



Town of Charlton

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DEPARTMENT of BUILDING
INSPECTIONAL SERVICES

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Guidance for the 2017 Energy Code

As of January 2, 2017; all new residential buildings 4 stories or less permitted in Charlton will have to meet the requirements of the Stretch Energy code, which will result in a HERS score of 55 or less. **AA103.1**

As of January 2, 2017; large area and high energy use buildings 100,000 SF or more permitted in Charlton will have to meet the requirements of the Stretch Energy code. **AA103.2**

As of January 2, 2017; all additions will comply with the 2015 International Energy Conservation Code (IECC) as amended. **AA104**

R406.1.1 Approved Alternative Energy Performance Methods The following rating threshold criteria are sufficient to demonstrate energy code compliance under section N1106 without calculation of a standard reference design. The mandatory provisions of subsection N1106.2 also apply:

1. **ENERGY STAR Homes 3.1 path** .New buildings shall be certified to conform to the ENERGY STAR Certified Homes, Version 3.1 standard.
2. **Passive House Institute US (PHIUS) Approved Software.** PHIUS+ 2015: Passive Building Standard - North America, or another approved software by PHIUS, where Specific Space Heat Demand, as modeled by a Certified Passive House Consultant, is less than or equal to 10 kBtu/ft² /year. Compliance with this section requires that the criteria of C402.4, C403.2, C404, and C405 are met.
3. Any other software and/or rating standard approved by the Board of Building Regulations and Standards. **HERS rating**

Compliance with the applicable code sections is a prerequisite to the issuance of a building permit. For new residential buildings 4 stories or less an appropriate professional must model the proposed residences to show that the building will meet the post construction testing. **N1106.1.2 (R406.1.2)**



Curtis Meskus - Building Commissioner/Zoning Enforcement Officer

Peter Starkus – Plumbing & Gas Inspector
Joseph Ostrowski – Inspector of Wires
Nancy Shields– Administrative Assistant

1. If using ENERGY STAR Homes, Version 3.1 path:
 - a. Prior to the issuance of a building permit, the following items must be provided to the Building Official:
 - i. A copy of the preliminary HERS rating, based on plans;
 - ii. A copy of the ENERGY STAR v. 3.1 Home Report; and
 - iii. A copy of the Rater Design Review Checklist.
 - b. Prior to the issuance of a certificate of occupancy, the following items must be provided to the Building Official:
 - i. A copy of the certified HERS rating; and
2. A copy of the signed ENERGY STAR Rater Field Checklist. If using the PHIUS software:
 - a. Prior to the issuance of a building permit, the following items must be provided to the Building Official:
 - i. A list of compliance features; and
 - ii. A statement that the estimated Specific Space Heat Demand is “based on plans.”
 - b. Prior to the issuance of a certificate of occupancy, the following item must be provided to the building official:
 - i. A copy of the final report, submitted on a form that is approved to document compliance with PHIUS+ 2015 standards. Said report must indicate that the finished building achieves a Certified Passive House Consultant-verified Specific Space Heat Demand of less than or equal to 10 kBTU/ft²/year.

N1106.5 (R406.5). Verification of compliance with Section N1106 shall be completed by an approved third party. For compliance using a HERS rating or Energy Star Homes 3.1 certification, verification of compliance shall be completed by the certified HERS rater. For compliance using PHIUS+ 2015, verification of compliance shall be completed by a certified Passive House consultant.

What does this mean?

- 1) Before a permit is issued, you have to hire a professional to analyze the plans, the amount of insulation, the ratings of the windows and doors, the type and location of heating and air conditioning systems and lighting, then perform the needed calculations to see if the proposed building will perform as needed by the code.
- 2) During construction, needed inspections will have to be made by the professional, then the Building Inspector, to ensure you are complying with the plans presented, the air sealing is completed, the presented equipment is installed.

- 3) At the completion of construction, the professional will have to perform the blower door test, then prepare and submit the compliance paper work before the Building Inspector will do the final on the building.
- 4) From my conversations with various raters, it may be difficult to have your project pass if there is duct work in the attic or joist bays of the basement. Anything that reduces the R value of the insulation in a cavity has to be taken into account.
- 5) Proper sizing of HVAC equipment is important. Installing and commissioning HVAC equipment that matches or is better than the assumptions of the input model will go a long way to compliance.
- 6) You will have a comfortable building that uses less energy than older buildings and access to rebates from various entities.

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