ADVANCED:

A WALK THROUGH

THE

LIFE SAFETY CODE CHANGES

FROM

THE FLORIDA BUILDING CODE 2010

TO

THE FLORIDA BUILDING CODE 5th EDITION (2014)

Online

Brad Schiffer AIA

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

WILL EXPIRE

on the effective date of the 5th Edition

RELATED

State Agency Regulations
State Statutes

Development and Adoption

Conducted a comprehensive comparison of

the 2012 changes to the

2012 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

Florida Fire Prevention Code Fifth Edition (2014) (FFPC)

Florida Building Code Fifth Edition (2014 (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

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.**

REMOVING ITEMS INHERITED FROM THE BASE CODE TAKES A FLORIDA AMENDMENT

Technical Advisory Committees

Accessibility

Building Administration

Building Structural

Building Fire

Electrical

Energy

Mechanical

Plumbing

Roofing

Special Occupancy

Swimming Pools

Development and Adoption

EXPIRED

To be added back into the next Edition

Most of the amendments not added back and where in the prior additions 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-R

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

IBC 2012

Development and Adoption

of the

Florida Building Code 5th Edition, 2014

IBC 2012

FLORIDA AMENDMENTS to FBC 5th Edition added

RE-EVALUATED

accepted

RELATED

to state agency regulations
State Statutes

FBC 5th Edition (2014)

June 30 2015 : midnight

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:

IBC 2012 BASE CODE

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 m^2).
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:

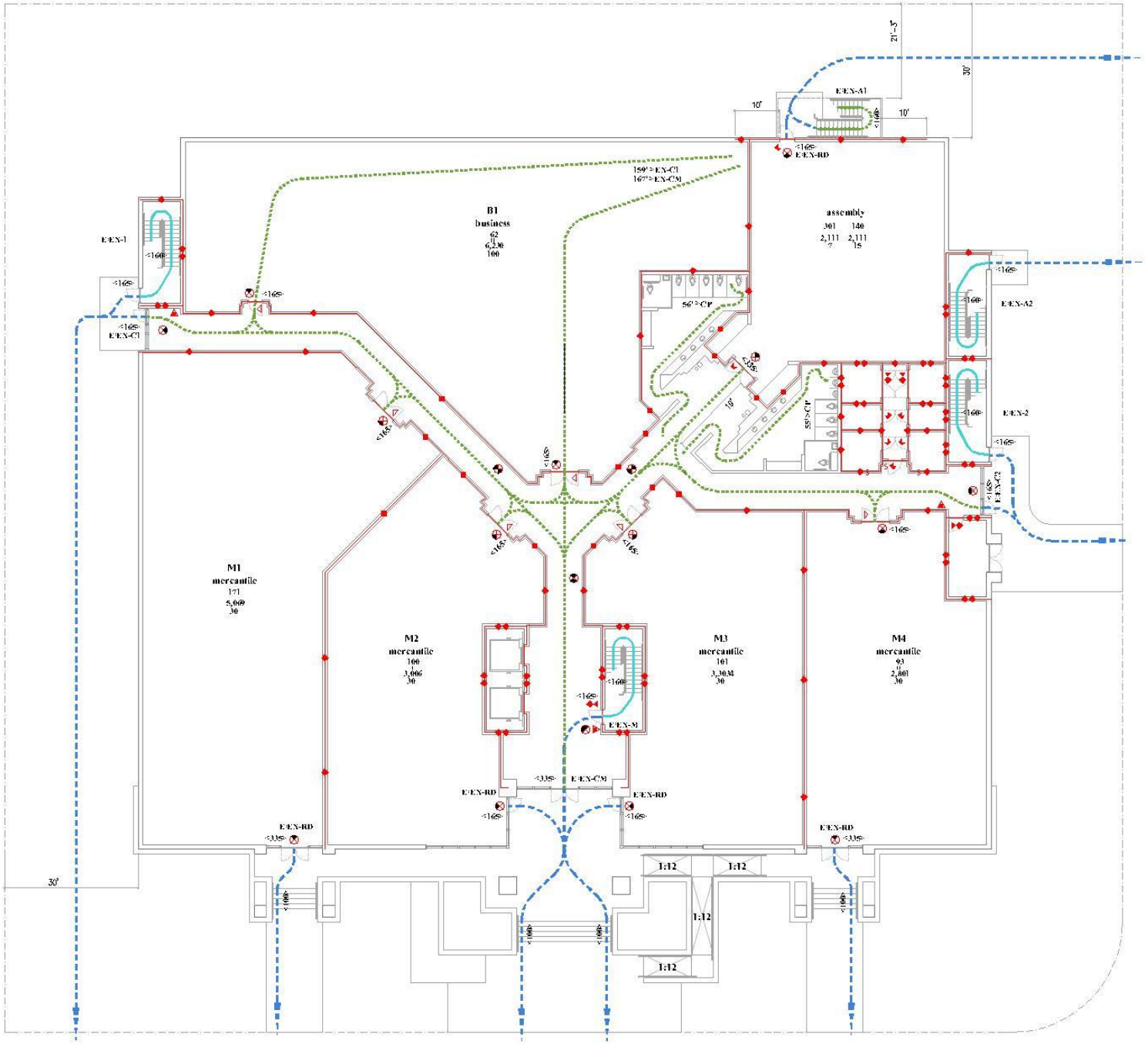
FLORIDA BUILDING CODE 5th Edition (2014)

Building:

107.2.3 Means of egress.

The *construction documents* shall show in sufficient detail the location, construction, size and character of all portions of the *means of egress* including the path of the *exit discharge* to the *public way* in compliance with the provisions of this code. In other than occupancies in Groups R-2, R-3, and I-1, the *construction documents* shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

Chapter 1 SCOPE and ADMINISTRATION: Section 107 Submittal Documents



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 m^2) 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

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.

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

definitions

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)

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*.

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 2$^{1}/_{2}$ 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.*

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

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.

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

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*

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 403 HIGH-RISE BUILDINGS

403.6.1 Fire service access elevator.

In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, **no fewer than two fire service access elevators, or all elevators, whichever is less, shall be provided** in accordance with Section 3007. **Each fire service access elevator shall have a capacity of not less than 3500 pounds (1588 kg).** .

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

406.5 Open parking garages

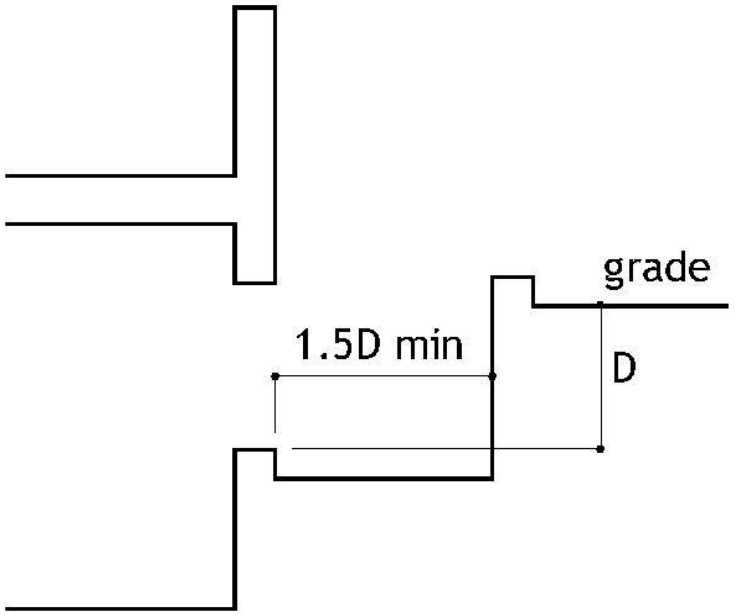
406.5.2.1 Openings below grade.

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.

406.5 Open parking garages

406.5.2.1 Openings below grade.

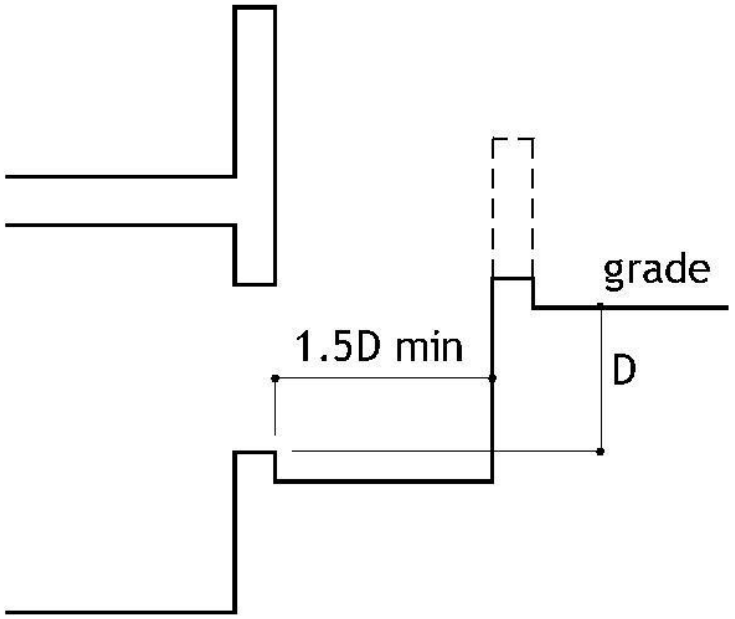
Where openings below grade provide required natural *ventilation*, the outside horizontal clear space shall be one and one-half times the depth of the opening. The width of the horizontal clear space shall be maintained from grade down to the bottom of the lowest required opening.



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 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.

Sections 425 through 448 is Reserved

The Florida State Agency’s requirements start at 449.

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 $W = (L_1 \times w_1 + L_2 \times w_2 + L_3 \times w_3 \ldots) / F$. **(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.

$If = [F/P - .25] * W/30$ **(Equation 5-2)**

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 507 UNLIMITED AREA BUILDINGS

507.2 Nonsprinklered, one story.

The area of a Group F-2 or S-2 building no more than one *story* in height shall not be limited where the building is surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18 288 mm) in width.

Chapter 5 General Building Height and Areas : Section 508 MIXED USE AND OCCUPANCY

ACCESSORY OCCUPANCIES

INCIDENTIAL ACCESSORY OCCUPANCIES

NONSEPERATED OCCUPANCIES

SEPERATED OCCUPANCIES

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 5 General Building Height and Areas : Section 509 INCIDENTAL USES

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic sprinkler system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic sprinkler system
Refrigerant machinery room	1 hour or provide automatic sprinkler system
Hydrogen cutoff rooms, not classified as Group H	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic sprinkler system
Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy	1 hour or provide automatic sprinkler system
Laundry rooms over 100 square feet	1 hour or provide automatic sprinkler system
Group I-3 cells equipped with padded surfaces	1 hour
Waste and linen collection rooms located in either Group I-2 occupancies or ambulatory care facilities	1 hour **new**
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic sprinkler system
Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons for flooded lead-acid, nickel cadmium or VRLA, or more than 1,000 pounds for lithium-ion and lithium metal polymer used for facility standby power, emergency power or uninterruptable power supplies	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies. **new**

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)

TABLE 601

	TYPE I	
	A	B
Bearing walls		
Exterior	4 **3**	3 **2**
Interior	4 **3**	3 **2**
Floor construction	3 **2**	

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.

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

.703.4 Automatic sprinklers.

Under the prescriptive fire-resistance requirements of the *Florida Building Code, Building*, the fire-resistance rating of a building element, component or assembly shall be established without the use of *automatic sprinklers* or any other fire suppression system being incorporated as part of the assembly tested in accordance with the fire exposure, procedures, and acceptance criteria specified in ASTM E 119 or UL 263. However, this section shall not prohibit or limit the duties and powers of the *building official* allowed by Section 104.11.

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.

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

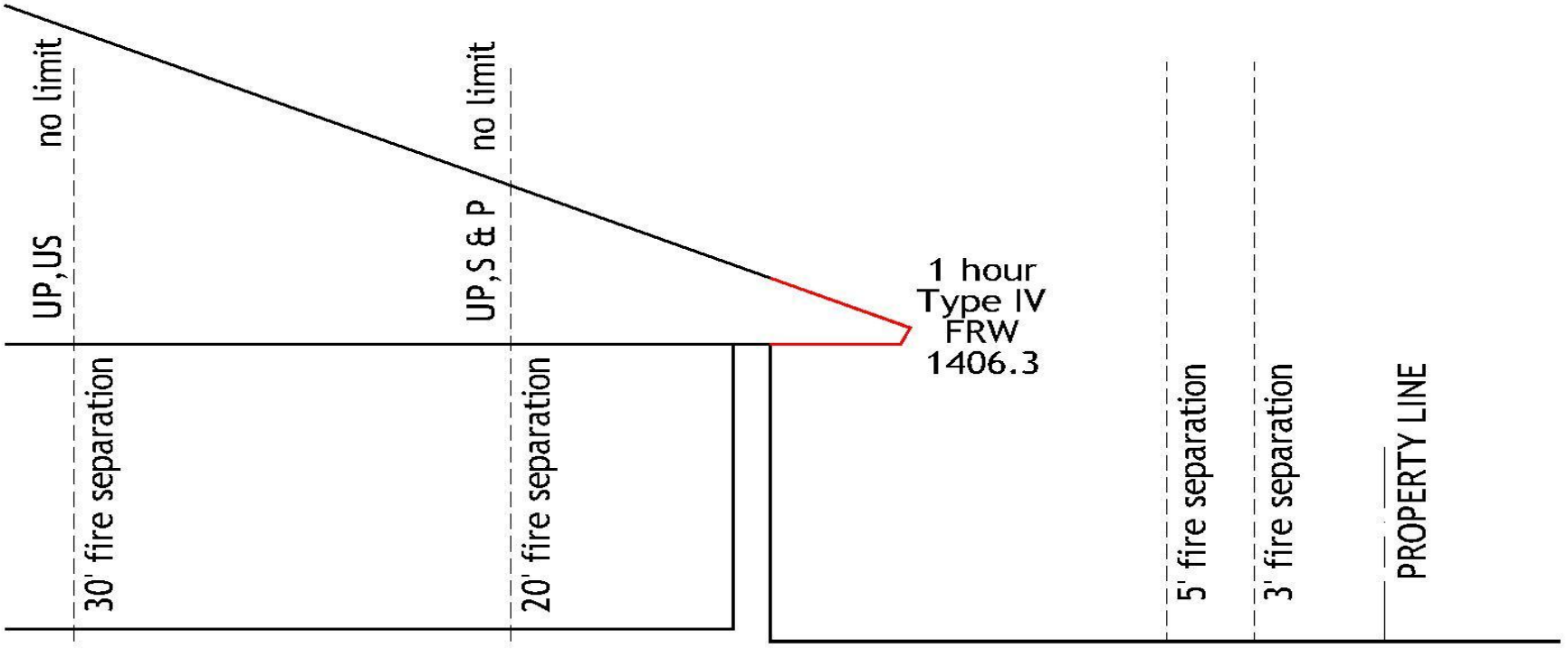
FIRE SEPARATION DISTANCE (FSD)	MINIMUM DISTANCE FROM LINE USED TO DETERMINE FSD
0 feet to less than 2 feet	Projections not permitted
2 feet to less than 5 feet	24 inches
5 feet or greater	40 inches

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).**

705.2.3 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).**



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

TABLE 705.8 MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF OPENING PROTECTION

FIRE SEPARATION DISTANCE (feet)	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA[a]
0 to less than 3[b, c]	Unprotected, Nonsprinklered (UP, NS)	Not Permitted
	Unprotected, Sprinklered (UP, S)[i]	Not Permitted
	Protected (P)	Not Permitted
3 to less than 5[d, e]	Unprotected, Nonsprinklered (UP, NS)	Not Permitted
	Unprotected, Sprinklered (UP, S)[i]	15%
	Protected (P)	15%
5 to less than 10[e, f, j]	Unprotected, Nonsprinklered (UP, NS)	10%[h]
	Unprotected, Sprinklered (UP, S)[i]	25%
	Protected (P)	25%
10 to less than 15[e, f, g]	Unprotected, Nonsprinklered (UP, NS)	15%[h]
	Unprotected, Sprinklered (UP, S)[i]	45%
	Protected (P)	45%
15 to less than 20[f, g]	Unprotected, Nonsprinklered (UP, NS)	25%
	Unprotected, Sprinklered (UP, S)[i]	75%
	Protected (P)	75%
20 to less than 25[f, g]	Unprotected, Nonsprinklered (UP, NS)	45%
	Unprotected, Sprinklered (UP, S)[i]	No Limit
	Protected (P)	No Limit
25 to less than 30[f, g]	Unprotected, Nonsprinklered (UP, NS)	70%
	Unprotected, Sprinklered (UP, S)[i]	No Limit
	Protected (P)	No Limit
30 or greater	Unprotected, Nonsprinklered (UP, NS)	No Limit
	Unprotected, Sprinklered (UP, S)[i]	Not Required
	Protected (P)	Not Required

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.

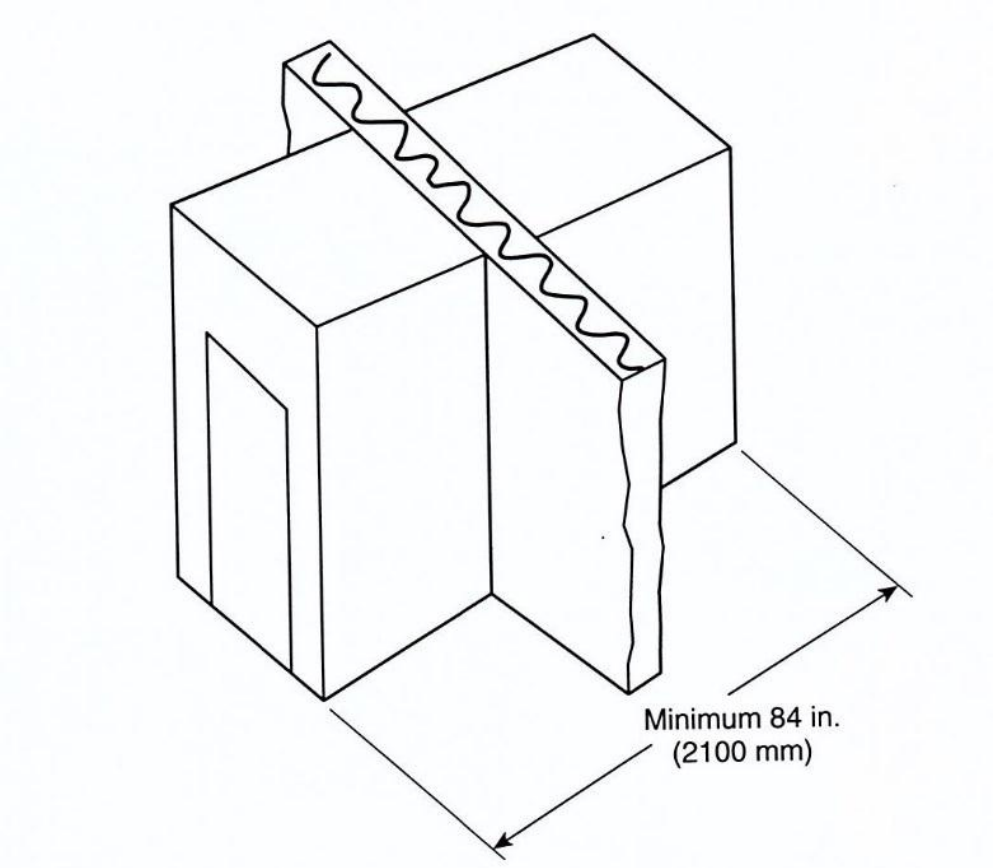
706.2 Structural stability.
Fire walls shall have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall for the duration of time indicated by the required *fire-resistance rating* **or shall be constructed as double fire walls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

4 hour = two 3 hour

3 hour = two 2 hour

2 hour = two 1 hour

clear..1” min. / 20’bay 2.5” / 60’bay 7.5”

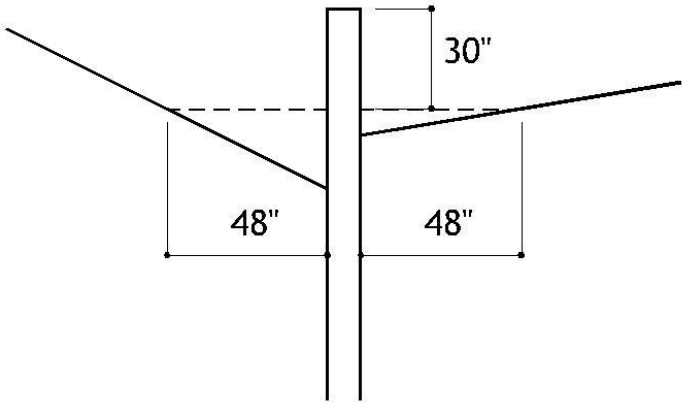


706.6 Vertical continuity.
Fire walls shall extend from the foundation to a termination point at least 30 inches (762 mm) above both adjacent roofs.

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).



707.5 Continuity.
Fire barriers shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above and shall be securely attached thereto. Such *fire barriers* shall be continuous through concealed space, such as the space above a suspended ceiling. **Joints and voids at intersections shall comply with Sections 707.8 and 707.9.**

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 420.2.

2. Walls separating sleeping units in the same building as required by Section 420.2.

3. Walls separating tenant spaces in covered **and open** mall buildings as required by Section 402.4.2.1.

4. Corridor walls as required by Section 1018.1.

5. Elevator lobby separation as required by Section 713.14.1.

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 hanger 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.

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 712 VERTICAL OPENINGS

712.1 General.

The provisions of this section shall apply to the vertical opening applications listed in Sections 712.1.1 through 712.1.18.

712.1.1 Shafts :…..as per 713

712.1.2 Individual Dwelling Units…….less than 4 story exempted

712.1.3 Escalator openings

712.1.4 Penetrations :…..as per 714

712.1.5 Ducts :…..as per 717.6

712.1.6 Atriums :…..as per 404

712.1.7 Masonry Chimney :…..as per 718.2.5

Chapter 7 Fire and Smoke Protection Features : Section 712 VERTICAL OPENINGS

712.1.8 Two-story openings.

In other than Groups I-2 and I-3, a floor opening that is not used as one of the applications listed in this section shall be permitted if it complies with all of the items below.

1. Does not connect more than two stories.

2. Does not contain a stairway or ramp required by Chapter 10.

3. Does not penetrate a horizontal assembly that separates fire areas or smoke barriers that separate smoke compartments.

4. Is not concealed within the construction of a wall or a floor/ceiling assembly.

5. Is not open to a corridor in Group I and R occupancies.

6. Is not open to a corridor on nonsprinklered floors.

7. Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.

712.1.9 Parking Garages :…..as per 406.5 & 406.6

712.1.10 Mezzanine :…..as per 505

712.1.11 Joints:…..as per 715

Chapter 7 Fire and Smoke Protection Features : Section 712 VERTICAL OPENINGS

712.1.12 Unenclosed stairs and ramps.
Vertical floor openings created by unenclosed stairs or ramps in accordance with Sections 1009.2 and 1009.3 shall be permitted.

712.1.13 Floor Fire Doors :…..as per 711.8

712.1.14 Group I-3 :…..as per 408.5

712.1.15 Elevators in Parking Garages :…..as per 406.5 & 406.6

712.1.16 Duct Systems in Parking Garages:… :…..as per 406.5 & 406.6

712.1.17 Nonfire-resistance-rated Joints :…..as per 711.4.1

712.1.18 Openings otherwise permitted. Vertical openings shall be permitted where allowed by other sections of this code.

Chapter 7 Fire and Smoke Protection Features : Section 713 SHAFT ENCLOSURES

713.1 General.

The provisions of this section shall apply to shafts required to protect openings and penetrations through floor/ceiling and roof/ceiling assemblies. Exit access stairways and exit access ramps shall be protected in accordance with the applicable provisions of Section 1009. Interior exit stairways and interior exit ramps shall be protected in accordance with the requirements of Section 1022.

714.4 Horizontal Assemblies

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.

714.4 Horizontal Assemblies

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.

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 ($0.025 m^3 / s \cdot m^2$) of penetration opening for each *through-penetration firestop system*; or

2. A total cumulative leakage of 50 cfm ($0.024 m^3/s$) for any 100 square feet ($9.3 m^2$) of wall area, or floor area.

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.

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 m^3/s m) of joint at 0.30 inch (7.47 Pa) of water for both the ambient temperature and elevated temperature tests.

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 dor assembly "Hose Stream" test. Meets 450ºF 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.

903.2.8.1 Group R-3 or R-4 congregate residences.

An *automatic sprinkler system* installed in accordance with Section 903.3.1.3 shall be permitted in Group R-3 or R-4 congregate residences with 16 or fewer residents.

903.2.8.2 Care facilities.

An *automatic sprinkler system* installed in accordance with Section 903.3.1.3 shall be permitted in care facilities with 5 or fewer individuals in a single-family dwelling.

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 The Florida Fire Prevention Code..

5. Where required by The Florida Fire Prevention Code..

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

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.

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.

909.20 Smokeproof enclosures.

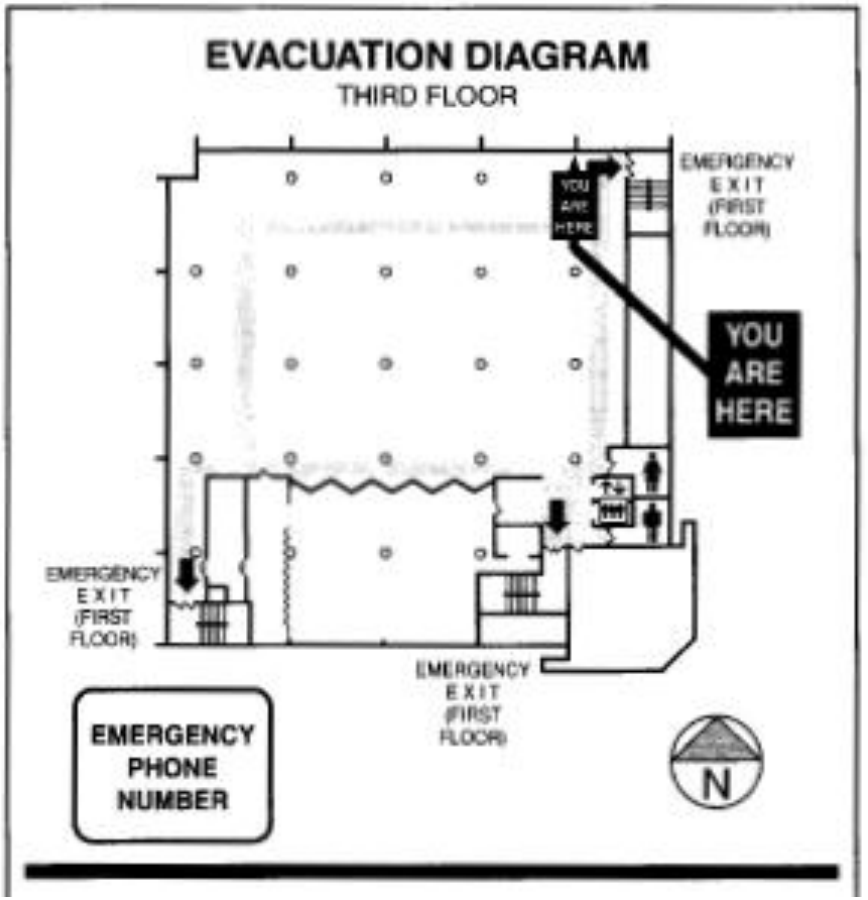
909.20.5 Stair pressurization alternative.

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.

Structure/Layout revised to match IBC

1001.4 Fire safety and evacuation plans.

Fire safety and evacuation plans shall be provided for all occupancies and buildings where required by the *Florida Fire Prevention Code*. Such fire safety and evacuation plans shall comply with the applicable provisions of the *Florida Fire Prevention Code*.



Chapter 10 Means of Egress : Definitions Changes

CORRIDOR. An enclosed *exit access* component that defines and provides a path of egress travel to an Exit.

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*.

EXIT. That portion of a means of egress system 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. Exits include exterior exit doors at the level of exit discharge, vertical exit enclosures, exit passageways, exterior exit stairways, exterior exit ramps and horizontal exits.

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

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

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.

Chapter 10 Means of Egress : Definitions Changes

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 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.*

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

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

JOINT. The linear opening in or between adjacent fire-resistance-rated assemblies that **is created due to building tolerances, or** is designed to allow independent movement of the building in any plane caused by thermal, wind or any other loading.

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

1004.4 Exiting from multiple levels.

Where exits serve more than one floor, only the occupant load of each floor considered individually shall be used in computing the required capacity of the exits at that floor, provided that the exit capacity shall not decrease in the direction of egress travel.

Chapter 10 Means of Egress : SECTION 1004 OCCUPANT LOAD

TABLE 1004.1.2

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

Column heading changed from "FLOOR AREA IN SQ. FT. PER OCCUPANT" to "OCCUPANT LOAD FACTOR"

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

1005.3.2 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.

TOO BAD THE FFPC DOESN'T ALLOW THIS

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 $1\frac{1}{2}$ inches (38 mm) on each side.**

Removed all Florida Fire Prevention Code correlations.

Using IBC requirements which 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.”

3. For a biparting door in the emergency breakout mode, a door leaf located within a multiple-leaf opening shall be exempt from the minimum 32-inch (813 mm) single-leaf requirement of Section 1008.1.1, provided a minimum 32-inch (813 mm) clear opening is provided when the two biparting leaves meeting in the center are broken out.

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*.

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.

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.

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 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 Section707.5 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 Section716.5.9.3

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.

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

1009.15
Interlocking or scissor stairs shall comply with Sections 1009.15.1 and 1009.15.2.

1009.15.1
New interlocking or scissor stairs shall be permitted to be considered only as a single exit.

1009.15.2
Existing interlocking or scissor stairs shall be permitted to be considered separate exits if they meet the following criteria:

1. They are enclosed in accordance with Section 1022.

2. They are separated from each other by 2-hour fire-resistance-rated noncombustible construction.

3. No protected or unprotected penetrations or communicating openings exist between the stair enclosures.

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 m^2) 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

1010.3 Slope.

Ramps used as part of a means of egress shall have a running slope not steeper than one unit vertical in 12 units horizontal (8.333-percent slope). The slope of other pedestrian ramps shall not be steeper than one unit vertical in eight units horizontal (12.5-percent slope).

Exceptions:

1. Aisle ramp slope in occupancies of Group A shall comply with Section 1028.11.

2. Ramps that provide access to vehicles, vessels, mobile structures and aircraft shall not be required to comply with the maximum slope or maximum rise for a single ramp run.

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.

1010.8.1 Ramp surface.

The surface of ramps shall be of slip-resistant materials that are securely attached.

1010.8.2 Outdoor conditions.

Outdoor ramps and outdoor approaches to ramps shall be designed so that water will not accumulate on walking surfaces.

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 Section 1011.5

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.

1011.5 Internally illuminated exit signs.

Electrically powered, *self-luminous* and *photoluminescent exit* signs shall be listed and labeled in accordance with UL 924 and shall be installed in accordance with the manufacturer's instructions and Chapter 27. Exit signs shall be illuminated at all times.

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 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

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) Occupant Load		WITH SPRINKLER SYSTEM (feet)
	≤ 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. Reserved. 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 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 1015 EXIT and EXIT ACCESS DOORWAYS

Table 1015.1 Spaces with one Exit or Exit Access Doorway

OCCUPANCY	MAXIMUM OCCUPANT LOAD
A, B, E, F, M, U, R-2,R-3	49
H-1, H-2, H-3	3
H-4, H-5, I-1, I-2, I-3, I-4, R-1, R-4	10
S	29

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	200	250b
I-1	Not Permitted	250c
B	200	300c
F-2, S-2, U	300	400c
H-1	Not Permitted	75c
H-2	Not Permitted	100c
H-3	Not Permitted	150c
H-4	Not Permitted	175c
H-5	Not Permitted	200c
I-2, I-3, I-4	Not Permitted	200c

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

Table 1018.1 CORRIDOR FIRE-RESISTANCE RATING

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system[c]
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5
I-2[a], I-4	All	Not Permitted	0
I-1, I-3	All	Not Permitted	1[b]

a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.

b. For a reduction in the *fire-resistance rating* for occupancies in Group I-3, see Section 408.8.

c. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.

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 BALONCIES

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 Section 1016.1

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.

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-2[a, 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 Section 9.3.1.1 or Section 903.1.2 and provided with *emergency escape and rescue openings* in accordance with Section 1029 .

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).

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 903.3.1.1shall 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 Exits from stories.

Exceptions:

1. Rooms, areas and spaces complying with Section 1015.1 with *exits* that discharge directly to the exterior at the *level of exit discharge*, are permitted to have one *exit*.

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 Section 1015.1 ; 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

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 Section 1004.1.

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

1021.2.3 Single-story or multiple-story dwelling units.

Individual single-story or multiple-story *dwelling units* shall be permitted to have a single *exit* within and from the *dwelling unit* provided that all of the following criteria are met:

1.The *dwelling unit* complies with Section 1015.1 as a space with one *means of egress*

and

2. Either the *exit* from the *dwelling unit* discharges directly to the exterior at the *level of exit discharge*, or the *exit access* outside the dwelling unit's entrance door provides access to not less than two *approved* independent *exits*.

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 m^2) 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 m^2). 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 $^3/_4$ 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 1023 EXIT PASSAGEWAYS

1023.4 Termination.

Exit passageways on the level of exit discharge shall terminate at an *exit discharge* or a public way. **Exit passageways on other levels shall terminate at an exit.**

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 m^2) 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 m^2) in floor area shall not be required to have *emergency escape and rescue openings*.

4. 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 1028 ASSEMBLY

SECTION 1030 BUSINESS

SECTION 1031EDUCATIONAL

SECTION 1032 FACTORY-INDUSTRIAL

SECTION 1033 INSTITIONAL

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.

Exception: Attic spaces, designed by a Florida licensed engineer or registered architect to eliminate the attic venting.

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 m^2) of *net floor area*. Other habitable rooms shall have a *net floor area* of not less than 70 square feet (6.5 m^2).

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 29 Plumbing Systems : SECTION 2902 MINIMUM PLUMBING FACILITIES

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.

Chapter 30 Elevators and Conveying Systems : SECTION 3007 FIRE SERVICE ACCESS ELEVATORS

3007.10 Standpipe hose connection.
A Class I standpipe hose connection in accordance with Section 905 shall be provided in the *interior exit stairway* and *ramp* having direct access from the fire service access elevator lobby.

3007.10.1 Access.

The *exit* enclosure containing the standpipe shall have access to the floor without passing through the fire service access elevator lobby.

FLORIDA BUILDING CODE, RESIDENTIAL 5th EDITION (2014)

FBC-R 5th : Chapter 3 : 301 DESIGN CRITERIA

R301.2.1.2 Protection of openings.
Windows Glazed openings in buildings located in windborne debris regions shall have glazed openings protected from windborne debris. Glazed opening protection for windborne debris shall meet the requirements of the Large Missile Test of ASTM E 1996, ASTM E 1886 referenced therein, , SSTD 12 or TAS 201, 202 and 203 or AAMA 506 as applicable. The applicable wind zones for establishing missile types in ASTM E 1996 are shown in Section R301.2.1.2.1 on Figure R301.2 (4) Garage door glazed opening protection for windborne debris shall meet the requirements of an approved impact resisting standard or ANSI/DASMA 115.

1. Opening in sunrooms, balconies or enclosed porches constructed under existing roofs or decks are not required to be protected provided the spaces are separated from the building interior by a wall and all openings in the separating wall are protected in accordance with this section. Such space shall be permitted to be designed as either partially enclosed or enclosed structures.

2. Storage sheds that are not designed for human habitation and that have a floor area of 720 square feet (67 m2) or less are not required to comply with the mandatory wind-borne debris impact standard of this code.

3. Ventilation openings in an exterior wall into an attic space in buildings located in windborne debris regions shall have opening protection from windborne debris. Such opening protection into an attic space shall meet the requirements AMCA 540 or shall be protected by an impact resistant cover complying with an approved impact-resistance standard or the large missile test of ASTM E 1996.

Impact resistant coverings shall be tested at 1.5 times the design pressure (positive or negative) expressed in pounds per square feet as determined by the Florida Building Code, Residential Section R301, for which the specimen is to be tested.

FBC-R 5th : Chapter 3 : 302 FIRE-RESISTANT CONSTRUCTION

R302.1 Exterior walls.
Construction, projections, openings and penetrations of *exterior walls* of *dwellings* and accessory buildings shall comply with Table R302.1(1); or *dwellings* equipped throughout with an *automatic sprinkler system* installed in accordance with Section P2904 shall comply with Table R302.1(2).

Exceptions:
1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the *fire separation distance*.
2. Walls of *dwellings* and *accessory structures* located on the same *lot*.
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide wall protection based on location on the *lot*. Projections beyond the *exterior wall* shall not extend over the *lot line*.
4. Detached garages accessory to a *dwelling* located within 2 feet (610 mm) of a *lot line* are permitted to have roof eave projections not exceeding 4 inches (102 mm).
5. Foundation vents installed in compliance with this code are permitted.

6. Openings and roof overhang projections shall be permitted on the exterior wall of a building located on a zero lot line when the building exterior wall is separated from an adjacent building exterior wall by a distance of 6 feet or more, and the roof overhang projection is separated from an adjacent building projection by a distance of 4 feet or more, with 1 hour fire resistive construction on the underside of the overhang required, unless the separation between projections is 6 feet or more.

7. Screen enclosure walls of insect screening with a maximum of 25 percent solid flexible finishes.

TABLE R302.1(1) EXTERIOR WALLS

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	Fire-resistance rated	1 hour—tested in accordance with ASTM E 119 or UL 263 with exposure from both sides	< 5 feet
	Not fire-resistance rated	0 hours	≥ 5 feet
Projections	Fire-resistance rated	1 hour on the underside	≥ 2 feet to < 5 feet
	Not fire-resistance rated	0 hours	≥5 feet
Openings in walls	Not allowed	N/A	< 3 feet
	25% maximum of wall area	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section R302.4	< 5 feet
		None required	5 feet

TABLE R302.1(2) EXTERIOR WALLS – DWELLINGS WITH FIRE SPRINKLERS

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	Fire-resistance rated	1 hour—tested in accordance with ASTM E 119 or UL 263 with exposure from the outside	0 feet
	Not fire-resistance rated	0 hours	3 feet[a]
Projections	Fire-resistance rated	1 hour on the underside	2 feet[a]
	Not fire-resistance rated	0 hours	3 feet
Openings in walls	Not allowed	N/A	< 3 feet
	Unlimited	0 hours	3 feet[a]
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	3 feet[a]

a. For residential subdivisions where all dwellings are equipped throughout with an automatic sprinkler systems installed in accordance with Section P2904, the fire separation distance for nonrated exterior walls and rated projections shall be permitted to be reduced to 0 feet, and unlimited unprotected openings and penetrations shall be permitted, where the adjoining lot provides an open setback yard that is 6 feet or more in width on the opposite side of the property line.

R302.5.1 Opening protection.

Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than $1^3/_8$ inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than $1^3/_8$ inches (35 mm) thick, or 20-minute fire-rated doors, **equipped with a self-closing device.**

R302.11.1 Fireblocking materials.
Except as provided in Section R302.11, Item 4, fireblocking shall consist of the following materials.

1. Two-inch (51 mm) nominal lumber.

2. Two thicknesses of 1-inch (25.4 mm) nominal lumber with broken lap joints.

3. One thickness of 23/32-inch (18.3 mm) wood structural panels with joints backed by 23/32-inch (18.3 mm) wood structural panels.

4. One thickness of 3/4-inch (19.1 mm) particleboard with joints backed by 3/4-inch (19.1 mm) particleboard.

5. One-half-inch (12.7 mm) gypsum board.

6. One-quarter-inch (6.4 mm) cement-based millboard.

7. Batts or blankets of mineral wool or glass fiber or other approved materials installed in such a manner as to be securely retained in place.

8 Cellulose insulation installed as tested for the specific application.

FBC-R 5th : Chapter 3 : 303 LIGHT, VENTILATION and HEATING

R303.4 Mechanical ventilation.

Where the air infiltration rate of a dwelling unit is less than 5 air changes per hour when tested with a blower door at a pressure of 0.2 inch w.c (50 Pa) in accordance with Section R402.4.1.2 of the Florida Building Code, Energy Conservation the dwelling unit shall be provided with whole-house mechanical ventilation in accordance with Section M1507.3.

M1507.3.3 Mechanical ventilation rate.

The whole-house mechanical ventilation system **shall provide outdoor air** at a continuous rate of not less than that determined in accordance with Table M1507.3.3(1).

FBC-R 5th : Chapter 3 : 310 EMERGENCY ESCAPE and RESCUE OPENINGS

R310.1 Emergency escape and rescue required.

…….shall have a sill height of not more than 44 inches (1118 mm) **measured from the finished floor to the bottom of the clear opening.**

FBC-R 5th : Chapter 3 : 311 MEANS of EGRESS

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 l 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***

.

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.**

FBC-R 5th : Chapter 3 : 314 SMOKE ALARMS

R314.5 Interconnection.

Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R314.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. **Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm**.

Exception: Interconnection of smoke alarms in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes.

R316.5.3 Attics.
The thermal barrier specified in Section R316.4 is not required where all of the following apply:

1. Attic access is required by Section R807.1.

2. The space is entered only for purposes of repairs or maintenance.

3. The foam plastic insulation is protected against ignition using one of the following ignition barrier materials:

    3.1. 11/2-inch-thick (38 mm) mineral fiber insulation;

    3.2. 1/4-inch-thick (6.4 mm) wood structural panels;

    3.3. 3/8-inch (9.5 mm) particleboard;

    3.4. 1/4-inch (6.4 mm) hardboard;

    3.5. 3/8-inch (9.5 mm) gypsum board; or

    3.6. Corrosion-resistant steel having a base metal thickness of 0.016 inch (0.406 mm).

    3.7. $1^{1}/_{2}$-inch-thick (38 mm) cellulose insulation.

The above ignition barrier is not required where the foam plastic insulation has been tested in accordance with Section R316.6.

QUESTIONS

to access 5th Edition (2014) Florida Building Codes

www.floridabuilding.org

pick “Florida Building Code” on left

then pick “Draft 5th Edition (2014) Florida Building Code”

www.floridabuilding.org/fbc/Links_to_Code_Resources.html