

780 CMR 51.00: MASSACHUSETTS RESIDENTIAL CODE

5101.1 Scope. The provisions of 780 CMR 51.00 shall be known as the Massachusetts Residential Code and are comprised of the *International Residential Code 2009* (IRC) with Massachusetts amendments. The Massachusetts amendments to the IRC are:

R101.1 Replace as follows:

R101.1 Title. The Board of Building Regulations and Standards (BBRS) hereby adopts and incorporates by reference herein the *International Residential Code for One- and Two-family Dwellings 2009* (IRC). The IRC together with modifications as set forth herein shall collectively comprise the Eighth Edition Massachusetts Residential Code for One- and Two-family Dwellings hereinafter referred to as “this code.”

R101.1.1 Add subsection:

R101.1.1 Appendices and Appended Regulations. In adopting the IRC, BBRS does not adopt Appendices A through F or N through Q, but does adopt IRC Appendices G through M as modified herein. BBRS also incorporates into this code the unique Massachusetts regulations 110.R1 through 110.R7 of the Eighth Edition of the MA State Building Code (780 CMR).

R101.2 Add a first sentence as follows:

This code shall be the building code for all towns, cities, state agencies or authorities in accordance with M.G.L. c. 143, § 94.

R102.2 Replace as follows:

R102.2 Other Laws. Massachusetts General Laws (M.G.L.) and the Code of Massachusetts Regulations (CMR) are often referenced in this code. It is the code user’s responsibility to determine all applicable laws and regulations relevant to sections in this code.

R102.2.1 Add subsection:

R102.2.1 DDS Facilities. Additional building features required by the Massachusetts Department of Developmental Services (DDS) do not change the classification of residences operated or licensed by DDS as dwellings subject to this code.

R102.2.2 Add subsection:

R102.2.2 Municipal Bylaws or Ordinances. When provisions of this code conflict with municipal bylaws and ordinances, this code shall govern unless the bylaws or ordinances were promulgated in accordance with M.G.L. c. 143, § 98.

R102.4 After the word “codes” in the first sentence, add the following: “, regulations,”

R102.4.1 Add the following subsections:

R102.4.1 Specialized Codes. Referenced codes include the *specialized codes* of M.G.L. c. 143, § 96 and other codes and regulations listed in R102.4.2 through R102.4.12. The *specialized codes* are hereby incorporated into this code. Other codes and regulations shall be considered part of this code to the prescribed extent of each such reference.

Note 1. Work regulated by the *specialized codes* shall be designed, installed and inspected by individuals authorized to do so in accordance with the *specialized codes*. However, the impact of work regulated by the *specialized codes* and other codes and regulations on work governed by this code shall be subject to inspection by the *building official*.

Note 2. Work regulated by the Architectural Access Board regulations (521 CMR) shall be enforced by the *building official*. See M.G.L. c. 22, § 13A.

Note 3. Work regulated by the Board of Sheet Metal Regulations shall be enforced by the *building official*. See M.G.L. c. 13, § 102.

51.00: continued

R102.4.2 Gas and Fossil Fuel Burning Appliances. Reference to the *International Fuel Gas Code* shall be considered reference to the Massachusetts Fuel Gas and Plumbing Code (248 CMR). Gas fired appliances are governed by the Massachusetts Fuel Gas and Plumbing Code. Oil fired appliances are governed by the Board of Fire Prevention Regulations (527 CMR).

R102.4.3 Mechanical. The provisions of the *International Mechanical Code* shall apply to the installation, alterations, repairs and replacement of mechanical systems, including equipment, appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy-related systems.

R102.4.4 Plumbing. Reference to the *International Plumbing Code* shall be considered reference to the Massachusetts Fuel Gas and Plumbing Code (248 CMR). For sewerage disposal or water connections also see 310 CMR 15.00: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage* and 314 CMR 3.00: *Surface Water Discharge Permit Program*, 5.00: *Ground Water Discharge Permit Program* and 20.00: *Reclaimed Water Permit Program and Standards*.

R102.4.5 Property Maintenance. Reference to the *International Property Maintenance Code* shall be considered reference to this code, the specialized codes of M.G.L. c. 143, § 96, and 105 CMR 410.000: *Minimum Standards of Fitness for Human Habitation (State Sanitary Code, Chapter II)*.

R102.4.6 Fire Prevention. Reference to the *International Fire Code* (IFC) or *International Mechanical Code* (IMC) for fire prevention issues shall be considered reference to the Board of Fire Prevention Regulations (527 CMR). If 527 CMR does not address an issue covered by the IFC or IMC, then that said reference code shall apply. If a conflict regarding fire prevention requirements exists between 527 CMR and 780 CMR the more stringent standard shall apply.

Note: Building code requirements in the IFC and IMC are made a part of 780 CMR and are enforceable by the *building official*.

R102.4.7 Energy. The provisions of Chapter 11 and/or the *International Energy Conservation Code (IECC)* shall apply to all matters governing the design and construction of buildings for energy efficiency. See Chapter 11 for guidance.

R101.4.8 Architectural Access. See the Architectural Access Board regulations at 521 CMR.

R102.4.9 Environmental Protection. See the Department of Environmental Protection regulations at 310 CMR and the Division of Water Pollution Control regulations at 314 CMR.

R101.4.10 Elevators. See the Massachusetts Board of Elevator Regulations at 524 CMR.

R102.4.11 Electrical. Reference to the *International Electrical Code* shall be considered reference to 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

R102.4.12 Sheet Metal. See the Board of Examiners of Sheet Metal Workers regulations at 271 CMR.

R102.5 Delete subsection.

R102.7 Delete the following phrase:

“the *International Property Maintenance Code* or the *International Fire Code*,”

R102.7.2 Add subsection:

R102.7.2 Laws in Effect. Unless specifically provided otherwise in this code, and narrow to the provisions of this code, any existing building or structure shall meet and shall be presumed to meet the provisions of the applicable laws, codes, rules or regulations, bylaws or ordinances in effect at the time such building or structure was constructed or altered and shall be allowed to continue to be occupied pursuant to its use and occupancy, provided that the building or structure shall be maintained by the owner in accordance with this code.

51.00: continued

R102.7.3 Add subsection:

R102.7.3. Laws Not in Existence. In cases where applicable codes, rules or regulations, bylaws or ordinances were not in existence at the time of such construction or alteration, the building or structure shall be maintained by the owner in accordance with this code.

R102.7.4 Add subsection:

R102.7.4. Less Stringent. In cases where the provisions of this code are less stringent than the applicable codes, rules or regulations, bylaws or ordinances in effect at the time of such construction or substantial alteration, the applicable provisions of this code shall apply, provided that such application of these provisions can be reasonably demonstrated to not result in danger to the public, as determined by the *building official*.

R103 Replace entire section R103 as follows:

R103.1 Municipal and State Enforcement. This code shall be enforced, and enforcement officials shall be appointed, in accordance with M.G.L. c. 143, §§ 3 and 3A and M.G.L. c. 22. Reference to The Department of Building Safety shall be considered reference to the *building official*.

R104.1 Replace as follows:

R104.1 General. The *building official* is hereby authorized and directed to enforce the provisions of this code in accordance with M.G.L. c. 143.

R104.4.1 Add subsection:

R104.4.1 Coordination of Inspections. Whenever in the enforcement of this code, or another code or ordinance, the responsibility of more than one enforcement official of the jurisdiction is involved, it shall be the duty of the enforcement officials involved to coordinate their inspections and administrative orders as fully as practicable so that the owners and occupants of the building or structure shall not be subjected to visits by numerous inspectors or multiple or conflicting orders. Whenever an enforcement official observes an apparent or actual violation not within the official's authority, the official shall report the findings to the official having jurisdiction.

R104.8 Replace as follows:

R104.8 Liability. All claims of liability relative to *building officials* shall be governed by M.G.L. c. 258.

R104.10 Replace the last sentence with the following two sentences:

The details of action granting modifications shall be recorded and entered in the files of the *building official* and a copy forwarded to the BBRS within seven days. A *building official* may seek assistance from the district's State building inspector for modifications.

R104.10.1 Replace as follows:

R104.10.1 Areas Prone to Flooding. The *building official* shall not grant modifications to any provision related to areas prone to flooding as established by this code without the granting of a variance to such provisions by the building code appeals board. Also, no variance to requirements of this code can be solely utilized to argue for lawful construction/reconstruction where such construction/reconstruction would conflict with requirements of M.G.L. c. 131, § 40: *Removal, Fill, Dredging or Altering of Land Bordering Waters* (the Wetlands Protection Act), and/or 310 CMR and 314 CMR, as applicable.

51.00: continued

R104.10.2 Add subsection:

R104.10.2 Matters Not Provided For. In recognition of the inherent difficulty of drafting a functional code that contemplates every situation that may arise in the area of building safety, this section provides the *building official*, the building code appeals board, or the BBRS itself, with reasonable discretion to ensure that all life safety issues that may arise in the enforcement of this code may be appropriately addressed. Matters not specifically provided for in this code regarding structural, egress, fire, energy, sanitary or other requirements essential to occupant safety shall be determined by the *building official* or, in the case of an appeal, the building code appeals board. If this provision is used, the *building official* shall notify the BBRS in writing within seven days of such determination. For highly specialized buildings and structures that conform to unique code requirements or nationally recognized standards not required in this code, *registered design professionals* shall provide sufficient information to the *building official* to support their approval.

R105.1 Replace as follows:

R105.1 Required. It shall be unlawful to construct, reconstruct, alter, repair, remove or demolish a building or structure; or to change the use or occupancy of a building or structure; or to install or alter any equipment for which provision is made or the installation of which is regulated by this code without first filing a written application with the *building official* and obtaining the required *permit*.

R105.2 Replace as follows:

R105.2 Work Exempt from Permit. Except for activities which may require a *permit* pursuant to other laws, by-laws, rules and the *specialized codes*, a building *permit* is not required for the following activities:

Building:

1. One-story detached *accessory structures* used as tool and storage sheds, playhouses and similar uses, but not garages, provided the floor area does not exceed 200 square feet (18.58 m²)
2. Fences not over six feet (1829 mm) high.
3. Retaining walls that are not over four feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge, or that retain over four feet of unbalanced fill.
4. Sidewalks and driveways.
5. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
6. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
7. Swings and other playground equipment.
8. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
9. Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a *dwelling* and do not serve the exit door required by subsection R311.4.

R105.2.1 Add the following note:

Note: Pursuant to the terms of the specialized codes of M.G.L. c. 143, § 96, this exemption might not apply to emergency repairs conducted under those *specialized codes*.

R105.2.2 Replace as follows:

R105.2.2 Ordinary Repairs. A building *permit* is not required for *ordinary repairs*.

R105.2.3 Delete subsection.

51.00: continued

R105.3 Replace items 3. and 4. as follows:

3. Indicate the use and occupancy for which the proposed work is intended. If the work involves a care facility or residence licensed by a State agency, indicate the agency name and appropriate licensing regulation on the *permit*.
4. Be accompanied by *construction documents* and other information as required in Subsection R106.1. *Construction documents* shall list any building features required by a Massachusetts agency for licensed care facilities that are beyond the requirements of this code. Any additional building features required by the Massachusetts Department of Developmental Services shall not result in a change in the classification of a DDS operated or licensed residences for five or fewer occupants and their compliance with this code.

R105.3.1.1 Replace as follows:

R105.3.1.1 Determination of Substantially Improved or Substantially Damaged Existing Buildings in Flood Hazard Areas and Coastal Dunes. For applications for reconstruction, rehabilitation, addition or other improvement of existing buildings or structures located in an area prone to flooding as established by Table R301.2(1), *the building official* shall examine or cause to be examined the *construction documents* and shall prepare a finding with regard to the value of the proposed work. For buildings that have sustained damage of any origin, the value of the proposed work shall include the cost to repair the building or structure to its predamaged condition.

In determining the value of the proposed work, the *building official* shall consider the following:

A substantial improvement means any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 50% of the market value of the building or structure before the improvement or repair is started. If the building or structure has sustained substantial damage, all repairs are considered substantial improvement regardless of the actual repair work performed. The term does not include:

1. Improvements of a building or structure required to correct existing health, sanitary or safety code violations identified by the *building official* and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of an historic building or structure, provided that the alteration will not preclude the continued designation as an historic building or structure. For the purpose of this exclusion, an historic building is:
 - 2.1. Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places; or
 - 2.2. Determined by the Secretary of the U.S. Department of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district; or
 - 2.3. Designated as historic under a state or local historic preservation program that is approved by the Department of Interior.

If the *building official* finds that the value of proposed work equals or exceeds 50% of the market value of the building or structure before the damage has occurred or the improvement is started, the *building official* shall determine it to be substantial damage or substantial improvement.

Applications determined by the *building official* to constitute substantial improvement or substantial damage shall require all existing portions of the entire building or structure to meet the requirements of Section R322.

R105.3.1.1.1 Add subsection:

R105.3.1.1.1 Determination of Substantial Repair of a Foundation. When work to repair or replace a foundation results in the repair or replacement of a portion of the foundation with a perimeter along the base of the foundation that equals or exceeds 50% of the perimeter of the base of the foundation measured in linear feet the *building official* shall determine it to be substantial repair of a foundation. Applications determined by the *building official* to constitute substantial repair of a foundation shall require all existing portions of the entire building or structure to meet the requirements of Section R322.

51.00: continued

R105.3.1.2 Add subsection:

R105.3.1.2 Other Requirements. The following requirements must be satisfied before a building *permit* is issued:

Zoning: in accordance with M.G.L. c. 40A or St. 1956, c. 665.

Railroad Right-of-way: in accordance with M.G.L. c. 40, § 54A.

Water Supply: in accordance with M.G.L. c. 40, § 54; also refer to 310 CMR 22.00: *Drinking Water* and/or 310 CMR 36.00: *Massachusetts Water Resources Management Program*, when applicable.

Wastewater: in accordance with 310 CMR 15.00: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage* and 314 CMR 3.00: *Surface Water Discharge Permit Program*, 5.00: *Ground Water Discharge Permit Program* 7.00: *Sewer System Extension and Connection Permit Program*, and 20.00: *Reclaimed Water Permit Program and Standards*

Debris Removal: in accordance with M.G.L. c. 40, § 54 and M.G.L. c. 111, § 150A; also refer to DEP Regulations 310 CMR 7.09(2) and 310 CMR 7.15, when applicable.

Workers Compensation Insurance: in accordance with M.G.L. c. 152, § 25C(6).

Hazards to Air Navigation: in accordance with M.G.L. c. 90, § 35B.

Construction in Coastal Dunes: in accordance with M.G.L. c. 131, § 40 and the Coastal Wetland regulations at 310 CMR 10.21 through 10.35.

R105.7 After the word “work” insert the phrase “and be posted conspicuously”

R105.8.1 Add subsection:

R105.8.1 Workmanship. All work shall be conducted, installed, protected and completed in a workmanlike and acceptable manner so as to secure the results intended by this code.

R106.1 At the end of the first paragraph add the following:

All plans and specifications for work designed by a *registered design professional* shall bear the seal and signature of the responsible *registered design professional* in accordance with M.G.L. c. 143, § 54A. See also www.mass.gov/dpl for policy on electronic seal and signature for certain *registered design professionals*.

R106.3.3.4 Add Subsection:

R106.3.3.4 Fire Department Review. For *permits* that include fire protection system work, *construction documents* shall be filed simultaneously with the head of the local fire department and *building official* for review and approval. The fire department shall complete its review within ten-working days after receiving the documents. Upon the fire department’s request, the *building official* may grant one or more extensions up to a total review period maximum of 30-days. If the fire department review is not received within the allowed time frame the *building official* may upon review deem the documents in compliance. If the head of the local fire department disapproves such *construction documents*, he or she shall notify the *building official* (refer to M.G.L. c. 148, § 28A) in writing citing relevant sections of noncompliance with this code or the section of the referenced standards of Chapter 44.

R106.5 Replace as follows:

R106.5 Retention of Construction Documents. Sets of *approved construction documents* shall be retained by the *building official* in accordance with M.G.L. c. 66, § 8.

R107.1 Add this last sentence:

Prior to issuing a certificate, the *building official* shall consult with the head of the fire department.

51.00: continued

R107.3 Replace as follows:

R107.3 Temporary Power. *See 527 CMR 12.00: Massachusetts Electrical Code (Amendments).*

R108.3 Replace as follows:

R108.3 Building Permit Valuations. The applicant for a *permit* shall provide an estimated *permit* value at time of application. If, in the opinion of the *building official* the valuation is underestimated on the application, the *permit* shall be denied, unless the applicant can provide detailed estimates acceptable to the *building official*. Final building *permit* valuation shall be set by the *building official*.

108.5 Delete this subsection.

108.6 Replace as follows:

108.6 Work Commencing Before Building Permit Issued. Any person who commences any work on a building or structure governed by this code before obtaining the necessary building *permit* shall be in violation of this code and subject to penalties. *See Section 114.*

R109.1 At the end of this subsection add the following:

It shall be the duty of the *permit* holder to provide access to and means for inspections of work required by this code. The *building official* may require the *permit* holder or his representative to attend these inspections.

R109.1.2 At the end of the sentence add the following and delete the exception:

‘and as otherwise required by the *specialized codes*’.

R109.1.3 After the word “flooding” add “and coastal dunes”.

R109.1.5 Add a second sentence as follows:

The *building official* shall inform the applicant of the required points of inspection at the time of the *permit* application.

R110.1 Add a last sentence as follows:

Conformance is required to all applicable *specialized codes* and when applicable, 310 CMR 7.00: *Air Pollution*, 310 CMR 15.00: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage*, 310 CMR 22.00: *Drinking Water* or 310 CMR 30.000: *Hazardous Waste*, prior to the issuance of the certificate of occupancy.

R110.2 Replace as follows:

R110.2 Altered Buildings or Structures. A building or structure, in whole or in part, altered to change from one use group to another; to a different use within the same use group; the maximum live load capacity; or the occupancy load capacity shall not be occupied or used until a certificate has been issued certifying that the work has been completed in accordance with the provisions of the approved *permits* and applicable codes.

R110.2.1 Add subsection:

R110.2.1 Massachusetts’ Licensed Care Facilities. Certificate of Occupancy inspections for Massachusetts licensed care facilities, including inspection of special building features required by the licensing agency, shall be limited to verifying compliance with the provisions of this code.

51.00: continued

R110.3 Add an item 10. as follows:

10. If a care facility is licensed by a State agency, then the name of the agency and the name and number of any relevant Code of Massachusetts Regulations (CMR) that apply regarding building features and a list of those building features above and beyond those required by this code.

R111 Delete this section.

112.1 Replace as follows:

112.1 General. Appeals of orders, decisions, determinations and failures to act made by any state or local agency or any person or state or local agency charged with the administration or enforcement of the state building code or any of its rules and regulations, except the *specialized codes*, relative to the application and interpretation of this code shall be addressed by the building code appeals board in accordance with M.G.L. c. 143, § 100.

R112.2.1 Delete subsection.

R112.2.2 Delete subsection.

R112.3 Replace as follows:

R112.3 Qualifications. See M.G.L. c. 143, § 100, and 780 CMR 113.

R112.4 Replace as follows:

R112.4 Administration. See M.G.L. c. 143, § 100, and 780 CMR 113.

R113.1 After the words “demolish or” add the following phrase “change the use or”

R113.2 After the words “demolition or” add the following phrase “change the use or”

113.2.1 Add subsection:

113.2.1 Notice Issuance. Every notice or order shall be in writing and shall be served on the person responsible:

1. Personally, by any person authorized by the *building official*; or
2. By any person authorized to serve civil process by leaving a copy of the order or notice at the responsible party’s last and usual place of business or abode; or
3. By sending the party responsible or their agent authorized to accept service of process in the Massachusetts a copy of the order by registered or certified mail return receipt requested, if he is within the Massachusetts; or
4. If the responsible party’s last and usual place of business or abode is unknown, by posting a copy of this order or notice in a conspicuous place on or about the premises in violation and by publishing it for at least three out of five consecutive days in one or more newspapers of general circulation wherein the building or premises affected is situated.

113.3 Replace as follows:

113.3 Enforcement. Violations to this code shall be enforced in accordance with the applicable provisions of M.G.L. c. 143, §§ 6 through 10 and § 94, M.G.L. c. 148, and M.G.L. c. 148A, and any other applicable state law.

113.4 Insert after the word “alters” the text “, makes a change of use”

R115 Add section:

**SECTION R115
UNSAFE STRUCTURES AND EQUIPMENT**

R115.1 General. Unsafe or dangerous structures are governed by M.G.L. c. 143, §§ 6, 7, 8, 9 and 10.

51.00: continued

R202 Add or replace definitions as follows:

BUILDING OFFICIAL. The building commissioner/inspector of buildings, local inspector or state building inspector charged with the administration and enforcement of this code in accordance with M.G.L. c. 143, §§ 3 and 3A.

BASIC WIND SPEED. Replace the text ‘Figure R301.2(4)’ with ‘Table R301.2(4)’

COASTAL WETLAND RESOURCE AREA. Any coastal wetland resource area subject to protection under the Wetlands Protection Act, M.G.L. c. 131, § 40, and the Wetlands Protection Act Regulations, 310 CMR 10.21 through 10.35. Coastal Wetland Resource Areas include barrier beaches, coastal beaches, coastal dunes, rocky intertidal shores, tidal flats, land subject to 100 year coastal storm flowage, coastal banks, land containing shellfish, lands subject to tidal action, and lands under an estuary, salt pond or certain streams, ponds, rivers, lakes or creeks within the coastal zone that are anadromous/catadromous fish runs.

CODE OF MASSACHUSETTS REGULATION (CMR). Regulations that are codified by the Secretary of State, Commonwealth of Massachusetts. 780 CMR 1.00. lists various CMRs applicable to building construction and/or design.

CONDITIONED SPACE. An area or room within a building being heated or cooled, containing uninsulated ducts, or with a fixed opening directly into an adjacent *conditioned space*.

CONSTRUCTION CONTROL. The compilation of Building Code requirements found in 780 CMR 1, Section 107 or otherwise referenced in 780 CMR and directed toward all buildings and structures requiring registered architectural services or registered professional engineering services in accordance with M.G.L. c. 143, § 54A; M.G.L. c. 112, §§ 60A through 60L; and, M.G.L. c. 112, §§ 81D through 81T.

JURISDICTION. The Board of Building Regulations and Standards.

LOCAL ENFORCEMENT AGENCY. A department or agency in a municipality charged with the enforcement of this code and appropriate *specialized codes* which include, but are not limited to, 248 CMR, the State Plumbing and Gas Fitting Code, and 527 CMR 12.00, *Massachusetts Electrical Code (Amendments)*.

MANUFACTURED BUILDING. Any building which has concealed elements, such as electrical, mechanical, plumbing, fire protection, insulation and other systems affecting health and safety, and which is manufactured and assembled in manufacturing facilities, on or off the building site. Also, any building as defined above which does not have concealed elements, but which has been approved by the BBRS at the request of the manufacturer.

NATIVE LUMBER. Native lumber is wood processed in the Commonwealth of Massachusetts by a mill registered in accordance with 780 CMR 110.R4: *Licensing Native Lumber Producers*. Such wood is ungraded but is stamped or certified in accordance with the requirements of 780 CMR 110.R4. For the purpose of this definition, native lumber shall be restricted to the use in one- and two-story dwellings, barns, sheds, agricultural and accessory buildings and other structures when permitted by 780 CMR 110.R4.

OFFICIAL INTERPRETATION. A written interpretation made by the Board of Building Regulations and Standards (BBRS), under authority of M.G.L. c. 143, § 94(e), or by the State Building Code Appeals Board under authority of M.G.L. c. 143, § 100 of any provision of this code, or its referenced standards, except the *specialized codes*.

ORDINANCE. Ordinance or bylaw.

REGISTERED DESIGN PROFESSIONAL. An individual who is licensed or otherwise authorized to practice his respective design profession as defined by the statutory requirements of the professional registration laws of Massachusetts.

REPAIRS, ORDINARY. Any maintenance which does not affect the structure, egress, fire protection systems, fire ratings, energy conservation provisions, plumbing, sanitary, gas, electrical or other utilities.

51.00: continued

SPECIALIZED CODES. Codes, rules or regulations pertaining to building construction, reconstruction, alteration, repair or demolition promulgated by and under the authority of various boards authorized by the general court. *See* M.G.L. c. 143, § 96.

WIND-BORNE DEBRIS REGION. Areas within *hurricane-prone regions* within one mile of the coastal mean high water line where the basic wind speed is 110 miles per hour (49 m/s) or greater; or where the basic wind speed is equal to or greater than 120 miles per hour (54 m/s). The coastal mean high water line, in the Massachusetts 110 mph wind zones, forms the outer edge of the red bands overlaid onto the satellite images found on the MA Department of Public Safety website at www.mass.gov/dps For estimating purposes, the inner edge of the red bands is approximately one mile inland from coastal mean high water. For buildings in close proximity to the inner edge of the red band, to determine whether a building is in a wind borne debris region, the *building official* shall use a survey, provided with the *permit* application and the building plan, which indicates the distance, in feet, from the location of the proposed building to the closest location of the coastal mean high water line as described.

R301.1 Add the following note:

Note. Seismic requirements in this code only apply to townhouses three stories or less per Subsection R101.2, and do not apply to one- and two-family dwellings.

R301.1.1 Add to the end of the second sentence: “and be performed by a *registered design professional*.”

R301.1.1 Add a fourth note as follows:

4. American Forest and Paper Association (AF&PA) *Prescriptive Residential Wood Deck Construction Guide* (DCA6-09) and does not require the services of a *registered design professional*.

R301.1.3 Add a last sentence as follows:

‘Engineered design shall be provided by a *registered design professional* using the wind and snow loads, and seismic loads if applicable, from this code.’

R301.2.1 Replace “Figure R301.2(4)” with “Table R301.2(4)”.

R301.2.1.1 Add to subsection 1. the text as follows:

or the *Guide to Wood Construction in High Wind Areas for One- and Two-Family Dwellings, 110 mph Exposure B*. A Commonwealth of Massachusetts version of the checklist can be used in place of the checklist at the end of the guide. The Massachusetts version is found at www.mass.gov/dps; or

TABLE R301.2(1) Replace the table as follows and delete the footnotes:

TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

| GROUND SNOW LOAD | WIND DESIGN | | SEISMIC DESIGN CATEGORY | SUBJECT TO DAMAGE FROM | | |
|-----------------------------|--|---------------------|--|--|------------------|---|
| | Speed (mph) | Topographic Effects | | Weathering | Frost Line Depth | Termite |
| <i>See Table R301.2 (4)</i> | <i>See Table R301.2(5)</i> | <i>No</i> | <i>Applies to townhouses three stories or less, see Figure R301.2(2) or 780 CMR Table 1604.11.</i> | <i>Severe</i> | <i>48 inches</i> | <i>See Figure 301.2 (6)</i> |
| WINTER DESIGN TEMP | ICE BARRIER UNDERLAYMENT REQUIRED | | FLOOD HAZARDS | AIR FREEZING INDEX | | MEAN ANNUAL TEMP |
| <i>Dry bulb</i> | <i>Applicable to roofing,, see Subsection R905.2.7.1</i> | | <i>See Section 322.0 and local flood maps.</i> | <i>Applicable to shallow foundations, see Table R403.3(2).</i> | | <i>See: www.ncdc.noaa.gov/fps f.html</i> |

51.00: continued

R301.2.1.2 Add a second exception as follows:

Exception 2. Doors and windows which meet the construction requirements approved by a *registered design professional*.

301.2.1.3 Replace “Figure R301.2(4)” with “Table R301.2(4)”.

R301.2.1.5.1 Replace “Figure R301.2(4)” with “Table R301.2(4)”.

FIGURE R301.2(4) Delete this figure and footnotes and replace with the following table:

51.00: continued

TABLE R301.2(4) MASSACHUSETTS BASIC WIND SPEEDS

| <90 MPH | 90 MPH | | 100 MPH | | 110 MPH |
|-------------------|-----------------|------------------|------------------|--------------------|----------------|
| Adams | Acton | New Braintree | Abington | Middleton | Acushnet |
| Alford | Agawam | New Marlborough | Amesbury | Milford | Aquinnah |
| Ashfield | Amherst | New Salem | Andover | Millis | Barnstable |
| Becket | Ashburnham | North Brookfield | Arlington | Millville | Bourne |
| Bernardston | Ashby | Northampton | Ashland | Milton | Brewster |
| Buckland | Athol | Northborough | Attleboro | Nahant | Carver |
| Cheshire | Auburn | Northfield | Avon | Natick | Chatham |
| Clarksburg | Ayer | Oakham | Bedford | Needham | Chillmark |
| Colrain | Barre | Orange | Bellingham | Newbury | Dartmouth |
| Cummington | Belchertown | Otis | Belmont | Newburyport | Dennis |
| Dalton | Berlin | Palmer | Berkley | Newton | Duxbury |
| Egremont | Blandford | Paxton | Beverly | Norfolk | Eastham |
| Florida | Bolton | Pelham | Billerica | North Andover | Edgartown |
| Great Barrington | Boxborough | Pepperell | Blackstone | North Attleborough | Fairhaven |
| Greenfield | Boylston | Petersham | Boston | North Reading | Fall River |
| Hancock | Brimfield | Phillipston | Boxford | Northbridge | Falmouth |
| Hawley | Brookfield | Princeton | Braintree | Norton | Freetown |
| Heath | Carlisle | Royalston | Bridgewater | Norwell | Gay Head |
| Hinsdale | Charlton | Russell | Brockton | Norwood | Gosnold |
| Lanesborough | Chelmsford | Rutland | Brookline | Oxford | Halifax |
| Lee | Chester | Sandisfield | Burlington | Peabody | Harwich |
| Lenox | Chesterfield | Shirley | Cambridge | Plainville | Kingston |
| Leyden | Chicopee | Shrewsbury | Canton | Quincy | Lakeville |
| Middlefield | Clinton | Shutesbury | Chelsea | Randolph | Marion |
| Monroe | Conway | South Hadley | Cohasset | Raynham | Marshfield |
| Monterey | Deerfield | Southampton | Concord | Reading | Mashpee |
| Mount Washington | Dracut | Southbridge | Danvers | Rehoboth | Mattapoissett |
| New Ashford | Dunstable | Southwick | Dedham | Revere | Middleborough |
| North Adams | East Brookfield | Spencer | Dighton | Rockland | Nantucket |
| Peru | East Longmeadow | Springfield | Douglas | Rockport | New Bedford |
| Pittsfield | Easthampton | Sterling | Dover | Rowley | Oak Bluffs |
| Plainfield | Erving | Stow | Dudley | Salem | Orleans |
| Richmond | Fitchburg | Sturbridge | East Bridgewater | Salisbury | Pembroke |
| Rowe | Gardner | Sunderland | Easton | Saugus | Plymouth |
| Savoy | Gill | Templeton | Essex | Seekonk | Plympton |
| Sheffield | Goshen | Tolland | Everett | Sharon | Provincetown |
| Shelburne | Granby | Townsend | Foxborough | Sherborn | Rochester |
| Stockbridge | Granville | Tyngsborough | Framingham | Somerville | Sandwich |
| Tyringham | Groton | Wales | Franklin | Southborough | Scituate |
| Washington | Hadley | Ware | Georgetown | Stoneham | Somerset |
| West Stockbridge | Hampden | Warren | Gloucester | Stoughton | Swansea |
| Williamstown | Hardwick | Warwick | Grafton | Sudbury | Tisbury |
| Windsor | Harfield | Wendell | Groveland | Sutton | Truro |
| Worthington | Harvard | West Boylston | Hamilton | Swampscott | Wareham |
| | Holden | West Brookfield | Hanover | Taunton | Welfleet |
| | Holland | West Springfield | Hanson | Tewksbury | West Tisbury |
| | Holyoke | Westfield | Haverhill | Topsfield | Westport |
| | Hubbardston | Westford | Hingham | Upton | Yarmouth |
| | Hudson | Westhampton | Holbrook | Uxbridge | |
| | Huntington | Westminster | Holliston | Wakefield | |
| | Lancaster | Whately | mm | Walpole | |
| | Lawrence | Wilbraham | Hopkington | Waltham | |
| | Leicester | Williamsburg | Hull | Watertown | |
| | Leominster | Winchendon | Ipswich | Wayland | |
| | Leverett | Worcester | Lexington | Webster | |
| | Littleton | | Lincoln | Wellesley | |
| | Longmeadow | | Lynn | Wenham | |
| | Lowell | | Lynnfield | West Bridgewater | |
| | Ludlow | | Malden | West Newbury | |
| | Lunenburg | | Manchester | Westborough | |
| | Maynard | | Mansfield | Weston | |
| | Methuen | | Marblehead | Westwood | |
| | Millbury | | Marlborough | Weymouth | |
| | Monson | | Medfield | Whitman | |
| | Montague | | Medford | Willmington | |
| | Montgomery | | Medway | Winchester | |
| | | | Melrose | Winthrop | |
| | | | Mendon | Woburn | |
| | | | Merrimac | Wrentham | |

51.00: continued

FIGURE R301.2(5) Delete this Figure and replace with Table R301.2(5) for ground snow loads, P_g.

TABLE R301.2(5) MASSACHUSETTS GROUND SNOW LOADS, P_g

| 25 PSF | 35 PSF | 40 PSF | 40 PSF | 50 PSF | | |
|-------------------|--------------------|------------------|------------------|--------------|---------------|------------------|
| Brewster | Abington | Alford | Nahant | Acton | Goshen | Paxton |
| Carver | Agawam | Arlington | Natick | Adams | Greenfield | Pepperell |
| Chatham | Amherst | Ashland | Needham | Amesbury | Groton | Peru |
| Eastham | Avon | Belmont | New Braintree | Andover | Groveland | Petersham |
| Harwich | Belchertown | Bellingham | New Marlborough | Ashburnham | Hamilton | Phillipston |
| Martha's Vineyard | Braintree | Beverly | New Salem | Ashby | Hancock | Pittsfield |
| Nantucket | Brockton | Blackstone | Newton | Ashfield | Harvard | Plainfield |
| Orleans | Chicopee | Blandford | Norfolk | Athol | Haverhill | Princeton |
| Plymouth | Cohasset | Boston | North Brookfield | Auburn | Hawley | Reading |
| Provincetown | East Longmeadow | Brimfield | Northampton | Ayer | Heath | Richmond |
| Truro | Easton | Brookfield | Northbridge | Barre | Hinsdale | Rockport |
| Wareham | Foxborough | Brookline | Norwood | Becket | Holden | Royalston |
| Wellfleet | Granby | Cambridge | Peabody | Bedford | Hubbardston | Rowe |
| | Hadley | Canton | Pelham | Berlin | Hudson | Rowley |
| | Hampden | Charlton | Quincy | Bernardston | Huntington | Rutland |
| | Hingham | Chelsea | Revere | Billerica | Ipswich | Salisbury |
| | Holbrook | Dedham | Russell | Bolton | Lancaster | Sandisfield |
| | Holyoke | Douglas | Salem | Boxborough | Lanesborough | Savoy |
| | | Dover | Saugus | Boxford | Lawrence | Shelburne |
| Acushnet | Hull | Dudley | Sheffield | Boylston | Lee | Shirley |
| Attleboro | Longmeadow | East Brookfield | Sherborn | Buckland | Leicester | Shrewsbury |
| Barnstable | Ludlow | Easthampton | Shutesbury | Burlington | Lenox | Spencer |
| Berkley | Mansfield | Egremont | Somerville | Carlisle | Leominster | Sterling |
| Bourne | Monson | Everett | Southampton | Charlemont | Leyden | Stockbridge |
| Bridgewater | North Attleborough | Framingham | Southborough | Chelmsford | Littleton | Stow |
| Dartmouth | Norwell | Franklin | Southbridge | Cheshire | Lowell | Templeton |
| Dennis | Palmer | Grafton | Stoneham | Chester | Lunenburg | Tewksbury |
| Dighton | Plainville | Granville | Sturbridge | Chesterfield | Maynard | Topsfield |
| Duxbury | Randolph | Great Barrington | Sudbury | Clarksburg | Merrimac | Townsend |
| East Bridgewater | Rockland | Hardwick | Sunderland | Clinton | Methuen | Tyngsborough |
| Fairhaven | Scituate | Hatfield | Sutton | Colrain | Middlefield | Tyringham |
| Fall River | Sharon | Holland | Swampscott | Concord | Millbury | Warwick |
| Falmouth | South Hadley | Holliston | Tolland | Conway | Monroe | Washington |
| Freetown | Southwick | Hopedale | Upton | Cummington | Montague | Wendell |
| Gosnold | Springfield | Hopkington | Uxbridge | Dalton | Monterey | Wenham |
| Halifax | Stoughton | Leverett | Wakefield | Danvers | New Ashford | West Boylston |
| Hanover | West Springfield | Lexington | Wales | Deerfield | Newbury | West Newbury |
| Hanson | Westfield | Lincoln | Walpole | Dracut | Newburyport | West Stockbridge |
| Kingston | Weymouth | Lynn | Waltham | Dunstable | North Adams | Westford |
| Lakeville | Wilbraham | Lynnfield | Ware | Erving | North Andover | Westminster |
| Marion | | Malden | Warren | Essex | North Reading | Williamsburg |
| Marshfield | | Manchester | Washington | Fitchburg | Northborough | Williamstown |
| Mashpee | | Marblehead | Watertown | Florida | Northfield | Willmington |
| Mattapoissett | | Marlborough | Wayland | Gardner | Oakham | Winchendon |
| Middleborough | | Medfield | Webster | Georgetown | Orange | Windsor |
| New Bedford | | Medford | Wellesley | Gill | Otis | Worcester |
| Norton | | Medway | West Brookfield | Gloucester | Oxford | Worthington |
| Pembroke | | Melrose | Westborough | | | |
| Plympton | | Mendon | Westhampton | | | |
| Raynham | | Middleton | Weston | | | |
| Rehoboth | | Milford | Westwood | | | |
| Rochester | | Millis | Whately | | | |
| Sandwich | | Millville | Winchester | | | |
| Seekonk | | Milton | Winthrop | | | |
| Somerset | | Montgomery | Woburn | | | |
| Swansea | | Mount Washington | Worcester | | | |
| Taunton | | | Wrentham | | | |
| West Bridgewater | | | | | | |
| Westport | | | | | | |
| Whitman | | | | | | |

51.00: continued

R301.2.2 Exception Delete the following text: ‘located in Seismic Design Category C’

R301.2.4 Delete the exception, only.

R301.2.4.1 Delete subsection.

R303.3 Add two sentences as follows:

Mechanical ventilation is required for bathrooms with a shower or bathtub. Also see 105 CMR 410.000: *Minimum Standards of Fitness for Human Habitation (State Sanitary Code, Chapter II)* and 248 CMR 10.00: *Uniform State Plumbing Code* as these codes may also have mechanical ventilation requirements.

R303.6 Add a first sentence as follows:

‘Stairway illumination shall comply with 527 CMR 10.00: *Fire Prevention, General Provisions.*’ and retain the remaining text of the paragraph.

R303.8 Add a last sentence as follows:

‘See 105 CMR 410.000: *Minimum Standards of Fitness for Human Habitation (State Sanitary Code, Chapter II)* for rental property.’

R305.1 Delete the text ‘and portions of basements containing these spaces’

R305.1.1 Replace the paragraph as follows:

‘Basements areas, including but not limited to areas with suspended ceilings, shall have a ceiling height of not less than six feet eight inches.’ Retain the **Exception**.

R306.5 Add subsection:

R306.5 Other Regulations. Requirements of Section R306 shall be in conformance with the Board of Fire Prevention Regulations at 527 CMR, 248 CMR 10.00: *Uniform State Plumbing Code*, 310 CMR 15.00: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage* and 105 CMR 410.000: *Minimum Standards of Fitness for Human Habitation (State Sanitary Code, Chapter II)*.

R307 Replace in its entirety as follows:

R307.1 Toilet, Bath, and Shower. Requirements of Section R307 shall be in conformance with 248 CMR 10.00: *Uniform State Plumbing Code*.

R308.1 Add a last sentence as follows: ‘Also see M.G.L. c. 143 §§ 3t, 3u, and 3v’

R310.1.1 Add a second exception:

Exception. Double hung windows shall have a minimum net clear opening of 3.3 square feet (0.31 m²).

R310.1.2 Replace as follows:

R310.1.2 Dimensions. The minimum net clear opening dimensions shall be 20 inches by 24 inches in either direction.

R310.1.3 Reserved.

51.00: continued

R311.1 and R311.2 Replace as follows:

R311.1 Means of Egress. All *dwelling*s shall be provided with two means of egress as provided in this section. The means of egress shall provide a continuous and unobstructed path of vertical and horizontal egress travel from all portions of the *dwelling* to the exterior of the *dwelling* at the required egress doors without requiring travel through a garage. For townhouses also *see* the Architectural Access Board's regulations at 521 CMR.

Exception. Egress through the secondary egress door, required in subsection R311.2, may include travel through a garage provided the garage has an exit door meeting the requirements of a secondary egress door.

R311.2 Egress Door. At least two egress doors shall be provided for each *dwelling* unit, remote as possible from each other, at the normal level of exit.

Exceptions:

1. In multi-level dwellings, including but not limited to townhouses, split-level and raised ranch style layouts, the two separate egress doors required by R311.2 are permitted to be located on different levels.
2. Where site topography prevents direct access at two remote locations to grade from the normal level of entry, the two separate egress doors required by R311.2 are permitted to be located on different levels.

The primary egress door shall be side-hinged, and shall provide a minimum clear width of 32 inches (813 mm) when measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). The secondary egress door shall be side-hinged or sliding, and shall provide a minimum clear width of 28 inches (711 mm) when measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). The minimum clear height of the primary and secondary egress door opening shall not be less than 78 inches (1981 mm) in height measured from the top of the threshold to the bottom of the stop. Other exterior doors shall not be required to comply with these minimum dimensions. Egress doors shall be readily openable from inside the *dwelling* without the use of a key or special knowledge or effort.

R311.2.1 Add subsection:

R311.2.1 Interior Doors. All doors providing access to habitable rooms shall have a minimum nominal width of 30 inches (762 mm) and a minimum nominal height of six feet, six inches (1981 mm).

Exceptions:

1. Doors providing access to bathrooms are permitted to be 28 inches (711 mm) in nominal width.
2. Doors providing access to bathrooms in existing buildings are permitted to be 24 inches (610 mm) in nominal width.

R311.7.4.1 Replace the phrase '7¾ inches (196 mm)' with '8¼ inches (210 mm)'.

R311.7.4.2 Replace the phrase '10 inches (254 mm)' with '9 inches (229 mm)'

R311.7.4.2 Replace the second paragraph as follows:

Winder treads shall have a minimum tread depth equal to the tread depth of the straight run portion of the stairs measured as above at a point 12 inches from the side where the treads are narrower. Winder treads shall have a minimum tread depth of three inches at any point. Within any flight of stairs, the greatest winder tread depth at the 12 inch walk line shall not exceed the smallest by more than 3/8 inch.

R313.1.1 Replace as follows:

R313.1.1 Design and Installation. Automatic residential fire sprinkler systems for townhouses shall be designed and installed in accordance with NFPA 13, 13R, or 13 D, as applicable.

1. A townhouse building with an aggregate area of 12,000 square feet or more shall use a NFPA 13 system.

51.00: continued

2. A townhouse building with an aggregate area less than 12,000 square feet shall be permitted to use a NFPA 13-R system.

Exception. A three unit townhouse building with an aggregate area less than 12,000 square feet shall be permitted to use a NFPA 13-D system.

For the purposes of this section the aggregate area shall be the combined area of all stories of the building and fire walls shall not be considered to create separate buildings. Aggregate area shall include garage area, basement area, and finished attic area. Unfinished attic area shall not be included in aggregate area.

R313.2 Replace as follows:

R313.2 One- and Two-family Dwellings Automatic Fire Sprinkler Systems. Only one- and two-family dwellings having an aggregate area greater than 14,400 square feet shall have fire sprinklers installed in accordance with NFPA 13D. Aggregate area for the purpose of this section shall include basements but not garages and unfinished attics. Additions to such dwellings with automatic sprinkler systems shall have automatic sprinklers installed in accordance with NFPA 13D.

R313.2.1 Delete the text: ‘Section P2904 or’

R314.1 Replace the text “listed in accordance with UL 217” as follows “photoelectric type smoke alarms listed in accordance with UL 217 or UL 268.

R314.3 Add subsections 4 and 5 as follows:

4. Near the base of all stairs where such stairs lead to another occupied floor.
5. For each 1,200 square feet of area or part thereof.

R314.5 Add a section and a subsection:

R314.5 Heat Detector. A single heat detector listed for the ambient environment shall be installed in:

1. Any integral garage (“garage under”) or attached garage to the main house (detached garages do not require a heat detector).
2. A new addition attached garage to an existing dwelling. If the existing house contains a fire detection system that is compatible with the garage heat detector, then the detector shall be interconnected to the existing system. Where the existing fire detection system is not compatible with the garage heat detector, the garage heat detector shall be connected to a sounder (occupant notification appliance) or compatible heat detector containing a sounding device, located in the dwelling and within 20 feet (6096 mm) of the nearest door to the garage from the dwelling. The required garage heat detector is neither required to incorporate audible alarm notification nor is any audible notification device required in the garage.

R314.5.1 Heat Detector Placement. For flat-finished ceilings, the single heat detector shall be placed on or near the center of the garage ceiling. For sloped ceilings having a rise to run of greater than one foot in eight feet (305 mm in 2438 mm), the single heat detector shall be placed in the approximate center of the vaulted ceiling but no closer than four inches (102 mm) to any wall.

R315.1 Replace as follows:

R315.1 Governing Regulations. Carbon monoxide alarms (alarms) for new construction and existing dwellings shall be furnished, installed and maintained by the owner in accordance with this section, M.G.L. c. 148, § 26F½, 527 CMR 31.00: *Carbon Monoxide Alarms*, 248 CMR, NFPA 720 and the manufacturer’s instructions.

51.00: continued

R315.2 Replace as follows:

R315.2 Installation Locations. One alarm shall be installed on each story of a dwelling unit, including basements and cellars (but not including crawl spaces and uninhabitable attics). When mounting a carbon monoxide alarm on a story with a bedroom, the alarm, shall be located outside of bedrooms but no further than 10 feet of any bedroom door. If a combination smoke/carbon monoxide alarm is used, its location must comply with this section.

R315.3 Replace as follows:

R315.3 New Construction. Alarms shall either be an interconnected 120V or part of a low-voltage combination system or wireless system. Alarms shall have secondary (standby) power from monitored batteries in accordance with NFPA 72. For fire alarm control units (panels) and wireless systems, the panel battery shall serve as the source of secondary power. Alarms shall be UL 2034 or UL 2075 listed, as applicable. Alarms may be interconnected with fire alarms providing they are compatible and the fire alarms take precedence.

R315.4 Add subsection:

R315.4 Existing Dwellings. For existing dwellings, carbon monoxide alarms shall be provided in accordance with Section 315 for new construction, as applicable, for the following circumstances:

1. When one or more bedrooms are added or created in a dwelling unit, the entire dwelling shall be provided with alarms.
2. When a dwelling unit undergoes complete reconstruction such that all walls and ceilings are open to framing the entire dwelling unit shall be provided with alarms.
3. In an existing two-family dwelling, when one or more bedrooms are added or created in both of the two dwelling units, the entire building shall be provided with alarms.
4. In a townhouse building when one or more bedrooms are added or created in a dwelling then that dwelling unit shall be provided with carbon monoxide alarms.
5. In a townhouse building when a dwelling unit undergoes complete reconstruction such that all walls and ceilings are open to framing, that dwelling unit shall be provided with carbon monoxide alarms.

R319.1 Replace subsection:

R319.1 Address Numbers. *See* M.G.L. c. 148, § 59.

R320.1 Replace subsection:

R320.1 Scope. *For townhouses see* 521 CMR.

R321.1 Replace 'ASME A17.1' with '524 CMR'.

R321.2 Replace 'ASME A18.1' with '524 CMR'.

R321.3 Replace 'ICC A117.1' with '524 CMR and 521 CMR'.

R322.1 Replace as follows and delete the exception:

R322.1 General. Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) as established in Table R301.2(1), or in a coastal dune as established in Section R322.4 shall be designed and constructed in accordance with the provisions contained in this section.

R322.1.1 Add the following note to this subsection:

Note. In using ASCE 24 delete tables 1-1, 2-1, 4-1, 5-1, 6-1, and 7-1. For elevation requirements use elevation requirements of R322, as amended. Also, delete references to Coastal A zones and instead use requirements for A zones in R322.

51.00: continued

R322.1.4 Replace as follows:

R322.1.4 Establishing the Design Flood Elevation. The design flood elevation shall be used to define areas prone to flooding. The design flood elevation is the base flood elevation at the depth of peak elevation of flooding (including wave height) which has a 1% (100-year flood) or greater chance of being equaled or exceeded in any given year, and as obtained from the community's Flood Insurance Study (FIS) with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM).

R322.1.4.2 Delete subsection.

R322.1.5 Replace "is useable" with "is not a basement and is useable".

R322.1.7 Delete.

R322.1.11 Add subsection:

R322.1.11 Basement. The portion of a building having its floor subgrade (below ground level) on all sides, but is not a crawlspace. This definition of "Basement" is limited in application to the provisions of Section R322.

R322.1.12 Add subsection:

R322.1.12 Construction documents. The *construction documents* shall include documentation that is prepared and sealed by a *registered design professional* that the design and methods of construction to be used meet the applicable criteria of this section.

R322.2 Replace as follows:

R322.2 Flood Hazard Areas (A Zones). All areas that have been determined to be prone to flooding but not subject to high velocity wave action shall be designated as flood hazard areas. Flood Hazard areas shall include all areas shown as A zones on the most recent Flood Hazard Boundary Map or Flood Insurance Rate Map. All building and structures constructed in whole or in part in flood hazard areas shall be designed and constructed in accordance with subsections R322.2.1 through R322.2.3.

R322.2.1 Revise as follows and delete the exception:

R322.2.1 Elevation Requirements.

1. Buildings and structures in flood hazard areas shall have the lowest floors elevated to or above the design flood elevation.
2. In areas of shallow flooding (AO Zones), buildings and structures shall have the lowest floor (including basement) elevated at least as high above the highest adjacent grade as the depth number specified in feet on the FIRM, or at least 2 feet (610 mm) if a depth number is not specified.
3. Basement floors shall be elevated to or above the design flood elevation.
4. For lateral additions that are a substantial improvement, only the addition shall be elevated so that the lowest floor, including basement/cellars, is located at or above design flood elevation.

R322.2.2 In the first sentence, after "design flood elevation" insert "and are not basements".

R322.3 Add a second sentence as follows:

"Coastal high-hazard areas shall include all areas shown as V zones on the most recent Flood Hazard Boundary Map or Flood Insurance Rate Map."

R322.3.1 Delete item 2.

51.00: continued

R322.3.2 Replace item 1 and add item 5 as follows:

1. All buildings and structures erected within coastal high hazard areas shall be elevated so that the lowest portion of all structural members supporting the lowest floor, with the exception of mat or raft foundations, piling, pile caps, columns, grade beams and bracing, is located at or above the design flood elevation plus two feet.
5. For lateral additions that are not a substantial improvement, only the addition shall be elevated so that the bottom of the lowest horizontal structural member of the lowest floor with the exception of pilings or pile caps is located at an elevation that is at least two feet above the design flood elevation.

322.3.6 Delete.

R322.4 Add subsection:

R322.4 Coastal Dunes. The following applies to construction in a coastal wetland resource area:

R322.4.1 Determination of Coastal Dunes. To reduce flood damage, ensure the structural integrity of buildings or structures including manufactured homes, located in coastal dunes, to protect the public safety and to eliminate certain conflicts between the coastal dune performance standards set forth in the Wetlands Protection Act Regulations, 310 CMR 10.28, and this code, R322.4 establishes requirements for design and construction in coastal dunes significant to the interests of flood control and/or storm damage prevention identified in 310 CMR 10.28: *Coastal Dunes*.

To determine whether a proposed building or structure, including a manufactured home, a lateral addition, work on a foundation that under R105.3.1.2 requires compliance with R322, or substantial improvement to a building or structure that has incurred substantial damage as the result of flooding and/or storms is located within an area that is a coastal dune significant to the interests of flood control and/or storm damage prevention, the *building official* shall require the submission of certain *construction documents* in accordance with R322.4.2.

R322.4.2 Construction Documents. For buildings and structures, including new or replacement manufactured homes, lateral additions, foundations that are replaced in total or repaired so as to constitute substantial repair of a foundation, or substantial repair or improvement of a building or structure that has incurred substantial damage as a result of flooding and/or storms, proposed on a parcel of land that is located wholly or partially within a coastal wetland resource area shown on the map entitled "Map of Coastal Wetland Resources For Building Officials", the *building official* shall require submission of one of the *construction documents* specified in (a) through (d) along with a notarized statement by the applicant that the Order, Determination or Notice is in effect and is not the subject of any administrative appeals before the Department of Environmental Protection or the Division of Administrative Law Appeals. No building *permit* shall issue unless and until a construction document that conforms to the requirements of this section is submitted.

(a) An Order of Conditions establishing the boundaries of all coastal wetland resource areas in a plan referenced in and accompanying the Order. The Order shall determine whether the coastal wetland resource areas are significant to any of the interests identified in the Wetlands Protection Act, M.G.L. c. 131, § 40 including the interests of flood control and storm damage prevention. If the Order indicates that the proposed construction work is located within a coastal dune that is significant to the interests of flood control and/or storm damage prevention, the Order of Conditions must allow the proposed construction.

(b) An Order of Resource Area Delineation stating that the proposed construction work is outside the boundaries of all coastal wetland resource areas as shown on a plan referenced in and accompanying the Order.

(c) A Determination of Applicability stating that the proposed construction work is outside the boundaries of all coastal wetland resource areas as shown on a plan referenced in and accompanying the Determination or will not fill, dredge or alter a coastal wetland resource area.

51.00: continued

(d) A Notice of Non-significance evidencing that the proposed construction work is within a coastal wetland resource area as shown on a plan referenced in and accompanying the Notice and stating that the coastal wetland resource area is not significant to any of the interests identified in M.G.L. c. 131, § 40: *Removal, Fill, Dredging or Altering of Land Bordering Waters* (the Wetlands Protection Act).

R322.4.3 Structural Elevation. The elevation of the bottom of the lowest horizontal structural member, as required by the lowest floor elevation inspection in Subsection R109.1.3, shall be submitted.

R322.4.4 Additional Documentation. Documentation for buildings located in more than one zone shall meet the requirements of all zones.

R322.4.5 Elevation Requirements. For new buildings and structures, new foundations, replacement or substantial repair of a foundation, or repair of a substantially damaged structure where damage is the result of a storm or flooding the entire structure shall be elevated so that the bottom of the lowest horizontal structural member of the lowest floor with the exception of pilings or pile caps is located at the elevation required by the Order of Conditions of the local Conservation Commission in accordance with the Wetlands Protection Act, M.G.L. c. 131, §40: *Removal, Fill, Dredging or Altering Land Bordering Waters* (the Wetland Protection Act) and Wetlands Protection Regulations, 310 CMR 10.21 through 10.35: *Additional Regulations for Coastal Wetlands*. For lateral additions that are not a substantial improvement, only the addition shall be elevated so that the bottom of the lowest horizontal structural member of the lowest floor with the exception of pilings or pile caps is located at the elevation required by the Order of Conditions of the local Conservation Commission in accordance with M.G.L. c. 131, § 40 and Wetlands Protection Regulations, 310 CMR 10.21 through 10.35.

R322.4.6 Foundations. Foundations for work meeting the elevation requirements of Section R322 shall consist of open pilings without footings to allow the movement of the dune.

Exception. Where surface or subsurface conditions consist of non-erodible soil that prevents the use of pile foundations, spread footings or mat foundations may be permitted. Such foundations shall be anchored to prevent sliding, uplift or overturning of the footing and the non-erodible soil it is attached to and be designed to withstand any combination of loads.

R322.4.7 Enclosed Areas below Design Flood Elevation. Enclosures are not permitted below the lowest horizontal structural member of the lowest floor.

R401.2 Add exception:

Exception. Compacted fill not more than 12 inches (305 mm) in depth, provided that the fill is adequately compacted using appropriate mechanical means.

R401.3 Add a last sentence as follows:

“Temporary and finished grading shall not direct nor create flooding or damage to adjacent property during or after completion of construction”.

R401.4.1 Insert after “Table R401.4.1” the text “or 780 CMR Table 1806.2a”

R401.5 Add subsection:

R401.5 Seismic Requirements. Seismic requirements in this chapter shall only apply to townhouses and shall not apply to one- and two-family dwellings.

R401.6 Add subsection:

R401.6 Flood Resistant Construction. See section 322 for flood-resistant construction requirements.

R403.1 Add the following to the end of the second sentence:

“as per subsection R401.2”

51.00: continued

R403.1.6 Add the designation “A 307 or other applicable steel” before the word “anchor bolt” in the first sentence of the second paragraph. Also, after the words “anchor bolts” insert the text “installed in accordance with the manufacturer’s printed instructions.”

R404.1.7 Add a last sentence as follows:

Backfill material shall be free draining and free of organic materials, construction debris, cobbles and boulders, shall be placed in lifts not exceeding 12-inches and shall be mechanically compacted.

R406.2 After the last paragraph (on membranes) add this paragraph:

Through-wall formwork ties shall be removed from both faces of the foundation walls which enclose basements, cellars, below-grade garages or any space having the potential to be converted to useable or occupied space. Remaining holes shall be patched with hydraulic cement.

R408.7 Delete the exception.

R502.2.2 At the end of this paragraph add this text “and no live load acting on the interior span.”

R502.3 At the end of the second sentence add this text:

“or the American Wood Council (AWC) *Maximum Span Calculator for Wood Joists & Rafters* found at <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>”

R502.11.1 Replace “registered professional” with “registered design professional”.

R506.1.1 Add subsection, exception, and associated table:

R506.1.1 Control Joints. Slabs shall be constructed with control joints having a depth of at least one quarter of the slab thickness but not less than one inch (25 mm). Joints shall be spaced at intervals not greater than 30 feet (9144 mm) in each direction. Control joints shall be placed at locations where the slab width or length changes.

Exception. Control joints may be omitted when the slab is reinforced in accordance with Table R506.1.1. Reinforcement shall be placed at the mid-depth of the slab or two inches (51 mm) from the top of slabs greater than four inches (102 mm) in thickness.

Table R506.1.1

| Maximum Dimension of Slab or Distance Between Control Joints (ft.) | | | | | | WWF Wire Spacing (in.) | WWF Wire Size Designation (in.) |
|--|----|-----|-----|-----|----|------------------------|---------------------------------|
| Slab Thickness (in.) | | | | | | | |
| 3.5 | 4 | 4.5 | 5.0 | 5.5 | 6 | | |
| 42 | 36 | 32 | 29 | 26 | 24 | 6 x 6 | W1.4 x W1.4 |
| 59 | 52 | 46 | 42 | 38 | 35 | 6 x 6 | W2.0 x W2.0 |
| 86 | 75 | 67 | 60 | 55 | 50 | 6 x 6 | W2.9 x W2.9 |

R602.10 Add a second exception as follows:

Exception 2. Unconditioned single story rooms, of areas less than 600 sq. ft., where the main dwelling is connected to the room via an exterior door or slider and no other openings between the main dwelling and room exist (*i.e.* thermally isolated).

702.3.5.1 Add subsection:

702.3.5.1 Ceiling attachment. Only designs or methods that use mechanical fasteners in accordance with Table R702.3.5 shall be used for attaching gypsum board to ceilings in buildings governed by this code including manufactured buildings. Alternative designs, such as using adhesive only, are not permitted.

51.00: continued

R802.4 Add this text to the end of the second sentence:

‘or utilize the American Wood Council (AWC) *Maximum Span Calculator for Wood Joists & Rafters* found at <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>

R802.5 Add this text to the end of the second sentence:

‘or utilize the American Wood Council (AWC) *Maximum Span Calculator for Wood Joists & Rafters* found at <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>

R901.1 Add a final sentence as follows:

In roofing and reroofing, the energy conservation requirements of Chapter 11 must also be satisfied.

R905.1 Add a final sentence as follows:

Where there is a discrepancy between the requirements of this section and the manufacturer’s printed instructions or code evaluation report, the manufacturer’s printed instructions or code evaluation report shall govern.

R906.1 Add a final sentence as follows:

In roofing and reroofing, the energy conservation requirements of Chapter 11 must also be satisfied.

R1001.1 Add a second sentence that reads:

Chimneys shall be structurally sound, durable, smoke tight and capable of conveying flue gases to the exterior safely.

R1003.11 Add a second sentence that reads:

Liner size, length and installation shall be in accordance with this code or the appliance manufacturer’s requirements as applicable.

N1101.2 and **N1101.2.1** Replace as follows:

N1101.2 Compliance. Climate zone 5A shall be used for municipalities in MA. Compliance to this chapter shall be demonstrated by, either:

1. Meeting the requirements of the *International Energy Conservation Code 2009* or,
2. Compliance with Sections N1101, N1102.4, N1102.5, N1103.1, N1103.2.2, N1103.2.3, and N1103.3 to N1103.9 and either:
 - a. Sections N1102.1 through N1102.3, N1103.2.1 and N1104.1 or
 - b. Section 405 of the *International Energy Conservation Code 2009* and these Massachusetts amendments:

405.6.2.1 Add subsection:

405.6.2.1 Approved Calculation Software Tools. Software tools meeting the requirements of Subsection 405.6 are:

1. **REScheck:** found at <http://www.energycodes.gov/>

405.7 Add subsections:

405.7 Approved Alternative Energy Performance Methods. In addition to the IECC performance compliance path detailed in subsections 405.1 to 405.5 the following rating threshold criteria of this section are sufficient to demonstrate energy code compliance under section 405 without calculation of a standard reference design.

51.00: continued

1. **RESNET Approved Software for the Home Energy Rating System (HERS).** Where the HERS rater verified index on the building is 75 or fewer points for the finished building together with a completed and HERS rater verified ENERGY STAR Thermal Enclosure Checklist. The *mandatory provisions* of subsection 401.2 apply.

2. **Passive House Institute US (PHIUS) Approved Software: Passive House Planning Package (PHPP).** Where the Specific Space Heat Demand as modeled in Passive House Planning Package (PHPP) by a Certified Passive House Consultant is less than or equal to 20 KBtu/sq ft/year. The *mandatory provisions* of subsection 401.2 apply.

405.7.1 Documentation. The following documentation is required for energy code compliance under subsection 405.7:

1. For HERS compliance, a compliance report which includes a proposed HERS index of 75 or lower, a description of the building's energy features, and a statement that the rating index is "based on plans" will be required for issuance of a building *permit*. A copy of the final certificate indicating that the HERS rater verified index is 75 or less for the finished building together with a completed HERS rater verified ENERGY STAR Thermal Enclosure Checklist is to be submitted to the *building official* before the certificate of occupancy is issued.

2. For Passive House Planning Package (PHPP) verified compliance, a compliance features, and a statement that the estimated Specific Space Heat Demand is "based on plans" will be required for issuance of a building *permit*. A copy of the final PHPP report indicating the finished building achieves a Certified Passive House Consultant-verified Specific Space Heat Demand of less than or equal to 20 KBtus/sq ft/year shall be submitted to the *building official* before the certificate of occupancy is issued.

N1101.2.1 Interior Design Conditions. The interior design temperatures used for heating and cooling load calculations shall be a maximum of 72°F (22°C) for heating and minimum of 74°F (24°C) for cooling.

Table N1102.2.1 In the Climate Zone 5 row, replace the value '.060' with '.057'.

N1102.2.2 Replace the second sentence as follows: 'This reduction of insulation from the requirements of Section N1102.1 shall be limited to 500 square feet (46 m²) or 20% of the total insulated ceiling area, whichever is less.'

Table N1102.2.1 To the criteria of the first row of the table add 'Air-permeable insulation is inside of an air barrier' and to the criteria of the fifth row of the table replace 'floor' with 'insulation'

N1102.5 Add subsection:

N1102.5 Maximum Fenestration U-factor and SHGC. The area-weighted average maximum fenestration U-factor permitted using trade-offs from Subsection N1102.1.3 or N1105 shall be 0.48.

N1103.8.3 Add an exception as follows:

Exception. Pool covers deriving over 60% of the energy for heating from site-recovered energy or solar energy source.

M1201.1 Add a final sentence as follows:

In this chapter where the design, installation, maintenance, alteration and/or inspection of mechanical systems is controlled by one of the *specialized codes* (see Chapter 1) the requirements of the *specialized codes* govern and enforcement shall be by a person other than the *building official*.

51.00: continued

M1301.1 Add a final sentence as follows:

In this chapter where the design, installation, maintenance, alteration and/or inspection of mechanical systems is controlled by one of the *specialized codes* (see Chapter 1) the requirements of the *specialized codes* govern and enforcement shall be by a person other than the *building official*.

M1303.2 Add subsection:

M1303.2 Solid Fuel-burning Appliance Labeling. Solid fuel-burning appliances (see Subsection M1303.3 for Central Heating Appliances) shall bear a permanent and legible factory-applied label supplied to the manufacturer and controlled by an approved testing agency; such label shall contain the following information:

1. Manufacturer's name and trademark;
2. Model and/or identification number of the appliance;
3. Type(s) of fuel(s) approved;
4. Testing laboratory's name or trademark and location;
5. Date tested;
6. Clearances to combustibles:
 - a. Above top
 - b. From front
 - c. From back
 - d. From sides
7. Floor protection*;
8. National test (listing) standard(s); and
9. Label serial number.

*If floor protection information is not on the label, it will be acceptable if contained with the User/Installation Manual.

M1303.3 Add subsection:

M1303.3 Solid Fuel-burning Central Heating Appliance Labeling. Solid fuel-burning boilers or warm air furnaces shall bear a permanent and legible factory-applied label supplied to the manufacturer and controlled by an approved testing agency; such label shall contain Subsection M1303.2 items 1. to 9. and the following information:

10. Type of appliance (boiler or warm air furnace);
11. Boilers, pressure vessels, and pressure relief devices must be stamped in accordance with M.G.L. c. 146, §§ 24 and 34.

M1401.1 Add a final sentence as follows:

In this chapter where the design, installation, maintenance, alteration and/or inspection of mechanical systems is controlled by one of the *specialized codes* (see Chapter 1) the requirements of the *specialized codes* govern and enforcement shall be by a person other than the *building official*.

M1401.6 Add subsection:

M1401.6 Solid Fuel-Burning Heating Appliances. Solid fuel-burning heating appliances include, but are not limited to: room heaters and stoves, fireplace inserts, furnaces and boilers. The fuel for such appliances includes, but is not limited to: wood, wood pellets, coal, nut shells, and corn. Solid fuel-burning appliances shall be tested and listed by approved agencies and installed, operated and maintained in accordance with such listing, the manufacturers' requirements and otherwise conform to the requirements of this chapter or those found in the *International Mechanical Code*.

Notes:

1. No solid fuel-burning appliance shall be installed in Massachusetts unless such appliance conforms to all applicable requirements of this chapter, including the testing and listing of all clearances to combustibles and identification of required floor protection.

51.00: continued

2. In the absence of explicit requirements of this chapter, the applicable requirements of NFPA 211 shall apply.

M1401.6.1 Hazardous Locations. Solid fuel-burning appliances shall not be installed in hazardous locations (any location considered to be a fire hazard for flammable vapors, dust, combustible fibers or other highly combustible substances)

Exception. Solid fuel-fired appliances listed for such locations.

M1401.6.2 Floor Protection General. Floor protection listing requirements for a new or used appliance shall be met. In the absence of listing requirements, solid fuel-burning appliances shall have floor protection that is noncombustible material applied to the combustible or noncombustible floor area underneath and extending in front, to the sides and to the rear of a heat producing appliance, and have the necessary thermal conductivity to satisfy the floor protection requirements of the appliance. Various “hearth rugs,” “mats,” “tile board,” “hearth board” and similar products sold as floor protectors may be noncombustible but may not satisfy thermal conductivity requirements of this section.

M1401.6.2.1 Floor Protection Requirements. Floor protection requirements shall be:

1. four inches (102 mm) of millboard having a thermal conductivity $k = 0.84$ (Btu)(inch)/(ft²)(hour)(°F) or,
2. a noncombustible floor protector of the same overall thermal conductivity in (1.) or,
3. approved by a *registered design professional*.

Exception. If existing floor protection can be demonstrated to have been adequate for a previous installation of a used solid fuel-burning appliance, then such floor protection shall be allowed. If calculations demonstrate that the existing floor protection has a thermal conductivity lower than that set by this section, then the existing floor protection may be maintained.

M1401.6.3 Used Solid Fuel-burning Appliances. Used solid fuel-burning appliances that predate the listing requirements set forth in this code may be utilized but the installation of such appliances shall otherwise conform to the requirements of this code, as applicable and such installations shall be inspected by the *building official* (or fire official in such towns that utilize the fire official for such inspection purposes).

M1401.6.3.1 Used Solid Fuel-burning Appliance Clearances to Combustibles. In the absence of listed clearances and floor protection requirements, used solid fuel-burning appliances shall be installed in accordance with the clearances of this code.

M1414.1 Add a final sentence as follows:

Also *see* Chapter 10 for detailed guidance on solid fuel-burning appliances.

M1501.1 Add a final sentence as follows:

In this chapter where the design, installation, maintenance, alteration and/or inspection of mechanical systems is controlled by one of the *specialized codes* (*see* Chapter 1) the requirements of the *specialized codes* govern and enforcement shall be by a person other than the *building official*.

M1507.1 Replace as follows:

M1507.1 General. Toilet rooms and bathrooms shall be mechanically ventilated in accordance with the requirements of Table M1507.3 and the ventilation equipment shall be installed in accordance with this chapter and the governing *specialized codes*.

M1601.1 Add a final sentence as follows:

In this chapter where the design, installation, maintenance, alteration and/or inspection of mechanical systems is controlled by one of the *specialized codes* (*see* Chapter 1) the requirements of the *specialized codes* govern and enforcement shall be by a person other than the *building official*.

51.00: continued

M1601.3 Replace the first sentence as follows:

Duct insulation shall conform to the following requirements and the requirements of Chapter 11.

M1601.4 Delete the sentence and replace with:

Duct installation shall comply with Subsections M1601.4.1 through M1601.4.7 and the requirements of Chapter 11.

M1601.4.5 Delete the first phrase and replace with:

Duct insulation shall be installed in accordance with the following requirements and the requirements of Chapter 11. Where conflict exists between the requirements of this Section and Chapter 11, Chapter 11 requirements shall govern.

M1701.1 Replace as follows:

M1701.1 Scope. Solid-fuel-burning appliances shall be provided with combustion air in accordance with the appliance manufacturer's installation instructions. Oil-fired appliances shall be provided with combustion air in accordance with 527 CMR 4.00: *Oil Burning Equipment*. The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct-vent appliances. The requirements for combustion and dilution air for gas-fired appliances shall be in accordance with Chapter 24. In this chapter where the design, installation, maintenance, alteration and/or inspection of mechanical systems is controlled by one of the *specialized codes* (see Chapter 1) the requirements of the *specialized codes* govern and enforcement shall be by a person other than the *building official*.

M1801.1 Replace the third sentence as follows:

The requirements of this chapter shall not apply to gas-fired and oil-fired appliances. For gas-fired appliances see the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR. For oil-fired appliances see 527 CMR 4.00: *Oil Burning Equipment*. For electrical requirements see 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. For fire prevention regulations 527 CMR governs, except where 527 CMR is silent, in which case the *International Fire Code* requirements, as applicable, apply. Solid fuel-burning appliances shall satisfy the manufacturer's requirements, and in the absence of same, this code shall apply.

M1801.11 Delete the Exception to subsection 1.

M1801.12 Add an Exception as follows:

Exception. Unless common connection is allowed by 248 CMR or 527 CMR. If allowed, the common flue shall be of such size to serve all appliances connected if such appliances were operated simultaneously. Note that 248 CMR and 527 CMR are enforced by gas inspectors, and the heads of fire departments, respectively.

M1803.2 In the subsection title and the paragraph delete the text "oil and"

M1900 Add section:

M1900 General. The requirement of this chapter shall not apply to gas-fired and oil-fired appliances. For gas-fired appliances see the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR. For oil-fired appliances see 527 CMR 4.00: *Oil Burning Equipment*. For electrical requirements see 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. For fire prevention regulations 527 CMR governs, except where 527 CMR is silent, in which case the *International Fire Code* requirements, as applicable, apply. Solid fuel-burning appliances shall satisfy the manufacturer's requirements, and in the absence of same, this code shall apply.

51.00: continued

M2000 Add section:

M2000 General. The requirement of this chapter shall not apply to gas-fired and oil-fired appliances. For gas-fired appliances *see* the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR. For oil-fired appliances *see* 527 CMR 4.00: *Oil Burning Equipment*. For electrical requirements *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. For fire prevention regulations 527 CMR governs, except where 527 CMR is silent, in which case the *International Fire Code* requirements, as applicable, apply. Solid fuel-burning appliances shall satisfy the manufacturer's requirements, and in the absence of same, this code shall apply. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and the Board of Boiler Rules at 522 CMR, as applicable.

M2100 Add section:

M2100 General. The requirement of this chapter shall not apply to gas-fired and oil-fired appliances. For gas-fired appliances *see* the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR. For oil-fired appliances *see* 527 CMR 4.00: *Oil Burning Equipment*. For electrical requirements *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. For fire prevention regulations 527 CMR governs, except where 527 CMR is silent, in which case the *International Fire Code* requirements, as applicable, apply. Solid fuel-burning appliances shall satisfy the manufacturer's requirements, and in the absence of same, this code shall apply. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and the Board of Boiler Rules at 522 CMR, as applicable.

M2101.3 Replace 'listed in Section P2902' with 'of the Department of Environmental Protection and/or the local water purveyor, as applicable.'

M2201 through **M2204** Replace in their entirety, as follows:

M2201 Special Piping and Storage Systems. Special laws and/or regulations impact requirements for oil tanks, piping, fittings, connections, installation, and oil pumps and valves. Refer to M.G.L. c. 148, § 13, M.G.L. c. 148, § 37, the Board of Fire Prevention Regulations at 527 CMR, the Board of Boiler Rules at 522 CMR and EPA regulations (as well as this code for tank structural design).

M2301.1 Add three notes as follows:

Notes:

1. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and the Board of Boiler Rules at 522 CMR, as applicable.
2. Where solar thermal systems involve matters of potable water and/or wastewater *see* the Board of State Examiners for Plumbers and Gas Fitters regulations at 248 CMR.
3. Photovoltaic systems shall be designed and installed in accordance all governing loading conditions, fire protection, energy conservation and weatherization requirements dictated by this code and the electrical requirements of 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)* and those of the manufacturer.

2400 Add section:

2400 General. Retain the sections listed in Table 2400. For all other requirements of this chapter *see* the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR.

51.00: continued

TABLE 2400

| | |
|---|--|
| G2404.6 (301.10) Wind resistance | G2427.5.6.1 (503.5.7.1) Solid fuel-burning appliances |
| G2404.7 (301.11) Flood hazard | G2427.5.6.3 (503.5.7.3) Combination gas- and solid fuel-burning appliances |
| G2404.8 (301.12) Seismic resistance | G2427.5.8 (503.5.9) Cleanouts |
| G2404.9 (301.14) Rodentproofing | G2427.5.9 (503.5.10) Space surrounding lining or vent |
| G2405 Structural Safety | G2427.6.3.1 (503.6.4.1) Decorative shrouds |
| G2408.2 (305.3) Elevation of ignition source | G2427.7.5 (503.7.5) Roof penetrations |
| G2408.2.1 (305.3.1) Installation in residential garages | G2427.10.13 (503.10.13) Fireplaces |
| G2408.3 (305.5) Private garages. | G2427.16 (503.16) (IFGC) Outside wall penetrations |
| G2408.5 (305.8) Clearances to combustible construction | G2430.2 (506.2) Support |
| G2415.1 (404.1) Prohibited locations | G2439.2 (614.2) Duct penetrations |
| G2415.5 (404.5) Protection against physical damage | G2439.5 (614.6) Domestic clothes dryer exhaust ducts |
| G2415.6 (404.6) Piping in solid floors | G2439.5.2 (614.6.2) Duct installation |
| G2418.2 (407.2) Design and installation | G2439.5.3 (614.6.3) Protection required |
| G2426.4 (502.4) Insulation shield | |
| G2426.7 (502.7) Protection against physical damage | |
| G2427.5.3 (503.5.4) Chimney termination | |

G2445 (621) Replace this section in its entirety as follows:

G2445.1 (621.1) General. Unvented gas-fired room heaters shall conform to the requirements of 527 CMR 30.00: *Unvented Propane or Natural Gas-fired Space Heaters*.

G2452.1 (631.1) Add a last sentence as follows:

Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and the Board of Boiler Rules at 522 CMR, as applicable.

P2501.1 Replace all subsections of this chapter as follows:

P2501.1 Scope. For plumbing requirements *see* 248 CMR 10.00: *Uniform State Plumbing Code*.

P2601.1 Replace as follows:

P2601.1 Scope. Retain the subsections listed in Table 2601.1. For all other requirements of this chapter *see* 248 CMR 10.00: *Uniform State Plumbing Code*.

TABLE 2601.1

| | |
|--|--------------------------------|
| P2603.2 Drilling and notching | P2604.1 Trenching and bedding |
| P2603.2.1 Protection against physical damage | P2604.3 Backfilling |
| P2603.3 Breakage and corrosion | P2604.4 Protection of footings |
| P2603.5 Pipes through footings or foundation walls | P2606.1 General |

P2701.1 Replace all subsections of this chapter as follows:

P2701.1 Scope. For plumbing fixture requirements *see* 248 CMR 10.00: *Uniform State Plumbing Code*.

P2801.1 Replace as follows:

P2801.1 Scope. Retain the subsections listed in Table 2801.1. For all other requirements of this chapter *see* 248 CMR 10.00: *Uniform State Plumbing Code*.

TABLE 2801.1

| | |
|---|---------------------------------------|
| P2801.5 Required pan (if not in 248 CMR) | P2801.7 Water heater seismic bracing. |
| P2801.6 Water heaters installed in garages. | |

51.00: continued

P2901.1 Replace all subsections of this chapter as follows:

P2901.1 Scope. For plumbing requirements for water supply and distribution *see* 248 CMR 10.00: *Uniform State Plumbing Code*. 310 CMR 22.00: *Drinking Water* and/or the local water purveyor, as applicable, govern backflow protection requirements. Fire Sprinkler requirements are found in Chapter 3.

P3001.1 Replace all subsections of this chapter as follows:

P3001.1 Scope. For municipal sewage disposal *see* 248 CMR 10.00: *Uniform State Plumbing Code* and for private sewage disposal *see* 310 CMR 15.00: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage*.

P3101.1 Replace all subsections of this chapter as follows:

P3101.1 General. For vent requirements *see* the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR.

P3201.1 Replace all subsections of this chapter as follows:

P3201.1 General. For trap requirements *see* 248 CMR 10.00: *Uniform State Plumbing Code*.

P3301.1 Replace all subsections of this chapter as follows:

P3301.1 Scope. For storm drainage requirements *see* the applicable requirements of:

1. 248 CMR 10.00: *Uniform State Plumbing Code*,
2. Division of Water Pollution Control regulations at 314 CMR, and
3. Local municipal requirements.

E3401.1 Replace all subsections of this chapter as follows:

E3401.1 Applicability. Retain the subsections listed in Table 3401.1. For all other requirements of this chapter *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

TABLE 3401.1

| | |
|--|--|
| E3402.1 Drilling and notching | 3402.3 Penetrations of firestops and draftstops. |
| E3402.2 Penetrations of fire-resistance-rated assemblies | |

E3501.1 Replace all subsections of this chapter as follows:

E3501.1 Scope. For electrical definitions *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

E3601.1 Replace all subsections of this chapter as follows:

E3601.1 Scope. For electrical services *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

E3701.1 Replace all subsections of this chapter as follows:

E3701.1 Scope. For branch circuit and feeder requirements *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

E3801.1 Replace all subsections of this chapter as follows:

E3801.1 Scope. Retain the table or subsections listed in Table 3801.1. For all other requirements of this chapter *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

51.00: continued

TABLE 3801.1

| | |
|--|---|
| E3802.2.1 Across structural members | Table E3802.1: (Subjects which pertain to framing or protection). |
| E3802.2.2 Cable installed through or parallel to framing members | |

E3901.1 Replace all subsections of this chapter as follows:

E3901.1 General. For power and lighting distribution requirements *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

4000 Add section:

4000 Scope. For devices and luminaires requirements *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

E4101.1 Replace all subsections of this chapter as follows:

E4101.1 General. For appliance installation requirements *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

E4201.1 At the end of this subsection add two sentences as follows:

For electrical requirements *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.
For pool barrier and other pool safety requirements, *see* Appendix G.

E4301.1 Replace all subsections of this chapter as follows:

E4301.1 Scope. For Class 2 remote-control, signaling and power-limited circuit requirements *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

CHAPTER 44 Add standards as follows:

NFPA 13R-07 Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height.
NFPA 720-09 Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment

APPENDIX A - SIZING AND CAPACITIES OF GAS PIPING

A.0 Add section:

A.0 General. Delete all sections of this Appendix and for requirements *see* the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR.

APPENDIX B - SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY 1 APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS

B.0 Add section:

B.0 General. Delete all sections of this Appendix and for requirements *see* the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR.

APPENDIX C - EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS

C.0 Add section:

C.0 General. Exit terminals of gas-fired mechanical draft and direct-vent venting systems shall conform to the applicable requirements of the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR.

51.00: continued

Exit terminals of oil-fired mechanical draft and direct-vent venting systems shall conform to the applicable requirements of 527 CMR 4.00: *Oil Burning Equipment* or, in the absence of such guidance, shall conform to the criteria of Figure C-1, or the equipment manufacturer's requirements, whichever are more stringent.

Exit terminals of solid fuel-burning mechanical draft and direct-vent venting systems shall conform to the applicable requirements of Figure C-1, or the equipment manufacturer's requirements, whichever are more stringent.

APPENDIX D - RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE INSTALLATION: Reserved.

APPENDIX E - MANUFACTURED HOUSING USED AS DWELLINGS

AE101.1 Add a note as follows:

Note. Construction, installation, addition, repair or maintenance of building systems that fall under that authority of the *specialized codes* shall be overridden by and shall conform to applicable *specialized code(s)* requirements.

AE102.2 Replace subsections 1., 2., and 3. as follows:

1. Be designed and constructed in conformance with this code and the applicable *specialized codes*.

AE301 to AE304 Replace as follows:

AE301.1 Permits and Fees. For *permit* requirements see Chapter 1. Refer to local municipality for *permit* fees.

AE305 Replace as follows:

AE305.1 General. For inspection requirements see Chapter 1.

AE507.1 Replace as follows:

AE507.1 General. Alterations made to a manufactured home subsequent to its initial installation shall conform to the occupancy, fire-safety and energy conservation requirements of this code.

APPENDIX F - RADON CONTROL METHODS: Reserved.

APPENDIX G - SWIMMING POOLS, SPAS AND HOT TUBS

AG101.1 Add the following Notes:

Notes:

1. Public and semi-public outdoor in-ground swimming pool enclosures shall conform to the requirements of M.G.L. c. 140, § 206.
2. Also see 521 CMR 19.00: *Recreational Facilities*.
3. Also see 105 CMR 430.00: *Minimum Standards for Recreational Camps for Children (State Sanitary Code, Chapter IV)* and 435.00: *Minimum Standards for Swimming Pools (State Sanitary Code: Chapter V)* as such regulate swimming pool requirements.
4. Installation of electrical wiring and electrical devices shall be in accordance with 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.
5. Installation of gas-fired pool heaters shall be in accordance with the Board of State Examiners of Plumber and Gas Fitters regulations at 248 CMR.

APPENDIX H - PATIO COVERS

Massachusetts adopts this Appendix without amendment.

51.00: continued

APPENDIX I - PRIVATE SEWAGE DISPOSAL

A1101.1 Replace as follows:

A1101.1 Scope. Private sewage disposal systems shall conform to the requirements of 310 CMR 15.00: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage* and any additional legal restrictions imposed by the municipal Health Department

APPENDIX J - EXISTING BUILDINGS AND STRUCTURES

AJ101.1 Add a second paragraph, exception, and two notes as follows:

Features of existing construction which do not meet the requirements of this code for new construction shall be presumed to have met the regulations, codes or laws in effect at the time of construction or alteration and, if so, shall be deemed to be existing nonconforming. Unless stated otherwise, nothing in this chapter shall require the upgrading or replacement of any existing nonconforming features or component of an existing building, provided the feature(s) or components or systems are in a serviceable condition unless the *building official* determines that an unsafe or dangerous condition would exist, in which case he shall order the remediation of such condition. Nor shall this chapter be deemed to require the replacement or upgrading of serviceable components which are not included in the scope of work for which a *permit* is applied unless expressly required by this code, or unless the *building official* determines that an unsafe or dangerous condition would result.

Exception. Existing components or features of an existing building which, in the opinion of the *building official*, are dangerous, unsafe, unserviceable or demonstrate damage or significant deterioration or which otherwise present a threat to the occupants or to the public safety shall be remediated in accordance with the applicable sections of this code.

Note 1. Any new building system or portion thereof shall conform to 780 CMR for new construction to the fullest extent practicable. However, individual components of an existing building system may be repaired or replaced without requiring that system to comply fully with the code for new construction unless specifically required by this appendix.

Note 2. For existing buildings and structures conformance to requirements of the *Specialized Codes* refer to the applicable *Specialized Codes*.

AJ101.1.1 Add subsection:

AJ101.1.1 Buildings Which Qualify. A building erected prior to the date of adoption of the appropriate code, or one for which a legal building *permit* has been issued.

Note. Existing townhouse buildings regulated by this code shall also conform to the seismic requirements of this code.

AJ102.1 Replace the phrase “mechanical or plumbing system” with “system controlled by this code”

AJ102.3 Replace as follows:

AJ102.3 Smoke, Heat, Carbon Monoxide Detection and Alarm Systems. When one or more sleeping rooms are added or created in existing dwellings, the entire existing dwelling shall be provided with smoke detectors, heat detector and carbon monoxide detectors designed, located and installed in accordance with the provisions for new construction, as applicable. If a garage is created under an existing dwelling or attached to an existing dwelling, a heat detector, conforming to the requirements of the code for new construction shall be installed in the garage; such requirement is not applicable for detached garages (*see* Chapter 3).

If the dwelling undergoes complete reconstruction such that all walls and ceilings are open to framing, then the entire existing building shall be provided with smoke detectors, heat detector and carbon monoxide detectors designed, located and installed in accordance with the provisions for new construction.

51.00: continued

In an existing two-family dwelling, if one or more sleeping rooms are added or created in only one of the two dwelling units, the dwelling unit acquiring new sleeping rooms shall be provided with smoke detectors, heat detector and carbon monoxide detectors, as applicable, designed, located and installed in accordance with the provisions for new construction.

In an existing two-family dwelling, if, during a repair/reconstruction event, one or more sleeping rooms are added or created in both of the two dwelling units, the entire building shall be provided with smoke detectors, heat detector and carbon monoxide detectors, as applicable, designed, located and installed in accordance with the provisions for new construction for two-family dwellings.

Note 1. It is the intention of this code to require that all required smoke alarms and required CO alarms be interconnected by hard-wire methods or acceptable wireless methods per the interconnection requirements of NFPA 72; additionally, required heat detectors are either to activate sounders or be compatible with the smoke alarm system so that heat activation of the heat detector operates a sounder or the smoke alarms of all interconnected smoke alarms sound if heat is detected by the interconnected heat detector. Where combination smoke/CO alarms are utilized, such are to be interconnected and fire alarm signals have precedence over CO alarm in accordance with the requirements of NFPA 720.

Note 2. CO detector requirements for existing R-uses are also governed by 527 CMR 31.00: *Carbon Monoxide Alarms* and the Board of State Examiners of Plumbers and Gas Fitters at 248 CMR.

AJ102.7.1 Add subsection:

AJ102.7.1 Documentation of Compliance Alternatives. The *building official* shall ensure that the BBRS is provided with information regarding the compliance alternatives accepted by the *building official*.

AJ102.10 Add subsection:

AJ102.10 Unlined Chimneys. Where new HVAC appliances are connected to an unlined chimney, the chimney lining requirements of the Board of State Examiners of Plumbers and Gas Fitters regulations at 248 CMR or the Board of Fire Prevention regulations at 527 CMR, as applicable, and those of the appliance manufacturer shall be satisfied. If the appliance is a solid fuel-burning appliance, the chimney shall be relined to satisfy requirements both of the code for new construction and those of the manufacturer, as applicable.

AJ102.11 Add subsection:

AJ102.11 Latent Conditions. When latent conditions are observed and which are determined by the licensed construction supervisor, the owner or the *building official* to be dangerous or unsafe, or when a component or system is determined to be unserviceable, said conditions shall be corrected in accordance with applicable provisions of this code. A building *permit* shall be obtained or the building *permit* shall be amended in accordance with the provisions of Section R105 in order to reflect the necessary required work and the approval shall be obtained from the *building official* prior to commencement of the corrections.

Exception. If the public safety so warrants, the building permissible corrective actions are permitted to be made prior to amending the building *permit* application, providing that the *building official* is notified in writing within 24 hours of actions taken pursuant to this exception. This exception shall not be construed as to authorize constructive approval nor set aside the requirements to amend the *permit* application, nor shall the authority of the *building official* to enforce this code be abridged. Such corrective actions shall be documented by the construction supervisor or the owner and submitted to the *building official* within 48 hours of the completion of the action under this exception. Such corrective work shall not be concealed until the *building official* has inspected and approved the work.

51.00: continued

AJ102.12 Add subsection:

AJ102.12 Existing non Conforming Means of Egress. The following conditions, when observed by the *building official*, and believed shall be cited, in writing as a violation. Said citation shall order the abatement of the non conformance and shall include such a time element as the *building official* deems necessary for the protection of the occupants thereof, or as otherwise provided for by statute.

1. Less than the number of *means of egress* serving every space and/or story, required by this code.
2. Any required *means of egress* component which is not of sufficient width to comply with the code for new construction, or is not so arranged as to provide safe and adequate *means of egress*.

AJ102.13 Add subsection:

AJ102.13 Hazardous Means of Egress. In any *existing building* or structure not provided with exit facilities as herein prescribed for new buildings and in which the exits are deemed hazardous or dangerous to life and limb, the *building official* shall declare such building dangerous and unsafe in accordance with the provisions of Section R115.1.

AJ102.14 Add subsection:

AJ102.14 Roofing and Reroofing. See Chapter 9 generally and Section R907.

AJ102.15 Add subsection:

AJ102.15 Additions. New construction additions shall comply with all requirements of the code for new construction.

AJ102.16 Add subsection:

AJ102.16 Accessibility for Persons with Disabilities. Accessibility requirements shall be in accordance with 521 CMR.

AJ103.1 Replace “designee shall” with “legal designee may”

AJ301.1.2 Delete.

AJ301.2 Delete.

AJ301.4 Delete.

AJ401.2.1 Add subsection:

AJ401.2.1 Emergency Egress Windows. For one- and two-family dwellings and townhouses of no more than three stories in height, all emergency escape windows from sleeping rooms shall have a net clear opening of 3.3 square feet (0.307 m²). The minimum net clear opening shall be 20 inches by 24 inches (508 mm by 610 mm) in either direction except that windows in sleeping rooms of existing dwellings which do not conform to these requirements may be replaced without conforming to these dimensional requirements, provided that the windows do not significantly reduce the existing opening size.

Exception. Replacement windows utilized as emergency egress windows, other than double-hung windows, shall generally conform to the requirements of this section without conforming to the cited dimensional requirements, provided that such replacement windows do not significantly reduce the existing opening size.

51.00: continued

AJ401.4 Replace as follows:

AJ401.4 Structural. Unreinforced masonry townhouse buildings shall have parapet bracing and wall anchors installed at the roofline whenever a reroofing *permit* is issued if required by 780 CMR 34.00: *Existing Structures*. Such parapet bracing and wall anchors shall be of an *approved* design. Where renovations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a *registered design professional* for adequacy, prior to such actual structural renovation.

AJ501.4 Add a final sentence as follows:

“Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a *registered design professional* for adequacy, prior to such actual structural alterations”.

AJ501.5 Replace this subsection in its entirety as follows:

AJ501.5 Electrical Equipment and Wiring. *See 527 CMR 12.00: Massachusetts Electrical Code (Amendments).*

AJ601.5. Add subsection:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a *registered design professional* for adequacy, prior to such actual structural reconstruction.

AJ701 Add section:

SECTION AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements *see 780 CMR 34.00: Existing Buildings*.

APPENDIX K - SOUND TRANSMISSION

Massachusetts adopts this Appendix without amendment.

APPENDIX L - PERMIT FEES

Massachusetts does not adopt this Appendix. *See 801 CMR 4.00: Rates*, as applicable.

APPENDIX M - HOME DAY CARE -- R-3 OCCUPANCY

Delete

APPENDIX N - VENTING METHODS

Delete.

APPENDIX O - GRAY WATER RECYCLING SYSTEMS: Reserved.

APPENDIX P - SIZING OF WATER PIPING SYSTEM

Delete.

APPENDIX Q - ICC INTERNATIONAL RESIDENTIAL CODE ELECTRICAL PROVISIONS/NATIONAL ELECTRICAL CODE CROSS-REFERENCE

Delete.

NON-TEXT PAGE