Urban Times ARCHIVES

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Ecology House product is a gem in Herron-Morton

ECOLOGY HOUSE IS NOT A house. It's a non-profit organization, devoted to promoting and educating the public about the principles of "Green Design."

But the recently constructed house in the 2100 block of North Pennsylvania Street in Herron Morton Place is an ecology house, built by that non-profit as a tangible demonstration of those principles.

Anne Laker not only serves on the board of Ecology House; she and her husband bought that ecology house. Talk about walking the walk.

"I've always been a nature lover," explains the Indianapolis native. "I remember reading the "Little House on the Prairie" books as a little girl and being entranced by the resourcefulness, the best use of resources in the pioneer lifestyle."

The Pennsylvania Street home of Anne Laker and John Merrick will be one of the stops on the Herron-Morton Place Home Tour. The event is scheduled for Sunday, Sept. 10. One of the most interesting aspects of the home, its owners believe, is the fact that there are few if any outward signs of the structure's energy-efficient qualities.

She met an Ecology House board member at a social gathering in 2001, which led her in turn to meet architect and board chair Sam Miller and write a NUVO cover story on the organization's "Perfect House" project – a new-construction house designed and built from the ground up to showcase green design principles and materials.

"I just followed my nose and my interest," Laker says. "I credit Sam with educating me about green design. And I thought, if they're building a place to demonstrate this idea, I'd be as good as anyone to use it."

"Green Design" is more than architecture based on energy efficiency and non-toxic, recyclable materials (although that's part of it). Ultimately, it's about thinking about residential and urban communities as a whole – zoning, transportation, land re-use – with a planning horizon that's measured in generations, not years.

"We hope to increase average people's understanding of how residential living does affect the environment. But the 'house' is a great place to start because everyone can understand and relate to it," Miller explains, referring both to the building project in Herron-Morton Place and to the organization's metaphoric name.

"Anne's house was the first in Indianapolis that we built as a project; now we're working on two more in Fountain Square." (See story on page 25.)

The house that Laker and her husband, attorney Joe Merrick, bought in the fall of 2003 is notable largely for its subtlety – it fits right into the neighborhood. Laker describes it as modern Victorian. It's neither austere nor ostentatious – you won't find it by looking for micro-design or a glittering array of solar panels.

Some of the visible things that make it "green,"

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Another in a series

J. Ronald Newlin continues his focus on local not-for-profits and the people who make them successful. Newlin is the past executive director of the Indiana State Museum Foundation and the Indiana Basketball Hall of Fame. He is now a consultant providing not-for-profits with communications and fund-raising assistance. Newlin also serves as the volunteer coordinator for the Indianapolis Theatre Fringe Festival.

◀ Anne Laker and her husband, John Merrick, don't believe they sacrified any comforts to have a eco-friendly home.

however, include a front yard full of wildflowers (reducing the need for lawnmower emissions and weed-fighting chemicals) and a simple front porch – typical for the neighborhood, if not for most new construction, but all about engaging the community.

Inside, an open floor plan creates a sense of space that offsets the relatively small footprint of the house. Many of the materials in the walls, and the coverings on them, are made of recycled or recyclable substances. The floors are bamboo – because that's a wood that replenishes itself every three or four years instead of every 40.

But mostly, it's just a house.

Unlike those sickly-yellow 1975 Honda CVCCs, the green home doesn't scream to be noticed, or impose a stern discipline on its owners.

"There's no sacrifice," Laker says. "Sure, we have low-flow toilets, and we recycle everything we can. But those are just behaviors we'd do anywhere. The only sacrifice comes in some cases with the upfront investment in solar panels or things like that. But the price we paid for this home was very much in line with what we would have paid anywhere else."

"Actually, we try to do the math on 'payback periods' to be six months to two years," says Miller of how green design calculates a reasonable investment in high-efficiency energy systems.

In fact, the all-electric geothermal heating and air system keeps the utility bills in the $60/month range – a detail that generates a jovial "I hate you" from Miller when Laker reveals it.

And yes, they do use the air-conditioning in the summer. At least on low, to take the humidity out.

"I'll suffer some for a good cause," Laker said with a laugh, "but my husband and I do come to an agreement on these things."

Depending on weather and schedule, she can take public transportation or even ride her bike to her job as manager of educational programs at the Indianapolis Museum of Art. That's a green bonus of living in the neighborhood where Ecology House decided to build this home.

"We weren't looking for that neighborhood per se, but living in Herron Morton is consistent with Green Design principles," Laker says, "not only from a commuting standpoint, but in the sense that its an existing development" as opposed to plowed-under farmland.

So what else constitutes Green Design?

"One of the things I love is passive solar," says Miller, pointing out examples during a site inspection of the two properties Ecology House is helping South East Neighborhood Development rehabilitate in Fountain Square.

"It's as simple as using the angle of the sun to warm the house in the winter and to keep it cool in the summer," he explains, pointing out how the eaves on a new addition to one property cast a shadow over the south-facing windows. "This winter when the sun is lower in the sky, it will shine into that window."

The two-story property next door has a gabled roof on its south façade, though, so Miller created the same effect for the ground-floor windows by cantilevering the second story. Now a few extra square feet of floor space in the master bedroom creates a summer "awning" for the kitchen below – and an interesting dash of character.

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Anne Laker

The twin projects in Fountain Square – one new construction, one rehab – continue to focus on the tangible side of Ecology House's work. Ultimately, Miller and his colleagues have grander designs on how the principles can affect the landscape, literally and figuratively, of the entire region.

Their website, www.ecologyhouse.com, directs developers and individual consumers alike to resources and consultations ranging from materials to floor plans. They hope to work with an increasing number of neighborhood associations and developers to incorporate concepts of sustainability into entire communities.

It makes financial sense now, and with greater use and globalization of the economy, that will only be more true (for instance the cost of bamboo, Miller suggests, has come down from $8 to $2 a foot in recent years).

The purchase of one low-flow toilet may not offset the next 160-acre development in Boone County or tip the regional transportation paradigm from automobile to light rail. But thousands of individual decisions can move markets in that direction.

And there are other intangible benefits as well.

"I feel good, I feel I'm not contributing to the problem, I'm contributing to the solution," Laker says of her choice to live in (and showcase) an environmentally friendly home. "I'm living lightly on the earth."

- J. Ronald Newlin

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Schmidt goes ‘green’ to get first-hand knowledge

THE STAFF AT SCHMIDT ASSOCIATES — A 100-PERSON, full-service architectural and engineering firm celebrating its 30th anniversary — believe in practicing what they preach.

They also want first-hand knowledge of new concepts, so they can better advise their clients – especially when it comes to environmentally friendly techniques the Massachusetts Avenue firm might suggest.

“We want to demonstrate to our clients that we walk the talk,” said landscape architect Craig M. Flandermeyer, who is currently involved in two such efforts on behalf of Schmidt Associates:

❑ A solar, electric-generating canopy being placed over a section of the company’s Vermont Street façade.

❑ An extensive rooftop garden which provides aesthetic benefits, but also can cut down on water runoff and help conserve energy.

Craig Flandermeyer inspects the garden which has applications as roofing for flat-roofed structures such as schools and “big-box” stores.

Construction is currently under way for the canopy. That project arose from the need to replace the aging fabric canopy on the Vermont Street frontage. Schmidt Associates staff members came up with a concept to create a new awning with both active and passive solar qualities.

Schmidt Associates first secured Indianapolis Power and Light Co. as a partner in the project. The team then secured an alternative power and energy grant from the Energy Group within the Office of the Lieutenant Governor.

The canopy will consist of 20 150-watt photovoltaic panels which convert sunlight directly into electricity using cells made of semiconductor material. These panels — arranged two deep at the first floor storefront — will provide an awning 35x7-feet at the south face of 326 E. Vermont St.

The project has an educational component as well, Flandermeyer said, pointing out that transparent and solid-backed panels will “expose the technology” and create room-darkening qualities. This mixture of panels was carefully selected to reinforce the educational opportunities and achieve the desired passive solar shading established as project goals.

Flandermeyer said the active solar component should generate enough power each year to oper-

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ate 10 computers 24 hours a day for two months. Meanwhile, the passive shading of the awning will reduce heat gain to the building in the summer, and will help to conserve electricity.

A web-based monitoring system will allow interested parties to track the performance of the system. The clean energy produced by the installation will benefit the environment by reducing greenhouse gas emissions, preserving fossil fuel resources, and reducing the demand on the electrical transmission infrastructure.

An artist's rendition of the solar-generating canopy being installed on Vermont Street frontage of Schmidt Associates.

Once the project is completed in late summer, Flandermeyer said, neighbors are encouraged to stop by and take a closer look at the new technology.

The rooftop garden project, meanwhile, took first root last September. The test plot consists of four plats, each with a variety of organic mixes to help inform the Schmidt Associates staff members about which blend would work best for this locale.

"We watered it through November, but haven't touched it since," said Flandermeyer. "We're monitoring the needs. We want it to be non-maintenance, or at the very least low-maintenance."

The rooftop garden employs varying mixtures of haydite and peat, in four- and six-inch depths. Haydite is a ceramic material produced from shale using a rotary kiln. The material is produced in the Morgan County town of Brooklyn by the Hydraulic Press Brick Co.

The mixture is then planted with desert-type vegetation, mostly succulents. Deep rooted prairie-type plants such as those native to Indiana would require a much thicker medium in which to thrive and were avoided in this application, Flandermeyer said.

Green roofs – which supporters note go back to the ancient Hanging Gardens of Babylon – are being touted for a variety of benefits, including more than doubling the service life of the roof, reducing both costs and landfill.

Other benefits include energy conservation; controlling stormwater runoff, erosion and pollution; improving water quality; mitigating urban heat-island effects; reducing sound reflection and transmission; creating wildlife habitat; and improving the aesthetic environment in both work and home settings.

Flandermeyer said the roofs have shown promise in reducing air-conditioning costs because the temperature of the air above the vegetated roof is lower than a traditional roof, cutting the work load of the cooling unit drawing from this location.

Rooftop gardens, he said, are envisioned to be especially appropriate for larger flat-roofed structures such as "big box" stores and schools.

In the end, Flandermeyer said, Schmidt Associates will be able to talk more intelligently with clients about the environmentally friendly technology. "We know the ins and outs because we've lived it," he said. "We know it's a good idea." ■