

Being green when building can be as simple or as complex as a builder would like. All that matters is that builders – and buyers – realize that every little thing they do to help the environment will add up.

By Kristen De Deyn Kirk
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When Rich Schmol

l purchased an empty lot on a quiet street in Ocean View, the real estate market was booming.

His plan was to build and sell a few houses on the lot, but first he decided to renovate the home next to it – and during the short time it took for the renovation, the real estate market changed.

Not crashing, but definitely stabilizing.

His builders, The Vision Group from Chesapeake, brainstormed ways to make the first new house on the lot stand out: Project Manager Murray Kirk (note: he is related to this writer) designed two fireplaces, one in the family room with built-in cabinetry and bookcases and another in the master suite, between the bedroom and the spa tub so that it could be enjoyed from either master room, and he planned a third-floor media room, complete with a mini-kitchen and a full bathroom; there would be custom, old-style trim

Top: Nick Sawyer, owner of DesignBuildIt and GreenBuildIt, used cost-effective cement siding for his home and numerous other green techniques. Below: When looking for green, look for these symbols.

Going Green



by Harry Hanson to give the new house an old-fashioned feel, and Vision Group interior designer Colleen Britt envisioned a tile-inlay foyer worked into the hardwood floors, transom windows over the entrance door, and custom cabinets in the kitchen with varying heights to add interest. Central vac, a central vacuuming system with sweep vents in the kitchen and hook-ups throughout the house, would add convenience for the eventual owner, and a quality paint job by CoverUp in complementary colors would save the owner painting work once he or she moved in.

And Schmolll had one other idea: Make the house the first Energy Star-rated home for sale in Hampton Roads.

That distinguishing feature has perhaps turned out to be the most interesting to potential buyers, with people from across America calling because the home is a certified green house.

To earn the rating, the builders had to have an Energy Star, government-certified inspector from northern Virginia approve the home during and after construction. To make the home energy-efficient and qualify for the rating, The Vision Group exhaustively researched and installed a geothermal heating and cooling system. Instead of having an outdoor condenser (that big box we all have in our back yard), this system is piped into the ground, taking advantage of the earth's cool, 55 to 60-degree temperatures to act as a regulator.

Energy Star certification mandates that a home be 50 percent more efficient than an average home. To accomplish that percentage, The Vision Group also used spray-foam insulation (sometimes called close-cell insulation), which is literally sprayed in and looks shiny and more solid than the traditional fluffy pink insulation. They enveloped all of the home's duct work, from the ceiling to the crawl space. The crawl space is heated and air conditioned, too, so all of the home's duct work can be regulated. The finishing green feature for the home was energy-efficient windows.

The home had to pass an air-infiltration test, which includes duct blast tests and blower door tests, to see how much air comes in and out of the house with all entrances sealed.





Left side: The Vision Group earned the highest Five Star Energy Star rating by using energy-efficient systems. Geothermal systems such as the Climate Master cools and heats from the earth. Central vac is another selling feature in the home.

Nick Showyer chose a high-efficiency gas fireplace, soap stone counters (which require much less transporting than other high-end counters because they're not imported) and heated bathroom floors that deliver heat where needed.



Its infiltration levels were lower than required to earn the highest rating of "Five Stars Plus"

The end result: The 2,700-square-foot home should cost about \$80 a month to heat or cool. Schmoll is offering to pay this cost for the first two years.

Builder Chuck Miller of Miller Custom Homes is doing something similar with the home he's building for this year's Tidewater Builders Association's Homearama, scheduled for Sept. 29-Oct. 14 in the Edinburg Meadows section of Chesapeake.

His over 5,000-square-foot home is Earth Craft-certified. The program started in Atlanta eight years ago and has been adopted by the Virginia Home Builders Association. Miller believes his home is the first Earth Craft house in Hampton Roads, and he's so confident in its energy efficiency that he projects heating and cooling costs at only \$92 a month.

He will pay the difference for up to a year if he's wrong.

Miller has been building green for 10 years and recently became certified to build Earth Craft homes. A points system guides builders into knowing if their houses will qualify for the rating. They earn points for things such as saving soil, saving trees, building close to a shopping center, conserving wood with a central cutting station (so that smaller pieces can be reused when being cut-off from larger pieces), using California corners (which allows for insulation to be installed) graywater systems (which filters water running from sinks and showers back to the toilets for flushing) and geothermal heating and cooling systems.

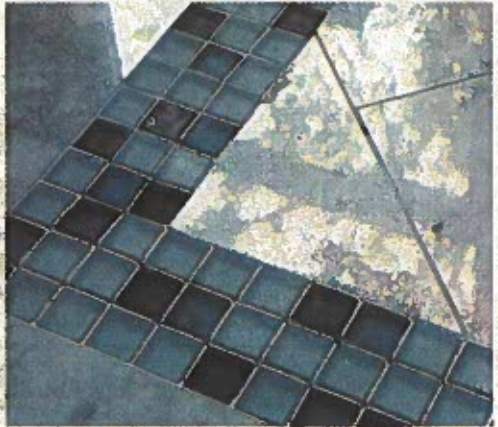
All of this doesn't cost as much as one would imagine: The total comes to one to three percent more than a non-Earth Craft Home.

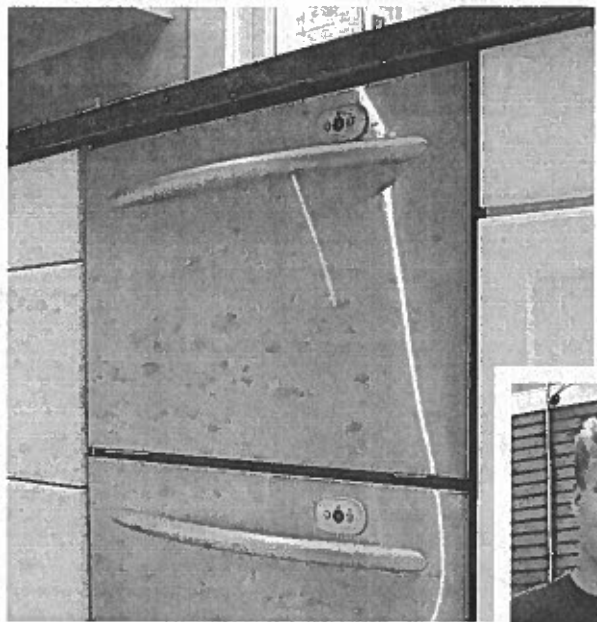
"It would add about \$180 a month to your mortgage (for the size of the Homearama home)," Miller notes, "and you'd save \$450 to \$500 a month on energy costs."

Miller is committed to green building, but he admits that he, like The Vision Group, is also fond of the marketing opportunities.

"In five to 10 years," he says, "building green around here will be common like it is out West. Right now, though, it makes you stand out."

Norfolk designer and builder Nick Showyer, who has two companies, DesignBuildIt and GreenBuildIt, doesn't think so much about how being green can lead to sales. He grew up in New Zealand and guesses most of his motivation comes from his home country.





Left: Project Manager Murray Kirk, with The Vision Group co-owner Ken Slisk, chose cost-saving spray-foam insulation.

Right: DesignBuildIt and GreenBuildIt owner Nick Sawyer incorporates energy-efficient appliances into his projects.

"When you grow up surrounded by green," he says, "you want to keep it that way."

He also thinks his classes in Hampton University's architecture program influenced him, because the school emphasizes buildings' connection to and impact on communities.

A few years ago, Sawyer worked on renovating a Riverview building into the McDonald Montessori school. The owner didn't ask for the building to be green, but Sawyer suggested it every step of the way.

First, Sawyer notes, the very fact that they were reusing a building that hadn't been used for six years was "green."

As he and his crew found recyclable metals, they'd exchange them for money. ("The crew liked to eat well at lunch with that money!," Sawyer jokes.)

He also chose to install Lees recyclable carpet. Whenever the school likes, they can have the carpet taken out and it will be recycled.

"They use it to make parts for Ford trucks," Sawyer notes.

He thought about every aspect of the materials and supplies he used, and was happy to learn that the carpet also had a low-VOC (volatile organic compound) rating, meaning it had a lower-than-average release of gasses.

"You don't get that nasty chemical smell from the carpets," Sawyer explains.

He found low-VOC paint from Benjamin Moore, too, and selected fluorescent fixtures. He also worked toward what he calls "day-lighting," making sure that rooms had large windows so that fewer lights would be necessary during the day.

Sawyer followed green principles when adding onto his Larchmont house, too. He matched the architecture so well that no one can tell where the 1,200-square-foot addition starts.

"We're focusing on the sustainability of the community," he says, "and preserving its visual presence. That's all part of being green. I was careful to preserve a holly tree and a cedar tree as well."

He used "tricks," such as cathedral ceilings and skylights, to give the house a large feel without taking up precious space, and again, incorporated day-lighting. The master bedroom has windows on three sides to allow for lots of ventilation.

Other features in the home include solar panels, a high-efficiency gas

fireplace, spray-foam insulation, a high-efficiency heating and cooling system, plumbing that directly delivers hot water to a faucet instead of the water winding through all the pipes, low-VOC paint and electric-heated floors.

"They don't require much energy," Sawyer explains, "but deliver the heat where you want it."

Sawyer attended a conference in Atlanta and heard repeatedly "do what you can."

"There's no need to feel like 'I should be doing more,'" he says. "Every little bit will add up."

More and more local builders are catching on to this concept – ever condo and commercial builders. The Norfolk Redevelopment and Housing Authority has launched three green building projects. Richard Studebaker with friends Nick Macke and Peter Johnston, is currently converting a Ghent building into condos, and he has incorporated many green concepts – including reusing wood from other projects, installing bamboo floors (which "grow like weeds and lasts forever," says Studebaker), natural wood carpets, a "white membrane" roof that reflects sun away from the building, extra heavy-duty insulation, even between the building's two stories, energy-efficient windows and fluorescent lights.

A commercial building in Chesapeake, Liberty III, built for Liberty Property Trust, was the first building with LEED (Leadership in Energy and Environmental Design) certification in the area. Craig Cope, the company's vice president, wrote in a speech published in part in the *Virginia-Pilot* that "green buildings are sustainable, high-performance, better-built buildings. They are less expensive to operate because of the utility cost – less water and waste – and they produce fewer emissions and have a lower impact on the environment. In fact, there is a big demand in the marketplace for green buildings. There is also a concern that if you don't build green, you will be left behind."

Builders of all types are certainly getting the message: Sawyer, with DesignBuildIt and GreenBuildIt, mentioned that Hampton Roads could soon have a platinum-certified LEED building, courtesy of Operation Smile, where his wife works. He's been told they're building a new corporate office and want to qualify for the highest possible corporate green rating.

"You have to consider everything for that," he notes, "doing things like carpooling and flex time. It would incorporate all concepts 'green.'" 