Stair pressurization alternative.

Where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the vestibule is not required, provided that interior *exit stairways* are pressurized to a minimum of 0.05 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all *stairway* doors closed under maximum anticipated conditions of stack effect and wind effect.

Chapter 10 Means of Egress

Structure/Layout Revised to match IBC

Chapter 10 Means of Egress : Section 1001 ADMINISTRATION

1001.4 Alterations.

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

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

1001.5

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

1. Handrails comply with Section 1012; and
2. Guardrails comply with Section 1013; and
3. The elevation of the floor surfaces on both sides of the door complies with Section 1008.1.5

1001.6 Special egress requirements by occupancy.

The general requirements of Chapter 10 apply to all occupancies except as modified for specific occupancies in accordance with Section 1028 and Sections 1030 through 1037.

Chapter 10 Means of Egress : Definitions Changes

EXIT DISCHARGE, LEVEL OF. The lowest level having at least 50 percent of the number of exits and capacity of exits discharging to the exterior at grade or story with the least change in elevation to grade, provided no other story has 50 percent of its exits or egress capacity discharging to the exterior at the grade.

EXIT DISCHARGE, LEVEL OF. The *story* at the point at which **an** *exit* terminates and an *exit discharge* begins.

EXIT DISCHARGE. That portion of a *means of egress* system between the termination of an *exit* and a *public way*.

EXIT. That portion of a *means of egress* system between the *exit access* and the *exit discharge* or *public way*. Exit components include exterior exit doors at the *level of exit discharge*, *interior exit stairways*, *interior exit ramps*, *exit passageways*, *exterior exit stairways* and *exterior exit ramps and horizontal exits*.

STORY. That portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above (also see "*Basement*," "*Building height*," "*Grade plane*" and "*Mezzanine*"). It is measured as the vertical distance from top to top of two successive tiers of beams or finished floor surfaces and, for the topmost story, from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling, to the top of the roof rafters.

Chapter 10 Means of Egress : SECTION 1004 OCCUPANT LOAD

1004.1 Design occupant load.

In determining means of egress requirements, the number of occupants for whom means of egress facilities shall be provided shall be determined in accordance with this section. Where occupants from accessory areas egress through a primary space, the calculated occupant load for the primary space shall include the total occupant load of the primary space plus the number of occupants egressing through it from the accessory area.

Exceptions:

1. In a special purpose factory-industrial occupancy, the occupant load shall be the maximum number of persons to occupy the area under any probable conditions.
2. The occupant load for towers shall be the number of persons expected to occupy the space, with spaces not subject to human occupancy because of machinery or equipment excluded from the gross area calculation.

1004.1.1 Cumulative occupant loads.

Where the path of egress travel includes intervening rooms, areas or spaces, cumulative *occupant loads* shall be determined in accordance with this section.

1004.1.1.1 Intervening spaces.

Where occupants egress from one room, area or space through another, the design *occupant load* shall be based on the cumulative *occupant loads* of all rooms, areas or spaces to that point along the path of egress travel.

1004.1.1.2 Adjacent levels.

The *occupant load* of a *mezzanine* or story with egress through a room, area or space on an adjacent level shall be added to the *occupant load* of that room, area or space.

Chapter 10 Means of Egress : SECTION 1004 OCCUPANT LOAD

TABLE 1004.1.2

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

Exhibit Gallery and Museum = 30 net

Exercise rooms without equipment =15 gross

Swimming pool deck = 30 15 gross

1. For the purpose of determining occupant load in mercantile occupancies where, due to differences in grade of streets on different sides, two or more floors directly accessible from streets exist, each such floor shall be considered a street floor. The occupant load factor shall be one person for each 40 square feet (3.7 m²) of gross floor area of sales space.
2. For any food court or other assembly use areas located in the mall that are not included as a portion of the gross leasable area of the mall buildings, the occupant load is calculated based on the occupant load factor for that use as specified in Table 1004.1.2. The remaining mall area is not required to be assigned an occupant load.

Chapter 10 Means of Egress : SECTION 1005 EGRESS WIDTH

1005.3.1 Stairways.

The capacity, in inches (mm), of *means of egress stairways* shall be calculated by multiplying the *occupant load* served by such *stairway* by a *means of egress* capacity factor of 0.3 inch (7.6 mm) per occupant. Where *stairways* serve more than one story, only the *occupant load* of each story considered individually shall be used in calculating the required capacity of the *stairways* serving that story.

Exception: For other than Group H and I-2 occupancies, the capacity, in inches (mm), of *means of egress stairways* shall be calculated by multiplying the *occupant load* served by such *stairway* by a *means of egress* capacity factor of **0.2 inch** (5.1 mm) per occupant in buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or Section 903.3.1.2 and an *emergency voice/alarm communication system* in accordance with Section 907.5.2.2.

Chapter 10 Means of Egress : SECTION 1005 MEANS OF EGRESS SIZING

1005.3.2 Other egress components.

The capacity, in inches (mm), of *means of egress* components other than *stairways* shall be calculated by multiplying the *occupant load* served by such component by a *means of egress* capacity factor of 0.2 inch (5.1 mm) per occupant.

Exception: For other than Group H and I-2 occupancies, the capacity, in inches (mm), of *means of egress* components other than *stairways* shall be calculated by multiplying the *occupant load* served by such component by a *means of egress* capacity factor of **0.15 inch** (3.8 mm) per occupant in buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or Section 903.3.1.2 and an *emergency voice/alarm communication system* in accordance with Section 907.5.2.2.

Chapter 10 Means of Egress : SECTION 1005 MEANS OF EGRESS SIZING

1005.7 Encroachment

1005.7.2 Other projections.

Handrail projections shall be in accordance with the provisions of Section 1012.8 **Other nonstructural projections such as trim and similar decorative features shall be permitted to project into the required width a maximum of 1½ inches (38 mm) on each side.**

Chapter 10 Means of Egress : SECTION SECTION 1006 MEANS OF EGRESS ILLUMINATION

Section 1006 : Removed all Florida Fire Prevention Code correlations. IBC requirements are different.

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.2 Door swing.

Egress doors shall be of the pivoted or side-hinged swinging type.

Exceptions: no change

Doors shall swing in the direction of egress travel where serving **a room or area containing** an *occupant load* of 50 or more persons or a Group H occupancy.

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.4.1 Revolving doors.

4. Each revolving door shall have a side-hinged swinging door which complies with Section 1008.1 in the same wall and within 10 feet (3048 mm) of the revolving door, unless one of the following conditions applies:
 - a. Revolving doors shall be permitted without adjacent swinging doors, as required by Section 1008.1.4.1(4) in street floor elevator lobbies, provided that no stairways or doors from other parts of the building discharge through the lobby and the lobby has no occupancy other than as means of travel between the elevators and street.
 - b. The requirement of Section 1008.1.4.1(4) shall not apply to existing revolving doors where the number of revolving doors does not exceed the number of swinging doors within 240 inches (6100 mm) of the revolving doors.

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.4.2 Power-operated doors.

Exceptions:

3. Sliding, power-operated doors in exit access serving an occupant load of fewer than 50 that manually opens in the direction of door travel with forces not more than required in Section 1008 shall not be required to have a swing-out feature. The required sign shall state, "IN EMERGENCY, SLIDE TO OPEN."
4. In the emergency breakout mode, a door leaf located within a two-leaf opening shall be exempt from the minimum 32 inches (813 mm) single-leaf requirement, provided the clear width of the single leaf is at least 30 inches (762 mm).

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.4.3 Horizontal sliding doors.

In other than Group H occupancies, horizontal sliding doors permitted to be a component of a *means of egress* in accordance with Exception 6 to Section 1008.1.2 shall comply with all of the following criteria:

9. In apartment buildings, hotels and dormitories, horizontal sliding doors shall not be used across corridors.

1008.1.2 Door swing.

Egress doors shall be of the pivoted or side-hinged swinging type.

Ex6. In other than Group H occupancies, horizontal sliding doors complying with [Section 1008.1.4.3](#) are permitted in a *means of egress*.

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.4.4 Security grilles.

In Groups B, F, M, **R** and S, horizontal sliding or vertical security grilles are permitted at the main *exit* and shall be openable from the inside without the use of a key or special knowledge or effort during periods that the space is occupied. The grilles shall remain secured in the full-open position during the period of occupancy by the general public. Where two or more *means of egress* are required, not more than one-half of the *exits* or *exit access doorways* shall be equipped with horizontal sliding or vertical security grilles.

1008.1.4.5 Protection devices for emergency escape and rescue openings. The temporary installation or closure of storm shutters, panels and other approved hurricane protection devices shall be permitted on emergency escape and rescue openings in Group R occupancies during the threat of a storm. Such devices shall not be required to comply with the operational constraints of Section 1029.4. While such protection is provided, at least one means of escape from the dwelling or dwelling unit shall be provided. The means of escape shall be within the first floor of the dwelling or dwelling unit and shall not be located within a garage without a side hinged door leading directly to the exterior. Occupants in any part of the dwelling or dwelling unit shall be able to access the means of escape without passing through a lockable door not under their control.

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.4.7 Self-closing doors.

Where doors are required to be self-closing and are operated by power upon the approach of a person or are provided with power-assisted manual operation, they shall be permitted in the means of egress in accordance with the following:

1. Doors can be opened manually in accordance with Section 1008.1.4.2 to allow egress travel in the event of power failure.
2. The doors remain in the closed position unless actuated or opened manually.
3. When actuated, doors remain open for not more than 30 seconds.
4. Doors held open for any period of time close and the power-assist mechanism ceases to function upon operation of approved smoke detectors installed in such a way as to detect smoke on either side of the door opening in accordance with the provisions of NFPA 72, National Fire Alarm Code.
5. Doors required to be self-latching are either self-latching or become self-latching upon operation of approved smoke detectors in accordance with Section 1008.1.4.7(4).
6. Power assisted swinging doors shall comply with ANSI/BHMA A156.19.

Covered in Section 716.5.9 Door Closing

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.5 Floor elevation.

There shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landings, which are permitted to have a slope not to exceed 1 unit vertical in 50 **0.25 unit vertical in 12 units** horizontal (2-percent slope).

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.9.2 Hardware height.

Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor. Locks used only for security purposes and not used for normal operation are permitted at any height.

Exception: Access doors or gates in barrier walls and fences protecting pools, spas and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finished floor or ground, provided the self-latching devices are not also self-locking devices operated by means of a key, electronic opener or integral combination lock.

Egress doors from individual living units and guest rooms of residential occupancies shall be permitted to be provided with devices that require not more than one additional releasing operation if such device is operable from the inside without the use of a key or tool and is mounted at a height not more than 48 inches (1219 mm) above the finished floor.

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.9.9 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 meet the requirements below:

1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The listed hardware is capable of being operated with one hand.
3. Operation of the listed hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the listed hardware automatically unlocks the door.

5. Where panic or fire exit hardware is required by Section 1008.1.10, operation of the listed panic or fire exit hardware also releases the electromagnetic lock.

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.9.11 Stairway doors.

Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.
2. This section shall not apply to doors arranged in accordance with Section 403.5.3.
3. In stairways serving not more than four stories, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.

4. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group B, F, M and S occupancies where the only interior access to the tenant space is from a single exit stair where permitted in Section 1021.2

5. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group R-2 occupancies where the only interior access to the dwelling unit is from a single exit stair where permitted in Section 1021.2.

Chapter 10 Means of Egress : SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.9.11

During its swing, any door in a means of egress shall leave unobstructed at least one half of the required width of an aisle, corridor, passageway, or landing, nor project more than 7 inches (178 mm) into the required width of an aisle, corridor, passageway or landing, when fully open. Doors shall not open immediately onto a stair without a landing. The landing shall have a width at least equal to the width of the door. See Section 1031 for door swing in Group E occupancies.

Every door in a stair enclosure serving more than four stories shall permit reentry from the stair enclosure to the interior of the building, or an automatic release shall be provided to unlock all stair enclosure doors to permit reentry. Such automatic release shall be actuated with the initiation of the building fire alarm, fire detection or fire sprinkler system.

Exception: Doors on stair enclosures shall be permitted to be equipped with hardware that prevents reentry into the interior of the building, provided that the following conditions are met:

1. There are at least two levels where it is possible to leave the stair enclosure;
2. There are not more than four stories intervening between stories where it is possible to leave the stair enclosure;
3. Reentry is possible on the top or next to top story permitting access to another exit;
4. Doors permitting reentry are identified as such on the stair side of the door; and
5. Doors not permitting reentry shall be provided with a sign on the stair side indicating the location of the nearest door, in each direction of travel, permitting reentry or exit.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

EXIT. That portion of a means of egress system between which is separated from other interior spaces of a building or structure by fire-resistance-rated construction and opening protectives as required to provide a protected path of egress travel between the exit access and the exit discharge or public way. Exits components include exterior exit doors at the level of exit discharge vertical exit enclosures , interior exit stairways, interior exit ramps, exit passageways, exterior exit stairways, and exterior exit ramps and horizontal exits.

EXIT ACCESS RAMP. An interior *ramp* that is not a required *interior exit ramp*.

EXIT ACCESS STAIRWAY. An interior *stairway* that is not a required *interior exit stairway*.

EXIT ENCLOSURE. An exit component that is separated from other interior spaces of a building or structure by fire-resistance-rated construction and opening protectives, and provides for a protected path of egress travel in a vertical or horizontal direction to the exit discharge or the public way.

INTERIOR EXIT RAMP. An *exit* component that serves to meet one or more *means of egress* design requirements, such as required number of *exits* or *exit access* travel distance, and provides for a protected path of egress travel to the *exit discharge* or *public way*.

INTERIOR EXIT STAIRWAY. An *exit* component that serves to meet one or more *means of egress* design requirements, such as required number of *exits* or *exit access* travel distance, and provides for a protected path of egress travel to the *exit discharge* or *public way*.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.1 General.

Stairways serving occupied portions of a building shall comply with the requirements of this section.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.2 Interior exit stairways.

Interior exit stairways shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1.

1009.2.1 Where required.

Interior exit stairways shall be included, as necessary, to meet one or more means of egress design requirements, such as required number of exits or exit access travel distance.

1009.2.2 Enclosure.

All interior exit stairways shall be enclosed in accordance with the provisions of Section 1022.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.3 Exit access stairways.

Floor openings between stories created by *exit access stairways* shall be enclosed.

Exceptions:

1. In other than Group I-2 and I-3 occupancies, *exit access stairways* that serve, or atmospherically communicate between, only two stories are not required to be enclosed.

2. *Exit access stairways* serving and contained within a single residential *dwelling unit* or *sleeping unit* in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.

3. In buildings with only Group B or M occupancies, *exit access stairway* openings are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.

4. In other than Group B and M occupancies, *exit access stairway* openings are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.

5. *Exit access stairways* within an *atrium* complying with the provisions of Section 404 are not required to be enclosed.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.3 Exit access stairways.

Floor openings between stories created by *exit access stairways* shall be enclosed.

Exceptions:

6. *Exit access stairways* and *ramps* in open parking garages that serve only the parking garage are not required to be enclosed.

7. *Stairways* serving outdoor facilities where all portions of the *means of egress* are essentially open to the outside are not required to be enclosed.

8. *Exit access stairways* serving stages, platforms and *technical production areas* in accordance with Section 410.6.2 and 410.6.3 are not required to be enclosed.

9. *Stairways* are permitted to be open between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, *places of religious worship*, auditoriums and sports facilities.

10. In Group I-3 occupancies, *exit access stairways* constructed in accordance with Section 408.5 are not required to be enclosed.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.3.1 Construction.

Where required, enclosures for exit access stairways shall be constructed in accordance with this section. Exit access stairway enclosures shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies in accordance with Section 711, or both.

1009.3.1.1 Materials.

Exit access stairway enclosures shall be of materials permitted by the building type of construction.

1009.3.1.2 Fire-resistance rating.

Exit access stairway enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more, and not less than 1 hour where connecting less than four stories. The number of stories connected by the exit access stairway enclosures shall include any basements, but not any mezzanines. Exit access stairway enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.

1009.3.1.3 Continuity.

Exit access stairway enclosures shall have continuity in accordance with Section 707.5 for fire barriers or Section 711.4 for horizontal assemblies as applicable.

1009.3.1.4 Openings.

Openings in an exit access stairway enclosure shall be protected in accordance with Section 716 as required for fire barriers. Doors shall be self- or automatic-closing by smoke detection in accordance with Section 716.5.9.3

1009.3.1.4.1 Prohibited openings.

Openings other than those necessary for the purpose of the exit access stairway enclosure shall not be permitted in exit access stairway enclosures.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.3.1 Construction.

Where required, enclosures for *exit access stairways* shall be constructed in accordance with this section. *Exit access stairway* enclosures shall be constructed as *fire barriers* in accordance with Section 707 or *horizontal assemblies* in accordance with Section 711, or both.

1009.3.1.5 Penetrations.

Penetrations in an *exit access stairway* enclosure shall be protected in accordance with Section 714 as required for *fire barriers*.

1009.3.1.5.1 Prohibited penetrations.

Penetrations other than those necessary for the purpose of the *exit access stairway* enclosure shall not be permitted in *exit access stairway* enclosures.

1009.3.1.6 Joints.

Joints in an *exit access stairway* enclosure shall comply with Section 715.

1009.3.1.7 Ducts and air transfer openings.

Penetrations of an *exit access stairway* enclosure by ducts and air transfer openings shall comply with Section 717.

1009.3.1.8 Exterior walls.

Where *exterior walls* serve as a part of an *exit access stairway* enclosure, such walls shall comply with the requirements of *for exterior walls* and the fire-resistance-rated enclosure requirements shall not apply.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.8 Stairway landings.

There shall be a floor or landing at the top and bottom of each *stairway*. The width of landings shall not be less than the width of *stairways* they serve. Every landing shall have a minimum width measured perpendicular to the direction of travel equal to the width of the *stairway*. Where the *stairway* has a straight run the depth need not exceed 48 inches (1219 mm). Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. When *wheelchair spaces* are required on the *stairway* landing in accordance with , the *wheelchair space* shall not be located in the required width of the landing and doors shall not swing over the *wheelchair spaces*.

Exception: *Aisle stairs* complying with Section 1028.

2. In one- and two-family dwellings, a door at the top of a stair shall be permitted to open directly at a stair, provided the door does not swing over the stair and the door serves an area with an occupant load of fewer than 50 persons.

Stair identification.

An approved sign shall be located at each floor level landing in all enclosed stairways of buildings four or more stories in height. The sign shall indicate the floor level and the availability of roof access from that stairway and an identification of the stairway. The sign shall also state the floor level of and direction to exit discharge. The sign shall be located approximately 5 feet (1524 mm) above the floor landing in a position which is readily visible when the door is in the open or closed position. The floor level designation shall also be tactile in accordance with the Florida Building Code, Accessibility.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.11 Curved stairways.

Curved *stairways* with *winder* treads shall have treads and risers in accordance with Section 1009.7 and the smallest radius shall not be less than twice the required width of the *stairway*.

Exception: The radius restriction shall not apply to curved *stairways* for occupancies in Group R-3 and within individual *dwelling units* in occupancies in Group R-2.

2. In Group R-3 occupancies, circular stairs may have a minimum tread depth of 9 inches (229 mm) with 1 inch (25.4 mm) of nosing, and the smaller radius may be less than twice the width of the stairway.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.9 Spiral stairways.

Where permitted by this section or in specific occupancies in accordance with Sections 1028 and 1030 through 1037, spiral stairs complying with this section shall be permitted as a component in a means of egress.

1009.9.1 Spiral stairs complying with the following shall be permitted:

1. Riser heights shall not exceed 7 inches (178 mm).
2. The stairway shall have a tread depth of not less than 11 inches (279 mm) for a portion of the stairway width sufficient to provide the egress capacity for the occupant load served in accordance with Section 1004.1.
3. At the outer side of the stairway, an additional 10¹/₂ inches (267 mm) of width shall be provided clear to the other handrail, and this width shall not be included as part of the required egress capacity.
4. Handrails complying with Section 1009.12 shall be provided on both sides of the spiral stairway.
5. The inner handrail shall be located within 24 inches (610 mm), measured horizontally, of the point where a tread depth not less than 11 inches (279 mm) is provided.
6. The turn of the stairway shall be such that descending users have the outer handrail at their right side.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.9 Spiral stairways.

Where permitted by this section or in specific occupancies in accordance with Sections 1028 and 1030 through 1037, spiral stairs complying with this section shall be permitted as a component in a means of egress.

1009.9.2

Where the occupant load served does not exceed three and from mezzanines not exceeding 250 square feet (23 m²) and an occupant load of three or less, spiral stairs meeting the following conditions shall be permitted:

1. The clear width of the stairs shall be not less than 26 inches (660 mm).
2. The height of the risers shall not exceed 9 1/2 inches (241 mm).
3. Headroom shall be not less than 6 feet 6 inches (1981 mm).
4. Treads shall have a depth not less than 7 1/2 inches (191 mm) at a point 12 inches (305 mm) from the narrower edge.
5. All treads shall be identical.
6. Handrails complying with Section 1009.12 shall be provided on both sides of the spiral stairway.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.9 Spiral stairways.

Where permitted by this section or in specific occupancies in accordance with Sections 1028 and 1030 through 1037, spiral stairs complying with this section shall be permitted as a component in a means of egress.

1009.9.3

Within dwellings and dwelling units, guest rooms and guest suites where the occupant load served does not exceed five, spiral stairs meeting the following conditions shall be permitted:

1. The minimum stairway width shall be 26 inches (660 mm).
2. The height of risers shall not be more than 9 1/2 inches (241 mm).
3. The headroom shall be a minimum of 6 feet 6 inches (1981 mm).
4. Treads shall have a depth not less than 7 1/2 inches (190 mm) at a point 12 inches (305 mm) from the narrow edge.
5. All treads shall be identical.
6. Handrails shall be provided on one side.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.12 Spiral stairways.

Spiral stairways are permitted to be used as a component in the *means of egress* only within *dwelling units* or from a space not more than **250 square feet** (23 m²) in area and serving not more than **five** occupants, or from *technical production areas* in accordance with Section 410.6.

A *spiral stairway* shall have a 7¹/₂-inch (191 mm) minimum clear tread depth at a point 12 inches (305 mm) from the narrow edge. The risers shall be sufficient to provide a headroom of 78 inches (1981 mm) minimum, but riser height shall not be more than 9¹/₂ inches (241 mm). The minimum *stairway* clear width at and below the *handrail* shall be 26 inches (660 mm).

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.15 Handrails.

Stairways shall have *handrails* on each side and shall comply with Section 1012. Where glass is used to provide the *handrail*, the *handrail* shall also comply with Section 2407 .

Exceptions: 1-5 no change

1. *Handrails* for *aisle stairs* provided in accordance with Section 1028.13.
2. *Stairways* within dwelling units and *spiral stairways* are permitted to have a *handrail* on one side only.
3. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require *handrails*.
4. In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require *handrails*.
5. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Groups R-2 and R-3 do not require *handrails*.
6. In one- and two-family dwellings and within dwelling units in Group R-2 occupancies, stairways having four or more risers above a floor or finished ground level shall be equipped with handrails located not less than 34 inches (864 mm) or more than 38 inches (965 mm) above the leading edge of a tread.

Chapter 10 Means of Egress : SECTION 1009 STAIRWAYS

1009.16 Stairway to roof.

In buildings four or more stories above *grade plane*, one *stairway* shall extend to the roof surface, unless the roof has a slope steeper than four units vertical in 12 units horizontal (33-percent slope). In buildings without an occupied roof, access to the roof from the top story shall be permitted to be by an *alternating tread device*.

1009.16.1 Roof access.

Where a *stairway* is provided to a roof, access to the roof shall be provided through a *penthouse* complying with Section 1509.2.

Exception: In buildings without an occupied roof, access to the roof shall be permitted to be a roof hatch or trap door not less than 16 square feet (1.5 m²) in area and having a minimum dimension of 2 feet (610 mm).

1009.16.2 Protection at roof hatch openings.

Where the roof hatch opening providing the required access is located within 10 feet (3049 mm) of the roof edge, such roof access or roof edge shall be protected by *guards* installed in accordance with the provisions of .

Chapter 10 Means of Egress : SECTION 1010 RAMPS

1010.1 Scope.

The provisions of this section shall apply to *ramps* used as a component of a *means of egress*.

Exceptions:

1. Other than *ramps* that are part of the *accessible routes* providing access in accordance with the provisions of the Florida Building Code, Accessibility, ramped *aisles* within assembly rooms or spaces shall conform with the provisions in
2. Curb ramps shall comply with ICC A117.1.
3. Vehicle ramps in parking garages for pedestrian *exit access* shall not be required to comply with the provisions of the Florida Building Code, Accessibility when they are not an *accessible route* serving *accessible* parking spaces, other required *accessible* elements or part of an *accessible means of egress*.

Chapter 10 Means of Egress : SECTION 1010 RAMPS

1010.8 Ramp construction. All ramps shall be built of materials consistent with the types permitted for the type of construction of the building, except that wood *handrails* shall be permitted for all types of construction.

1010.8.3

All ramps that serve as required means of egress shall be of permanent fixed construction.

1010.8.4

The ramp floor and landings shall be solid and without perforations.

Chapter 10 Means of Egress : SECTION 1011 EXIT SIGNS

1011.2 Floor-level exit signs in Group R-1.

Where exit signs are required in Group R-1 occupancies by , additional low-level exit signs shall be provided in all areas serving guestrooms in Group R-1 occupancies and shall comply with

The bottom of the sign shall be not less than 10 inches (254 mm) nor more than 12 inches (305 mm) above the floor level. The sign shall be flush mounted to the door or wall. Where mounted on the wall, the edge of the sign shall be within 4 inches (102 mm) of the door frame on the latch side.

Chapter 10 Means of Egress : SECTION 1012 HANDRAILS

1012.2 Height.

Handrail height, measured above *stair* tread *nosings*, or finish surface of *ramp* slope, shall be uniform, not less than 34 inches (864 mm) and not more than 38 inches (965 mm). *Handrail* height of *alternating tread devices* and ship ladders, measured above tread *nosings*, shall be uniform, not less than 30 inches (762 mm) and not more than 34 inches (864 mm).

Exceptions:

1. When handrail fittings or bendings are used to provide continuous transition between *flights*, the fittings or bendings shall be permitted to exceed the maximum height.
2. In Group R-3 occupancies; within *dwelling units* in Group R-2 occupancies; and in Group U occupancies that are associated with a Group R-3 occupancy or associated with individual *dwelling units* in Group R-2 occupancies; when handrail fittings or bendings are used to provide continuous transition between *flights*, transition at *winder* treads, transition from *handrail* to *guard*, or when used at the start of a *flight*, the *handrail* height at the fittings or bendings shall be permitted to exceed the maximum height.

Chapter 10 Means of Egress : SECTION 1012 HANDRAILS

1012.3 Handrail graspability.

All required *handrails* shall comply with or shall provide equivalent graspability.

Exception: In Group R-3 occupancies; within *dwelling units* in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual *dwelling units* in Group R-2 occupancies; *handrails* shall be Type I in accordance with , Type II in accordance with or shall provide equivalent graspability.

1012.3.1 Type I.

Handrails with a circular cross section shall have an outside diameter of at least 1¹/₄ inches (32 mm) and not greater than 2 inches (51 mm). Where the *handrail* is not circular, it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than 6¹/₄ inches (160 mm) with a maximum cross-sectional dimension of 2¹/₄ inches (57 mm) **and minimum cross-sectional dimension of 1 inch** (25 mm). Edges shall have a minimum radius of 0.01 inch (0.25 mm).

Chapter 10 Means of Egress : SECTION 1013 GUARDS

1013.3 Height.

Required *guards* shall not be less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces adjacent fixed seating or;
2. On stairs, from the line connecting the leading edges of the tread nosings; and
3. On ramps, from the ramp surface at the guard.

Exceptions:

1. For occupancies in Group R-3 not more than three stories above grade in height and within individual dwelling units in occupancies in Group R-2 not more than three stories above grade in height with separate means of egress, required guards shall not be less than ~~34~~ **36 inches** (914 mm) in height measured vertically above the adjacent walking surfaces or adjacent *fixed seating*.
2. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, *guards* on the open sides of *stairs* shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
3. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, 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 less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
4. The *guard* height in assembly seating areas shall comply with Section 1028.14
5. Along *alternating tread devices* and ship ladders, *guards* whose top rail also serves as a *handrail*, shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread *nosing*.

Chapter 10 Means of Egress : SECTION 1013 GUARDS

1013.8 Window sills. (moved from 1405.13.2)

In Occupancy Groups R-2 and R-3, one- and two-family and multiple-family dwellings, where the opening of the sill portion of an operable window is located more than 72 inches (1829 mm) above the finished grade or other surface below, the lowest part of the clear opening of the window shall be at a height not less than 24 inches **36 inches** (915 mm) above the finished floor surface of the room in which the window is located.

Operable sections of windows shall not permit openings that allow passage of a 4-inch-diameter (102 mm) sphere where such openings are located within 36 inches (915 mm) of the finished floor.

Exceptions:

1. Operable windows where the sill portion of the opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below and that are provided with window guards fall prevention devices that comply with ASTM F 2006.
2. Windows whose openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.
3. Openings that are provided with window fall prevention devices that comply with ASTM F 2090.
4. Windows that are provided with window opening control devices that comply with Section 1013.8.1

Chapter 10 Means of Egress : SECTION 1014 EXIT ACCESS

1014.3 Common path of egress travel.

The *common path of egress travel* shall not exceed the *common path of egress travel* distances in Table 1014.3.

TABLE 1014.3 COMMON PATH OF EGRESS TRAVEL

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)	WITH SPRINKLER SYSTEM (feet)	
	Occupant Load		
	≤ 30	> 30	
B, S ^d	100	75	100 ^a
U	100	75	75 ^a
F	75	75	100 ^a
H-1, H-2, H-3	Not Permitted	Not Permitted	25 ^a
R-2	75	75	125 ^b
R-3 ^e	75	75	125 ^b
I-3	100	100	100 ^a
All others ^{c, f}	75	75	75 ^a

a. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1

b. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or Section 903.3.1.2 See Section 903 for occupancies where *automatic sprinkler systems* are permitted in accordance with Section 903.3.1.2

c. For a room or space used for assembly purposes having *fixed seating*, see Section 1028.8.

d. The length of a *common path of egress travel* in a Group S-2 *open parking garage* shall not be more than 100 feet

e. The length of a *common path of egress travel* in a Group R-3 occupancy located in a mixed occupancy building.

Chapter 10 Means of Egress : SECTION 1014 EXIT ACCESS

1014.3 Common path of egress travel. Old Exceptions:

1. The length of a common path of egress travel in Group B, F **M** and S occupancies shall not be more than 100 feet (30 480 mm), provided that the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. Where a tenant space in Group B, S and U occupancies has an occupant load of not more than 30, the length of a common path of egress travel shall not be more than 100 feet (30 480 mm).
3. The length of a common path of egress travel in a Group I-3 occupancy shall not be more than 100 feet (30 480 mm).
4. The length of a common path of egress travel in a Group R-2 occupancy shall not be more than 125 feet (38 100 mm) **within the dwelling unit**, provided that the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 **otherwise 75 feet**.
5. Where a tenant space in Group A occupancy has an occupant load of more than 50, the length of a common path of egress travel shall not be more than 20 feet (6098 mm).
6. The common path of egress travel in Group R-1 and R-2 occupancies shall not exceed 35 feet (10 668 mm). **Travel within a guestroom, guest suite or dwelling unit shall not be included when calculating the common path of travel.** The common path of egress travel in occupancy Groups R-1 and R-2 shall not exceed 50 feet (15 240 mm) provided the building is protected throughout by an approved, automatic sprinkler system in accordance with Section 903.3.1.1.
7. The common path of egress travel in occupancies in Groups F and S shall be 50 feet (15 240 mm) in unsprinklered buildings.
8. The common path of egress travel in Group S-2 Parking Garages shall be 50 feet (15 240 mm).
9. In occupancy Group S-2 common paths of egress travel shall not be limited.
10. In occupancy Group H common paths of egress travel shall be prohibited.

Chapter 10 Means of Egress : SECTION 1015 EXIT and EXIT ACCESS DOORWAYS

1015.1 Exits or exit access doorways from spaces.

Two *exits* or *exit access* doorways from any space shall be provided where one of the following conditions exists:

1. The *occupant load* of the space exceeds one of the values in Table 1015.1.

Exceptions:

1. 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 or Section 903.3.1.2.

2. Care suites in Group I-2 occupancies complying with Section 407.4.3.

2. The *common path of egress travel* exceeds one of the limitations of Section 1014.3.

3. Where required by Section Section 1015.3, Section 1015.4, Section 1015.5 , or Section 1015.6.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative *occupant loads* from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

Chapter 10 Means of Egress : SECTION 1016 EXIT ACCESS TRAVEL DISTANCE

1016.1 General.

Travel distance within the *exit access* portion of the *means of egress* system shall be in accordance with this section.

1016.2 Limitations.

Exit access travel distance shall not exceed the values given in Table 1016.2.

Rd 100e 200b

M 150 250c

S-1 200 400c

E, S-2f, I-2, I-3 150 200c

d. Travel within a guestroom, guest suite or dwelling unit shall not be included when calculating the travel distance. See 1014.3, Exception 4, for common path within.

e. For exterior 200 feet is allowed without sprinkler.

f. Enclosed Parking Garage.

TABLE 1016.2 EXIT ACCESS TRAVEL DISTANCE

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

Chapter 10 Means of Egress : SECTION 1016 EXIT ACCESS TRAVEL DISTANCE

1016.3 Measurement.

Exit access travel distance shall be measured from the most remote point within a story along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an *exit*.

Exceptions:

1. In *open parking garages*, *exit access* travel distance is permitted to be measured to the closest riser of an *exit access stairway* or the closest slope of an *exit access ramp*.
2. In outdoor facilities with open *exit access* components, *exit access* travel distance is permitted to be measured to the closest riser of an *exit access stairway* or the closest slope of an *exit access ramp*.

1016.3.1 Exit access stairways and ramps.

Travel distance on *exit access stairways* or *ramps* shall be included in the *exit access* travel distance measurement. The measurement along *stairways* shall be made on a plane parallel and tangent to the *stair* tread *nosings* in the center of the *stair* and landings. The measurement along *ramps* shall be made on the walking surface in the center of the *ramp* and landings.

Chapter 10 Means of Egress : SECTION 1018 CORRIDORS

1018.1 Construction.

Corridors shall be fire-resistance rated in accordance with Table 1018.1. The corridor walls required to be fire-resistance rated shall comply with Section 709 for fire partitions.

Exceptions: 1-4 unchanged

5. Corridors adjacent to the exterior walls of buildings shall be permitted to have unprotected openings on unrated exterior walls where unrated walls are permitted by Table 602 and unprotected openings are permitted by Table 705.8.

Chapter 10 Means of Egress : SECTION 1018 CORRIDORS

Table 1018.1 CORRIDOR FIRE-RESISTANCE RATING

Residential supervised automatic sprinkler system= 0.5 vs 1 hour prior

E Occupancy : In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 903, corridor walls shall not be required to be rated, provided that such walls form smoke partitions in accordance with the Florida Fire Prevention Code.

Chapter 10 Means of Egress : SECTION 1018 CORRIDORS

1018.6 Corridor continuity.

Fire-resistance-rated *corridors* shall be continuous from the point of entry to an *exit*, and shall not be interrupted by intervening rooms. **Where the path of egress travel within a fire-resistance-rated *corridor* to the *exit* includes travel along unenclosed *exit access stairways* or *ramps*, the fire resistance-rating shall be continuous for the length of the *stairway* or *ramp* and for the length of the connecting *corridor* on the adjacent floor leading to the *exit*.**

Exception: Foyers, lobbies or reception rooms constructed as required for *corridors* shall not be construed as intervening rooms.

Chapter 10 Means of Egress : SECTION 1019 EGRESS BALCONCIES

1019.4 Location.

Exterior egress balconies shall have a minimum fire separation distance of 10 feet (3048 mm) measured from the exterior edge of the egress balcony to adjacent lot lines and from other buildings on the same lot unless the adjacent building exterior walls and openings are protected in accordance with Section 705 based on fire separation distance.

Chapter 10 Means of Egress : SECTION 1021 NUMBER OF EXITS AND EXIT CONFIGURATION

1021.1 General.

Each story and occupied roof shall have the minimum number of *exits*, or *access to exits*, as specified in this section. The required number of *exits*, or *exit access stairways* or *ramps* providing access to exits, from any story shall be maintained until arrival at grade or a *public way*. *Exits* or access to exits from any story shall be configured in accordance with this section. **Each story above the second story of a building shall have a minimum of one interior or exterior exit stairway, or interior or exterior exit ramp.** At each story above the second story that requires a minimum of three or more *exits*, or access to *exits*, a minimum of 50 percent of the required *exits* shall be interior or exterior *exit stairways*, or interior or exterior *exit ramps*.

Exceptions:

1. *Interior exit stairways* and *interior exit ramps* are not required in *open parking garages* where the *means of egress* serves only the *open parking garage*.
2. *Interior exit stairways* and *interior exit ramps* are not required in outdoor facilities where all portions of the *means of egress* are essentially open to the outside.

Chapter 10 Means of Egress : SECTION 1021 NUMBER OF EXITS AND EXIT CONFIGURATION

1021.2 Exits from stories.

Two exits, or exit access stairways or ramps providing access to exits, from any story or occupied roof shall be provided where one of the following conditions exists:

1. The occupant load or number of dwelling units exceeds one of the values in Table 1021.2(1) or 1021.2(2).
2. The exit access travel distance exceeds that specified in Table 1021.2(1) or 1021.2(2) as determined in accordance with the provisions of
3. Helistop landing areas located on buildings or structures shall be provided with two exits, or exit access stairways or ramps providing access to exits.

A fenced outdoor assembly occupancy shall have at least two widely separated means of egress from the enclosure. If more than 6,000 persons are to be served by such means of egress, there shall be at least three means of egress; if more than 9,000 persons are to be served, there shall be at least four means of egress.

Exceptions:

Chapter 10 Means of Egress : SECTION 1021 NUMBER OF EXITS AND EXIT CONFIGURATION

1021.2 Exits from stories.

Exceptions:

1. Rooms, areas and spaces complying with with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit.
2. Group R-3 occupancy buildings shall be permitted to have one *exit*.
3. Parking garages where vehicles are mechanically parked shall be permitted to have one *exit*.
4. Air traffic control towers shall be provided with the minimum number of *exits* specified in
5. Individual *dwelling units* in compliance with Section 1021.2.3.
6. Group R-3 and R-4 congregate residences shall be permitted to have one *exit*.
7. Exits serving specific spaces or areas need not be accessed by the remainder of the story when all of the following are met:
 - 7.1. The number of exits from the entire story complies with Section 1021.2.4;
 - 7.2. The access to exits from each individual space in the story complies with ; and
 - 7.3. All spaces within each portion of a story shall have access to the minimum number of approved independent exits based on the occupant load of that portion of the story, but not less than two exits.

Chapter 10 Means of Egress : SECTION 1021 NUMBER OF EXITS AND EXIT CONFIGURATION

TABLE 1021.2(1) STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, first, second or third story	R-2a, b	4 dwelling units	125 feet
Fourth story and above	NP	NA	NA

NP - Not Permitted

NA - Not Applicable

a. Buildings classified as Group R-2 equipped throughout with an *automatic sprinkler system* in accordance with or and provided with *emergency escape and rescue openings* in accordance with .

b. This table is used for R-2 occupancies consisting of *dwelling units*. For R-2 occupancies consisting of *sleeping units*, use Table 1021.2(2).

Chapter 10 Means of Egress : SECTION 1021 NUMBER OF EXITS AND EXIT CONFIGURATION

TABLE 1021.2(2) STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM OCCUPANTS PER STORY	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
First story or basement	A, B _b , E, F _b , M, U, S _b	49 occupants	75 feet
	H-2, H-3	3 occupants	25 feet
	H-4, H-5, I, R-1, R-2 _{a,c} , R-4	10 occupants	75 feet
	S	29 occupants	100 feet
Second story	B, F, M, S	29 occupants	75 feet
Third story and above	NP	NA	NA

NP - Not Permitted

NA - Not Applicable

a. Buildings classified as Group R-2 equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or Section 903.3.1.2 and provided with *emergency escape and rescue openings* in accordance with Section 1029.

b. Group B, F and S occupancies in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall have a maximum travel distance of 100 feet.

c. This table is used for R-2 occupancies consisting of *sleeping units*. For R-2 occupancies consisting of *dwelling units*, use Table 1021.2(1).

Chapter 10 Means of Egress : SECTION 1021 NUMBER OF EXITS AND EXIT CONFIGURATION

1021.2.1 Mixed occupancies.

Where one exit, or exit access stairway or ramp providing access to exits at other stories, is permitted to serve individual stories, mixed occupancies shall be permitted to be served by single *exits* provided each individual occupancy complies with the applicable requirements of Table 1021.2(1) or Table 1021.2(2) for that occupancy. Where applicable, cumulative *occupant loads* from adjacent occupancies shall be considered in accordance with the provisions of

In each story of a mixed occupancy building, the maximum number of occupants served by a single exit shall be such that the sum of the ratios of the calculated number of occupants of the space divided by the allowable number of occupants for each occupancy does not exceed one.

Chapter 10 Means of Egress : SECTION 1021 NUMBER OF EXITS AND EXIT CONFIGURATION

1021.3 Exit configuration.

Exits, or exit access stairways or ramps providing access to exits at other stories, shall be arranged in accordance with the provisions of Section 1015.2 through Section 1015.2.2. Exits shall be continuous from the point of entry into the exit to the exit discharge.

1021.3.1 Access to exits at adjacent levels.

Access to exits at other levels shall be by stairways or ramps. Where access to exits occurs from adjacent building levels, the horizontal and vertical exit access travel distance to the closest exit shall not exceed that specified in Section 1016.1. Access to exits at other levels shall be from an adjacent story.

Exception: Landing platforms or roof areas for *helistops* that are less than 60 feet (18 288 mm) long, or less than 2,000 square feet (186 m²) in area, shall be permitted to access the second exit by a fire escape, *alternating tread device* or ladder leading to the story or level below.

Chapter 10 Means of Egress : SECTION 1021 NUMBER OF EXITS AND EXIT CONFIGURATION

1021.4 Vehicular ramps.

Vehicular ramps shall not be considered as an *exit access ramp* unless pedestrian facilities are provided.

Chapter 10 Means of Egress : SECTION 1022 INTERIOR EXIT STAIRWAYS AND RAMPS

prior Exit Enclosures (now Interior Exit Stairs/Ramps) reformatted

Chapter 10 Means of Egress : SECTION 1022 INTERIOR EXIT STAIRWAYS AND RAMPS

1022.5 Penetrations.

Penetrations into and openings through interior exit stairways and ramps are prohibited except for required *exit* doors, equipment and ductwork necessary for independent ventilation or pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication systems and electrical raceway serving the interior exit stairway and ramp and terminating at a steel box not exceeding 16 square inches (0.010 m²). Such penetrations shall be protected in accordance with Section 714. There shall be no penetrations or communicating openings, whether protected or not, between adjacent interior exit stairways and ramps.

Exception: Membrane penetrations shall be permitted on the outside of the interior exit stairway and ramp. Such penetrations shall be protected in accordance with Section 714.3.2

Chapter 10 Means of Egress : SECTION 1022 INTERIOR EXIT STAIRWAYS AND RAMPS

1022.7 Interior exit stairway and ramp exterior walls.

Exterior walls of the interior exit stairway and ramp shall comply with the requirements of [Section 705](#) for exterior walls. Where nonrated walls or unprotected openings enclose the exterior of the *stairway* and the walls or openings are exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the building *exterior walls* within 10 feet (3048 mm) horizontally of a nonrated wall or unprotected opening shall have a *fire-resistance rating* of not less than 1 hour. Openings within such *exterior walls* shall be protected by opening protectives having a *fire protection rating* of not less than $\frac{3}{4}$ hour. This construction shall extend vertically from the ground to a point 10 feet (3048 mm) above the topmost landing of the *stairway* or to the roof line, whichever is lower.

Chapter 10 Means of Egress : SECTION 1022 INTERIOR EXIT STAIRWAYS AND RAMPS

1022.8 Discharge identification.

An *interior exit stairway* and *ramp* shall not continue below *its level of exit discharge* unless an *approved* barrier is provided at the *level of exit discharge* to prevent persons from unintentionally continuing into levels below.

Directional exit signs shall be provided as specified in Section 1011.

Chapter 10 Means of Egress : SECTION 1026 EXTERIOR EXIT STAIRWAYS AND RAMPS

1026.2 Use in a means of egress.

Exterior exit stairways shall not be used as an element of a required means of egress for Group I-2 occupancies. For occupancies in other than Group I-2, exterior exit ramps and stairways shall be permitted as an element of a required means of egress for buildings not exceeding ~~four~~ **six** stories above grade plane or having occupied floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

1026.3 Open side.

Exterior exit stairways and ramps serving as an element of a required *means of egress* shall not less than 50 percent open on one side be open on at least one side. An open side shall have a minimum of 35 square feet (3.3 m²) of aggregate open area adjacent to each floor level and the level of each intermediate landing. The required open area shall be located not less than 42 inches (1067 mm) above the adjacent floor or landing level. Outside stairs shall be arranged to restrict the accumulation of smoke.

1026.5 Location.

Exterior exit stairways and ramps shall have a minimum fire separation distance of 10 feet (3048 mm) measured from the exterior edge of the *stairway or ramp*, including landings, to adjacent lot lines and from other buildings on the same lot unless the adjacent building *exterior walls* and openings are protected in accordance with based on *fire separation distance*.

Chapter 10 Means of Egress : SECTION 1029 EMERGENCY ESCAPE AND RESCUE

1029.1 General.

In addition to the *means of egress* required by this chapter, provisions shall be made for *emergency escape and rescue openings* in Group R-2 occupancies in accordance with Tables 1021.2(1) and 1021.2(2) and Group R-3 occupancies. Basements and sleeping rooms below the fourth story above *grade plane* shall have at least one exterior *emergency escape and rescue opening* in accordance with this section. Where basements contain one or more sleeping rooms, *emergency escape and rescue openings* shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a *public way* or to a *yard or court* that opens to a *public way*. The emergency escape and rescue opening shall be permitted to open into a screen enclosure, open to the atmosphere, where a screen door is provided leading away from the residence. Such opening shall be operational from the inside without the use of special knowledge, keys or tools.

Exceptions:

1. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have *emergency escape and rescue openings*.

2. *Emergency escape and rescue openings* are not required from basements or sleeping rooms that have an *exit door* or *exit access door* that opens directly into a *public way* or to a *yard, court* or exterior exit balcony that opens to a *public way*.

3. Basements without *habitable spaces* and having no more than 200 square feet (18.6 m²) in floor area shall not be required to have *emergency escape and rescue openings*.

8. Security and hurricane devices installed in accordance with Section 1008.1.4.5.

Chapter 10 Means of Egress : SECTION 1029 EMERGENCY ESCAPE AND RESCUE

1029.1 General

Exceptions:

1. In other than Group R-3 occupancies, buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. In other than Group R-3 occupancies, sleeping rooms provided with a door to a fire-resistance-rated corridor having access to two remote exits in opposite directions.
3. The emergency escape and rescue opening is permitted to open onto a balcony within an atrium in accordance with the requirements of Section 404, provided the balcony provides access to an exit and the dwelling unit or sleeping unit has a means of egress that is not open to the atrium.
5. High-rise buildings in accordance with Section 403.

Chapter 10 Means of Egress : SECTION 1030-1038

SECTION 1030 BUSINESS

SECTION 1031 EDUCATIONAL

SECTION 1032 FACTORY-INDUSTRIAL

SECTION 1033 INSTITUTIONAL

SECTION 1034 MERCANTILE

SECTION 1035 RESIDENTIAL

SECTION 1036 STORAGE

SECTION 1037 DAY CARE

SECTION 1038 BOILER, FURNACE AND MECHANICAL EQUIPMENT ROOMS

Chapter 12 Interior Environment : SECTION 1203 VENTILATION

1203.1 General.

Buildings shall be provided with natural ventilation in accordance with Section 1203.4, **or** mechanical ventilation in accordance with the *Florida Building Code, Mechanical*.

Where the air infiltration rate in a *dwelling unit* is less than 5 air changes per hour when tested with a blower door at a pressure 0.2 inch w.c. (50 Pa) in accordance with Section 402.4.1.2 of the *Florida Energy Conservation Code*, the *dwelling unit* shall be ventilated by mechanical means in accordance with Section 403 of the *Florida Building Code, Mechanical*.

Chapter 12 Interior Environment : SECTION 1203 VENTILATION

1203.2 Attic spaces.

Enclosed *attics* and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilation openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. An airspace of not less than 1 inch (25 mm) shall be provided between the insulation and the roof sheathing. The net free ventilating area shall not be less than 1/150th of the area of the space ventilated.

Exceptions:

1. **The net free cross-ventilation area shall be permitted to be reduced to 1/300 provided that not less than 50 percent and not more than 80 percent** of the required ventilating area provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above eave or cornice vents with the balance of the required *ventilation* provided by eave or cornice vents.
2. **The net free cross-ventilation area shall be permitted to be reduced to 1/300 where a Class I or II vapor barrier is installed on the warm-in-winter side of the ceiling.**
3. Attic ventilation shall not be required when determined not necessary by the *building official* due to atmospheric or climatic conditions.

Chapter 12 Interior Environment : SECTION 1208 INTERIOR SPACE DIMENSIONS

1208.3 Room area.

Every *dwelling unit* shall have no fewer than one room that shall have not less than 120 square feet (13.9 m²) of *net floor area*. Other habitable rooms shall have a *net floor area* of not less than 70 square feet (6.5 m²).

Exception: Every kitchen in a one- and two-family dwelling shall have not less than 50 square feet (4.64 m²) of gross floor area. **Kitchens are not required to be of a minimum floor area.**

Chapter 15 Roof Assemblies and Rooftop Structures :

MECHANICAL EQUIPMENT SCREEN. A partially enclosed rooftop structure, not covered by a roof, used to aesthetically conceal heating, ventilating and air conditioning (HVAC) plumbing, electrical or mechanical equipment from view.

PENTHOUSE. An enclosed, unoccupied rooftop structure above the roof of a building, other than a tank, tower, spire, dome cupola or bulkhead used for sheltering mechanical and electrical equipment, tanks, elevators and related machinery, and vertical *shaft* openings.

ROOF DECK. The flat or sloped surface constructed on top of the *exterior walls* of a building or other supports for the purpose of enclosing the *story* below, or sheltering an area, to protect it from the elements, not including its supporting members or vertical supports.

ROOFTOP STRUCTURE. An enclosed A structure erected on or above top of the *roof deck* or on top of any part of a building.

Chapter 15 Roof Assemblies and Rooftop Structures : SECTION 1509 ROOFTOP STRUCTURES

1509.2 Penthouses.

Penthouses in compliance with Sections 1509.2.1 through 1509.2.5 shall be considered as a portion of the story directly below the roof deck on which such penthouses are located. All other penthouses shall be considered as an additional story of the building.

1509.2.1 Height above roof deck

1509.2.2 Area limitation

1509.2.3 Use limitations

1509.2.4 Weather protection

1509.2.5 Type of construction

1509.3 Tanks.

1509.4 Cooling towers.

1509.5 Towers, spires, domes and cupolas.

Chapter 15 Roof Assemblies and Rooftop Structures : SECTION 1509 ROOFTOP STRUCTURES

1509.6 Mechanical equipment screens.

Mechanical equipment screens shall be constructed of the materials specified for the exterior walls in accordance with the type of construction of the building. Where the fire separation distance is greater than 5 feet (1524 mm), mechanical equipment screens shall not be required to comply with the fire-resistance rating requirements.

Chapter 16 Structural Design : SECTION 1604 Category Risk Category

Chapter 29 Plumbing Systems : SECTION 2902 MINIMUM PLUMBING FACILITIES

Adding Chapter 29

2902.2.1 Family or assisted-use toilet facilities serving as separate facilities.

Where a building or tenant space requires a separate toilet facility for each sex and each toilet facility is required to have only one water closet, two family/assisted-use toilet facilities shall be permitted to serve as the required separate facilities. Family or assisted-use toilet facilities shall not be required to be identified for exclusive use by either sex as required by Section 2902.4.

2902.3 Employee and public toilet facilities

Exception: Public toilet facilities shall not be required in open or enclosed parking garages. Toilet facilities shall not be required in parking garages where there are no parking attendants.

2902.5 Drinking fountain location.

Drinking fountains shall **not** be required to be located in individual tenant spaces provided that public drinking fountains are located within a travel distance of 500 feet of the most remote location in the tenant space and not more than one story above or below the tenant space. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet. Drinking fountains shall be located on an accessible route.

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R311.3 Floors and landings at exterior doors. There shall be a landing or floor on each side of each exterior door. The width of each landing shall not be less than the door served. Every landing shall have a minimum dimension of 36 inches (914 mm) measured in the direction of travel. Exterior landings shall be permitted to have a slope not to exceed 1/4 unit vertical in 12 units horizontal (2-percent).

Exception: Exterior balconies less than 60 square feet (5.6m²) and only accessible from a door are permitted to have a landing less than 36 inches (914 mm) measured in the direction of travel.

R311.3.1 Floor elevations at the required egress doors. Landings or finished floors at the required egress door shall not be more than 1 ½ inches (38 mm) lower than the top of the threshold.

Exception: The landing or floor on the exterior side shall not be more than 7-3/4 inches (196 mm) below the top of the threshold provided the door does not swing over the landing or floor.

Where exterior landings of floors serving the required egress door are not at grade, they shall be provided with access to grade by means of a ramp in accordance with Section R311.8 or a stairway in accordance with Section R311.7.

R311.3.2 Floor elevations for other exterior doors. Doors other than the required egress door shall be provided with landings or floors not more than 7-3/4, inches (196 mm) below the top of the threshold.

Exception: A landing is not required where a stairway of two or fewer risers is located on the exterior side of the door, provided the door does not swing over the stairway.

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R311.7.6 Landings for stairways. There shall be a floor or landing at the top and bottom of each stairway. The minimum width perpendicular to the direction of travel shall be no less than the width of the flight served. Landings of shapes other than square or rectangular shall be permitted provided the depth at the walk line and the total area is not less than that of a quarter circle with a radius equal to the required landing width. Where the stairway has a straight run, the minimum depth in the direction of travel shall be not less than 36 inches (914 mm).

Exceptions:

1. A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided a door does not swing over the stairs.
2. See Section R311.3 from exterior doors where a step down is provided.

FLORIDA BUILDING CODE 5th EDITION

QUESTIONS