

10th Edition (Proposed) of the Massachusetts State Building Code

Public Hearing – Overview and Key Changes

This overview is not intended to be a comprehensive digest of the proposed changes to the Massachusetts State Building Code. Please refer to the text of proposed changes for all proposed changes to the Code.

Overview

- The BBRS commenced formal work on development of the 10th Edition of the Massachusetts State Building Code at their meeting on December 8, 2020.
- For the 10th Edition Drafting, the BBRS utilized several technical advisory subcommittees to vet changes to the model codes and recommend language for inclusion in the code. These committees, made up of subject matter experts, included the following:
 - Coastal subcommittee; Energy Advisory Comm.; Existing Building Code Advisory Comm.; Fire Prevention Fire Protection Advisory Comm.; Geotechnical Advisory Comm.; and Structural Advisory Comm
 - The BBRS additionally created temporary subcommittees to review specific issues, such as an Energy Storage Systems Subcommittee, Cannabis Subcommittee, and a Manufactured Building Study Group.
- Not including subcommittee meetings, the drafting of the 10th Edition was part of 33 BBRS meetings.
- The BBRS voted to approve the 10th edition draft on October 11, 2022, though it took a second vote on December 13, 2022, to utilize a differently formatted version and to correct errata.
- On January 26, 2023, Pursuant to Executive Order 518, an entity known as the Building Code Coordinating Council, created to “eliminate redundancy, minimize inconsistencies and conflicts and maximize the efficiency of the code promulgation process” considered and approved the 10th Edition.
- Following the approval of the BCCC, the BBRS is standing by to hold public hearing following GLO and ANF review.

Key Changes:

1. Background

- a. The Massachusetts Building Code is adopted by the Board of Building Regulations and Standards (“BBRS”) pursuant to M.G.L. c. 143, §94 and is found in the Code of Massachusetts Regulations at 780 CMR 1.00 to 115.00
- b. The BBRS is a 15-member board administratively supported by DOL; 12 members are appointed by the Governor, 3 serve ex-officio.
- c. The Code is comprised of the adoption of the 35 chapters and appendices of the International Building Code augmented with Massachusetts-specific amendments; the current code was adopted in 2017 and is the 9th Edition of the code that has been developed since the first iteration in 1975.
- d. The amendments include making changes to the code language itself, but also to adopt other model codes including: (1) the Intl. Residential Code (w/ Mass amendments); (2) the Intl. Energy Conservation Code (the “Base Energy Code”); (3) the Intl. Existing Buildings Code; (4) the Intl. Mechanical Code; (5) the Intl. Swimming Pool & Spa Code; and (6) portions of the Intl. Fire Code.

- e. The Building Code is required by statute to be updated at least once every five years and was last updated in 2017; the last amendment to the 9th Edition was on June 6, 2018.
 - f. There is significant statutory and regulatory interplay between the Building Code and other codes developed in specific areas, namely the Fire Code, Electrical Code, Plumbing Code, Stretch Energy Code, and others.
 - g. Updates to these codes have outpaced required changes to the Building Code, leading to inconsistency, conflict and confusion in application.
2. **Key Climate and Sustainability Changes for the 10th Edition:**
- a. *Flood protection:* A change recommended by the Conservation Law Foundation would require a higher level of freeboard in construction. While this will raise the initial cost of construction, it is likely to be offset by lower losses in the event of a flood (and is believed will likely lead to lower flood insurance premiums).
 - b. *More Robust Energy Code Elements:* The majority of Massachusetts municipalities are anticipated to adopt one of the stretch energy codes now promulgated by the DOER, many communities still utilize the (base) code that would still be part of the Building Code. The new base code included in the 10th Edition will be far more stringent than what is currently in place and includes:
 - c. *Energy Storage Systems ("ESS"):* ESS systems are generally installed in conjunction with an energy generating system such as a photovoltaic system; The Ninth Edition does not address ESS systems, which has caused confusion for installers and consumers.
 - i. ESS systems are regulated in the Fire Code, 527 CMR 1.00; while model code language exists, the BBRS concluded that adopting this section would create a conflict with the Fire Code, which was crafted with the involvement of ESS stakeholders.
 - ii. The 10th Edition proposes to require smoke alarm and carbon monoxide protection for ESS systems and requires code compliance if the installation of an ESS system affects other areas governed by the Building Code, but otherwise, specific ESS regulation is left to the Fire Code.
 - d. *Opportunity to better align disparate solar setback regulations across codes*
3. **Key Affordable Housing and Development Changes for the 10th Edition:**
- a. *"Tiny Houses:"* While the Ninth Edition of the Building Code adopts the 2015 International Residential Code, newer editions of that model code, including the 2021 edition, contain a new "Appendix Q", which provides new rules for the construction of smaller units, also known as "tiny houses." These rules will allow the construction of these smaller homes, which help provide affordable housing, by relaxing otherwise prohibitive rules.
 - b. *Sprinkler systems:* 10th Edition requires automatic sprinkler systems for one- or two-family properties constructed after October 17, 2017, that are used as short-term rental lodging houses (i.e. "AirBnBs").
 - c. *Increased local inspector authority:* 10th Edition removes requirement that Certificates of Occupancy be issued exclusively by Building Commissioners; change would allow COs to be issued by Local Building Inspectors, as well, leading to reduced lead times for inspections and certificate issuance.

- d. *Geotechnical Improvements*: Drafted by a subcommittee of technical experts, the 10th edition proposes Massachusetts modifications to model code language governing geotechnical and structural elements considerations for foundation placement and installation leading to greater structure quality and long-term resilience.
4. **Other Key Changes:**
- a. *Cannabis*: the existing building code lacks specific provisions governing buildings and structures utilized in the newly emerging cannabis industry. The emphasis of these regulations is to ensure such buildings and structures utilized for cannabis cultivation and extraction have adequate ventilation and other life safety systems.
 - i. By largely adopting provisions in a national standard, NFPA 1, the emphasis of these regulations is to protect against fire and explosion which can occur in cannabis extraction facilities.
 - ii. These changes were largely drafted in 2018-2019 with participation of the Massachusetts Farm Bureau and the Cannabis Control Commission.
 - b. *Manufactured buildings*: the Building Code includes a specialized section governing manufactured buildings, manufactured building components and manufactured homes, which are buildings that are constructed in multiple parts, largely out of state.
 - i. The changes proposed would restore language used in the 8th edition of the building code, whose language was deemed to provide more public safety requirements and ensure the accountability of manufacturers of these buildings.
 - ii. Additional changes have been proposed to ensure prompt resolution of any problems, as well as proper education and certification of those responsible for installations by requiring construction supervisors who will be in charge of such installations to obtain a certification.

Why These Changes Are Important:

1. *Costs of an Outdated Code*: Adoption of the latest building codes could, according to a 2020 FEMA study, lead to a cumulative savings of 3.2 billion dollars a year by 2040. The reason for this savings is that up-to-date building codes are designed to mitigate damage from natural disasters.
2. *Statutory deadlines for updating the Building Code and the Base Energy code have long since expired*:
 - a. Building Code – The Ninth Edition was promulgated on October 20, 2017, though it was last amended on 6/6/18, thus the five-year deadline expired 6/6/23.
 - b. Base Energy Code – The official 2021 edition of the International Energy Conservation Code was first printed on January 29, 2021, so the deadline for adoption of that code expired 1/29/22.
3. *Calls for Clarity*: Product and material manufacturers and retailers, as well as registered design professionals utilize the latest standards – even if not adopted by Massachusetts – in developing products, materials, and designs; a lagging code creates significant industry dissonance.
4. *Alignment with Stretch Energy Codes*: The 9th Edition Building Code currently in effect contains a now defunct stretch code and contains no references to 225 CMR, thus building officials charged with the enforcement of the stretch code have complained this has caused confusion.

Similar concerns have been brought to DOL's attention from the Secretary of State's office, which notes the disconnect between the Ninth Edition and 225 CMR makes it appear like two separate regulations are purporting to regulate the same issues. The 10th Edition will resolve these problems.

5. *Interplay with Fire Code:* Due to statutory language giving both codes authority over construction of buildings, the Building Code and the Fire Code are in danger of conflicting with each other. As part of updates (5/12/23 being the most recent), the Fire Code has adopted a model Code (NFPA 1), which is leading to increased duplication with the Building Code and the model codes it is based upon (see e.g. Energy Storage Systems, Solar Panel Setbacks). To avoid unnecessary conflict and duplication, the Building Code must be periodically updated to ensure it is in harmony with the Fire Code.

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