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BUILDING AND ZONING DEPARTMENT

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KEY REQUIREMENTS OF THE 2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) FOR NEW RESIDENCES

ALL NEW RESIDENCES, AND ALL NEW RESIDENTIAL BUILDING ADDITIONS MUST MEET THE REQUIREMENTS OF THE IECC, INCLUDING THE FOLLOWING:

GENERAL REQUIREMENTS

1. Attic insulation must have a continuous R-Value of at least R-38, or a continuous R-Value of at least R-30 with energy trusses, or a U-Factor of no more than U-0.030.
2. Wall insulation must have a cavity R-Value of at least R-20, or a cavity R-Value of R-13 *plus* a continuous R-Value of R-5 over 75% of the walls, or a cavity R-Value of R-13 *plus* a continuous R-Value of R-2 over 100% of the walls or a U-Factor of no more than U-0.057.
3. Basement wall insulation and box sill insulation must have a cavity R-Value of at least R-13, or a continuous R-Value of R-10, or a U-Factor of no more than U-0.059. Batt insulation and Styrofoam insulation cannot be left exposed on the interior of the building.
4. Crawl space wall insulation and box sill insulation must have a cavity R-Value of at least R-13, or a continuous R-Value of R-10, or a U-Factor of no more than U-0.065. Batt insulation and Styrofoam insulation cannot be left exposed on the interior of the building.
5. As an alternative to declaring individual R-Values, a REScheck or similar software program may be utilized to determine compliance with the Total UA Alternative (sum of U-Factors x component areas).
6. Windows must have a U-Factor of no more than U-0.35.
7. The building thermal envelop must be sealed in all areas, including locations such as at window frames, door frames, wall/ceiling intersections, combustion air duct penetrations, pipe penetrations, recessed lighting penetrations, fireplaces, etc.
8. The contractor shall post a permanent certificate on or in the electrical distribution panel before calling for a final inspection of the building. The certificate shall list the R-Values of insulation, and all other items as required by the IECC.
9. New masonry fireplaces (not factory-built fireplaces) are required to have doors with gaskets.

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ELECTRICAL REQUIREMENTS

10. Recessed lighting that penetrates the building envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed lighting shall be IC rated and labeled as meeting ASTM E 283 ("air-tight", "air-seal", or "air-lock"). All recessed lighting shall be sealed with a gasket or have caulking between the housing and the interior wall or ceiling covering.
11. Snow and ice melting systems supplied through energy service to the building shall have automatic controls which will shut off the system when the pavement temperature is above 50 degrees F, and no precipitation is falling. The system shall also include an automatic or manual control that will allow shutoff when the outdoor temperature is above 40 degrees F.
12. Pool heaters shall be equipped with a readily accessible on / off switch to allow turning off the heater without having to adjust the thermostat setting. Pool heaters that use natural gas or LP gas shall not have continuously burning pilot lights.
13. Time switches that can automatically turn off and on heaters and pumps to preset schedules shall be installed on swimming pool heaters and pumps. The only exceptions are where public health standards require 24 hour pump operation and where pumps are required to operate solar and waste heat recovery pool heating systems.
14. 50 percent of the lamps installed in permanently mounted lighting fixtures shall be high efficacy lamps. High efficacy lamps are defined as: Compact fluorescent, T-8 or smaller diameter linear fluorescent or lamps with a minimum efficacy of 60 lumens per watt for lamps over 40 watts, 50 lumens per watt for lamps 15 watts to 40 watts and 40 lumens per watt for lamps 15 watts or less.

MECHANICAL REQUIREMENTS

15. All equipment located in an insulated space, such as an attic, must be provided with access that does not damage or compress the insulation.
16. Programmable thermostats are required for all forced air heating systems. Each thermostat must be initially programmed with a heating temperature no higher than 70 degrees and a cooling temperature of no lower than 78 degrees.
17. Heat pumps with electric resistance heat are required to have controls that prevent the supplemental heat operation when the heat pump compressor can meet the heat load.
18. Supply ducts located in attics must be insulated to a minimum value of R-8. All other ducts require a minimum value of R-6. NOTE: Insulation is NOT required if duct(s) are located completely inside the building thermal envelope.
19. All ducts, air handler filter boxes and building cavities used as ducts are required to be sealed.
20. A duct tightness test is required unless the air moving equipment and all of the ducts are located within the conditioned space.
21. Mechanical system piping capable of carrying fluids above 105 degrees or below 55 degrees must be insulated to a minimum value of R-3.
22. Outdoor air intakes and exhausts are required to have automatic or gravity dampers that close when the ventilation is not operating.
23. All circulating service hot water piping shall be insulated to a minimum value of R-2. The system shall include an automatic or readily accessible manual switch that can turn off the hot water circulating pump when the system is not in use.