

STRETCH CODE COMPLIANCE - ENERGY CONSERVATION

Effective July 1, 2010, the City of Cambridge has approved the Stretch Energy Code, 780CMR Appendix 115.AA. The requirements are in addition to the requirements of the most recently published edition of the ICC International Energy Conservation Code (IECC).

RESIDENTIAL BUILDINGS

1 & 2 FAMILY – MULTI-FAMILY, 3 STORY OR LESS

Please check all that are applicable:

ADDITIONS, ALTERATIONS, RENOVATIONS OR REPAIRS

- Envelope insulation requirements meet or exceed IECC requirements (additions or renovations, Table 402.1, see reverse) or cavities filled with insulating materials which meet or exceed an R-value of 3.5/inch (renovations only).
 - Information and specifications of insulating materials has been included.
 - Energy Star Qualified Homes Thermal Bypass Inspection Checklist (required)
- Roof Replacement – roof insulation values as specified in current IECC.
- HERS Index Rating (Performance Option)
- Work is EXEMPT under 780CMR 115AA 101.4.3 Exception # _____
- Proposed work does not access or affect building energy envelope.

INSULATION TYPE: Fiberglas _____ Spray Foam _____ Blown in Cellulose _____ Other (specify) _____
R-Value of Insulation _____ U-Value of Windows _____

NEW CONSTRUCTION:

- HERS Index Rating (Home Energy Rating System, report included)
- Rating of 65 or less (unit greater than 3000 sq. ft.)
- Rating of 70 or less (unit less than 3000 sq. ft.)

If using the HERS Index Rating, please include the following information:

RESNET Certified HERS Rater:

Name _____

Address _____

Phone _____

Please include copy of Certification of HERS Rater.

I, the undersigned, certify knowledge and understanding of the energy conservation requirements as enforced by the City of Cambridge, and certify that the above information is accurate to the proposed construction.

Building Owner's Signature (1&2 Fam.) _____ Date _____

Contractor's Signature _____ Date _____

If work is under design provisions of Sec. 116 780CMR, Construction Control, the following is required:

Registered Design Professional (Multi –Fam.) _____

Reg. Des. Prof's. Signature _____ Date _____

IECC 2009 Table 402.1.1 Insulation and Fenestration Requirements by Component

Fenestration U-value ⁵	Skylight U- value ⁵	Ceiling R-value	Walls R-value 20 or 13+5 ¹	Mass Wall R-value	Floor R-value	Basement Wall R-value	Slab R-value/Depth	Crawl Space Wall R-value
.30	.55	38		13/17 ²	30 ³	10/13 ⁴	10, 2 feet	10/13 ⁴

- 1 - R-13 cavity insulation plus R-5 insulated sheathing
- 2 – Second R-value applies when more than half the insulation is on the interior of the mass wall.
- 3 - Or insulation sufficient to fill the cavity, R-19 minimum.
- 4 – R-10 for continuous insulated sheathing or R-13 cavity insulation at the interior of basement wall.
- 5 – Per Energy Star program requirements for Residential Doors, Windows, and Skylights – Version 5.

Roofing Work Energy Requirement:

780 CMR 120 AA 101.4.3 Applicability – Exception 4 requires that un-insulated roofs or walls be insulated to Stretch Code requirements when the sheathing is exposed as part of the re-roofing or re-siding of the building.

Energy Certificate Requirement:

IECC Section 401.3 Certificate – A permanent Certificate shall be posted on or in the electrical distribution panel. The certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall be completed by the builder or registered design professional. The certificate shall list the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement, wall, crawlspace wall and/or floor) and ducts outside conditioned spaces; U factors for fenestration and the solar heat gain coefficient (SHGC) of fenestration. The certificate shall list the types and efficiencies of heating, cooling, and service water heating equipment.

Summary of the Massachusetts Building Code Appendix 120.AA, ‘Stretch’ Energy Code

Appendix 120.AA known as the Stretch Code was adopted by the Massachusetts Board of Building Regulations and Standards in May 2009, as an optional appendix to the Massachusetts Building Code 780 CMR.

This optional stretch code was developed in response to the call for improved building energy efficiency in Massachusetts. Towns and cities in the Commonwealth may adopt Appendix 120.AA in place of the energy efficiency requirements of the base building code.

In addition, the base building energy code in Massachusetts will be updated in 2010 to the recently published IECC (International Energy Conservation Code) 2009 energy code. The stretch code is similarly based on the IECC 2009 energy code, but with approximately 20% greater building efficiency requirements, and a move towards 3rd party testing and rating of building energy performance.

For further information on the Massachusetts Stretch Energy Code,
see the Department of Public Safety/Board of Building Regulations website.

www.mass.gov/dps