Certifiably Green

Green building standards for all **By Brita Belli**

Homeowners looking to build green have plenty of certification programs to choose from, but they all revolve around one key principle—saving energy. "Energy efficiency is 80 percent of the deal," says Mike Trolle, president of BPC Green Builders in Wilton. And, with whatever program is chosen, there are major differences in degree of efficiency and savings. Builders of new homes can follow existing green-certification programs to make their homes anywhere from more-efficient-than-most to using nearly zero energy.

Energy Star for Homes, which has been recently upgraded to its 3.0 version, is the basic level of certification. Karla Donnelly, a senior sustainability consultant at Steven Winter Associates in Norwalk, says Energy Star is "extremely popular with builders," particularly because the state offers incentives to meet this level of energy efficiency. Like all such certifications, Energy Star for Homes requires third-party verification that it meets strict standards for the "thermal envelope," which includes insulation, sealing, and windows; and has efficient heating and cooling, barriers against water damage, and energy-efficient lighting and appliances. "It's a robust, valuable, well-thought-out program," says Trolle. "And it's a great starting place for new construction and major renovations."

LEED for Homes, by the U.S. Green Building Council,

and the National Green Building Standard by the National Association of Home Builders, are both several steps up the efficiency ladder. Builders are required to fulfill certain criteria in a range of categories such as lot design, resource efficiency, energy efficiency, water efficiency, and indoor air quality. Four standards—certified, silver, gold, and platinum—designate the level of a LEED building's achievement. NAHB green homes are ranked bronze, silver, gold, and emerald. "LEED for Homes looks at the whole spectrum of sustainability factors," says Trolle. "And you have to meet a mandatory minimum in each category." He says there are four LEED Platinum homes in Fairfield County—three of which were built by his company.

Passive homes are on the highest rung of energy efficiency. These homes are designed and insulated to be virtually airtight, keeping energy use to a minimum and ensuring that all fresh air that comes in is carefully controlled through a ventilation system. Most heat comes from passive-solar elements, while shade helps to reduce unwanted heat gain. "It's pretty extreme," says Donnelly, adding that she has seen passive homes grow more popular, including a community of 25 homes in Ithaca, New York, being built to passive standards.

While passive homes are impressive in their efficiency, less-drastic green-building standards can bring significant benefits to homeowners. Energy efficiency throughout the home means lower utility bills and less need for oil and gas. A green home, says Trolle, is also "vastly more comfortable." Increased insulation cuts down on drafts, while filters keep allergens out. People with allergies and asthma are able to essentially live without symptoms inside their homes. Green homes can also reduce the likelihood of mold and eliminate the possibility of carbon-monoxide poisoning.

For those with existing homes who simply want to upgrade to greener standards, they can sign up for the Home Energy Solutions program run by the state of Connecticut. A representative from Connecticut Light & Power will make a home visit and perform on-the-spot energy improvements related to identifying and sealing leaks. Other easy energy fixes? Trolle recommends insulating unfinished areas that are easy to access, like attics and basements. When in doubt, he says, "fix the leakage first." ✻