# **The Connecticut General Assembly**

# **Legislative Commissioners' Office**

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# Memorandum

To: Senator Paul Doyle

Representative Christie Carpino

Senator Kevin Kelly

Representative Susan Johnson

From: Shannon McCarthy and Christopher J. Cordima

**Date:** July 17, 2018

Subject: Proposed 2018 Connecticut State Building Code Resubmittal

The **2018** Connecticut State Building Code was rejected without prejudice at the committee's meeting on May 22, 2018. The resubmittal addresses the substantive concerns and technical corrections noted in the May 22, 2018 report, except as noted below. There are additional technical corrections, noted below.

Attached are the pages noted in the table below from the proposed **2018 Connecticut State Building Code.** You will find handwritten comments on the pages of the proposed code referenced that make recommendations for technical corrections.

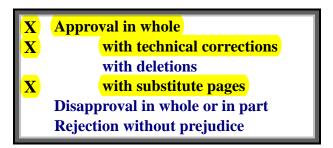
In addition to the resubmitted **2018 Connecticut State Building Code**, the agency has provided a written explanation, for the committee's consideration, of any change the agency did not make in response to the May 22, 2018 LCO memorandum, including any item listed in the additional comment section of said memo.

# **Substantive Concerns:**

# **Additional Comments:**

LCO Comments/Corrections	Page Numbers of the Code
Inconsistent reference to CT State Codes (inconsistent use of Connecticut and 2018, respectively)	6, 13, 30, 88, 89, 97, 131
Inconsistent phrasing of deleted provisions	4, 13, 15, 32, 49, 76, 79, 80, 88, 90, 92, 97-99, 105, 107, 108, 114, 117, 121, 123, 127, 129, 133-135, 157, 159-161
Additional Technical corrections	1, 7, 9, 15, 26, 33, 40, 48, 50, 53, 54, 58, 64, 76 91, 93, 99, 101, 149, 150, 153, 162, 163

# **Recommendation:**



# **Statutes referenced in this memo:**

**Sec. 29-252b. Procedure for adoption and amendment of State Building Code.** (a) For the purposes of this section, "proposed code" means a proposal by the State Building Inspector and the Codes and Standards Committee for a new State Building Code or for a change in, addition to or repeal of any provision of the State Building Code.

- (b) Notwithstanding the provisions of chapter 54, the adoption of the State Building Code and any amendments thereto shall not be required to comply with the provisions of chapter 54, except as provided in this section.
- (c) Prior to the adoption of the State Building Code and any amendments thereto, the State Building Inspector shall (1) post any proposed code, a statement of purpose for which the proposed code is proposed, a fiscal note associated with compliance with the proposed code prepared pursuant to section 4-168, and a regulatory flexibility analysis prepared pursuant to section 4-168a on the Internet web site of the Department of Administrative Services, (2) give notice electronically to the joint standing committee of the General Assembly having cognizance of matters relating to public safety and security, (3) give notice to any person who has requested the State Building Inspector for advance notice of its proposed code adoption proceedings, (4) provide for a public comment period of forty-five days following the posting of such proposed code, fiscal note and regulatory flexibility analysis, and (5) hold a public hearing on the proposed code not less than twenty nor more than thirty-five days after such posting.
- (d) After the close of the public comment period, the State Building Inspector and the Codes and Standards Committee shall respond to each written and oral comment respecting the proposed code received during the public comment period and at the public hearing. Such response shall include any change made to the proposed code if applicable, and the rationale for such change. The State Building Inspector shall post such response on the Internet web site of the Department of Administrative Services not later than thirty days after the close of the public comment period.
- (e) The State Building Inspector and the Codes and Standards Committee shall create and maintain a code-making record for each proposed code, submit such code-making record electronically to the standing legislative regulation review committee and the joint standing committee of the General Assembly having cognizance of matters relating to public safety and security, and post such code-making record on the Internet web site of the Department of Administrative Services. Such code-making record shall include, but need not be limited to: (1) The final wording of the proposed code in a format consistent with a nationally recognized model building code, (2) the fiscal note prepared pursuant to subsection (c) of this section, (3) the regulatory flexibility analysis prepared pursuant to subsection (c) of this section, (4) all written and oral comments received during the public comment period, and (5) the response to such comments prepared pursuant to subsection (d) of this section.

- (f) The standing legislative regulation review committee shall have not more than forty-five days from the date the code-making record is submitted to the committee pursuant to subsection (e) of this section to convene a meeting to approve, disapprove or reject without prejudice the proposed code, in whole or in part. If the proposed code is withdrawn, the State Building Inspector shall resubmit the proposed code and the committee shall have not more than forty-five days from the date of such resubmittal to convene a meeting to approve, disapprove or reject without prejudice the resubmitted proposed code. If the committee notifies the State Building Inspector in writing that it is waiving its right to convene a meeting or does not act on a proposed code or a resubmitted proposed code, as the case may be, within such forty-five-day period, the proposed code or resubmitted proposed code shall be deemed to be approved by the committee.
- (g) If the committee disapproves a proposed code, in whole or in part, the committee shall notify the State Building Inspector of the disapproval and the reasons for the disapproval. The State Building Inspector shall not take any action to implement such disapproved code, except that the State Building Inspector may submit a substantively new proposed code in accordance with the provisions of this section, provided the General Assembly may reverse such disapproval in accordance with the provisions of section 4-171.
- (h) If the committee rejects a proposed code without prejudice, in whole or in part, the committee shall notify the State Building Inspector of the reasons for the rejection and the State Building Inspector shall resubmit the proposed code in revised form to the committee not later than thirty days after the date of rejection without prejudice. Each resubmission of the proposed code under this subsection shall include a summary of any revisions to the proposed code. The committee shall have not more than forty-five days after the receipt of the resubmittal to review and take action on such resubmitted proposed code in the same manner as provided in subsection (f) of this section.
- (i) The State Building Code or any amendment thereto approved or deemed approved by the committee pursuant to subsection (f) of this section is effective and enforceable against any person or party upon its posting on the Internet web site of the Department of Administrative Services, except that: (1) If a later date is required by statute or specified in the code, the later date is the effective date, and (2) a code may not be effective before the effective date of the public act requiring or permitting the code. Such posting shall include a statement by the State Building Inspector certifying

that the electronic copy of the code is a true and accurate copy of the code approved or deemed approved in accordance with subsection (f) of this section. The electronic copy of the State Building Code posted on the Internet web site of the Department of Administrative Services shall be the official version for all purposes, including all legal and administrative proceedings.

- (j) No provision of the State Building Code or any amendment thereto adopted after May 31, 2016, is valid unless adopted in substantial compliance with the requirements of this section. A proceeding to contest any provision of the code on the ground of noncompliance with the requirements of this section shall be commenced within two years from the effective date of the code.
- (k) The State Building Inspector shall advise the public concerning how to obtain a copy of the State Building Code and any amendments thereto.

# INTRODUCTION

# Adopted and Referenced Publications

Pursuant to section 29-252 of the Connecticut General Statute the following national model codes, as amended herein, are adopted and shall be known as the 2018 Connecticut State Building

2015 International Building Code

2009 ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities

2015 International Existing Building Code

2015 International Plumbing Code

2015 International Mechanical Code

2015 International Energy Conservation Code

2017 NFPA 70, National Electrical Code, of the National Fire Protection Association Inc.

2015 International Residential Code of the International Code Council, Inc.

Copies of the International Codes may be obtained from the International Code Council, Inc., 4051 West Flossmoor Road., Country Club Hills, IL 60478-5795 (website: www.iccsafe.org).

Copies of the 2017 NFPA 70, National Electrical Code, may be obtained from the National Fire Protection Association Inc., 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02169-7471

Copies of the 2018 Connecticut State Building Code document may be downloaded from the

The requirements of the 2018 Connecticut State Building Code shall apply to all work for which a permit application was made on or after the date of adoption.

# As used in this document, these annotations have the following meaning:

Add: A section or subsection preceded by (Add) indicates the addition of this section or subsection to the adopted referenced standard.

Amd: A section or subsection preceded by (Amd) indicates the substitution of this section or subsection in the adopted referenced standard.

Del: A section or subsection preceded by (Del) indicates the deletion of this section or subsection from the adopted referenced standard.

Connecticut

Connecticut

(Add) 104.10.1 State Building Code. Pursuant to subsection (b) of section 29-254 of the Connecticut General Statutes, the State Building Inspector may grant modifications, variations or exemptions from, or approve equivalent or alternative compliance with, the State Building Code where strict compliance with the State Building Code would entail practical difficulty or unnecessary hardship, or is otherwise adjudged unwarranted, provided the intent of the law shall be observed and public welfare and safety be assured. Any person aggrieved by any decision of the State Building Inspector may appeal to the Codes and Standards Committee not later than 30 days after mailing of the decision.

(Add) **104.10.1.1 Action on application.** The application for modification, variation, exemption from or approval of equivalent or alternative compliance with the requirements of the State Building Code shall be made on a form supplied by the State Building Inspector, which shall be submitted by the applicant to the *building official*. Pursuant to subsection (b) of section 29-254 of the Connecticut General Statutes, any such application received by a *building official* shall be forwarded to the State Building Inspector within 15 business days of receipt by such *building official*. The application shall include the *building official*'s comments on the merits of the application, and shall be signed by the *building official*.

Connecticut

(Add) **104.10.1.2 Records.** The application for modification, variation, exemption or approval of equivalent or alternative compliance and the decision of the State Building Inspector shall be in writing and shall be officially recorded with the application for a building *permit* in the permanent records of the building department.

(Add) 104.10.2 Accessibility exemption. Pursuant to subsection (b) of section 29-269 of the Connecticut General Statutes, any variation of or exemption from any provisions relating to accessibility to, use of and egress from, *buildings* and structures as required herein shall be permitted only when approved by the State Building Inspector. Pursuant to subsection (b) of section 29-269 of the Connecticut General Statutes, any person aggrieved by the decision of the State Building Inspector may appeal to the Codes and Standards Committee within 30 days after such decision has been rendered.

(Add) **104.10.3 Historic structures exemption.** Pursuant to section 29-259 of the Connecticut General Statutes, exemptions may be granted to the provisions of this code for historic structures as defined by section 10-410 of the Connecticut General Statutes, which have been classified as such in the State Register of Historic Places as long as the provisions of subsection (b) of section 29-259 of the Connecticut General Statutes are adhered to and provided that such exemptions shall not affect the safe design, use or construction of such property.

(Add) **104.10.4 Urban homesteading property exemption.** Pursuant to section 29-259 of the Connecticut General Statutes, exemptions may be granted to the provisions of this code for property acquired by an urban homesteading agency, pursuant to section 8-169r of the Connecticut General Statutes, and transferred to a qualified applicant pursuant to section 8-169s of the Connecticut General Statutes, provided such exemptions shall not affect the safe design, use or construction of such property. Exemptions shall be granted in accordance with Section 104.10.1 of this code.

(Add) **104.10.5** Elevators and escalators. Pursuant to section 29-192 of the Connecticut General Statutes, the State Building Inspector may approve variations or exemptions from, or equivalent or alternate compliance with regulations governing elevators and escalators where strict compliance with such provisions would cause practical difficulty or unnecessary hardship. Any person aggrieved by the decision of the State Building Inspector may appeal to the Commissioner of Administrative Services or such commissioner's designee not later than 30 days after notice of such decision has been rendered.

(Add) **104.10.6 Lift and limited use/limited application elevator approval.** Lifts and limited use, limited access elevators shall not be part of a required *accessible* path unless approved in accordance with the provisions of Section 1109.8 of this code.

(Amd) **105.1 Required.** Any *owner* or *owner*'s 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 performed, shall first make application to the *building official* and obtain the required *permit*.

(Add) 105.1.3 Connecticut State Fire Safety Code abatement. Where conflicts exist between the requirements of this code and the requirements of a Connecticut State Fire Safety Code abatement order issued in writing by the local fire marshal with respect to an existing *building*, the requirements of that portion of the Connecticut State Fire Safety Code that regulates existing *buildings* shall take precedence.

# Exceptions:

- 1. New fire protection systems shall meet the requirements of Chapter 9 of this code.
- 2. Electrical work shall meet the requirements of the NFPA 70, National Electrical Code.
- 3. Structural, plumbing and mechanical work shall conform to the requirements of this code.

(Amd) **105.2 Work exempt from permit.** Exemption from the *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 or any other laws, statutes, regulations or ordinances of the *jurisdiction*. *Permits* shall not be required for the following:

### **Building:**

- 1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area is not greater than 200 square feet (18.58 m²).
- 2. Fences, other than swimming pool barriers, not over 7 feet (2134 mm) high.
- Oil derricks.
- Retaining walls that are not higher than 3 feet (914 mm) measured from finished grade at the bottom of the wall to finished grade at the top of the wall, unless supporting a surcharge or impounding Class I, II or III-A liquids.
- Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
- 6. Sidewalks, driveways and on-grade *concrete* or *masonry* patios not more than 30 inches (762 mm) above adjacent grade and not over any basement or *story* below and which are not part of an *accessible route*.
- 7. Painting, papering, tiling, carpeting, cabinets, countertops and similar finish work not involving structural changes or *alterations*.

### Plumbing:

- The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if
  any concealed trap, drain pipe, water, soil, waste or vent pipe becomes defective and it
  becomes necessary to remove and replace the same with new material, such work shall
  be considered new work and a permit shall be obtained and inspection made as provided
  in this code.
- 2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such *repairs* do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

(Add) **105.2.4 State agency exemptions.** Pursuant to section 29-252a of the Connecticut General Statutes, a state agency shall not be required to obtain a building *permit* from a local building official. A state agency shall obtain a building *permit* for construction work defined in section 29-252a of the Connecticut General Statutes from the State Building Inspector.

**Exception:** Pursuant to sections 29-401 to 29-415, inclusive, of the Connecticut General Statutes state agencies shall obtain demolition *permits* from the local *building official*.

(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*.

(Amd) **105.3.1 Action on application.** Pursuant to section 29-263 of the Connecticut General Statutes, the *building official* shall examine or cause to be examined applications for *permits* and amendments thereto within 30 days after filing and either issue or deny a *permit* within such 30-day period. If the application or *construction documents* do not conform to the requirements of this code and pertinent laws, the *building official* shall reject such application in writing, stating the reasons therefor. If the *building official* is satisfied that the proposed work conforms to the requirements of this code and applicable laws, the *building official* shall issue a *permit* therefor as soon as practicable. In order to meet the 30-day requirement set forth herein, *construction documents* shall be submitted by the applicant to both the *building official* and the local fire marshal, concurrently.

(Add) **105.3.1.1 Zoning approval.** Pursuant to subsection (f) of section 8-3 of the Connecticut General Statutes, no building *permit* shall be issued, in whole or in part, for a *building*, use or structure subject to the zoning regulations of a municipality without certification in writing by the official charged with the enforcement of such regulations that such *building*, use or structure is in conformity with such regulations or is a valid nonconforming use under such regulations.

(Add) **105.3.1.2** Fire marshal approval. Pursuant to section 29-163 of the Connecticut General Statutes, no building *permit* for a *building*, structure or use subject to the requirements of the Connecticut State Fire Safety Code shall be issued in whole or in part without certification in writing from the local fire marshal that the *construction documents* for such *building*, structure or use are in substantial compliance with the requirements of the Connecticut State Fire Safety Code.

(Amd) **108.1 General.** The *building official* may 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* may grant a single 180-day extension for demonstrated cause.

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

(Amd) 108.3 Temporary power. The building official is authorized to give permission to temporarily supply utilities before an installation has been fully completed and the final certificate of approval has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in this code and in NFPA 70, National Electrical Code, portion of the Connecticut State Building Code.

(Amd) 109.2 Schedule of permit fees. Each municipality shall establish a schedule of fees for each construction document review, building *permit*, certificate of approval and certificate of occupancy. A schedule of adopted fees shall be posted in the building department for public view.

(Del) 109.4 Work commencing before permit issuance. Delete without substitution.

(Add) 110.1.1 Posting of required inspections. A schedule of required inspections shall be compiled by the *building official*. The schedule shall be posted in the building department for public view.

(Add) 110.3.8.1 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.

(Add) 110.6.1 Notification of inspection results. Notification as to passage or failure, in whole or in part, of any required inspection shall be made in writing by the *building official* or his duly authorized representative and shall be left at the job *site* or delivered to the *permit* holder. It shall be the duty of the *permit* holder to ascertain the results of required inspections.

(Amd) 111.1 Use and occupancy. Pursuant to subsection (a) of section 29-265 of the Connecticut General Statutes, no building or structure erected or altered in any municipality after October 1, 1970, shall be occupied or used, in whole or in part, until a certificate of occupancy has been issued by the building official, certifying that such building or structure or work performed pursuant to the building permit substantially complies with the provisions of this code. Nothing in the code shall require the removal, alteration or abandonment of, or prevent the continuance of the use and occupancy of, any single-family dwelling but within six years of the date of occupancy of such dwelling after substantial completion of construction of, alteration to or addition to such dwelling, or of a building lawfully existing on October 1, 1945, except as may be necessary for the safety of life or property. The use of a building or premises shall not be deemed to have changed because of a temporary vacancy or change of ownership or tenancy.

### Exceptions:

- 1. Work for which a certificate of approval is issued in accordance with Section 111.6.
- A certificate of occupancy is not required for work exempt from permit requirements under Section 105.2.

(Add) 111.7 Prefabricated assemblies. A certificate of approval by an approved agency shall be furnished with every prefabricated assembly, including modular housing, except where all elements of the assembly are readily accessible for inspection at the site. Placement of prefabricated assemblies and the connections to public utilities and private water and septic systems at the building site, as well as any site-built or installed components or equipment, shall be inspected by the building official to determine compliance with this code. A final inspection shall be provided in accordance with Section 110.3.10.

(Del) **SECTION 113 - BOARD OF APPEALS**. Delete this section in its entirety and replace with the following:

### (Add) SECTION 113 - MEANS OF APPEAL.

(Add) 113.1 Appeal from decision of building official. Pursuant to subsection (b) of section 29-266 of the Connecticut General Statutes, when the building official rejects or refuses to approve the mode or manner of construction proposed to be followed or the materials to be used in the erection or alteration of a building or structure, or when it is claimed that the provisions of the code do not apply or that an equally good or more desirable form of construction can be employed in a specific case, or when it is claimed that the true intent and meaning of the code has been misconstrued or wrongly interpreted or when the building official issues a written order under subsection (c) of section 29-261 of the Connecticut General Statutes, the owner of such building or structure, whether already erected or to be erected, or his authorized agent may appeal in writing from the decision of the building official to the municipal board of appeals. A person, other than such owner, who claims to be aggrieved by any decision of the building official to the municipal board of appeals as provided by subsection (b) of section 29-266 of the Connecticut General Statutes.

(Add) 113.1.1 Absence of municipal board of appeals. In the absence of a municipal board of appeals, the provisions of subsection (c) of section 29-266 of the Connecticut General Statutes shall be followed.

(Add) 113.1.2 State Building Inspector review. Pursuant to subsection (d) of section 29-252 of the Connecticut General Statutes, the State Building Inspector or his designee shall review a decision by a local *building official* or municipal board of appeals, when he has reason to believe that such official or board has misconstrued or misinterpreted any provision of the State Building Code.

(Add) 113.2 Appointment of municipal board of appeals. Pursuant to subsection (a) of section 29-266 of the Connecticut General Statutes, a municipal board of appeals consisting of five members shall be appointed.

(Add) **113.2.1 Qualifications.** One member of the municipal board of appeals shall be appointed from the general public. The other four members shall have at least five years of experience each in building design, building construction or supervision of building construction.

(Add) 113.2.2 Chairperson. The board shall annually select one of its members to serve as chairperson.

(Add) 407.13 Small I-2 homes. Group I-2 homes that serve four to six persons who are incapable of self-preservation and comply with the specific requirements of Section 407.13.1 shall be permitted to utilize the alternate compliance for the required items listed in Section 407.13.2. Other applicable provisions of the code not addressed in Section 407.13.2 shall also apply.

(Add) 407.13.1 Specific requirements. Small Group I-2 homes shall comply with 407.13.1.1 through 407.13.1.11.

(Add) 407.13.1.1 Separation of sleeping area. The sleeping area and its hallway shall be separated from other habitable spaces such as living areas and kitchens by a smoke partition in accordance with Section 710 and the doorway to the sleeping area hallway from such spaces accordance with Section 710 and the doorway to the sleeping area hallway from such spaces shall have a minimum 20-minute fire resistance rating and be self-closing or automatic-closing.

(Add) **407.13.1.2 Sleeping room walls.** All client sleeping room walls separating the sleeping rooms from the hallways and other habitable or *occupiable spaces* of the *building* shall be constructed as smoke partitions in accordance with Section 710.

(Add) **407.13.1.3 Means of escape.** In addition to the *means of egress* requirements of Chapter 10, the following two requirements shall also be met:

1. All client sleeping rooms shall have an emergency escape and rescue opening in accordance with Section 1030.

 One door shall open directly to the exterior at the level of exit discharge from the sleeping area hallway or a client sleeping room.

(Add) **407.13.1.4 Size of doors.** The minimum width of all door openings shall provide a clear width of 34 inches (863 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad).

(Add) 407.13.1.5 Door latches. Every door latch to closets, storage areas, and other similar spaces or such areas shall be such that the clients can open the door from inside the space or area.

(Add) 407.13.1.6 Client sleeping room and bathroom doors. Client sleeping room and bathroom door locks shall be designed to allow the opening of the locked door from the outside by an opening device readily accessible by staff in an emergency.

(Add) 407.13.1.7 Fire alarm and detection systems. Fire alarm and detection systems shall be installed in accordance with Section 907.2.6.

(Add) **407.13.1.8 Detection.** Smoke detection shall be provided in all sleeping rooms, sleeping room hallways and common spaces except kitchens and bathrooms.

(Add) 407.13.1.9 Carbon monoxide detectors. Carbon monoxide detectors shall be provided in accordance with Section 915.

# CHAPTER 9 - FIRE PROTECTION SYSTEMS

(Amd) 903.1.1 Alternative protection. In any occupancy where the character of fuel for fire is such that extinguishment or control of fire is accomplished by a type of alternative automatic extinguishing system complying with Section 904, such system shall be permitted in lieu of an automatic sprinkler system, and shall be installed in accordance with the applicable standard and approved by the code official.

(Amd) 903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for *fire areas* containing Group A-2 occupancies and intervening floors of the *building* where one of the following conditions exists:

- 1. The fire area exceeds 5,000 square feet (464.5 m²).

  Exception: Existing restaurants in existing non-sprinkled 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 or where the *occupant load* exceeds 100 or more in the following assembly occupancies:
  - a. Dance halls
  - b. Discotheques
  - c. Nightclubs
  - d. Assembly occupancies with festival seating
- 3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

(Add) 903.2.3.1. Statutory requirements. An automatic sprinkler system shall be installed in Group E occupancies pursuant to Section 29-315 of the Connecticut General Statutes.

(Amd) **903.2.7 Group M**. An automatic sprinkler system shall be provided throughout *buildings* containing a Group M occupancy where one of the following conditions exists:

- 1. A Group M fire area exceeds 12,000 square feet (1115 m2).
- 2. A Group M fire area is located more than three stories above grade plane.
- 3. The combined area of all Group M *fire areas* on all floors, including any *mezzanines*, exceeds 24,000 square feet (2230 m2).
- 4. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m2).
- 5. Throughout stories below the *level of exit discharge* where such stories have an area exceeding 2,500 square feet (232 m2) and are used for the sale, storage or handling of combustible goods or merchandise.

Add of

(Amd) **907.1.1 Construction documents.** Construction documents for fire alarm systems shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and the 2018 Connecticut State Fire Safety Code as determined by the code official.

(Del) 907.2.7.1 Occupant notification. Delete section.

(Amd) **907.2.8.2 Automatic smoke detection system.** An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed throughout all interior *corridors* serving *sleeping units*.

# **Exceptions:**

- An automatic fire detection system is not required in buildings that do not have interior corridors serving sleeping units and where each sleeping unit has a means of egress door opening directly to an exit access that leads directly to an exit.
- 2. An automatic fire detection system is not required in *Group R-1 bed and breakfast* establishments (see Section 907.2.11.1.1.).

(Amd) 907.2.9.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-2 occupancies where:

- Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit discharge;
- 2. Any dwelling unit or sleeping unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit; or
- 3. The building contains more than 11 dwelling units or sleeping units.

# Exceptions:

- A fire alarm system is not required in buildings not more than two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, egress exit, court or yard.
- 2. Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler water flow.
- 3. A fire alarm system is not required in *buildings* that do not have interior *corridors* serving *dwelling units* or *sleeping units* and are protected by an *approved* automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that *dwelling units* or *sleeping units* either have a *means of egress* door opening directly to an exterior *exit access* that leads directly to the *exits* or are served by openended *corridors* designed in accordance with Section 1026.6, Exception 4.

(Add) **907.2.11.1.1 Group R-1 bed and breakfast establishments.** An approved household fire warning system in accordance with the requirements of NFPA 72, consisting of a control unit with smoke detectors, a manual fire alarm box on each floor and occupant notification shall be installed in all *Group R-1 bed and breakfast establishments*. A heat detector shall be installed in the kitchen.

italicize & remove hyphen

4. Changes in room floor elevations of three or fewer risers within dwelling units and sleeping units in Group R-1 bed-and-breakfast establishments and Groups R-2 and R-3 occupancies do not require handrails.

(Add) **1013.1.1 Accessible exits.** Where *exit* signs are required by Section 1013.1 of this code, *accessible 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 (152 mm) 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 1013.

(Amd) **1013.2 Floor-level exit signs**. Where *exit* signs are required from a room or space in Group R-1 occupancies, Group l-2 occupancies, and Group R-2 occupancies by Section 1013.1, additional low-level *exit* signs shall be provided at doors within *exit access corridors* serving *guest rooms* in Group R-1 occupancies, patient and client sleeping areas of Group l-2 occupancies and sleeping areas and *dwelling units* in Group R-2 occupancies and shall comply with Section 1013.5.

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 on the same plane as the door. 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.

Exception: Group R-1 bed and breakfast establishments.

(Amd) **1014.9 Intermediate handrails.** Stairways shall have intermediate handrails located in such a manner that all portions of the stairway width exceeding 75 inches (1905 mm) required for egress capacity are within 30 inches (762 mm) of a handrail. On monumental stairs, handrails shall be located along the most direct path of egress travel.

(Amd) **1015.3 Height.** Required *guards* shall not be less than 42 inches (1067 mm) high, measured vertically as follows:

- 1. From the adjacent walking surfaces.
- 2. On *stairways* and stepped aisles, from the line connecting the leading edges of the tread *nosings*.
- 3. On ramps and ramped aisles, 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 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-1 bed and breakfast establishments*, 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.

(Add) 1105.2 Automatic entrances. Where controls for automatic doors are provided they shall be in accessible location within 10 feet of the entrance.

(Add) 1105.2.1 Primary entrances. Pursuant to section 29-270a of the Connecticut General Statutes, at least one primary entrance to any covered mall building, anchor store or retail business (Group M) with more than 50,000 square feet of floor space shall be equipped with an automatically operating door or doors in sequence, installed in accordance with applicable provisions of this code.

**Exception:** Nothing in this section shall require the installation of an automatically operating door in a primary entrance which is open and unobstructed by any door during the hours the retail business is open to the public.

(Add) 1106.1.1 Automobile accessible parking spaces. Pursuant to subsection (h) of section 14-253a of the Connecticut General Statutes, parking spaces for passenger motor vehicles designated for persons who are blind and persons with disabilities shall be as near as possible to a building entrance or walkway and shall be 15 feet wide including 5 feet of cross hatch.

(Amd) 1106.2 Groups I-1, R-1, R-2, R-3 and R-4. Accessible parking spaces shall be provided in Group I-1, R-1, R-2, R-3 and R-4 occupancies in accordance with Items 1 through 4 as applicable.

- In Group R-2, R-3 and R-4 occupancies that are required to have Accessible, Type A or Type B dwelling units or sleeping units, at least two percent, but not less than one, of each type of parking space shall be accessible.
- 2. In Group I-1 and R-1 occupancies, accessible parking shall be provided in accordance with Table 1106.1.
- 3. Where at least one parking space is provided for each dwelling unit or sleeping unit, at least one accessible parking space shall be provided for each Accessible and Type A unit.
- 4. Where parking is provided within or beneath a building, accessible parking spaces shall also be provided within or beneath the building.

**Exception:** Private parking garages within or beneath the *building* that contain no more than two parking spaces, that are reserved for the exclusive use of a specific *dwelling unit* and are directly accessed from that *dwelling unit* are not required to be *accessible*.

(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.

**Exception:** In Group R-2 and R-3 occupancies, van-accessible spaces located within *private* garages shall be permitted to have vehicular routes, entrances, parking spaces and access aisles with a minimum vertical clearance of 7 feet.

(Add) 1106.5.1 Van accessible parking spaces. Pursuant to subsection (h) of section 14-253a of the Connecticut General Statutes, parking spaces for passenger vans designated for persons who are blind and persons with disabilities shall be as near as possible to a *building* entrance or walkway and shall be 16 feet wide including 8 feet of cross hatch.

(Add) 1106.5.1.1 Van access clearance. Pursuant to subsection (i) of section 14-253a of the Connecticut General Statutes, each public parking garage or terminal shall have 8 feet 2 inches vertical clearance at a primary entrance and along the route to at least two parking spaces for passenger vans that conform to Section 1106.5.1 and that have 8 feet 2 inches of vertical clearance.

p109.8.1 Limited-use/limited-application elevators. Limited-use/limited-application for shall be permitted to be installed in new construction in the same locations specified in accordance with the limited-use/limited-application elevators shall be installed in accordance with the application Safety Code for Elevators and Escalators, adopted under authority of section 29-192 in Connecticut General Statutes and with provisions of this code adopted under authority of ection 29-200 of the Connecticut General Statutes.

(Add) 1109.16 Automated teller machines. Where automated teller machines are provided for pedestrian use at any site, at least one location and one automated teller machine shall be accessible.

(Amd) 1111.1 Signs. Required accessible elements shall be identified by the International Symbol of Accessibility at the following locations:

1. Accessible parking spaces as required by Section 1106. Pursuant to subsection (h) of section 14-253a of the Connecticut General Statutes, such spaces shall be designated by above-grade signs with white lettering against a blue background and shall bear the words "RESERVED parking permit required" and "violators will be fined" in addition to the International Symbol of Accessibility. When such a sign is replaced, repaired or erected, it shall indicate the minimum fine for a violation of subsection (l) of section 14-253a of the Connecticut General Statutes. Such indicator may be in the form of a notice affixed to such sign. Newly installed signs shall be 60 inches (1525 mm) minimum above the floor or ground of the parking space, measured to the bottom of the sign.

2. Accessible passenger loading zones.

- 3. Accessible rooms where multiple single-user toilet or bathing rooms are clustered at a single location.
- 4. Accessible entrances where not all entrances are accessible.
- Accessible check-out aisles where not all aisles are accessible. The sign, where provided, shall be above the check-out aisle in the same location as the check-out aisle number or type of check-out identification.
- 6. Family or assisted-use toilet and bathing rooms and single occupancy toilet rooms.
- 7. Accessible dressing, fitting and locker rooms where not all such rooms are accessible.
- 8. Accessible areas of refuge required by Section 1009.9.
- 9. Exterior areas for assisted rescue in accordance with Section 1009.9.
- In recreational facilities, lockers that are required to be accessible in accordance with Section 1109.9.
- 11. Accessible portable toilet and bathing units.
- 12. Accessible means of egress stairways.
- 13. Accessible grade level exits required by Section 1013.1.1.

(Add) 1111.5 Interior signage. Interior signs, when provided, that designate permanent rooms and spaces shall be raised text characters and Braille, designed and located in accordance with ICC/ANSI A117.1. Mounting location for signage shall be such that any person approaching the signage will not encounter protruding objects, or stand within the swing of any door.



- (Del) Figure 1613.1(2). Delete figure.
- (Del) Figure 1613.1(3). Delete figure.
- (Del) Figure 1613.1(4). Delete figure.
- (Del) Figure 1613.1(5). Delete figure.
- (Del) Figure 1613.1(6). Delete figure.
- (Del) Figure 1613.1(7). Delete figure.
- (Del) Figure 1613.1(8). Delete figure.

# **CHAPTER 17 - SPECIAL INSPECTIONS AND TESTS**

(Amd) **1704.2 Special inspections and tests**. Where application is made to the *building official* for construction as specified in Section 105, the *owner* or the *owner*'s authorized agent, other than the contractor, shall employ one or more *approved agencies* to provide *special inspections* and tests during construction on the types of work specified in Section 1705 and identify the *approved agencies* to the *building official*. These *special inspections* and tests are in addition to the inspections by the *building official* that are identified in Section 110.

### **Exceptions:**

- 1. Special inspections and tests are not required for construction of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official.
- 2. Unless otherwise required by the *building official*, *special inspections* and tests are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.
- Special inspections and tests are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 2308.
- 4. The contractor is permitted to employ the *approved agencies* where the contractor is also the *owner*.
- 5. The contractor is permitted to employ the approved agencies for the verification of the temporary installation restraint/bracing required for cold-formed steel trusses in Section 1705.2.4 and metal-plate connected wood trusses in Section 1705.5.2.

(Amd) 1704.2.4 Report requirement. Special inspectors shall keep records of inspections. The special inspector shall furnish inspections reports to the building official and to the registered design professional in responsible charge. Reports shall indicate that work inspected was or was not completed in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of the work. A final report of inspections documenting completion of all required special inspections and correction of any discrepancies noted in the inspections shall be submitted prior to the issuance of the certificate of official coupancy. Interim reports shall be submitted periodically at the frequency agreed upon by the permit applicant and the building official prior to the start of work.

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(Amd) **1704.2.5.1 Fabricator approval.** Special inspections required by Section 1705 shall be permitted to be reduced or eliminated when approved by the registered design professional in responsible charge where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. Approved fabricators shall include:

- 1. A fabricator of structural steel certified by the American Institute of Steel Construction Inc.'s Certification Program for Structural Steel Fabricators, Standard for Steel Building Structures.
- 2. A manufacturer of metal building systems accredited by the ICC International Accreditation Service (IAS) in accordance with accreditation criteria IAC-AC-472.
- 3. A manufacturer of K-, LH-, or DLH-Series Joist or Joist Girders who is a member of the Steel Joist Institute and has completed the Institute's examination of complete engineering design details and calculations of joists, bridging and accessories for which standards have been adopted; data obtained from physical tests of joists to verify conclusions from analysis of the applicant company's engineering design, details and calculations; an initial plant inspection and subsequent periodic inspections are required to ensure that the applicant/member company possesses the facilities, equipment and personnel required to properly fabricate joists.

and

provided

- 4. A fabricator of precast *concrete* certified by the Precast/Prestressed Concrete Institute's Plant Certification Program, commercial category.
- 5. A fabricator of cold-formed steel trusses certified by the Truss Plate Institute's Quality Assurance Program.
- 6. A fabricator of wood trusses certified by the Truss Plate Institute's Quality Assurance Program.
- 7. A fabricator of structural timber components and assemblies certified by the American Institute of Timber Construction's AITC 115 Standard for Fabricated Structural Glued Laminated Timber Components and Assemblies.

At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents.

(Amd) **1704.6.2 Structural observations for wind requirements.** Structural observations shall be provided for those structures sited where  $V_{asd}$  as determined in accordance with Appendix N exceeds 110 mph (49 m/sec), where one or more of the following conditions exist:

- 1. The structure is classified as Risk category III or IV in accordance with Table 1604.5.
- 2. The building height of the structure is greater than 75 feet (22,860 mm).
- 3. When so designated by the *registered design professional* responsible for the structural design.
- 4. When such observation is specifically required by the building official.

Amd) **1809.5 Frost protection**. Except where otherwise protected from frost, foundations 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. Constructing in accordance with ASCE 32; or
- Erecting on solid rock.

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

- 1. Assigned to Risk category I, in accordance with Section 1604.5;
- Area of 600 square feet (56 m²) or less for light frame construction or 400 square feet (37 m²) or less for other than light-frame construction; and
- 3. Eave height of 10 feet (3048 mm) or less.

Shallow foundations shall not bear or be installed on frozen soil.

### **CHAPTER 22 - STEEL**

(Amd) 2211.3.3 Trusses spanning 60 feet or greater. The owner, the owner's authorized agent or the contractor, shall contract with a qualified registered design professional for the design of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing for all trusses with clear spans 60 feet (18 288 mm) or greater.

( See p. 57)

# **CHAPTER 23 -- WOOD**

(Add) **2303.1.1.3 Ungraded lumber.** Pursuant to section 29-256b of the Connecticut General Statutes, the use of ungraded lumber shall be allowed in Group U Utility and Miscellaneous structures in accordance with Section 312.

(Amd) 2303.4.1.3 Trusses spanning 60 feet or greater. The owner, the owner's authorized agent or the contractor, shall contract with a qualified registered design professional for the design of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing for all trusses with clear spans 60 feet (18,288 mm) or greater.

# **CHAPTER 24 – GLASS AND GLAZING**

(Amd) **2407.1.2 Support.** Each *handrail* or *guard* shall be supported by a minimum of three glass balusters or shall be otherwise supported to remain in place should one baluster panel fail. Glass balusters shall not be installed without an attached *handrail* or *guard*.

## CHAPTER 27 - ELECTRICAL

(Add) **2702.2.17 Electric fire pumps.** *Buildings* provided with standby electrical power for the purpose of continuing operations or occupancy shall provide standby power in accordance with Article 701 of the National Electrical Code for any electric fire pump installed to provide an adequate water supply or minimum operating pressure to a required automatic sprinkler system.

(Amd) **2702.4 Maintenance.** Emergency and *standby power systems* shall be maintained and tested in accordance with the Connecticut State Fire Prevention Code.

(Add) **3103.5.11 Seating arrangements.** Seating in *tents* and membrane structures shall be in accordance with Chapter 10.

(Add) 3103.5.12 Means of egress. Means of egress for temporary tents and membrane structures shall be in accordance with Sections 3103.12.1 to 3103.12.8, inclusive.

(Add) **3103.5.12.1 Distribution.** *Exits* shall be spaced at approximately equal intervals around the perimeter of the *tent* or membrane structure, and shall be located such that all points are 100 feet (30,480 mm) or less from an *exit*.

(Add) **3103.5.12.2 Number.** Tents, or membrane structures or a usable portion thereof shall have at least one exit and not less than the number of exits required by Table 3103.12.2. The total width of means of egress in inches (mm) shall not be less than the total occupant load served by a means of egress multiplied by 0.2 inches (5mm) per person.

(Add)

TABLE 3103.12.2

MINIMUM NUMBER OF MEANS OF EGRESS AND MEANS OF

EGRESS WIDTHS FROM TEMPORARY MEMBRANE STRUCTURES AND TENTS

Occupant load	Minimum Number	Minimum Width of Each Means of Egress					
	of Means of Egress	Tents	Membrane Structures				
10 to 199	2	72	36				
200 to 499	3	72	72				
500 to 999	4	96	72				
1,000 to 1,999	5	120	96				
2,000 to 2,999	6	120	96				
Over 3,000 <sup>a</sup>	7	120	96				

a. When the occupant load exceeds 3,000, the total width of means of egress (in inches) shall not be less than the total occupant load multiplied by 0.2 inches per person.

(Add) **3103.5.12.3 Exit openings from tents.** *Exit* openings from *tents* shall remain open unless covered by a flame-resistant curtain. The curtain shall comply with the following requirements:

- 1. Curtains shall be free sliding on a metal support. The support shall be a minimum of 80 inches (2032 mm) above the floor level at the *exit*. The curtains shall be arranged so that, when open, no part of the curtain obstructs the *exit*.
- 2. Curtains shall be of a color, or colors, that contrasts with the color of the tent.

(Add) **3103.5.12.4 Doors.** Exit doors shall swing in the direction of exit travel. To avoid hazardous air and pressure loss in air-supported membrane structures, such doors shall be automatic closing against operating pressures. Opening force at the door edge shall not exceed 15 pounds (67 N).

(Add) 3103.5.12.5 Aisle. The width of aisles without fixed seating shall be in accordance with the following:

- 1. In areas serving employees only, the minimum width shall be 24 inches (610 mm) or not less than the width required by the number of employees served.
- In public areas, smooth-surfaced, unobstructed aisles having a minimum width of not less than 44 inches (1118 mm) shall be provided from seating areas, and aisles shall be progressively increased in width to provide, at all points, not less than 1 foot (305 mm) of aisle width for each 50 persons served by such aisle at that point.

# AMENDMENTS TO ICC/ANSI A117.1 - 2009

# delete

(Amd) 105.2.5 Safety Code for Elevators and Escalators: ASME A17/1-2013 (American Society of Mechanical Engineers International, Two Park Avenue, New York/, NY 10016-5990).

(Amd) **105.2.6 Safety Standard for Platform Lifts and Stairway Chairlifts:** ASME A18.1-2008 (American Society of Mechanical Engineers International, Two Park Avenue, New York, NY 10016-5990).

(Amd) **502.2 Vehicle space size.** Pursuant to section 14-253a of the Connecticut General Statutes, car parking spaces shall be 15 feet in width including 5 feet of cross hatch. Van parking spaces shall be 16 feet in width including 8 feet of cross hatch.

- (Del) Fig. 502.2 Vehicle parking space size. Delete figure without substitution.
- (Del) Fig. 502.4 Parking space access aisle. Delete figure without substitution.

(Amd) **502.4.1 Location.** Access aisles (cross hatch) shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle. If a car and a van space share a common access aisle, that aisle shall be 96 inches minimum in width. Access aisles shall not overlap with the *vehicular way*. Parking spaces may have access aisles placed on either side of the car or van parking space. Van parking spaces that are angled shall have access aisles located on the passenger side of the parking space.

(Amd) **502.4.2 Width.** Access aisles (cross hatch) serving car parking spaces shall be 60 inches (1525 mm) minimum in width. Access aisles serving van parking spaces shall be 96 inches (2440 mm) minimum in width.

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(Amd) **502.6 Vertical clearance.** Vertical clearance for *accessible* van parking spaces shall be in accordance with Section 1106.5 and 1106.5.1.1 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code.

(Amd) **502.7 Identification.** Accessible parking spaces shall be identified by above grade signs in accordance with Section 1111.1 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code.

- (Del) **504 Stairways**. Delete section in its entirety.
- (Del) 505 Handralls. Delete section in its entirety and replace with the following:
- (Add) 505 Handrails.
- (Add) **505.1 General.** Handrails shall be provided in accordance with Section 1014 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code.

# AMENDMENTS TO THE 2015 INTERNATIONAL PLUMBING CODE

# CHAPTER 1 - SCOPE AND ADMINISTRATION

(Amd) **101.1 Title.** The 2015 International Plumbing Code and this Section shall be known as the 2015 International Plumbing Code portion of the 2018 Connecticut State Building Code, hereinafter referred to as "the code" or "this code".

(Amd) **101.2 Scope.** The provisions of this code shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing systems within the State of Connecticut. This code shall also regulate nonflammable medical gas, inhalation anesthetic, vacuum piping, nonmedical oxygen systems and sanitary and condensate vacuum collection systems. The installation of fuel gas distribution piping and equipment, fuel gas-fired water heaters and water heater venting systems shall be regulated in accordance with Section 101.2.1. The provisions of appendices B, C, D and E shall be considered part of this code.

**Exception:** Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the 2015 International Residential Code portion of the 2018 Connecticut State Building Code.

(Add) 101.2.1 Gas. The International Fuel Gas Code is not adopted by the State of Connecticut. Any references to the International Fuel Gas Code within the body of this code shall be considered references to requirements of NFPA 2, Hydrogen Technologies Code, NFPA 54, National Fuel Gas Code and NFPA 58, Liquefied Petroleum Gas Code, as adopted in the Connecticut State Fire Safety and the Connecticut State Fire Prevention Codes. These Connecticut State Fire Safety and the Connecticut State Fire Prevention of the requirements apply to liquid petroleum storage systems, gas piping systems extending from the requirements apply to the inlet connections of appliances, the installation and operation of residential and commercial gas appliances and related accessories as covered by this code.

(Add) 101.2.2 Electrical. The provisions of the 2017 NFPA 70, National Electrical Code, shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

(Amd) **102.6 Historic buildings.** Pursuant to section 29-259 of the Connecticut General Statutes, exemptions may be granted to the provisions of this code for historic structures, as defined by section 10-410 of the Connecticut General Statutes, which have been classified as such in the State Register of Historic Places, as long as the provisions of subsection (b) of section 29-259 of the Connecticut General Statutes are adhered to and provided such exemptions shall not affect the safe design, use or construction of such property.

(Del) **SECTION 103 – DEPARTMENT OF PLUMBING INSPECTION.** Delete in its entirety and refer to Section 103 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code – Enforcement Agency.

(Del) **SECTION 104 – DUTIES AND POWERS OF CODE OFFICIAL**. Delete in its entirety and refer to Section 104 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code – Duties and Powers of Building Official.

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(Amd) 105.1 General. The following requirements apply to the approval of materials, methods and equipment as satisfying the requirements of this code. Modifications, variations or exemptions from or approval of alternative compliance with the Connecticut State Building Code requirements may be requested in accordance with section 104.10 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code.

(Amd) **106.1 When Required.** Any *owner* or *owner*'s 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 performed, shall first make application to the *building official* and obtain the required *permit*.

(Add) **106.2.1 State agency exemptions.** Pursuant to section 29-252a of the Connecticut General Statutes, a state agency shall not be required to obtain a building *permit* from a local *building official*. A state agency shall obtain a building *permit* for construction work as described in section 29-252a of the Connecticut General Statutes from the State Building Inspector.

(Amd) **106.4 By whom application is made.** Pursuant to section 29-263 of the Connecticut General Statutes, application for a *permit* shall be made by the *owner* or by an authorized agent. If the authorized agent is a licensed contractor, the provisions of section 20-338b of the Connecticut General Statutes shall be followed. The full names and addresses of the *owner*, agent and the responsible officers, if the *owner* or agent is a corporate body, shall be stated in the application.

(Add) 106.4.1 Permit issuance to a home improvement contractor. No permit shall be issued to a contractor who is required to be registered pursuant to chapter 400 of the Connecticut General Statutes, for work to be performed by such contractor, unless the name, business address and Department of Consumer Protection registration number of such contractor is clearly marked on the permit application, and the contractor has presented such contractor's certificate of registration as a home improvement contractor.

(Amd) **106.5 Permit issuance.** Pursuant to section 29-263 of the Connecticut General Statutes, the *building official* shall examine or cause to be examined applications for *permits* and amendments thereto within 30 days after filing and either issue or deny a *permit* within such 30-day period. If the application or *construction documents* do not conform to the requirements of this code and pertinent laws, the *building official* shall reject such application in writing, stating the reasons therefor. If the *building official* is satisfied that the proposed work conforms to the requirements of this code and applicable laws, statutes, regulations and ordinances, the *building official* shall issue a *permit* therefor as soon as practicable.

(Amd) **106.5.6 Retention of construction documents.** The *building official* shall retain one set of *approved construction documents* for a period as set forth in the records/disposition schedule adopted pursuant to chapter 188 of the Connecticut General Statutes.

**Exception:** Pursuant to subsection (e) of section 29-261 of the Connecticut General Statutes, upon receipt of a written request signed by the *owner* of *plans and specifications* on file for a single-family *dwelling* or out-*building*, the *building official* shall immediately return the original *plans and specifications* to the *owner* after a certificate of occupancy is issued with respect to the *plans and specifications*.

(Del) 106.6.1 Work commencing before permit issuance. Delete section.

ALO,

(Amd) **CLEANOUT**. An access opening in the *drainage system* utilized for the removal of obstructions. Types of *cleanouts* include a removable plug or cap, and a removable fixture or fixture *trap*. Floor drains, floor sinks, mop sinks and roof drains are not acceptable *cleanouts*.

(Amd) CODE OFFICIAL. See Building Official.

Takes?

(Amd) **REGISTERED DESIGN PROFESSIONAL.** An architect, engineer or interior designer, registered or licensed to practice professional architecture, engineering or interior design, as defined by the statutory requirements of the professional registration laws of the State of Connecticut, and acting within the scope of his or her practice.

# **CHAPTER 3 - GENERAL REGULATIONS**

(Amd) **305.4 Freezing.** A water, soil or waste pipe shall not be installed outside of a building, or concealed in outside walls or in any place subjected to freezing temperature, unless adequate provision is made to protect such pipe from freezing by insulation or heat or both. Water service pipe shall be installed not less than 48 inches deep.

(Del) 305.4.1 Sewer depth. Delete section.

(Del) 312.10.1 Inspections. Delete section.

(Amd) **312.10.2 Testing.** Required reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protection, and spill-proof vacuum breaker backflow preventer assemblies and hose connection backflow preventers shall be tested at the time of installation by individuals or agencies qualified to perform such inspections. It shall be the responsibility of the *owner* to have such tests performed and copies of test reports shall be given to the local *building official*. The testing procedure shall be performed in accordance with one of the following standards:

ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048,

ASSE 5052, ASSE 5056, CSA B64.10 or CSA B64.10.1.

# CHAPTER 4 – FIXTURES, FAUCETS AND FIXTURE FITTINGS

(Amd) **403.1 Minimum number of fixtures.** Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 403.1. Types of occupancies not shown in Table 403.1 shall be considered individually by the *building official*. The number of occupants shall be determined in accordance with the International Building Code. Occupancy classification shall be determined in accordance with the International Building Code.

# Exceptions:

- The following minimum fixtures shall be provided in Group R-1 bed and breakfast
  establishments: Water closets one per two guest rooms; lavatories one per two
  guest rooms; bathtubs/showers one per two guest rooms. Plumbing fixtures in Group
  R-1 bed and breakfast establishments shall be permitted to be accessed from hallways
  and corridors and to be shared by guests.
- Child washing and diaper changing facilities shall be permitted in lieu of bathtubs or showers in Group I-4 child care occupancies.

 Toilet rooms located in Educational Group E Kindergarten and day care occupancies, and in Institutional Group I-4 child day care and containing two or more urinals shall be permitted to have one urinal without partitions provided the toilet room is accessed through a door or other configuration to provide privacy.

(Add) **412.5 Connection required.** Floor drains shall connect to the *sanitary sewer* system or to an on-site holding tank(s) when the discharge contains petroleum-based oil, grease, sand or other harmful or hazardous substances. Interceptors and separators shall be provided in accordance with Section 1003 when floor drains connect to the *sanitary sewer* system, and shall be installed in accordance with regulations promulgated by the Department of Energy and Environmental Protection. Floor drains shall not be connected to a *storm sewer*, a storm *drainage system* or a storm *building drain*. Floor drains shall have *trap seals* in accordance with Section 1002.4.

# **CHAPTER 6 - WATER SUPPLY AND DISTRIBUTION**

(Amd) 608.17 Protection of individual water supplies. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with the Public Health Code of the State of Connecticut adopted pursuant to section 19a-36 of the Connecticut General Statutes.

(Del) 608.17.1 through 608.17.8. Delete subsections and referenced table.

# CHAPTER 7 - SANITARY DRAINAGE

(Amd) **701.2 Sewer required.** Buildings in which plumbing fixtures are installed and premises having drainage piping shall be connected to a public sewer, where required, or an approved private sewage disposal system in accordance with the Public Health Code adopted under authority of section 19a-36 of the Connecticut General Statutes.

(Amd) **708.1.1 Horizontal drains and building drains**. Horizontal drainage pipes, including horizontal branch drains consisting of one or more fixtures, in buildings shall have cleanouts located at intervals of not more than 100 feet (30,480 mm). Building drains shall have cleanouts located at intervals of not more than 100 feet (30,480 mm) except where manholes are used instead of cleanouts, the manholes shall be located at intervals of not more than 400 feet (122-m). The interval length shall be measured from the cleanout or manhole opening, along the developed length of the piping to the next drainage fitting providing access for cleaning, the end of the horizontal drain or the end of the building drain.

**Exception**: Horizontal *fixture drain* piping serving a non-removable *trap* shall not be required to have a *cleanout* for the section of piping between the *trap* and the connection to a horizontal or vertical drain if located within four feet of *developed length* of such connection. The four feet shall be measured from the fixture *trap* weir to the connection at the horizontal or vertical piping.

# **CHAPTER 9 - VENTS**

(Amd) **903.1 Roof extension.** Open vent pipes that extend through a roof shall be terminated not less than 12 inches above the roof, except where a roof is to be used for any purpose other than weather protection, the vent extensions shall terminate not less than 7 feet above the roof.

(Del) 903.2 Frost closure. Delete section.

Pile

(Amd) **102.6 Historic buildings.** Pursuant to section 29-259 of the Connecticut General Statutes, exemptions may be granted to the provisions of this code for historic structures, as defined by section 10-410 of the Connecticut General Statutes, which have been classified as such in the State Register of Historic Places, as long as the provisions of subsection (b) of section 29-259 of the Connecticut General Statutes are adhered to and provided that such exemptions shall not affect the safe design, use or construction of such property.

(Del) **SECTION 103 – DEPARTMENT OF MECHANICAL INSPECTION.** Delete Section 103 in its entirety and refer to Section 103 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code – Enforcement Agency.

(Del) **SECTION 104 – DUTIES AND POWERS OF CODE OFFICIAL.** Delete in its entirety and refer to Section 104 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code – Duties and Powers of Building Official.

(Amd) 105.1 General. The following requirements apply to the approval of materials, methods and equipment as satisfying the requirements of this code. Modifications, variations or exemptions from or approval of alternative compliance with the 2018 Connecticut State Building Code requirements may be requested in accordance with section 104.10 of the International Building Code portion of the 2018 State Building Code.

(Amd) **106.1 When Required**. Any owner or owner's 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 performed, shall first make application to the building official and obtain the required permit.

(Add) **106.2.1 State agency exemptions.** Pursuant to section 29-252a of the Connecticut General Statutes, a state agency shall not be required to obtain a building *permit* from a local *building official*. A state agency shall obtain a building *permit* for construction work as described in section 29-252a of the Connecticut General Statutes from the State Building Inspector.

(Add) **106.1.3 By whom application is made.** Pursuant to section 29-263 of the Connecticut General Statutes, application for a *permit* shall be made by the *owner* or by an authorized agent. If the authorized agent is a licensed contractor, the provisions of section 20-338b of the Connecticut General Statutes shall be followed. The full names and addresses of the *owner*, agent and the responsible officers, if the *owner* or agent is a corporate body, shall be stated in the application.

(Add) **106.1.4 Permit issuance to a home improvement contractor**. No *permit* shall be issued to a contractor who is required to be registered pursuant to chapter 400 of the Connecticut General Statutes, for work to be performed by such contractor, unless the name, business address and Department of Consumer Protection registration number of such contractor is clearly marked on the application for *permit*, and the contractor has presented such contractor's certificate of registration as a home improvement contractor.

(Amd) 108.5 Stop work orders. Upon notice from the building official, work on any mechanical system that is being done contrary to the provisions of this code or in a dangerous or unsafe manner shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, or to the owner's agent, or to the person doing the work. The notice shall state the conditions under which the work is authorized to resume. Where an emergency exists, the building official shall not be required to give a written notice prior to stopping the work. Any person who continues any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for penalties in accordance with Section 108.4.

(Del) SECTION 109 - MEANS OF APPEAL. Delete this section in its entirety and refer to Section 113 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code - Means of Appeal.

# **CHAPTER 2 – DEFINITIONS**

(Amd) 201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in other portions of the 2018 Connecticut State Building Code, such terms shall have the meanings ascribed to them as in those codes.

(Add) 202.1 Definitions. Add or amend the following definitions:

(Add) BUILDING OFFICIAL. The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative. Also known as the local building official or code official.

(Amd) CODE OFFICIAL. See (Building Official.

(Add) Limited-combustible material. A material shall be considered a limited-combustible material where both of the conditions 1 and 2 below and conditions 3 or 4 below are met.

### Conditions:

- 1. The material does not comply with the requirements for a noncombustible material.
- 2. The material, in the form in which it is used, exhibits a potential heat value not exceeding 3500 Btu/lb (8141 kJ/kg), when tested in accordance with NFPA 259, Standard Test Method for Potential Heat of Building Materials.
- 3. The material shall have a structural base of a noncombustible material with a surfacing not exceeding a thickness of 1/8 inch (3.2mm) where the surfacing exhibits a flame spread index not greater than 50 when tested in accordance with ASTM E 84, Standard Test Method for Surface Burning Characteristics of Building Materials, or ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials.
- 4. The material shall be composed of materials that, in the form and thickness used, neither exhibit a flame spread index greater than 25 nor evidence of continued progressive combustion when tested in accordance with ASTM E 84 or ANSI/UL 723 and are of such composition that all surfaces that would be exposed by cutting through the material on any plane would neither exhibit a flame spread index greater than 25 nor exhibit evidence of continued progressive combustion when tested in accordance with ASTM E 84 or

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(Add) **506.3.2.5.2 Air test**. The air test shall be performed by sealing the entire *duct* system from the hood exhaust opening(s) to the *duct* termination. The sealed *duct* system shall then be pressurized to a minimum pressure of 1.0 inch (249 Pa) water column and shall be required to hold the initial set pressure for a minimum of 20 minutes.

(Add) **506.3.2.5.3 Water test**. The water test shall be performed by use of a pressure washer operating at a minimum of 1500 psi (10.34 kPa), simulating cleaning operations. The water shall be applied directly to all areas to be tested. No water applied to the *duct* interior shall be visible on any exterior surface in any volume during the test.

A test shall be performed for the entire *duct* system, including the hood-to-*duct* connection. All connections, seams and welds shall be visible during the test. The ductwork shall be permitted to be tested in sections, provided that every joint is tested. For *listed* factory-built grease *ducts*, this test shall be limited to *duct* joints assembled in the field and shall exclude factory welds.

(Amd) **506.3.6 Grease duct clearances**. Where enclosures are not required, grease *duct* systems and exhaust equipment serving a Type I hood shall have a clearance to combustible construction of at least 18 inches (457 mm), 3 inches (76 mm) to *limited-combustible material*, and 0 inches (0 mm) to *noncombustible material*.

# **Exceptions:**

- Factory-built commercial kitchen grease ducts listed and labeled in accordance with UL 1978.
- 2. Grease *duct* systems or exhaust equipment *listed* for clearances less than those required in 506.3.6, shall be installed with the clearances specified by such listings.
- 3. Where commercial kitchen grease ducts are continuously covered on all sides with a listed and labeled field-applied grease duct enclosure material, system, product or method of construction specifically evaluated for such purpose in accordance with ASTM E2336, the required clearance shall be in accordance with the listing of such material, system, product or method.

(Add) **506.3.6.1 Clearance reduction**. The clearances required by 506.3.6 shall be permitted to be reduced in accordance with Section 308.

(Amd) **507.2.6 Clearances for Type I hood**. A Type I hood shall be installed with a clearance to combustibles of not less than 18 inches (457 mm), 3 inches (76 mm) to *limited-combustible material*, and 0 inches (0 mm) to *noncombustible material*.

# **Exceptions:**

- Clearance shall not be required from gypsum wallboard or 1/2-inch (12.7 mm) or thicker cementitious wallboard attached to noncombustible structures provided that a smooth, cleanable, nonabsorbent and noncombustible material is installed between the hood and the gypsum or cementitious wallboard over an area extending not less than 18 inches (457 mm) in all directions from the hood.
- 2. Type 1 hoods *listed* and *labeled* for clearances less than those required in 507.2.6 in accordance with UL 710 shall be installed with the clearances specified by such listings.

(Add) **507.2.6.1 Clearance reduction**. The clearances required by 506.3.6 shall be permitted to be reduced in accordance with Section 308.

Section

(Amd) **R113.4 Violation penalties.** Pursuant to section 29-254a of the Connecticut General Statutes, any person who violates any provision of this code *shall* be fined not less than two hundred nor more than one thousand dollars or imprisoned not more than six months, or both.

(Amd) R114.2 Unlawful continuance. Any person who continues any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, *shall* be liable for penalties in accordance with Section R113.4.

# (Add) SECTION R115 - UNSAFE STRUCTURES AND EQUIPMENT

(Add) **R115.1 General:** The procedures to be followed regarding unsafe structures and equipment shall be as set forth in Section 116 of the 2015 International Building Code portion of the 2018 Connecticut State Building Code.

### (Add) SECTION R116 - EMERGENCY MEASURES

(Add) **R116.1 General:** The procedures to be followed regarding emergency measures *shall* be as set forth in Section 117 of the 2015 International Building Code portion of the State Building Code.

### (Add) SECTION R117- VACANT BUILDINGS

2018 Correction

(Add) **R117.1 General.** Temporarily unoccupied *buildings*, structures, premises or portions thereof, including tenant spaces, *shall* be safeguarded and maintained in accordance with Section 118 of the 2015 International Building Code portion of the State Building Code.

#### **CHAPTER 2 – DEFINITIONS**

(Amd) **R201.3 Terms defined in other codes.** Where terms are not defined in this code and are defined in other portions of the State Building Code, such terms *shall* have the meanings ascribed to them as in those codes.

(Add) **R202.1 Definitions.** Add or amend the following definitions:

(Amd) **ATTIC, HABITABLE.** A finished area, not considered a *story* and not containing any dormers, complying with all of the following requirements:

- 1. The occupiable floor area is at least 70 square feet (6.5 m²), in accordance with Section R304,
- 2. The occupiable floor has a ceiling height in accordance with Section R305, and
- 3. The *occupiable space* is enclosed by the roof assembly above, knee walls (if applicable) on the sides and the floor-ceiling assembly below.

Roofs of habitable attics containing dormers will be considered a story.

(Amd) **BUILDING, EXISTING.** A *building* or structure, or portion thereof, erected in whole or in part, for which a legal building *permit* and a certificate of occupancy has been issued. *Buildings* or structures or portions thereof erected prior to October 1, 1970 *shall* be deemed existing *buildings* regardless of the existence of a legal *permit* or a certificate of occupancy.

(Add) R326.6.1 Outdoor swimming pool. An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa, shall be surrounded by a barrier which shall comply with the following:

- 1. The top of the barrier *shall* be at least 48 inches (1219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier *shall* be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above-ground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier *shall* be 4 inches (102 mm).
- 2. Openings in the barrier shall not allow the passage of a 4-inch-diameter (102 mm) sphere.
- 3. Solid barriers which do not have openings, such as a *masonry* or stone wall, *shall* not contain indentations or protrusions, except for normal construction tolerances and tooled *masonry* joints.
- 4. Where the barrier is composed of horizontal and vertical members, and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members *shall* be located on the swimming pool side of the fence. Spacing between vertical members *shall* not exceed 1¾-inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts *shall* not exceed 1 3/4 inches (44 mm) in width.
- 5. Where the barrier is composed of horizontal and vertical members, and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members *shall* not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts *shall* not exceed 13/4- inches (44 mm) in width.
- 6. Maximum mesh size for chain link fences *shall* be a 2 1/4-inch (57 mm) square, unless the fence has slats fastened at the top or the bottom which reduce the openings to not more than 1¾- inches (44 mm).
- 7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members *shall* not be more than 1 ¾ inches (44 mm).
- 8. Access gates *shall* comply with the requirements of Items 1 through 7, and *shall* be equipped to accommodate a locking device. Pedestrian access gates *shall* open outward away from the pool, and *shall* be *self-closing* and have a self-latching device. Gates, other than pedestrian access gates, *shall* have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings *shall* comply with the following:
  - 8.1 The release mechanism *shall* be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate; and
  - 8.2 The gate and barrier *shall* have no opening larger than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
- 9. Where a wall of a *dwelling* serves as part of the barrier, one of the following conditions shall be met:

- 9.1 The pool *shall* be equipped with a powered safety cover in compliance with ASTM F1346;
- 9.2 Doors with direct access to the pool through that wall *shall* be equipped with an alarm which produces an audible warning when the door and/or its screen, if present, are opened. The alarm *shall* be *listed* and *labeled* in accordance with UL 2017. The deactivation switch(es) *shall* be located at least 54 inches (1372 mm) above the threshold of the door; or
- 9.3 Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable as long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described herein.
- 10. Where an above-ground or on-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, the ladder or steps shall be surrounded by a barrier that meets the requirements of Section AG105.2, Items 1 to 9, inclusive.

Bold

(Add) R326.6.2 Indoor swimming pool. Walls surrounding an indoor swimming pool shall comply with Item 9 of Section R326.6.1.

(Add) **R326.6.3 Barrier perimeter clearance**. The required barrier height *shall* exist around the entire perimeter of the barrier and for a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier, free of structures, equipment or similar objects.

(Add) **R326.6.4 Barrier exceptions**. Spas or hot tubs with a safety cover which comply with ASTM F1346 *shall* be exempt from the provisions of this chapter.

(Add) **R326.6.5 Temporary enclosure**. A temporary enclosure *shall* be installed prior to the electrical bonding inspection of any in-ground swimming pool unless the permanent barrier specified in Section R326.6.1 is in place prior to the commencement of the installation. The temporary enclosure *shall* be a minimum of 4 feet (1219) in height, *shall* have no openings that will allow passage of a 4-inch sphere and *shall* be equipped with a positive latching device on any openings.

(Add) **R326.6.6 Pool alarm**. Pursuant to section 29-265a of the Connecticut General Statutes, no building *permit shall* be issued for the construction or substantial *alteration* of a swimming pool at a residence occupied by, or being built for, one or more families unless a pool alarm is installed with the swimming pool. As used in this section, "pool alarm" means a device that emits a sound of at least 50 decibels when a person or an object weighing 15 pounds or more enters the water in a swimming pool.

**Exception**: Hot tubs and portable spas shall be exempt from this requirement.

(Add) **R326.7 Entrapment protection for swimming pool and spa suction outlets**. Suction outlets *shall* be installed in accordance with ANSI/APSP-7.

### **CHAPTER 6 – WALL CONSTRUCTION**

(Amd) **Table R602.7(1)**, **Footnote e.** Use 30 psf ground snow *load* for cases in which ground snow *load* is less than 30 psf and the *roof live load* is equal to or less than 20 psf. For ground snow *loads* between 30 and 50 psf, linear interpolation is permitted.

(Amd) **Table R602.7(3)**, **Footnote b.** Tabulated values assume #2 *grade* lumber, wet service and incising for refractory species. Use 30 psf ground snow *load* for cases in which ground snow *load* is less than 30 psf and the *roof live load* is equal to or less than 20 psf. For ground snow *loads* between 30 and 50 psf, linear interpolation is permitted.

# **CHAPTER 8 - ROOF-CEILING CONSTRUCTION**

(Amd) R802.5 Allowable rafter spans. R802.5 Allowable rafter spans. Spans for rafters shall be in accordance with Tables R802.5.1(1) through R802.5.1(8). For ground snow loads other than those cited in Tables 802.5.1(3) through 802.5.1(8), spans for rafters may be determined using linear interpolation. For other grades and species and for other loading conditions, refer to the AWC STJR. The span of each rafter shall be measured along the horizontal projection of the rafter.

(Amd) **R802.10.2.1 Applicability limits.** The provisions of this section *shall* control the design of truss roof framing when snow controls for *buildings*, not greater than 60 feet (18 288 mm) in length perpendicular to the joist, rafter or truss span, not greater than 36 feet (10 973 mm) in width parallel to the joist, rafter or truss span, not more than three stories above grade plane in height with each *story* not greater than 10 feet (3048 mm) high, and roof slopes not smaller than 3:12 (25-percent slope) or greater than 12:12 (100-percent slope). Truss roof framing constructed in accordance with the provisions of this section *shall* be limited to *sites* subjected to a maximum design wind speed of 140 miles per hour (63 m/s), Exposure B or C, and a maximum ground snow *load* of 70 psf (3352 Pa). For consistent loading of all truss types, roof snow *load* is to be computed as: 1.0 pg.

### **CHAPTER 9 – ROOF ASSEMBLIES**

(Amd) R905.1.1 Underlayment. Underlayment for asphalt shingles, clay and concrete tile, metal roof shingles, mineral-surfaced roll roofing, slate and slate-type shingles, wood shingles, wood shakes and metal roof panels shall conform to the applicable standards listed in this chapter. Underlayment materials required to comply with ASTM D 226, D 1970, D 4869 and D 6757 shall bear a label indicating compliance to the standard designation and, if applicable, type classification indicated in Table R905.1.1(1). A minimum 4-inch-wide (102 mm) strip of self-adhering polymer-modified bitumen membrane complying with ASTM D 1970, installed in accordance with the manufacturer's instructions for the deck material, shall be applied over all joints in the roof decking. Underlayment shall be applied over the entire roof and over the 4-inch-wide (102 mm) membrane strips and shall be applied in accordance with Table R905.1.1(2). Underlayment shall be attached in accordance with Table R905.1.1(3).

## **Exceptions:**

X

1. As an alternative, self-adhering polymer-modified bitumen *underlayment* complying with ASTM D 1970 installed in accordance with both the *underlayment* manufacturer's and roof covering manufacturer's instructions for the deck material, roof *ventilation* configuration and climate exposure for the roof covering to be installed, *shall* be permitted.

INSTALLATION REQUIREMENTS (Requirement applicable only to wiring methods marked "A")	AC MC	EMT IMC RMC	ENT	FMC LFC	NM UF	RN C	SE	SRª	USE
inches from the edge of the joists or rafters and 1½ inch from the edge of studs or shall be protected with a minimum 0.0625-inch steel plate or sleeve, a listed steel plate or other physical protection.	A <sup>k</sup>	PARE	A <sup>k</sup>	A <sup>k</sup>	A <sup>k</sup>		A <sup>k</sup>		
Where wiring methods are installed in grooves, to be covered by wallboard, siding, paneling, carpeting or similar finish, wiring methods shall be protected by 0.0625-inch thick steel plate, sleeve, or equivalent; a listed plate; or by not less than 1½-inch free space for the full length of the groove in which the cable or raceway is installed.	Α		Α	Α	Α		Α	А	A
Securely fastened bushing or grommets <i>shall</i> be provided to protect wiring run through openings in metal framing members.			Ai		Α <sup>j</sup>		Aj		
The maximum number of 90-degree bends <i>shall</i> not exceed four between junction boxes.		А	А	Α		А			
Bushings shall be provided where entering a box, fitting or enclosure unless the box or fitting is designed to afford equivalent protection.	А	Α	Α	Α		Α		Α	
Ends of raceways shall be reamed to remove rough edges.		Ą	Α	A		Α		Α	
Maximum allowable on center support spacing for the wiring method in feet.	4.5 <sup>b,c</sup>	10 <sup>1</sup>	3 <sup>b</sup>	4.5 <sup>b</sup>	4.5 <sup>i</sup>	3 <sup>d, 1</sup>	2.5		2.5 <sup>e</sup>



INSTALLATION REQUIREMENTS (Requirement applicable only to wiring methods marked "A")	AC MC	EMT IMC RMC	ENT	FMC LFC	NM UF	RN C	SE	SRª	USE
Maximum support distance in inches from box or other terminations.	12 <sup>b, f</sup>	36	36	12 <sup>b,</sup>	12 <sup>h, i</sup>	36	12		

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 degree = 0.0175 rad.

- a. Installed in accordance with listing requirements.
- b. Supports not required in accessible ceiling spaces between light fixtures where lengths do not exceed 6 feet.
- c. Six feet for MC cable.

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- d. Five feet for trade sizes greater than 1 inch.
- e. Two and one-half feet where used for service or outdoor feeder and 4.5 feet where used for branch circuit or indoor feeder.
- f. Twenty-four inches where flexibility is necessary.
- g. Where flexibility after installation is necessary, lengths of flexible metal conduit and liquid tight flexible metal conduit measured from the last point where the raceway is securely fastened *shall* not exceed: 36 inches for trade sizes ½ through 1½, 48 inches for trade sizes 1½ through 2 and 5 feet for trade sizes 2½ and larger.
- h. Within 8 inches of boxes without cable clamps.
- i. Flat cables shall not be stapled on edge.
- j. Bushings and grommets shall remain in place and shall be listed for the purpose of cable protection.
- k. See Sections R502.8 and R802.7 for additional limitations on the location of bored holes in horizontal framing members.
- I. Where oversized, concentric or eccentric knockouts are not encountered, a raceway not greater than 18 inches in length shall not require support where it is a continuous length without couplings. Such raceways shall terminate at an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

# **CHAPTER 39 – POWER AND LIGHTING DISTRIBUTION**

(Amd) **FIGURE E3901.4 COUNTERTOP RECEPTACLES.** Add GFCI designation to the receptacle shown in the pictorial figure at the center island countertop.

(Amd) **E3902.17 Arc-fault circuit interrupter protection for branch circuit extensions or modifications.** Where branch-circuit wiring is modified, replaced, or extended in any of the areas specified in Section E3902.12, the branch circuit *shall* be protected by one of the following:

- 1. A combination-type AFCI located at the origin of the branch circuit.
- 2. An outlet branch-circuit type AFCI located at the first receptacle outlet of the existing branch circuit.

#### **Exceptions:**

- 1. AFCI protection shall not be required for replacement receptacles.
- 2. AFCI protection *shall* not be required where an extension of the existing conductors is not more than 6 feet (1.8 m) in length and does not include any additional outlets or devices.