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**DEPARTMENT OF PUBLIC SAFETY  
BOARD OF BUILDING REGULATIONS  
AND STANDARDS  
(BBS)**

**SINGLE- & TWO-FAMILY DWELLING CODE  
&  
BASIC BUILDING CODE  
SEVENTH EDITION**

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## Building Code Questions

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- Question:** When did the first edition of the Uniform State Building Code (the code) come into effect?

**Answer:** The first edition of the code came in to effect on January 1, 1975. Currently the code is in its Sixth Edition, which became effective on February 28, 1997.
- Question:** What about other editions, when were those in effect?

**Answer:** The first, second and third editions of the code were issued and in effect in relative short proximity to one another between the period spanning January 1, 1975 and the end of August, 1980. On September 1, 1980 the fourth edition of the code became effective. The fifth edition came into effect on September 14, 1990 and, as indicated above, the sixth came into effect on February 28, 1997. As the keeper of the records, the Secretary of State's Regulations Division can offer more precise dates relative to the effective dates for the second and third editions. The regulations division may be reached by dialing (617) 727-9137.
- Question:** What about future editions of the code?

**Answer:** The Board of Building Regulations and Standards (BBRS) voted to use the International Residential Code (IRC) and the International Building Code (IBC) as models for developing the seventh edition of the building code. Previous editions of the code were known as BOCA based codes. BOCA is the acronym for the Building Officials and Code Administrators, International, which is a national code promulgating agency.

Towards the latter part of the 1990's BOCA joined forces with the International Conference of Building Officials (ICBO) and the Southern Building Code Congress, International (SBCCI) (also code promulgating agencies) to form the International Code Council (ICC). In the year 2000, the ICC published the first set of international codes, which includes the IRC and IBC.

The 2003 IRC was used as the model for developing the seventh edition of the building code for single and two-family dwellings (and accessory structures) here in Massachusetts. A draft of this code was presented at public hearing in May, 2006. Interested parties were able to view the proposed code and offer comment to BBRS members @ the hearing; the draft code is posted on our website @ [www.mass.gov/bbrs](http://www.mass.gov/bbrs).

The one and two family code is the first code to be review in its entirety and approved for release by members of the Building Code Coordinating Council (BCCC). The BCCC was established via executive order by former Governor Jane Swift and is supported by the Romney administration. Among other things, members of the committee will review the contents of the code to ensure that it does not conflict with or duplicate provisions of other codes in the commonwealth and will ensure that the code does not set arbitrary standards which increase construction costs. Eventually, all construction codes (such as plumbing and electric) promulgated in the commonwealth will undergo this scrutiny. Ultimately, codes relating to building construction will be well coordinated and, with luck, free of error

and/or duplication. Although this exercise adds time to the process, the results should be worth waiting for.

The 2003 IBC is being used as the model for the basic building code, which set requirements for all buildings other than single and two-family dwellings. The basic code is currently under review by members of the BCCC. A public hearing is anticipated for late 2006.

Although the new code will be based on the international codes, it is important to note that each will likely see significant revision. Therefore, code users are cautioned that the Massachusetts Building Code is not a wholly BOCA document now, and will not be a wholly ICC document in the future. Therefore, it is essential that code users obtain a copy of the appropriate code as revised for use in Massachusetts and do not use the un-amended national or international documents.

Once implemented, members of the Board of Building Regulations and Standards have voted to allow an overlap period of up to six (6) months for use of either the Sixth or Seventh Edition of the Code. For instance, *if* the Seventh Edition of the Code for Single- and Two-Family Dwellings bears an effective date of July 1, 2006, a code user may choose to design and/or construct in accordance with the sixth or seventh edition of the code (without mixing requirements) for the period between July 1<sup>st</sup> and the end of calendar year 2006. On January 1, 2007, the Seventh Edition would be in full force and effect. A permit application would have to be filed prior to December 31, 2006 in order to utilize the sixth edition. If a permit applicant files an application after that date wishing to utilize sixth edition provisions, the application shall be rejected and the applicant instructed to either redesign to comply with seventh edition provisions or file an appeal with the Building Code Appeals Board seeking relief for sixth edition requirements that are not in concert with requirements of the seventh edition. **(Please note that this is only an example and is not intended to identify actual dates).**

4. **Question:** What are some of the changes between the Sixth and Seventh Editions of the Code for Single- and Two-Family Dwellings?

**Answer:** First, the numbering system will change.

Although the seventh edition will be divided into two (2) separate documents (the Code for Single- and Two-Family Dwellings and the Basic Building Code for all other structures), the Commonwealth of Massachusetts, Office of the Secretary of State considers the code to be one document. The Board of Building Regulations and Standards (BBRS) is identified by the number 780 in the eyes of the Secretary of State. Therefore, any document published by the BBRS bears the prefix number 780. The building code is known as 780 Code of Massachusetts Regulation (CMR). The Code for Single- and Two-Family Dwellings will be part of the overall 780 CMR document, but it will be sold as a separate item, as will the Basic Code. This will allow smaller homebuilders, contractors and designers to purchase only the code provisions that they would typically need; and it will help promote the idea that the single- and two-family dwelling code is intended to be a stand-alone document. (See the table of contents for the Seventh Edition attached to the end of this document.)

5. **Question:** Are there other changes?

**Answer:** Yes, there are administrative, technical and licensing changes in the seventh edition. A small sampling of which appear below.

**a. Administrative** - A major goal of the administrative requirements for the new code is to better define roles and responsibilities of those involved in the design, construction and inspection of single- and two-family homes.

**Design - Section 5110.7** of the new code defines what is to be considered a minimally acceptable set of construction documents stating that Construction documents shall be drawn upon suitable material. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official.

At a minimum, construction documents shall include the following:

1. Site plan;
2. Foundation plan and details (as necessary);
3. Floor plans (including basement and attic levels, if applicable);  
Floor plans shall include location of all required fire protection systems and heating systems storage areas.
4. Exterior building elevations;
5. Framing plans and/or building section(s) adequately depicting structural systems;
6. Schedules, legends and/or details adequately depicting doors, windows and related material installations;
7. Energy conservation information.

Failure to comply with these provisions shall result in denial of the building permit.

**Construction - Section 5116.1** expands and more clearly defines the role of the licensed construction supervisor (or other responsible party) stating at a minimum, the license holder, or responsible registered design professional if so employed to perform construction services, as identified on the building permit application or his/her licensed designee, shall be present on the building site to approve construction, reconstruction, alterations, removal or demolition involving the following work.

**1. Foundation:**

- a.) Location of and excavation of foundation;
- b.) Preparation of bearing material;
- c.) Placement of forms and reinforcing materials (if applicable);
- d.) Placing of concrete (or setting of other foundation materials)
- e.) Setting weather protection methods (if required);
- f.) Installation of waterproofing and/or damp proofing materials

g.) Placement of backfill.

**Note.** If encountered in excavating for foundation placement, the licensed construction supervisor (or registered *design* professional) shall report the presence of groundwater to the building official and shall submit a report detailing methods of remediation.

**2. Structural Frame:**

- a.) Installation of joists, trusses and other structural members and sheathing materials to verify size, species and grade, spacing and attachment/fastening methods (the licensed construction supervisor shall ensure that any cutting or notching of structural members is performed in accordance with requirements of this code);
- b.) Setting of masonry or other structural systems (if used).

**3. Energy Conservation:**

- a.) Installation of insulation materials, vapor and air infiltration barriers.

**4. Fire Protection:**

- a.) Installation of smoke and heat detectors and/or systems.

**5. Special Construction** (including, but not limited to):

- a.) Chimneys;
- b.) Retaining walls over four (4) feet in height above grade.

The building official may require the license holder or his/her licensed designee (or registered design professional) to be present on the building site at other points during the construction, reconstruction, alterations, removal or demolition work as he/she deems appropriate.

**Exception:** Any Home Owner performing work for which a building permit is required shall be exempt from the licensing provisions of Section 5108.3.5, provided that if a Home Owner engages a person(s) for hire to do such work, that such Home Owner shall act as supervisor and shall be subject to all applicable provisions of this section. This exception shall not apply to the field erection of manufactured buildings constructed pursuant to this code and Special Regulation 780 CMR 110.R3 as listed in Chapter 110. (See definition of Homeowner in Section 5108.3.5.1.)

**Note.** Registered design professionals who secure building permits for and/or perform construction services for detached one- and two-family dwellings are not required to be licensed pursuant to Section 5108.3.5 provided that said registered design professional secures such permit and performs such services under the responsibilities of his/her professional registration.

At the completion of the work, prior to the issuance of a certificate of occupancy, the licensed construction supervisor, registered professional or homeowner, as applicable, shall submit a copy of the completed checklist contained in this code to the building official in verification that, to the best of his/her knowledge, the work has been executed in accordance with the provisions of this code. (A copy of the checklist has also been attached to the end of this document.)

**Technical** – The new code prescribes several new technical requirements including **Section 5313.2** requiring the installation of heat detectors; **Section 5313.3** requiring carbon monoxide detectors; and **Section 5313.4** requiring the installation of automatic sprinklers installed in accordance with NFPA 13, 13R or 13D shall be installed in one and two family dwellings having an aggregate area greater than 14, 400 square feet including basements but not including garages and unfinished attics.

**Licensing** – The new code prescribes several new license requirements in **780 CMR 110.R5** for demolition, window and siding, pool construction and others; certification requirements in **780 CMR 110.R3** for dealers of manufactured building products; and changes pertaining to building official certification requirements in **780 CMR 110.R7**.

These are only a few of the changes that are to come. Remember to look for the proposed new code on-line towards the end of April, 2006.

6. **Question:** Are there other technical changes to the Seventh Edition Single and Two-Family Dwelling Code and/or the Basic Code?

**Answer:** Yes, based on lessons learned from some recent extreme weather patterns, the Seventh Edition of both the single and two-family and basic building code has strengthened certain structural requirements.

**Wind Load Zones** have been revised and speeds, in some instances, increased. The new code defines zones with high wind speeds of 120 mph in the outer cape and island regions to 90 mph in the western-most part of the commonwealth.

**Snow Load Zones** have also been modified. Different from the Sixth (as identified below), the Seventh Edition defines ground snow loads from lows of 35 psf in the cape and islands to highs of 65 psf in the western-most part of the commonwealth.

**(Sixth Edition) 3603.1.5 Basic snow load:** Figures 3603.1.5a, 3603.1.5b, 3603.1.5c and 3603.1.5d define four snow load zones. The basic snow load for each zone shall be applied to the horizontal projection of sloped or flat roofs and unenclosed floor areas, as a uniformly distributed load, P, in pounds per square foot, as specified in Table 3603.1.5.

**(Seventh Edition) 5301.2.3 Snow loads.** Wood framed construction, cold-formed steel framed construction and masonry and concrete construction in regions with **ground snow loads 70 psf** (3.35 kN/m<sup>2</sup>) or less, shall be in accordance with Chapters 5, 6 and 8. Buildings in regions with ground snow loads greater than 70 psf (3.35 kN/m<sup>2</sup>) shall be designed in accordance with accepted engineering practice.

**Table 601** requirements for Fire-resistance Ratings of Building Elements has been significantly modified and some Use Group classifications have been revised. Most notably is the fact that a restaurant is considered an A-2 in the Seventh rather than an A-3 in the Sixth which may have an effect of Chapter 304 inspections.

Visit the DPS\BBRS website @ [www.mass.gov/bbrs](http://www.mass.gov/bbrs) to view a draft of the Seventh Edition Single and Two-Family Dwelling Code.

# Construction Checklist

## Single- & Two-Family Dwellings

At the completion of the work, prior to the issuance of a certificate of occupancy, the licensed construction supervisor, registered professional or homeowner (responsible party), as applicable, shall submit a completed copy of this checklist to the building official and/or state in verification that, to the best of his/her knowledge, the work has been executed in accordance with the provisions of the applicable state building code (code) and reference standards. The date shall indicate the date on which the responsible party viewed the building activity to ensure compliance with the code and/or reference standards. This date may or may not correspond to the date on which the activity was inspected for compliance by the municipal and/or state building official.

No.	Activity	Date	Note any deficiencies that were discovered (if any) and corrective action taken to ensure compliance with the code and/or reference standards.
1.	<b>Foundation</b>		
	a. Location\excavation <sup>1</sup>		
	b. Preparation of bearing soil		
	c. Placement of forms\reinforcing		
	d. Placement of concrete		
	e. Setting weather protection methods		
	f. Installation of water\dampproofing		
	g. Placement of backfill		
2.	<b>Structural Frame <sup>2</sup></b>		
	a. Floor		
	b. Walls		
	c. Roof\ceilings		
d. Masonry or other structural system			
3.	<b>Energy Conservation</b>		
	a. Insulation\vapor and air infiltration barriers		
4.	<b>Fire Protection</b>		
	a. Smoke		
	b. Heat		
	c. Carbon Monoxide		
d. Other			
5.	<b>Special Construction</b>		
	a. Chimneys		
	b. Retaining Walls		
c. Other <sup>3</sup>			

### FOOTNOTES

1.	If encountered in excavating for foundation placement, the responsible party shall report the presence of groundwater to the building official and shall submit a report detailing methods of remediation.
2.	Frame shall include the installation of all joists, trusses and other structural members and sheathing materials to verify size, species and grad, spacing and attachment methods. The responsible party shall ensure that any cutting or notching of structural members is performed in accordance with requirements of the code.



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