




2009 Connecticut Code Updates

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2009 Connecticut Code Updates

Purpose:
Provide information on the 2009 Amendments to the Connecticut Fire Safety Code and the Connecticut State Building Code.

These 2009 Amendments were Effective on August 1, 2009




2009 Amendments to the State Building Code

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Objectives

- Give a detailed overview of 2009 Amendments to the 2005 State Building Code.
- Review updates and modifications to the International Building Code (IBC) and the International Residential Code (IRC) Portions of the State Building Code.

2009 Amendments Overview

- Incorporation of new language to meet new legislative requirements
- Minor Changes in order to clarification and/or correct code language.
- Update of the IECC from 2003 to 2006
 - This includes the update of the ASHRAE 90.1 from 2001 to the 2004 Edition.

Amendment to the IBC

- The amendments to the IBC include but are not limited to following areas:
 - Administrative:
 - Modifications, Clarifications and corrections,
 - Vacant Buildings
 - Use and Occupancy Classification
 - Modifications and Clarifications
 - General Building Height and Areas
 - Fire-Resistance-Rated Construction
 - Fire Protection Systems
 - Means of Egress
 - Accessibility
 - Structural Design, Structural Tests and Special Inspections
 - Soils and Foundations
 - Elevators and Conveying Systems
 - Special Construction
 - Existing Structures

Administration

- (Amd) **101.1 Title.** Section 29-252-1d, together with the 2003 International Building Code, 2003 International Existing Building Code, 2003 International Plumbing Code, 2003 International Mechanical Code, [2003] 2006 International Energy Conservation Code, 2003 International Residential Code and the 2005 NFPA 70 National Electrical Code shall be known as the 2005 State Building Code, hereinafter referred to as "the code" or "this code".

Administration

(NEW) (Amd) **101.2 Scope.** The provisions of this code shall apply.....

Exceptions:

2. Existing buildings undergoing repair, movement, alterations or additions and change of occupancy shall be permitted to comply with the 2003 International Existing Building Code. The choice to comply with this code or the 2003 International Existing Building Code shall be made by the permit applicant at the time of application for the building permit and shall be indicated on the construction documents in writing.

Administration

- (NEW) (Amd) **105.1 Required.** Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to move a lot line that will affect any existing building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.

Administration

Clarification:

- Under: **105.2 Work exempt from permit.**
 12. [Grandstands] Portable grandstands or bleachers providing seating for fewer than 100 persons when located outside of a building.

Exemption from the permit requirements does not grant authorization for any work to be done in any manner that is in violation of the provisions of the state building code or any other laws, statutes, regulations or ordinances of the jurisdiction.

Administration

(NEW) (Add) **105.2.5 Federal agency exemptions.** A federal agency performing construction on federally owned land or on leased land totally under the control of the federal government shall not be required to obtain a building permit or a demolition permit from the local building official.

Temporary Structures

(Amd) **107.1 General.** The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The building official is authorized to grant a single 180-day extension for demonstrated cause.

[Exceptions: The following shall be exempt from permit requirements:

1. Tents used exclusively for recreational camping purposes.
2. Tents less than 350 square feet total area.
3. Tents 900 square feet and smaller in total area when occupied by fewer than 50 persons, which have no heating appliances, no installed electrical service, and are erected for fewer than 72 hours.]

Exception: Tents, canopies and other membrane structures erected for a period of fewer than 180 days shall comply with Section 3103 of this code.

Required Inspections

- (NEW) (Add) **109.3.8.1 Electrical inspections.** Required electrical inspections shall include installations of temporary services prior to activation; installation of underground piping and conductors after trenches are excavated and bedded and before backfill is put in place; rough inspections of installed wiring and components after the roof, framing, fireblocking and bracing are complete and prior to concealment; and final inspection after all work required by the permit is complete.

New Requirements for Vacant Buildings – Section 117



Vacant 170,000 square foot Capitol West Building – Hartford, CT

Vacant Buildings

- (NEW) (Add) **117.1 General.** Temporarily unoccupied buildings, structures, premises or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with this section.
- (NEW) (Add) **117.1.1 Abandoned premises.** Buildings, structures and premises for which an owner cannot be identified or located by dispatch of a certificate of mailing to the last known or registered address, which persistently or repeatedly become unprotected or unsecured; which have been occupied by unauthorized persons or for illegal purposes; or which present a danger of structural collapse or fire spread to adjacent properties shall be considered abandoned, declared unsafe and abated or demolished in accordance with this code.

Vacant Buildings

- (NEW) (Add) **117.2 Safeguarding vacant premises.** Temporarily unoccupied buildings, structures, premises or portions thereof shall be secured and protected in accordance with this section.
- (NEW) (Add) **117.2.1 Security.** Exterior openings and interior openings accessible to other tenants or unauthorized persons shall be boarded, locked, blocked or otherwise protected to prevent entry by unauthorized individuals.

Securing Vacant Buildings



Vacant Buildings

- (NEW) (Add) **117.2.2 Fire protection.** Fire alarm, sprinkler and standpipe systems shall be maintained in an operable condition at all times.
- Exceptions:**
1. When the premises have been cleared of all combustible materials and debris and, in the opinion of the code official, the type of construction, fire separation distance and security of the premises do not create a fire hazard.
 2. Where buildings will not be heated and fire protection systems will be exposed to freezing temperatures, fire alarm and sprinkler systems are permitted to be placed out of service and standpipes are permitted to be maintained as dry systems (without an automatic water supply) provided the building has no contents or storage, and windows, doors and other openings are secured to prohibit entry by unauthorized persons.

Vacant Buildings

- (NEW) (Add) **117.2.3 Fire separation.** Fire-resistance-rated partitions, fire barriers and fire walls separating vacant tenant spaces from the remainder of the building shall be maintained.

Vacant Buildings

- (NEW) (Add) **117.3 Removal of combustibles.** Persons owning, or in charge or control of, a vacant building or portion thereof, shall remove all accumulations of combustible materials and flammable or combustible waste or rubbish from such space and shall securely lock or otherwise secure doors, windows and other openings to prevent entry by unauthorized persons. The premises shall be maintained clear of waste or hazardous materials.
Exceptions:
 1. Buildings or portions of buildings undergoing additions, alterations, repairs or change of occupancy under a valid permit in accordance with this code.
 2. Seasonally occupied buildings.
- (NEW) (Add) **117.4 Removal of hazardous materials.** Persons owning, or in charge or control of, a vacant building or portion thereof, shall remove all accumulations of hazardous materials as defined by this code.

Vacant Building Removal of Combustibles



Vacant Building
Removal of Combustibles



Use and Occupancy Classification

(New) (Amd) 304.1 Business Group B.
Now specifically mentions:

- Buildings or tenant spaces used for assembly purposes by fewer than 50 persons when they are not accessory to other occupancies;
- Training and skill development not within a school or academic program.

Use and Occupancy Classification

- (NEW) (Add) **304.1.1 In-home Group B occupancies.** Customary in-home business occupancies located within a single-family dwelling unit, that provide professional services and employ a maximum of one employee within the dwelling in addition to the residents of the dwelling unit, shall be classified as a Group R-3 occupancy or shall be permitted to comply with the requirements of the 2003 International Residential Code portion of the 2005 State Building Code.

Day Care

- (Amd) **305.2 Day care.** The use of a building or structure, or portion thereof, for educational, supervision or personal care services for **[less] fewer** than 24 hours per day for more than six children **[older than]** 3 years of age **or older**, shall be classified as a Group E occupancy.

Consumer Fireworks

- (NEW) (Add) **307.5.1 Consumer fireworks, Class 1.4G.** Sparklers and fountain display items permitted to be sold in Connecticut shall be exempt from the requirements of an H-3 occupancy under the following circumstances:
 - 1. The total amount on display and in storage in any single control area complies with the maximum allowable quantities as listed in Table 307.7(1) of this code, or;
 - 2. The new or existing retail store or retail sales facility complies with the provisions of NFPA 1124-06 for new stores and facilities as herein amended by the State of Connecticut.

Consumer Fireworks

- (NEW) (Add) **307.5.1 Consumer fireworks, Class 1.4G.** Continued
- Stores and facilities selling sparklers and fountain display items that are exempt from the requirements of an H-3 occupancy shall provide employee supervision of the fireworks display area; shall locate all fireworks a minimum of 5 feet from any building exit; and shall comply with the requirements of Part IV of the Connecticut State Fire Safety Code.

Consumer Fireworks

Storage Room Requirements (IBC 307.5.3) for consumer fireworks.

- Automatic sprinkler system installed in accordance with NFPA 13-02 or
- Separated by a fire barrier having a fire resistance rating of not less than 1 hour from the retail sales area
- Storage shall not exceed 3,600 cubic feet, including packaging.
- Storage shall be segregated into areas of 1,200 cubic feet or less,
- Separated by a minimum of 4 feet of clear space.

(Actual language on following slide)

Consumer Fireworks

(NEW) (Add) **307.5.2** The provisions of NFPA 1124-06 are amended for use in Connecticut as follows:

(NEW) (Amd) **7.5.3 Storage Rooms.** Storage rooms containing consumer fireworks, regardless of size, in a new or existing permanent store shall be protected with an automatic sprinkler system installed in accordance with NFPA 13-02, Standard for the Installation of Sprinkler Systems, or separated from the retail sales area by a fire barrier having a fire resistance rating of not less than 1 hour. The quantity of fireworks permitted in storage shall not exceed 3,600 cubic feet, including packaging. Such storage shall be segregated into areas of 1,200 cubic feet or less, separated by a minimum of 4 feet of clear space.

Child Care Facility

- (Amd) **308.3.1 Child care facility.** A child care facility that provides care on a 24-hour basis to more than five children less than 3 years of age [or less] shall be classified as Group I-2. Such a facility with five or fewer children less than 3 years of age shall be classified as Group R-3.

Child Care Facility

(Amd) **308.5.2 Child care facility.** A facility that provides supervision and personal care on less than a 24-hour-per-day basis for more than six children less than 3 years of age [or less] shall be classified as Group I-4.

Exceptions:

1. A child day care facility that provides care for more than six but no more than 100 children less than 3 years of age [or less], when the rooms where such children are cared for are located on the level of exit discharge and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.
2. As defined in section 19a-77 of the Connecticut General Statutes, a family day care home that accommodates six or fewer children of any age shall be classified as Group R-3 or shall comply with the 2003 International Residential Code in accordance with Section 101.2. During the regular school year, a maximum of three additional children who are in school full-time, including the provider's own children, shall be permitted, except that if the provider has more than three children who are in school full-time, all of the provider's children shall be permitted.

Residential Group R

Under **310.1 Residential Group R.**

- **R-3** Residential occupancies with independent means of egress where the occupants are primarily permanent in nature and not classified as R-1, R-2, R-4 or I and where buildings do not contain more than two dwelling units as applicable in Section 101.2, or adult and child care facilities that provide accommodations for six or fewer persons of any age for less than 24 hours per day. Adult and child care facilities that are within a single-family home are permitted to comply with the 2003 International Residential Code. R-3 occupancies shall allow not more than six lodgers or boarders where care is not provided.

Day Care Facilities (less than 24 hour care)

Age of served population	Capability of served population	Number of served population ²	
		1- 6 (308.5)	Over 6
Less than 3 years	Not capable of self preservation	R-3 or IRC	I-4 ^{1,3} (308.5.2)
3 years - grade 12	Capable of self preservation	R-3 or IRC	E ² (305.2)
Over grade 12	Capable of self preservation	R-3 or IRC	A-3 (308.5.1 exc.)
3 years or older	Not capable of self preservation	R-3 or IRC	I-4 (308.5.1 & 308.5.2)

- 1) Child care with >6, but <100 children ≤3 years of age, with doors directly to the exterior at level of exit discharge are Group E (308.5.2 exc. 1).
- 2) Religious educational rooms and auditoriums, accessory to churches, with occupancy <100, shall be classified as Group A-3 (305.1)
- 3) A family day care home that accommodates six or fewer children of any age shall be classified Group R-3.
During the regular school year, a maximum of three additional children who are in school full-time, including the provider's own children, shall be permitted, except that if the provider has more than three such children, all of the provider's children shall be permitted.(308.5.2 exc. 2)

24-Hour Care Facilities

Age of residents	Capability of residents	Number of residents ^{2,3,4}		
		1-3	4-16	Over 16
Less than 3 yrs	Not capable of self preservation	R-3 ¹ (308.3)	I-2 ¹ (308.3)	I-2 ¹ (308.3)
3 yrs and older	Capable of self preservation	R-3 (308.3)	R-4 (308.3)	I-1 (308.2)
3 yrs and older	Not capable of self preservation	R-3 (308.3)	I-2 (308.3)	I-2 (308.3)

¹⁾ For a child care facility that provides care for >5 children, < 3 years of age, on a 24-hour basis, the classification shall be I-2. Such a facility with five or fewer children < 3 years of age shall be classified as Group R-3. (308.3.1)
²⁾ Adult and child care facilities that are within a single-family home are permitted to comply with the 2003 IRC. (310.1)
³⁾ R-3 occupancies shall allow not more than 6 lodgers or boarders where care is not provided. (310.1)
⁴⁾ Group homes that comply with the alternative compliance provisions of Section 407.12 for homes serving 4-6 persons who are not capable of self-preservation are classified I-2. (308.3.2)

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Covered Mall Buildings

(NEW) (Amd) **402.9 Smoke control.**
 Covered mall buildings of two or more stories shall have a smoke control system installed in accordance with Section 909.

Atriums

(NEW) (Amd) **404.4 Smoke control.** A smoke control system shall be installed in accordance with Section 909.

Exceptions: Smoke control is not required for atriums that connect only two stories.

Group – E
 Pre-School, Kindergarten and Second Grade

(Add) **419.1.1 Preschool, kindergarten and first grade.** Rooms normally occupied by preschool, kindergarten or first-grade students shall be located on a level of exit discharge.

- **Exception:** Rooms located on levels other than a level of exit discharge shall be permitted to be normally occupied by preschool, kindergarten or first-grade students where such rooms are provided with an independent means of egress dedicated for use by the preschool, kindergarten or first-grade students.

Group E - Second Grade

(Add) **419.1.2 Second grade.** Rooms normally occupied by second-grade students shall be located not more than one story above a level of exit discharge.

Exception: Rooms located on levels other than one story above a level of exit discharge shall be permitted to be normally occupied by second-grade students where such rooms are provided with an independent means of egress dedicated for use by the second-grade students.

General Building Heights and Areas

(NEW) (Add) **506.4.1 Mixed occupancies.** In buildings of mixed occupancy, the allowable area per story (A_a) shall be based on the most restrictive provisions for each occupancy when the mixed occupancies are treated according to Section 302.3.1. When the occupancies are treated according to Section 302.3.2 as separated occupancies, the maximum total floor area for a building shall be such that the sum of the ratios for each such area on all floors as calculated according to Section 302.3.2 shall not exceed 2 for two-story buildings and 3 for buildings three stories or higher.

Fire-Resistance-Rated Construction

(Amd) 707.2 Shaft enclosure required.
 Openings through a floor/ceiling assembly shall be protected by a shaft enclosure complying with this section.

Exceptions:

7. In other than Groups I-2 and I-3, a shaft enclosure is not required for a floor opening that complies with the following:

7.6. Is separated from floor openings serving other floors by construction conforming to [\[Section 706\] required shaft enclosures.](#)

Fire Protection Systems

- (NEW) (Amd) **903.2.1.2 Group A-2.** An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:
 - 1. The fire area exceeds 5,000 square feet.
Exception: Existing restaurants in existing non-sprinklered buildings that were designated Use Group A-3 under a previous edition of the State Building Code that undergo addition, alteration or change of occupancy that results in an increase in the restaurant's fire area providing the proposed fire area does not exceed 12,000 square feet.
 - 2. The fire area has an occupant load of 300 or more.
 - 3. The fire area is located on a floor other than the level of exit discharge.

Automatic Sprinklers in Group R

- (Amd) **903.2.7 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all [newly constructed](#) buildings with a Group R fire area [or in existing buildings that have a Group R fire area newly introduced by change of occupancy or by an addition.](#)

903.2.7 Group R.
Exceptions

1. Group R-1 bed and breakfast establishments.
2. Existing buildings four stories or less in height undergoing a change of occupancy from a one- or two-family building or Group R-3 to Group R-2 containing not more than four dwelling units that does not involve an increase in height or area and where each dwelling unit has either:
 - 2.1 An exit door directly to the exterior at a level of exit discharge,
 - 2.2 Direct access to an exterior stair serving a maximum of two dwelling units on the same story, or
 - 2.3 Direct access to an interior stair serving only that dwelling unit and separated from all other portions of the building with 1-hour fire-resistance-rated fire barriers.

903.2.7 Group R.
Exceptions

3. Existing buildings converted from a one- or two-family building or Group R-3 to Group R-2 containing not more than four dwelling units prior to June 15, 1994.
4. Horizontal additions containing a newly introduced Group R occupancy that are added to existing buildings shall be required to have an automatic sprinkler system installed in the addition only provided that the addition is completely separated from the existing building by fire barriers with a minimum one-hour fire-resistance rating.

Automatic Sprinklers in Group R

(NEW) (Add) **903.2.7.1 Small residential care/assisted living facility alternative compliance.** An NFPA 13D automatic sprinkler system in accordance with Section 903.3.1.3 shall be permitted in a Group R-4 occupancy when all of the following conditions are met:

1. The facility is not in a building containing mixed occupancies,
2. The facility is limited to six or fewer occupants, excluding staff,

(Continued on next slide)

Automatic Sprinklers in Group R

903.2.7.1 Continued:

3. The building in which the facility is located is limited to two stories above grade and 40 feet in height,
4. The automatic sprinkler system is provided with a minimum 30-minute water supply,
5. All habitable and usable areas and closets are sprinklered, and
6. The sprinkler system is provided with valve supervision by one of the following methods:
 - 6.1. A single listed control valve that shuts off both domestic and sprinkler system water supply and a separate valve that shuts off the domestic system only.
 - 6.2. Electrical supervision connected to the facility's fire alarm system.
 - 6.3. Valve closure that causes the sounding of an audible alarm audible throughout the premises.

Automatic Sprinklers

- (NEW) (Add) **903.3.1.1.2 Vertical openings.** Closely spaced sprinklers and draft stops are not required around floor openings permitted to be unenclosed by this code unless the closely spaced sprinklers and draft stops are being utilized in lieu of an enclosure as specified by Exception 2.1 to Section 707.2.

Automatic Sprinklers

- (NEW) (Amd) **903.3.1.2 NFPA 13R sprinkler systems.** Where allowed in buildings of Group R, up to and including four stories above grade and 60 feet in height, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13R.

Automatic Sprinklers

(NEW) (Add) **903.3.1.2.2 Mixed occupancies.** Buildings containing occupancies other than Group R shall not be permitted to utilize an NFPA 13R sprinkler system.

Exception: Buildings that comply with Section 508.2 that contain only Group R occupancies above the horizontal assembly shall be permitted to utilize an NFPA 13R sprinkler system above the horizontal assembly provided such occupancy complies with Section 903.3.1.2.

Limited Area Sprinkler

(Amd) **903.3.5.1.1 Limited area sprinkler systems.** Limited area sprinkler systems serving six sprinklers or less in any fire area 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 to Item 1: An approved indicating control valve supervised electrically or locked or secured in the open position shall be permitted.

2. The domestic service shall be designed and installed in accordance with NFPA 13-02 or [NFPA 13D-02](#).

Automatic Sprinklers

- (NEW) (Amd) **903.3.5.2 Secondary water supply.** A secondary on-site water supply equal to the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings in Seismic Design Category D, E or F as determined by this code. The secondary water supply shall have a duration not less than 30 minutes.
- **Exception:** Existing buildings.

Standpipe Systems

(NEW) (Add) **905.2.1 Piping design.** The riser piping, supply piping and the water service piping shall be sized to maintain a residual pressure of at least 100 pounds per square inch (psi) at the topmost outlet of each riser while flowing the minimum quantities of water specified based upon a pressure of 150 psi available at the fire department connection.

Exception: In buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or Section 903.3.1.2 and where the highest floor level is not more than 150 feet above the lowest level of fire department vehicle access, Class I standpipes shall have an automatic or manual-wet supply.

Standpipe Systems

(NEW) (Amd) **905.3.6 Helistops and heliports.** Buildings with a helistop or heliport that are equipped with a standpipe shall extend the standpipe to the roof level on which the helistop or heliport is located. All portions of the helistop and heliport area shall be within 150 feet of a 2.5-inch outlet on a Class I or Class III standpipe.

Portable Fire Extinguishers

- (Add) **906.1.1 Group R-1 bed and breakfast establishments.** In Group R-1 bed and breakfast establishments, portable fire extinguishers shall be required to be located in kitchens. All portable fire extinguishers shall be selected, installed and maintained in accordance with NFPA 10-[00]02. A listed residential range top extinguisher unit or an approved commercial kitchen hood with a listed, approved automatic fire suppression system shall be permitted to be installed in lieu of the installation of a portable fire extinguisher in the kitchen.

Portable Fire Extinguishers

- (Add) **906.1.2 Group F occupancies.** Portable fire extinguishers shall be selected, installed and maintained in Group F occupancies in accordance with NFPA 10-~~00~~02.

Alarm Notification Appliances

- (Add) **907.9.3.1 Alarm transmission.** Where required by Section 907.9.3, the fire alarm system shall be arranged to automatically transmit the alarm to the municipal fire department via any of the following means in accordance with NFPA 72-~~03~~02:
1. Auxiliary alarm system;
 2. Central station connection;
 3. Proprietary system; or
 4. Remote station connection.

Smoke Control

- (NEW) (Amd) **909.16 Fire-fighter's smoke control panel.** A fire-fighter's smoke control panel for fire department emergency response purposes only shall be provided and shall include manual control or override of automatic control for mechanical smoke control systems. The panel shall be located in a fire command center complying with Section 911 in high-rise buildings. In all other buildings, the fire-fighter's smoke control panel shall be installed in an approved location adjacent to the fire alarm control panel. The fire-fighter's smoke control panel shall comply with Sections 909.16.1 through 909.16.3.

Smoke and Heat Vents

(NEW) (Amd) **910.1 General.** Where required by this code or otherwise installed, smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section.

Exceptions:

- 1. Frozen food warehouses used solely for storage of Class I and II commodities where approved by an approved automatic sprinkler system.
- 2. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, automatic smoke and heat vents shall not be required within these areas.

Means of Egress

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

Exceptions:

- 1. Sloped ceilings in accordance with Section 1208.2.
- 2. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1208.2.
- 3. Allowable projections in accordance with Section 1003.3.
- 4. Stair headroom in accordance with Section 1009.2.
- 5. Door height in accordance with Section 1008.1.1.

Means of Egress

(NEW) (Amd) **1003.3.2 Free-standing objects.** A free-standing object mounted on a post or pylon shall not overhang that post or pylon more than **4 inches** where the lowest point of the leading edge is more than 27 inches and less than 80 inches above the walking surface. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches, the lowest edge of such sign or obstruction shall be 27 inches maximum or 80 inches minimum above the finish floor or ground.

Exception: This requirement shall not apply to sloping portions of handrails serving stairs and ramps.

Means of Egress

(NEW) (Add) **1003.8 Security device.** Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premises shall be prohibited.

(NEW) (Add) **1003.9 Mirrors.** Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of egress travel.

Occupant Load

(NEW) (Amd) **1004.1.2 Number by Table 1004.1.2.** The number of occupants computed at a rate of one occupant per unit of area as prescribed in Table 1004.1.2.

Exception: Day care occupancies shall be calculated at one occupant per 35 square feet of net area.

Multiple Means of Egress

~~(Del) 1005.1.1 Balanced egress capacity. Delete section in its entirety and replace with:~~

(Add) 1005.1.1 Multiple means of egress. Multiple means of egress in buildings requiring more than one exit and in rooms or spaces requiring more than one means of egress shall be sized so that the loss of any one means of egress shall not reduce the required capacity of the remaining means of egress to a fraction less than that determined as follows:

$$\frac{(R-1)}{R} = C$$

Multiple Means of Egress

(Add) 1005.1.1 Multiple means of egress
(continued)

$$\frac{(R-1)}{R} = C$$

where:

R = the number of required means of egress from a room, space or story as determined by Section 1014 or Section 1018

C = the minimum fraction of required egress capacity remaining after the loss of any one means of egress

Means of Egress Illumination

(NEW) (Add) **1006.3.1 When required.** The emergency means of egress illumination system shall be arranged to provide the required illumination automatically in the event of any interruption of normal lighting due to any of the following:

1. Failure of a public utility or other outside electrical power supply.
2. Opening of a circuit breaker or fuse.
3. Manual acts including accidental opening of a switch controlling normal lighting facilities.

Stairways and Handrails

- (NEW) (Amd) **1009.11.2 Intermediate handrails.** Intermediate handrails are required for stairs with a required width exceeding 75 inches so that all portions of the stairway width required for egress capacity are within 30 inches of a handrail. On monumental stairs, handrails shall be located along the most direct path of egress travel.

Ramp Surface

- (Amd) **1010.7.1 Ramp surface.** The surface of ramps shall be of slip-resistant materials that are securely attached[, **solid**] and [**without perforations**] in compliance with the provisions of Section 302.3 of the ICC/ANSI A117.1-2003 standard.

Edge Protection

- (NEW) (Del) **1010.9 Edge protection.** Delete section and subsections in their entirety and substitute with:
- (NEW) (Add) **1010.9 Edge protection.** Edge protection for ramps shall be in accordance with Section 405.9 of the ICC/ANSI A117.1-2003 standard.

Floor Proximity exit signs

- (Add) **1011.1.1 Floor proximity exit signs.** [**In addition to the**] Where exit signs are required by [**Sections**] Section 1011.1 [**and 1011.1.2**] of this code, exit access doors and exit doors shall additionally be marked by floor proximity exit signs in Group A occupancies with an occupant load of more than 300, Group B medical occupancies, Group I-1 occupancies, Group I-2 occupancies, Group R-1 hotels and motels and Group R-2 dormitories.

Floor Proximity exit signs

(NEW) (Add) **1011.1.1.2 Approval.** Floor proximity exit signs shall be listed and labeled in accordance with UL 924, Emergency Lighting and Power Equipment, Edition 9, dated February 24, 2006.

Accessible Exits

(Add) **1011.1.2 Accessible exits.** [In addition to the] Where exit signs are required by [Sections] Section 1011.1 [and 1011.1.1] of this code, accessible [exits] exit doors at the level of exit discharge that lead directly to accessible paths of exit discharge shall additionally be marked by the International Symbol of Accessibility. Such symbol shall be not less than 6 inches high and shall be incorporated into the required exit sign or shall be located directly adjacent to it. Such symbol shall meet the requirements of Section 1011.

Guards

(NEW) (Amd) **1012.2 Height.** Guards shall form a protective barrier not less than 42 inches high, measured vertically above the leading edge of the tread or the adjacent walking surface.

Exceptions:

1. For occupancies in Group R-1 bed and breakfast establishments and in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards whose top rail also serves as a handrail shall have a height not less than 34 inches and not more than 38 inches measured vertically from the leading edge of the stair tread nosing.
2. For occupancies in Group R-1 bed and breakfast establishments, level guards shall be not less than 36 inches high, measured vertically above the adjacent walking surface.
3. The height in assembly seating areas shall be in accordance with Section 1024.14.

Guards

(NEW) (Amd) **1012.3 Opening limitations.** Open guards shall have balusters or ornamental patterns such that a 4-inch diameter sphere cannot pass through any opening up to a height of 34 inches. From a height of 34 inches to 42 inches above the adjacent walking surfaces, a sphere 8 inches in diameter shall not pass.

Exceptions:

- 5. In Group R-1 bed and breakfast establishments, guards shall have balusters or ornamental patterns such that a 6-inch diameter sphere cannot pass through any opening.

Exit Access

(NEW) (Amd) **1013.2 Egress through adjoining spaces.** Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high-hazard occupancy and provide a discernable path of egress travel to an exit. Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes. An exit access shall not pass through a room that can be locked to prevent egress. Means of egress from dwelling units or sleeping areas shall not lead through other dwelling units, sleeping areas, toilet rooms or bathrooms.

Exceptions:

- 3. Not more than 50 percent of the required exit access may travel through stockrooms in Group M occupancies when the stock is of the same hazard classification as that found in the main retail area; when the stockroom is not subject to locking from the egress side; and when there is a 44-inch wide aisle defined by full or partial height fixed walls or similar fixed construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.

Exit Discharge

- (NEW) (Add) **1023.2.1 Remoteness.** Where two or more doors leading to exit discharge are required, a minimum of two such doors shall be placed a distance apart equal to not less than one-third of the length of the maximum overall diagonal dimension of the building served measured in a straight line between doors. Additional doors leading to exit discharge shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available.

Assembly Main Exit

(Amd) **1024.2 Assembly main exit.** [Group A occupancies that have an occupant load of greater than 300 shall be provided with a main entrance that is also the main exit.] In [other] Group A occupancies that are newly constructed, have an increase in the number of occupants by addition or alteration or are created by change of occupancy and that have a single main entrance, such main entrance shall also be the main exit. The main entrance/exit shall be of sufficient width to accommodate not less than two-thirds of the occupant load, but such width shall not be less than the total required width of all means of egress leading to the exit. [Where the building is classified as a Group A occupancy, the main exit shall front on at least one street or on an unoccupied space of not less than 10 feet in width that adjoins a street or public way.]

Exception: In assembly occupancies where there is no well-defined main entrance and main exit or where multiple main entrances and main exits are provided, exits shall be permitted to be distributed around the perimeter of the building or space containing the assembly occupancy, provided that the total width of egress is not less than 100 per cent of the required width.]

SEE NEXT SLIDE

Assembly Main Exit

(Amd) **1024.2 Assembly main exit.** In Group A occupancies that are newly constructed, have an increase in the number of occupants by addition or alteration or are created by change of occupancy and that have a single main entrance, such main entrance shall also be the main exit. The main entrance/exit shall be of sufficient width to accommodate not less than two-thirds of the occupant load, but such width shall not be less than the total required width of all means of egress leading to the exit.

Emergency Escape and Rescue

(NEW) (Amd) **1025.3 Maximum height from floor.** Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches measured from the floor.

Exception: The 44-inch maximum height shall be permitted to be measured vertically above a fixed, permanent platform, step or steps whose minimum width shall equal or exceed the operable width of the opening and shall be centered on such opening and which shall comply with Section 1009.3.

**Floor Proximity
Egress Path Marking**

(NEW) (Add) **1026.1 Where required.** In addition to means of egress illumination required by Section 1006, floor proximity egress path marking systems or devices shall be required in exit access corridors serving an occupant load greater than 30 in the following newly constructed occupancies:
(see next Slide)

**Floor Proximity
Egress Path Marking**

1026.1 Where required. (Continued)

1. Group A occupancies with a total occupant load greater than 300.
2. Group B medical occupancies.
3. Group E occupancies.
4. Group I-1 occupancies.
5. Group I-2 occupancies.
6. Group R-1 hotels and motels.
7. Group R-2 dormitories.

(Continued on next Slide)

**Floor Proximity
Egress Path Marking**

1026.1 Where required. (Continued)

Exceptions:

1. Group E occupancies where each classroom has at least one door directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. In corridors or hallways located within Group R-1 and R-2 sleeping units or dwelling units.
3. Such systems shall not be required in existing buildings of any occupancy including those undergoing repair, addition, alteration or change of occupancy.

**Floor Proximity
Egress Path Marking**

(NEW) (Add) **1026.2 Size and location.** Where required by Section 1026.1, floor proximity egress path marking systems or devices shall be located on the walls of exit access corridors within 18 inches of the finished floor to provide a visible delineation of the path of travel along the exit access corridor. Such markings or devices shall be essentially continuous, except as interrupted by doorways, intersecting hallways and corridors or other similar architectural features. Where such systems or devices are photoluminescent, they shall be a minimum of 1 inch and a maximum of 2 inches in width.

**Floor Proximity
Egress Path Marking**

(NEW) (Add) **1026.3 Device or system requirements.** Floor proximity egress path marking systems or devices shall be listed and labeled and installed in accordance with the manufacturer's installation requirements. Such systems shall not incorporate arrows, chevrons, signs or alternating lighting patterns designed or intended to lead an occupant to any one specific exit in preference over another exit.

Exception: Systems incorporating arrows, chevrons, signs or alternating lighting patterns designed or intended to lead an occupant in any one specific direction shall be permitted in dead end corridors.

**Floor Proximity
Egress Path Marking**

(NEW) (Add) **1026.4 Materials.** Floor proximity egress path marking systems or devices shall be permitted to be made of any material, including paint. Such materials shall include, but not be limited to: self-luminous materials; photoluminescent materials; and electrical photo luminescent materials. Materials shall comply with either:

1. UL 1994 Standard for Luminous Egress Path Marking Systems, Edition 3, dated January 30, 2004, or
2. ASTM E 2072, except that the charging source shall be 1 fc (10 lux) of fluorescent illumination for 60 minutes, and the minimum luminance shall be 5 millicandelas per square meter after 90 minutes.

**Floor Proximity
Egress Path Marking**

- (NEW) (Add) **1026.5 Illumination.** Floor proximity egress path marking systems or devices shall be continuously illuminated or shall illuminate within 10 seconds in the event of power failure. Illumination shall be maintained for a period of 90 minutes following loss of power to the corridor within which the system or device is located.

**Floor Proximity
Egress Path Marking**

(NEW) (Add) **1026.5.1 Photoluminescent systems or devices.** Corridors where photoluminescent floor proximity exit path marking systems or devices are installed shall be provided with the minimum means of egress illumination required by Section 1006 for at least 60 minutes prior to periods when the building is occupied.

Accessibility

(NEW) (Amd) **1104.4 Multilevel buildings and facilities.** At least one accessible route shall connect each accessible level, including mezzanines, in multi-level buildings and facilities.

Exceptions:

1. An accessible route is not required to stories and mezzanines that comply with Sections 1103.2.15 and 1103.2.16, respectively.
2. In Group A, I, R and S occupancies, levels that do not contain accessible elements or other spaces required by Section 1107 or 1108 are not required to be served by an accessible route from an accessible level.
3. In air traffic control towers, an accessible route is not required to serve the cab and the floor immediately below the cab.
4. Where a two-story building or facility has one story with an occupant load of five or fewer persons that does not contain public use space, that story shall not be required to be connected by an accessible route to the story above or below.

Accessibility

Parking and Passenger Loading Facilities

- (NEW) (Amd) **1106.5 Van spaces.** For every six or fraction of six accessible parking spaces, at least one shall be a van-accessible parking space. Each public parking garage or terminal shall have a minimum of two van-accessible parking spaces complying with this section.

Accessibility

Dwelling and Sleeping Units

(NEW) (Amd) **1107.4 Accessible route.** At least one accessible route shall connect accessible building or facility entrances with the primary entrance of each accessible unit, Type A unit and Type B unit within the building or facility and with those exterior and interior facilities that serve the units.

Accessibility

Dwelling and Sleeping Units

(NEW) (Amd) **1107.4 Accessible route.**
(continued)

Exception: If the slope of the finished ground level between accessible facilities and buildings exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers prevent the installation of an accessible route, a vehicular route with parking that complies with Section 1106 at each public or common use facility or building is permitted in place of the accessible route.

**Accessibility
Dwelling and Sleeping Units**

(Amd) **1107.6.2.1.1 Type A units.** In occupancies in Group R-2 containing more than 20 dwelling units or sleeping units, at least 10 per cent[, but not less than one,] of the units shall be a Type A unit in accordance with ICC/ANSI A117.1-2003. All R-2 units on the site, within the building or within the complex, shall be considered to determine the total number of units and the required number of Type A units. Type A units shall be dispersed among the various classes of units.

Exceptions:

1. The number of Type A units is permitted to be reduced in accordance with Section 1107.7.5.
2. Existing Group R-2 buildings or structures on a site or within a complex shall not contribute to the total number of units on a site.

**Accessibility
Dwelling and Sleeping Units**

- ~~(Del) 1107.6.3.1 Townhouses.~~ Delete section in its entirety without substitution.

**Accessibility
Dwelling and Sleeping Units**

~~(Del) 1107.7.2 Multistory units.~~ Delete section and subsections in their entirety and replace with:

(Add) 1107.7.2 Multistory units. A multistory dwelling or sleeping unit that is not provided with elevator service is not required to be a Type B unit. Where a multistory unit is provided with external elevator service to only one floor, the floor provided with elevator service shall be the primary entrance to the unit and shall comply with the requirements for a Type B unit, providing provisions for living, sleeping, eating, cooking and a complete toilet and bathing facility on that floor. Where a multistory unit is provided with external elevator service to more than one floor of the unit, one floor shall be the primary entrance to the unit and shall comply with the requirements for a Type B unit, providing provisions for living, sleeping, eating, cooking and a complete toilet and bathing facility on that floor.

Accessibility
Other Features and Facilities

(Amd) **1109.2.2.1 Pull handle.** Where accessible water closet compartments or single occupancy toilet rooms are provided, the compartment or room doors shall have a pull handle mounted 6 inches from the hinge side on the compartment or room side of the door. This handle shall be between 26 inches and 36 inches from the floor and shall meet the requirements of Section 404.2.~~7~~6 of ICC/ANSI A117.1-2003.

Exception: Compartments or rooms with self-closing, self-latching doors.

Accessibility
Other Features and Facilities

(NEW) (Amd) **1109.13 Controls, operating mechanisms and hardware.** Controls, operating mechanisms and hardware intended for operation by the occupant, including switches that control lighting and ventilation, and electrical convenience outlets, in accessible spaces, along accessible routes or as parts of accessible elements shall be accessible.

Exceptions: (On Next Slide)

Accessibility
Other Features and Facilities

(NEW) (Amd) **1109.13 Controls, operating mechanisms and hardware.**

Exceptions:

1. Operable parts that are intended for use only by service or maintenance personnel shall not be required to be accessible.
2. Electrical or communication receptacles serving a dedicated use shall not be required to be accessible.
3. Where two or more outlets are provided in a kitchen above a length of countertop that is required to be accessible that is uninterrupted by a sink or appliance, one outlet shall not be required to be accessible.
4. Floor electrical receptacles shall not be required to be accessible.
5. HVAC diffusers shall not be required to be accessible.
6. Except for light switches, where redundant controls are provided for a single element, one control in each space shall not be required to be accessible.
7. 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 maximum and 48 inches minimum above the finished floor or ground, providing the self-latching devices are not also self-locking devices, operated by means of a key, electronic opener or integral combination lock.

Structural Design

(NEW) (Amd) **1609.2 Definitions.** Amend the following definition:

WIND-BORNE DEBRIS REGION. Areas where the basic wind speed in accordance with Appendix K is 120 mph.

Structural Tests and Special Inspections

(Amd) **1704.2.2 Fabricator approval.** Special inspections required by Section 1704.2.1 are not required where the work is done on the premises of **[a fabricator of structural steel that has been certified by AISC Fabricator Certification Program or a fabricator of precast concrete that has been certified by PCI Plant Certification Program.]** the following certified fabricators:
1. A fabricator of structural steel that is certified by the American Institute of Steel Construction Inc.'s Fabricator Certification Program.
2. A fabricator of precast concrete that is certified by the Precast/Prestressed Concrete Institute's Plant Certification Program.
3. A fabricator of cold-formed steel trusses that is certified by the Truss Plate Institute's Quality Assurance Program.
4. A fabricator of wood trusses that is certified by the Truss Plate Institute's Quality Assurance Program.
(Continued on Next Slide)

Structural Tests and Special Inspections

(Amd) **1704.2.2 Fabricator approval.**
(Continued)
Such fabricators shall not be exempt from special inspections required by Sections 1704.3, [or] 1704.4 or 1704.6. At the completion of fabrication, the certified fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents.

Soils and Foundations

(Amd) **1805.2.1 Frost protection.** Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

- 1. Extending a minimum of 42 inches below finished grade;
- 2. Construction in accordance with ASCE 32-01; or
- 3. Erecting on solid rock.

(Continued on Next Slide)

Soils and Foundations

(Amd) **1805.2.1 Frost protection.**

Exception: Free-standing buildings or structures meeting all of the following conditions shall not be required to be protected:

- 1. Classified in importance category I (see Table 1604.5);
- 2. Area of [400] 600 square feet or less; and
- 3. Eave height of 10 feet or less.

Footings shall not be cast on frozen soil.

Soils and Foundations

(NEW) (Add) **1806.2 Guards.** Retaining walls with a difference in finished grade from the top of the wall to the bottom of the wall that is greater than 4 feet shall be provided with guards complying with Sections 1012.2 and 1012.3 when there is a walking surface, parking lot or driveway on the high side located closer than 2 feet to the retaining wall. For the purposes of this section, grass, planting beds or landscaped areas shall not be considered a walking surface.

Electrical

(NEW) (Add) **2702.2.20 Electric fire pumps.** Buildings provided with standby electrical power for the purpose of continuing operations or occupancy shall provide Type 60 standby power for any electric fire pump installed to provide an adequate water supply or minimum operating pressure to a required automatic sprinkler system.

Elevators and Conveying Systems

(NEW) (Amd) **3006.4 Machine rooms and machinery spaces.** Elevator machine rooms and machinery spaces shall be enclosed with construction having a fire-resistance rating not less than the required rating of the hoistway enclosure served by the machinery. Openings shall be protected with assemblies having a fire-resistance rating not less than that required for the hoistway enclosure doors.

Exception: Machine rooms and enclosed machine spaces that do not share a wall with the hoistway and are located remotely from the hoistway shall be permitted to be protected by an automatic fire-extinguishing system or be separated from the remainder of the building by fire barriers having a fire-resistance rating of not less than one hour with ¾-hour-rated opening protectives.

Temporary Tents, Canopies and Membrane Structures

- (Amd) **3103.1 General.** The provisions of this section shall apply to [structures, including] tents, canopies and other membrane structures, erected for a period of less than 180 consecutive calendar days out of any 365 consecutive calendar days. Those erected for a longer period of time shall comply with applicable sections of this code.

Exception: The Connecticut Tent and Portable Shelter Code shall apply to the following tents and portable shelters when such tents and portable shelters are not erected on the grounds of one- and two-family dwellings for private parties and no admission is charged:

- 1. Tents erected for less than 180 consecutive calendar days out of any 365 consecutive calendar days with an occupancy of 100 or more persons or covering an area in excess of 1,200 square feet.
- 2. Portable shelters erected for less than 180 consecutive calendar days out of any 365 consecutive calendar days with an occupancy of 100 or more persons.

Temporary Tents, Canopies and Membrane Structures

- (Amd) **3103.1.1 Permit required.** All temporary structures that cover an area in excess of 120 square feet, including all connecting areas or spaces with a common means of egress or entrance that are used or intended to be used for the gathering together of 10 or more persons, shall not be erected, operated or maintained for any purpose without obtaining a permit from the code official. **[Tents used exclusively for recreational camping purposes shall be exempt from the above requirements.]**
- **Exceptions:**
 1. Tents less than 350 square feet total area.
 2. Tents 900 square feet and smaller in total area when occupied by fewer than 50 persons, which have no heating appliances, no installed electrical service and are erected for fewer than 72 hours.
 3. [Tents used exclusively for recreational camping purposes.](#)

Pedestrian Walkways and Tunnels

- (NEW) (Del) **3104.11 Ventilation.** Delete section in its entirety without substitution.

Special Construction Awnings and Canopies

- (NEW) (Amd) **3105.3 Design and construction.** Awnings and canopies shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. Awnings shall have frames of noncombustible material, fire-retardant-treated wood, wood of Type IV size, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.
- Exceptions:**
1. Fixed awnings shall not be required to be designed to resist wind loads in excess of 90 mph.
 2. Retractable awnings shall not be required to be designed to resist wind or snow loads.

Signs

- (NEW) (Amd) **3107.1 General.** Signs shall be designed, constructed and maintained in accordance with [Appendix H](#) of this code.

Swimming Pools Enclosures and Safety Devices

- (Add) **3109.1.1 Health Department [regulation] regulations.** No person shall construct, substantially alter or reconstruct a swimming pool until the construction documents and water discharge provisions have been approved by the Department of Public Health, in accordance with the regulations adopted pursuant to section 19a-36 of the Connecticut General Statutes.
Exception: [Swimming pools accessory to \[Owner-occupied\] owner-occupied, detached one- two- or three-family residences and swimming pools accessory to a single one-family townhouse](#) where the pool is intended to be used [exclusively](#) by the owner and invited guests.

Swimming Pools Enclosures and Safety Devices

- (NEW) (Amd) **3109.4.1.1 Openings.** Openings in residential swimming pool barriers as defined by the exception to Section 3109.1.1 shall not allow passage of a 4-inch diameter sphere. Openings in public swimming pool barriers shall not allow passage of a 2-inch diameter sphere.

Swimming Pools Enclosures and Safety Devices

(NEW) (Add) **3109.4.1.7.1 Gates in accessible routes.** 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 maximum and 48 inches minimum above the finished floor or ground, providing the self-latching devices are not also self-locking devices, operated by means of a key, electronic opener or integral combination lock.

Swimming Pools Enclosures and Safety Devices

• (Amd) **3109.5 Entrapment avoidance.** Entrapment avoidance for newly constructed pools and spas shall be in accordance with [the provisions of Section 11 of ANSI/NSPI-1 2003] Sections 3109.5.1 through 3109.5.5. Pools and spas undergoing structural alterations or repairs, or alterations or repairs to the pool circulation system shall comply with Sections 3109.5.2 and 3109.5.3.

Swimming Pools Enclosures and Safety Devices

(NEW) (Add) **3109.5.1 General.** Suction outlets shall be designed to produce circulation throughout the pool, spa or hot tub. Single outlet systems, such as automatic vacuum cleaner systems, or multiple suction outlets whether isolated by valves or otherwise shall be protected against user entrapment.

Swimming Pools Enclosures and Safety Devices

- (NEW) (Add) **3109.5.2 Suction fittings.** All pool and spa suction outlets shall be provided with a cover that conforms with ANSI/ASME A112.19.8-2007 or with an approved channel drain system.
 - **Exception:** Surface skimmers.
- (NEW) (Add) **3109.5.2.1 Fitting maintenance.** Any pool, spa or hot tub with a broken, loose or missing suction outlet cover shall be immediately placed out of service until repairs are completed and approved.

Swimming Pools Enclosures and Safety Devices

- (NEW) (Add) **3109.5.3 Atmospheric vacuum relief system required.** All pool and spa single or multiple outlet circulation systems other than pools equipped only with surface skimmers shall be equipped with atmospheric vacuum relief. Such vacuum relief systems shall include at least one approved or engineered method of the following type:
 1. Safety vacuum release system conforming to ASME A112.19.17, or
 2. An approved gravity drainage system operating through a surge tank.

Swimming Pools Enclosures and Safety Devices

- (NEW) (Add) **3109.5.4 Dual drain separation.** Single or multiple pump circulation systems shall be provided with a minimum of two (2) suction outlets of the approved type. A minimum horizontal or vertical distance of three (3) feet shall separate such outlets. The separation distance shall be measured from near point of opening to near point of opening. These suction outlets shall be piped so that water is drawn through them simultaneously, distributed as evenly as possible, through a vacuum relief protected line to the pump or pumps.

Swimming Pools Enclosures and Safety Devices

(NEW) (Add) **3109.5.5 Pool cleaner fittings.** Where provided, vacuum or pressure cleaner fitting(s) shall be located in an accessible position(s) at least six (6) and not greater than twelve (12) inches below the minimum operational water level or as an attachment to the skimmer(s).

Safeguards During Construction

• (Add) **3303.7 Demolition of structures.** The demolition of structures shall be conducted in accordance with [sections 29-401-1 to 29-401-5, inclusive, of the Regulations of Connecticut State Agencies, known as] the State Demolition Code as found in chapter 541 of the Connecticut General Statutes[, and Section 110.0] and with Chapter 33 of this code.

Existing Structures Additions, Alterations or Repairs

• (NEW) (Amd) **3403.4 Stairways.** An alteration or the replacement of an existing stairway in an existing structure shall not be required to comply with the maximum riser height and minimum tread depth requirements of a new stairway as outlined in Section 1009.3 where the existing space and construction will not allow a reduction in pitch or slope.

Existing Structures
Additions, Alterations or Repairs

(NEW) (Add) **3403.5 Means of egress.** In addition to the requirements of this code, means of egress in existing buildings undergoing additions, alterations or repairs shall meet the requirements of the provisions of Part IV of the Connecticut State Fire Safety Code for the proposed occupancy.

Existing Structures
Change in Occupancy

- (NEW) (Amd) **3406.3 Stairways.** Existing stairways in an existing structure shall not be required to comply with the maximum riser height and minimum tread depth requirements of a new stairway as outlined in Section 1009.3 where the existing space and construction will not allow a reduction in pitch or slope.

Existing Structures
Change in Occupancy

(NEW) (Add) **3406.4 Means of egress.** In addition to the requirements of this code, means of egress in existing buildings undergoing change of occupancy shall meet the requirements of the provisions of Part IV of the Connecticut State Fire Safety Code for the proposed occupancy.

**Existing Structures
Moved Structures**

- (NEW) (Amd) **3408.1 Conformance.** Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.
Exception: Buildings or structures moved into or within the jurisdiction shall be permitted to comply with the 2003 International Existing Building Code for relocated or moved buildings or structures.

**Existing Structures
Accessibility for Existing Buildings**

- (NEW) (Amd) **3409.1 Scope.** The provisions of Sections 3409.1 through 3409.8 apply to maintenance, change of occupancy, additions and alterations to existing buildings, including those identified as historic buildings.
Exception: Type B dwelling or sleeping units required by Section 1107 are not required to be provided in existing buildings and facilities undergoing alteration or in the existing portion of buildings to which additions are being made.

**Existing Structures
Accessibility for Existing Buildings**

(NEW) (Amd) **3409.3 Change of occupancy.** Existing buildings, or portions thereof, that undergo a change of group or occupancy shall have all of the following accessible features:

1. At least one accessible building entrance.
2. At least one accessible route from an accessible building entrance to primary function areas.
3. Signage complying with Section 1110.
4. Accessible parking, where parking is being provided.
5. At least one accessible passenger loading zone, when passenger loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.
7. At least one accessible toilet room or toilet and bathing facility per gender complying with Section 1109.2.
8. At least one accessible means of egress complying with Section 1007.
9. Type A and Type B units as required by Section 1107.

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Existing Structures
Accessibility for Existing Buildings

- (NEW) (Amd) **3409.3 Change of occupancy.**
 (Continued)

Where it is technically infeasible as defined in Section 3402.1 to comply with the new construction standards for any of these requirements for a change of group or occupancy, the above items shall conform to the maximum extent technically feasible. Change of group or occupancy that incorporates any alterations or additions shall comply with this section and Sections 3409.4, 3409.5, 3409.6 and 3409.7.

Existing Structures
Accessibility for Existing Buildings

(NEW) (Amd) **3409.7.7 Dwelling or sleeping units.** Where I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being altered or added, the requirements of Section 1107 for Accessible, Type A or Type B units and Chapter 9 for accessible alarms apply only to the quantity of spaces being altered or added.

Existing Structures
Compliance Alternatives

- (NEW) (Add) **3410.1.1 Means of egress.**
 In addition to the requirements of this code, means of egress in existing buildings utilizing the compliance alternatives of Section 3410 shall meet the requirements of the provisions of Part IV of the Connecticut State Fire Safety Code for the proposed occupancy.

IBC Reference Standards

Adds the following standard under ASME:
ANSI/ASME A112.19.8-2007 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas and Hot Tubs.....3109.5.2

IBC Appendix K
 Snow Load, Wind Speeds and MCE Spectral Accelerations

- 2009 Amendment Modifies Maximum Considered Earthquake Spectral Accelerations for Municipalities within Connecticut

2009 Amendments to the 2003 International Residential Code

Includes

- Allows alternate compliance to the Existing Building Code for certain items
- Reference to the Demolition Requirements of CGS
- Allows for inspection of temporary services and electrical trenches
- Set Requirements for Vacant Buildings

Chapter 1 Administration

- **R101.2 Scope.** The provisions of the 2003 International Residential code for One- and Two-Family Dwellings shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures.
- **Exception:** Existing buildings undergoing repair, movement, alteration or additions and change of occupancy shall be permitted to comply with this code or the 2003 International Existing Building Code. The choice to comply with this code or the 2003 International Existing Building Code [shall](#) be made by the permit applicant at the time of application for the building permit.

Chapter 1 Administration

- **R101.4.7 Demolition of Structures.** The demolition of structures shall be conducted in accordance with the State Demolition Code as found in Chapter 541 of the Connecticut General Statutes

Chapter 1 Administration

- **R105.1 Required.** Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to move a lot line that will affect any existing building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.

Chapter 1 Administration

- **R109.1.5.2 Additional electrical inspections.** Required electrical inspections in addition to those required by Sections R109.1.2 and R109.1.6 shall include installations of temporary services prior to activation and installation of underground piping and conductors after trenches are excavated and bedded and before backfill is put in place.

Chapter 1 Administration

- **Section R117-Vacant Buildings**
- **R117.1 General.** Temporarily unoccupied buildings, structures, premises or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with Section 117 of the 2003 International Building Code portion of the 2005 State Building Code.

Chapter 2 Definitions

- **Complex.** For application of accessibility requirements, this term means any group of buildings located on a single parcel of land or on contiguous parcels of land or any building or group of buildings that are subdivided into separate occupancies and planned, financed, constructed or promoted by common management for the purpose of sale or lease of the entire complex or any subdivision thereof, except any single-family detached dwelling.
- **One-Family Dwelling.** A building containing one dwelling unit with not more than six lodgers or boarders where care is not provided. Also know as a single-family dwelling.
- **Two-Family Dwelling.** A building containing two dwelling units with not more than six lodgers or boarders per dwelling unit where care is not provided.

Chapter 3 Building Planning

- **R301.2.1.2 Internal pressure.** Windows in buildings located in windborne debris regions shall have glazed openings protected from windborne debris or the building shall be designed as a partially enclosed building in accordance with the 2003 International Building Code portion of the 2005 State Building Code. Glazed opening protection for windborne debris shall meet the requirements of the Large Missile Test of ASTM E1996 and of ASTM E1886 referenced herein.

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- **Exception:** Wood structural panels with a minimum thickness of 7/16 inch and a maximum span of 8 feet shall be permitted for opening protection in one- and two-story buildings and the first and second story of three-story buildings. Panels shall be precut and marked for location to cover the glazed opening with attachment hardware provided. Attachments shall be provided in accordance with Table R301.2.1.2 Or shall be designed to resist the components and cladding loads determined in accordance with the provisions of the 2003 International Building code portion of the 2005 State Building Code.

Chapter 3 Building Planning

- **R305.1 Minimum height.** Habitable rooms, hallways, corridors, bathrooms, toilet rooms, laundry rooms and basements shall have a ceiling height of not less than 7 feet. The required height shall be measured from the finished floor to the lowest projection from the ceiling.
- **Exceptions:**
 1. Beams, girders, pipes, ducts or other obstructions spaced not less than 4 feet on center shall be permitted to project not more than 6 inches below the required ceiling height.
 2. Basements without habitable spaces shall have a ceiling height of not less than 6 feet, 8 inches. Beams, girders, pipes, ducts and other obstructions shall be permitted to project not more than 4 inches below the required ceiling height.

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- 3. Not more than 50 per cent of the required area of a habitable room or space is permitted to have a sloped or furred ceiling less than 7 feet in height. No portion of the required floor area shall be less than 5 feet in height.
- 4. Bathrooms are permitted to have sloped or furred ceilings, but shall have a minimum ceiling height of 6 feet, 8 inches over the fixtures and at the front clearance area for the fixture as shown in Figure R307.2. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6 feet, 8 inches above a minimum area of 30 inches by 30 inches at the showerhead.

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- 5. Ceiling height in existing basements being converted to habitable space shall be not less than 6 feet, 10 inches clear except under beams, girders, pipes, ducts or other obstructions where the clear height shall be a minimum of 6 feet, 4 inches.

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- **R309.2.1 Detached garages.** Detached garages shall be separated from dwellings on the same lot as required by Section R309.2 with opening protection as required by section R309.1. This provision shall not apply to garage walls that are perpendicular to adjacent dwelling unit walls.
- **Exception:** Detached garages that are separated from the dwelling by a minimum distance of 10 feet.

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(Amd.) R310.1 Emergency escape and rescue openings required.
 Habitable spaces located within basements and every sleeping room within the dwelling shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining habitable areas of the basement. Where emergency escape and rescue openings are provided, they shall have a sill height of not more than 44 inches above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with section R310.3. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with section R310.2.

Chapter 3 Building Planning

R310.1 Emergency escape and rescue openings required.
Exceptions:
 1) Habitable basements without sleeping rooms are not required to have emergency escape and rescue openings when they are provided with two remote, code-compliant stairways.
 2) In existing buildings, basements being converted to habitable space without sleeping rooms are not required to have emergency escape and rescue openings.
 3) The 44-inch maximum sill height shall be permitted to be measured vertically above a fixed, permanent platform, step or steps whose minimum width shall equal or exceed the operable width of the opening and shall be centered on such opening and which shall comply with sections R311.5.3.1 and R311.5.3.2. Glazing in windows complying with this exception shall not be subject to the provisions of section R308.4 item 10.

Chapter 3 Building Planning

- **R314.2.3 Attics and crawlspaces.** Within attics and crawlspaces where entry is made only for services of utilities, foam plastics shall be protected against ignition by 1 ½ inch thick mineral fiber insulation, ¼ inch thick wood structural panels, 3/8 inch particleboard, ¼ inch hardboard, 3/8 inch gypsum board or corrosion-resistant steel having a base metal thickness of 0.016 inch. The ignition barrier is not required where the foam plastic insulation has been tested in accordance with section R314.3.

Chapter 3 Building Planning

- **R314.3 Specific approval.** Foam plastic not meeting the requirements of section R314.1 and R314.2 may be specifically approved on the basis of one of the following approved test: FM 4880, UL 1040, NFPA 286 with the acceptance criteria of section R315.4, or UL 1715, or fire tests related to actual end-use configurations. The specific approval shall be based on the actual end-use configuration and shall be performed on the finished foam plastic assembly in the maximum thickness intended for use. Assemblies tested shall include seams, joints and other typical details used in the installation of the assembly and shall be tested in the manner intended.

Chapter 3 Building Planning

- **R317.1 Two-Family dwellings.** Dwelling units in two-family dwellings shall be separated from each other and from common spaces serving both dwelling units by wall or floor-ceiling assemblies having not less than a 1-hour fire-resistance rating when tested in accordance with ASTM E 119. Fire-resistance-rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall and wall assemblies shall extend to the underside of the roof sheathing.

Chapter 3 Building Planning

Continued - **R317.1 Two-Family dwellings**
 Fire-resistance-rated assemblies shall extend to the foundation by construction with the same fire-resistance rating as the assembly supported.
Exception: A fire-resistance rating of ½ hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13.

Chapter 3 Building Planning

R322-Accessibility *This is a completely new section added to the IRC.*

(NEW) (Add) **R322.1 Scope.** Detached one- and two-family dwellings shall be exempt from accessibility requirements. Attached multiple single-family dwellings (townhouses) shall comply with Section R322.2 for single-story townhouses and with Section R322.3 for multi-story townhouses. For the purposes of this section, a one-story above-grade dwelling with a finished basement shall be considered a multi-story townhouse. Required Type B units shall comply with ICC/ANSI A117.1-2003, as amended.

Chapter 3 Building Planning

(NEW) (Add) **R322.2 Single-story townhouses.** Where there are four or more townhouses in a single structure, each single-story townhouse shall be a Type B unit.

Exception: The number of Type B units shall be permitted to be reduced in accordance with Section R322.4.

(NEW) (Add) **R322.3 Multi-story townhouses.** Buildings or complexes that contain 10 or more multi-story townhouses shall have at least 10 per cent Type B units. This requirement shall be met by providing a sufficient number of single-story Type B units or by providing a sufficient number of multi-story townhouses that incorporate a Type B unit on the street floor or by a combination of the two. Multi-story townhouses that incorporate a Type B unit on the street floor shall not be required to provide accessibility to floors above or below the street floor. The Type B unit on the street floor shall include provisions for living, sleeping, eating, cooking and a complete toilet and bathing facility on that floor.

Exceptions:

1. Structures with fewer than four dwelling units.
2. The number of Type B units shall be permitted to be reduced in accordance with Section R322.4.

Chapter 3 Building Planning

(NEW) (Add) **R322.4 General exceptions.** Where permitted by Sections R322.2 and R322.3, the required number of Type B units shall be permitted to be reduced in accordance with Sections R322.4.1 and R322.4.2.

(NEW) (Add) **R322.4.1 Site impracticality.** On a site with multiple buildings, the number of units required by Sections R322.2 and R322.3 to be Type B units shall be permitted to be reduced to a percentage which is equal to the percentage of the entire site having grades, prior to development, which are less than 10 per cent, provided that not less than 20 per cent of the Type B units required by Sections R322.2 and R322.3 on the site are provided.

(NEW) (Add) **R322.4.2 Design flood elevation.** The required number of Type B units shall not apply to a site where the lowest floor is required to be at or above the design flood elevation resulting in:

1. A difference in elevation between the minimum required floor elevation at the primary entrance and the closest vehicular and pedestrian arrival points, and
2. A slope exceeding 10 per cent between the minimum required floor elevation at the primary entrance and the closest vehicular and pedestrian arrival points.

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(NEW) (Add) **R322.5 Accessible route.** At least one accessible route shall connect accessible building or facility entrances with the primary entrance of each Type B unit within the building or complex and with those exterior and interior facilities that serve the units.

Exception: If the slope of the finished ground level between accessible facilities and buildings exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers prevent the installation of an accessible route, a vehicular route with parking that complies with Section 1106 of the 2003 International Building Code portion of the 2005 State Building Code at each public or common use facility or building is permitted in place of the accessible route.

(NEW) (Add) **R322.6 Parking.** Two per cent, but not less than one, of each type of parking space provided in occupancies which are required to have Type B dwelling units shall be accessible. For each six or fraction of six accessible parking spaces, at least one shall be a van-accessible parking space.

Chapter 4 Foundations

R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations or other approved structural systems which shall be of sufficient design to accommodate all loads according to section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil.

Exception: Freestanding accessory structures with an area of 600 sq. ft. or less and an eave height of 10 ft. or less.

Footings and freestanding accessory structures as exempted above shall be supported on undisturbed natural soils or engineered fill.

Chapter 4 Foundations

R405.3 Above grade drainage. Above grade drainage systems, including but not limited to gutters and downspouts, roof drains, yard drains, etc. shall not be connected to the foundation drainage system of concrete, masonry or wood foundations.

Chapter 8 Roof-Ceiling Construction

R806.4 Conditioned attic assemblies.
 Unvented conditioned attic assemblies (spaces between the ceiling joist of the top story and the roof rafters) are permitted when conditions 1 through 3 are met. Such attics shall not be required to be provided with a conditioned air supply or a source of heat.

1) No interior vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly.

Chapter 8 Roof-Ceiling Construction

2) An air-impermeable insulation is applied in direct contact to the underside/interior of the structural roof deck. "Air-impermeable" shall be defined by ASTM E 283-04

3) Sufficient insulation is installed to maintain the monthly average temperature of the condensing surface above 45 degrees F (7 degrees C). The condensing surface is defined as either the structural roof deck or the interior surface of an air-impermeable insulation applied in direct contact with the underside/interior of the structural roof deck. "Air-impermeable" shall be defined by ASTM E 283-04.

Chapter 8 Roof-Ceiling Construction

For calculation purposes, an interior temperature of 68 degrees F (20 degrees C) is assumed. The exterior temperature is assumed to be the monthly average outside temperature.

Chapter 11 Energy Efficiency

N1101.2.1 Detached one- and two-family dwellings. Compliance shall be demonstrated by either:

- 1) Meeting the requirements of this chapter for buildings with a glazing area that does not exceed 15 per cent of the gross area of those exterior walls that comprise a portion of the thermal envelope; or
- 2) Meeting the requirements of the [2006 International Energy Conservation Code](#).

Chapter 11 Energy Efficiency

N1105.1 Swimming pools. Swimming pools shall be equipped with energy saving measures in accordance with section 507.7 of the [2006 International Energy Conservation Code](#) portion of the [2005 State Building Code](#).

Chapter 17 Combustion Air

M1703.6 Mechanical combustion air supply. Mechanical combustion air supply systems shall comply with manufacture's installation instructions for both the fuel-burning appliance and the combustion air supply system.

Chapter 24 Fuel Gas

G2411.1.1 Corrugated stainless steel tubing (CSST). CSST gas tubing shall be bonded in accordance with manufacture's installation instructions

Chapter 24 Fuel Gas

G2415.1 Prohibited locations. Piping shall not be installed in or through a circulating air duct, clothes chute, chimney or gas vent, ventilating duct, dumbwaiter or elevator shaft. Piping installed downstream of the point of delivery shall not extend through any townhouse unit, including basements and under floor spaces, other than the unit served by such piping.

Chapter 29 Water Supply and Distribution

P2904.9.1.3 PVC plastic pipe. A purple primer complying with ASTM F 656-96a shall be applied to all PVC solvent cemented joints. Solvent cement that is not purple in color for PVC plastic pipe conforming to ASTM D 2564-96a shall be applied to all joint surfaces.

Chapter 35 Services

E3509.7.1 Corrugated stainless steel tubing (CSST). CSST gas piping shall be bonded in accordance with manufacture's installation instructions.

Appendix G Swimming Pools, Spas and Hot Tubes

AG102.1.1 Definitions.
Residential. That which is situated on the premises of a detached one- or two-family dwelling or which is accessory to an individual one-family townhouse for the exclusive use of its residents and invited guests.

Appendix G Swimming Pools, Spas, and Hot Tubes

AG 106.2 Suction fittings. All pool and spa suction outlets shall be provided with a cover that conforms with ASME/ANSI A112.19.8M-2007 or an approved channel drain system.
Exception: Surface skimmers

**Appendix G Swimming Pools,
Spas and Hot Tubes**

AG 106.2.1 Fitting maintenance. Any pool, spa or hot tube with a broken, loose or missing suction outlet cover shall be immediately placed out of service until repairs are completed and approved.

**Appendix G Swimming Pools,
Spas and Hot Tubes**

AG106.3 Atmospheric vacuum relief system required. All pool and spa single or multiple outlet circulation systems other than pools equipped only with surface skimmers shall be equipped with atmospheric vacuum relief. Such vacuum relief systems shall include at least one approved or engineered method of the type specified herein as follows:
1) Safety vacuum release system conforming to ASME A112.19.17 or
2) An approved gravity drainage system operating through a surge tank.

**Appendix G Swimming Pools,
Spas, and Hot Tubes**

AG106.4 Dual drain separation. Single or multiple pump circulation systems shall be provided with a minimum of two (2) suction outlets of the approved type. A minimum horizontal or vertical distance of three (3) feet shall separate such outlets. The separation distance shall be measured from near point of opening to near point of opening. These suction outlets shall be piped so that water is drawn through them simultaneously, distributed as evenly as possible, through a vacuum relief protected line to the pump or pumps.

Questions??

CT Department of Public Safety
**Division of Fire, Emergency
and Building Services**

- Office of the State Building Inspector
– (860) 685 - 8310
- Office of the State Fire Marshal
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<http://www.ct.gov/dps/> Thank-you !


