



Making the Green Scene
 By Sarah Cox
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Achieving the 150 points required to build a certified EarthCraft home isn't a big deal for Shelter Alternatives. Ed Tuchler, president of the design and building company in Blacksburg, explained that emphasizing energy efficiency and green building has been part of company's makeup for a long time. It's a method that's incorporated into their mindset.

"I think that in general, the houses we build are pretty tight and pretty efficient. There are some details we have had to add because of the EarthCraft program, and there are certain minimum standards in the program," he said.

To become EarthCraft certified, Tuchler was required to attend a one-day training seminar that included an overview of the program requirements and details about techniques for improving the energy efficiency, durability, comfort, air quality and sustainability of homes he builds. But when he went to an EarthCraft certification seminar in January, he took all of his designers and field supervisors along with him so that everyone could be on the same page and work toward one goal.

EarthCraft is a great concept, he said, and it puts a label of verification on something in an era when about half the builders by the end of the year will be calling themselves "green builders," according to the National Association of Home Builders.

"This is a way to reassure clients that what you're doing is not just saying you're doing it, but that it's recognized by a larger organization," said Tuchler.

As part of the EarthCraft program, Shelter Alternative homes that are striving for that certification have to be inspected by certified EarthCraft inspectors and chalk up a minimum of 150 points. Tuchler explained that those points can be achieved any number of ways, including during the process (recycling on the job site) as well as in the product.

For example, the check list on the worksheet includes categories such as site planning, required air-sealing measures, an air-leakage test, windows, heating and cooling equipment, ductwork, energy-efficient appliances, resource-efficient building materials, recycled and natural-content materials, waste management and moisture control.

Tuchler said his company is using inspectors from Community Housing Partners, who already have come out and done an inspection of one of his current projects after the house was roughed in. This was before insulation was installed to determine how well the house was sealed and how tight the duct system was.

"They hook a fan to the heating system and pressurize it to see how much leakage is in the system," he explained.

It passed the test. After the insulation is blown in, it will go through a second inspection.

Shelter Alternatives currently is building two homes, one in Blacksburg and one on a bluff overlooking Claytor Lake, both of which will strive to be EarthCraft certified. Both will use blown-in cellulose in their walls and fiberglass in the roofs, and both will incorporate geothermal heating and cooling systems. The two homes have southern orientations. The Claytor Lake home has a long-lasting metal roof, and the crawl space is sealed and insulated. The Blacksburg home has solar panels and has used materials left over from the house that was on the property. Both will have high-quality windows.

Many of the methods Shelter Alternatives is currently employing are reminiscent of ones used when they built Energy Star homes.

"There are a lot of details that for many people are special details, but for us are standard. It's what we do. And we've been testing our houses for tightness in the past, as well," Tuchler said.

There are benefits beyond reducing energy bills and being environmentally conscious. Health is one of them: if a home is leaky, Tuchler explained, there is air moving through walls and roofs, and air carries moisture. "If that moisture ends up staying within those walls and roof structure, that's a chance for mold to start. It can get in, but it can't get out."

Shelter Alternatives eventually will start offering a blower door test, which will determine how much leakage is in the house. It also is working toward offering energy audits to homes.

"This does require some specific equipment, training and practice, and it will be a way for us to provide a service to people who want to have a more energy efficient home and don't want to build or move," he said.

The EarthCraft renovation program acknowledges that there are challenges to this that aren't present when building a new home. Their renovation program, which began in 2002, teaches contractors and homeowners how to adapt EarthCraft concepts to existing houses, additions and expansions to reduce energy bills and improve indoor air quality. The EarthCraft program first started in the Atlanta area, but has spread beyond Georgia to Alabama, Florida, South Carolina, Tennessee and Virginia.