

ELAINE
WITT

Commentary



Local home taps into ecology

The blue fiberglass swimming pool is designed to be cleaned with a chlorine-free mineral solution.

The EcoStar roof tiles are made of recycled rubber and plastic.

The Bio-Based insulation is formaldehyde-free and derived from soybeans. More important, it's a foam that's sprayed into the wall cavities, producing a tighter seal than fiberglass batting.

To reduce carbon monoxide accumulation, the carport is open, and it's several feet away from the house.

The windows, naturally, are fitted with energy-efficient low-e glass.

And midway down the towering panes in the high-ceiling family room, a horizontal "light shelf" converts harsh direct sunlight light into indirect light.

And there's more.

Trees removed from the lot were ground into mulch to be used on the site rather than hauled to the landfill.

Radiant heat will come from hot water pipes encased in a concrete slab. There will also be a conventional air conditioning system, but because of the home's passive solar design, ceiling fans and other features, it's expected to be needed only three months of the year.

To maximize the passive solar effect, the house is turned sideways on its pie-shaped Mountain Brook lot.

Screened porches will block the harsh summer sun on the south and west sides. And an arbor on the

Please turn to HOME, page D4

Home

From page D1

west side will sport deciduous vines, also to block the summer sun. In winter, when the vines are bare, the sun will shine through.

There's more still, but a person could fill a lot of space describing the home Birmingham architect Bob Burns designed for Jon and Melina Goldfarb and their four young children.

The house, still under construction, has been a learning experience not only for Melina Goldfarb, who researched many of the innovations, but for Burns, for builder Jim Powers and for subcontractors on the job.

It's a novelty in the Birmingham area to see a home designed with so much emphasis on environmental and health concerns.

When it's completed, the Goldfarb home will be the first in Alabama to be certified as an EarthCraft House by the Atlanta-based, nonprofit Southface Energy Institute.

But in Georgia, where the EarthCraft program was co-founded five years ago by the Greater Atlanta Homebuilders Association, the EarthCraft designation has become a valuable selling point for new homes.

In the past three years, Southface has certified 2,000 EarthCraft homes, mainly in the Atlanta and Macon areas. Hundreds of Georgia builders have been trained in the EarthCraft building concept, and about 130 are paying a \$150 annual fee to use the EarthCraft logo in their marketing.

Several builders have designed entire subdivisions around the EarthCraft concept.

And every one of the 50 homes constructed by Atlanta Habitat for Humanity in 2004 was EarthCraft-certified.

Although the Goldfarb home will feature cutting-edge materials for saving energy and keeping indoor air clean, those aren't required. If they were, Habitat, which uses volunteer labor to build homes that can be purchased by low-income families, wouldn't be able to afford the designation.

Atlanta Habitat spends only \$310 more to build an EarthCraft home than it did using its previous standard. Ray Maynard, the program's construction director, said construction techniques are more important than materials in Habitat's pursuit of the certification.

"You frame in a way so you can get complete insulation cover on the exterior of the house," Maynard said. Installation is placed in a slightly different manner. Heating and air ducts are sealed with mastic adhesive instead of duct tape, and virtually every gap that could become an energy leak is caulked.

Southface projects that in an average \$130,000, 1,500-square-foot house, EarthCraft certification can be attained for only \$700 more than if just conventional building techniques are used. The annual energy savings in such a home would be \$181, the institute projects.

Alabama seems way behind on this, but we could catch up.

The Alabama Department of Economic and Community Affairs is funding a program that will allow Southface to begin training Alabama builders in the techniques.

The rising price of natural gas is scaring people.

Serious allergies among children also seem to be on the rise.

Even without the EarthCraft designation, Burns said he'll be recycling some of the techniques he learned in designing the Goldfarb house, such as putting a vapor barrier under the footings.

"I just talked to a client about the blown foam insulation," he said this week. "Anyway you look at it, it's just superior to the bat type."

Elaine Witt's column runs Tuesday, Thursday and Saturday in the Birmingham Post-Herald.

Witt can be reached at 325-3197 or ewitt@postherald.com