

9th Edition of the Massachusetts Building Code (780 CMR)

Summary of Key Changes

Below is a summary of key changes between the current 8th and proposed 9th editions. The 8th edition used the 2009 model codes and the 9th edition will use the 2015 model codes. The model codes are a family of code books updated and published every three years by the International Code Council used across the country of which the International Building Code (IBC) and International Residential Code (IRC) are the primary volumes. These changes are due to:

1. The model code changes from 2009 to 2012 adopted by BBRs.
2. The model code changes from 2012 to 2015 adopted by BBRs.
3. Changes in MA general laws and MA specialized codes (electrical code, plumbing code, etc.).
4. Changes in or new MA unique conditions.

| 780 CMR Chapter Numbers & Title | Adopted I-codes change | MA unique change | Reduces regulations | Reduces cost | Change Number and Description |
|------------------------------------------|------------------------|------------------|---------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Using the IBC: | | | | | |
| 2 Definitions | √ | | | √ | 202 Fire Area. The I-Code definition of fire area has been adopted by the BBRs for the 9 th edition which will allow building owners and designers to separate uses of a building (subdivide) with fire walls, fire barriers and horizontal assemblies thus enhancing design flexibility and likely reducing costs. The 8 th edition (MA unique) definition copied here: <i>FIRE AREA. The aggregate area of a building regardless of subdivisions by fire barriers and horizontal assemblies</i> mimicked the sprinkler law (MGL c. 148 §26G), which precludes subdivision. Reference to 26G is retained to alert the code user that sprinkler requirements are in both the model code and general laws. |

| 780 CMR Chapter Numbers & Title | Adopted I-codes change | MA unique change | Reduces regulations | Reduces cost | Change Number and Description |
|------------------------------------------|------------------------|------------------|---------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | √ | <p>202 Night Club. MA has a unique definition for night clubs in the 8th edition, that is more specific than the model code, and triggers MA unique requirements to ensure public safety based on local past experience. There has been a wide disparity in its interpretation and therefore it has been revised for clarity and consistency in the 9th edition. A key change is that an A-2 Nightclub in the 9th edition <i>must</i> contain a high occupant load density; if it does not then it is not a Nightclub. This change will benefit projects by reducing delays during permitting due to disagreements in interpretation and reduce unnecessary safety measures.</p> |
| 9 Fire Protection Systems | √ | | | | <p>903.2 Where required. This section indicates where sprinkler systems are required in each occupancy type. The 8th edition provided an amendment to essentially replace this section with a table that included some sprinkler requirements found in MGL's. To be more consistent with the model codes the table has been deleted and the subsections for each type of building occupancy adopted as provided in the model code. Guidance for the user is also provided regarding MGL related requirements. This preserves the consistency between volumes of the model code and makes it clear to the designer that sprinkler requirements are in both the model code and MGL's.</p> |
| | | | | | <p>915 Carbon Monoxide Detection. The 8th edition added this section as a MA amendment to provide requirements for installing carbon monoxide detection in buildings as it wasn't included in the IBC model code at that time. The 2015 IBC now includes these requirements for new buildings and provides references for the requirements in existing buildings. At this time staff and the Board's technical advisory committee believe the IBC requirements can be adopted with little change. The requirements include protection of educational use classrooms and allowance for point source detection.</p> |

| 780 CMR Chapter Numbers & Title | Adopted I-codes change | MA unique change | Reduces regulations | Reduces cost | Change Number and Description |
|------------------------------------------|------------------------|------------------|---------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 34 Existing Buildings | | ✓ | | | 404.4.1 and 606.2.1.1 Repairs for less than substantial damage due to snow load effects. The current code requires that limited damage from snow loads can be repaired with new materials to match the existing design (Note: substantial damage would require full replacement designed in accordance with the current code). After studying the building damage from recent severe winters the BBRS Structural Advisory Committee noted that often the existing design has less capacity than required by the current code because these buildings are typically older buildings where the code requirements at the time were not as comprehensive or where modifications to a buildings over the years has created more severe snow load conditions than provided for in the original design. Accordingly, the Structural Advisory Committee recommended that repairs to limited snow damage should meet new design requirements to ensure the repairs can withstand current conditions. It is anticipated these improvements can often be made for minimal, if any, additional cost. |
| Using the IRC: | | | | | |
| 51 Residential Code | ✓ | | ✓ | | R101.2 Accessory structures. Max height increased from two to three stories. Max area increased from 3000 square feet to unlimited. This allows larger and higher accessory structures on a property where not otherwise restricted by local zoning requirements. |
| | ✓ | | ✓ | ✓ | R101.2, R202 Lodging house (Bed and Breakfast). Lodging houses are now included in the Residential Volume if owner occupied, three stories or less in height, and limited to five guestrooms. This clarifies the dilemma of classifying a Bed and Breakfast. It's now clear if someone wants to convert their house to a Bed and Breakfast they can do so under the Residential Volume if it meets this criteria, and does not have to comply with the more restrictive Base Volume for such expense as adding a sprinkler system. |
| | ✓ | ✓ | ✓ | ✓ | R301.2.1 Wind design criteria. For high wind locations (typically the southeast shore of MA, the Cape and the Islands) the Residential code requires the use of other references for design. Recent data, research and modeling indicate slightly less wind speeds than historically predicted. Accordingly, the IRC 2015 significantly reduced the geographic area in MA requiring "out of code" design. Further detailed investigation by staff indicates that the high wind design boundary is no longer triggered in MA and high wind design outside of the code is only necessary for severe exposures. This simplifies design and construction thus reducing cost. |

| 780 CMR Chapter Numbers & Title | Adopted I-codes change | MA unique change | Reduces regulations | Reduces cost | Change Number and Description |
|------------------------------------------|------------------------|------------------|---------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 51 Residential Code | | ✓ | ✓ | ✓ | R301.2.1.2 Protection of openings. For high wind locations (typically the southeast shore of MA, the Cape and the Islands) the Residential code requires protection against windborne debris for building openings such as doors and windows. This requirement can be satisfied by using windows with impact resistant glazing or providing a special shutter system. Although recent data, research and modeling indicate slightly less wind speeds than historically predicted, the IRC 2015 has increased the geographical area requiring windborne debris protection. Further detailed investigation by staff indicates the new wind speeds in this extended windborne area are less than the wind speed that triggered windborne debris requirements in the 2009 IRC. With that consideration, and not finding any historical evidence indicating windborne debris has been the primary cause of major structural damage after much investigation, the windborne debris requirement has been eliminated. This simplifies design and construction and significantly reduces cost. |
| | ✓ | ✓ | ✓ | ✓ | R301.2.2 Seismic provisions. The latest I-code mapping indicates less seismic intensity is now predicted in MA. Considering this reduction, the low height of buildings and type of use, seismic requirements have been removed for buildings governed by the Residential code. |
| | ✓ | | ✓ | ✓ | R302.2 Townhouses. An option to construct townhouses without sprinkler systems is now available in the I-codes provided the common walls dividing the units have a 2-hr fire resistance rating. A 1-hr rating is necessary when sprinklers are installed. Another key change that code users will <i>only need to use</i> the Residential Volume (IRC) for the complete design of townhouses three stories or less. In the 8 th edition confusion was created because the Base Volume (IBC) was necessary for fire protection, wind, and seismic design requirements. |
| | ✓ | ✓ | | | R322 Flood construction Coastal A zones. The Coastal A flood zone is an intermediate zone with wave heights from 3 feet to 1 ½ feet that extends landward from the V zone into the former A zone, reducing the extent of the A zone. The requirements in the Coastal A zone are more stringent than the former A zone it occupies, almost as restrictive as the most severe V zone. When the 8 th Edition was issued Coastal A zones were recognized as being needed to address the flood damage routinely in that area however mapping wasn't available. Now maps exists so municipalities can determine where these requirements apply. Recommended by MA DCR flood management office. |
| | ✓ | | | | R322 Flood construction, A/AO Zones. The elevation of construction in these less severe flood zones has been raised one foot which is consistent with the 2015 I-codes. Recommended by MA DCR flood management office. |

DRAFT