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# Couple trying to turn their historic home 'green'

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It didn't take long for Matt Johnston and Kim Rostan to fall in love with their 1912 Queen Anne-style home in Hampton Heights.

They saw an opportunity to have a large front porch as well as tons of interesting details inside, such as the colorful tiles surrounding its six fireplaces, a sliding door separating the library from the foyer and the house's original molding.

Johnston also saw an opportunity to make the home energy-efficient by seeking LEED certification, a green-building rating system.

"I was always encouraged to be an engineer because I was good at math and science, and my brain is wired to be more efficient," said Johnston, who is finishing up his Ph.D studies through the University of Wisconsin while researching biofuels.

So far, only one house in the state is LEED certified, and it was newly constructed.

The certification has become a common goal when commercial buildings are renovated or built. The Mary Black Foundation's office and QS/1 Data Systems' downtown headquarters has the certification.

Johnston and Rostan are hoping to make their home an example of how a historic home can be made more energy-efficient without spending a lot of money.

"You can actually do LEED certification for little or no cost," Johnston said. "I don't like the reputation that green building has got as being expensive."

The previous owners of the house didn't live in the home, but they saved original elements of the 2,400-square-foot house, which had been divided into six apartments. The house's interior had also been stripped down to its original Douglas Fir two-by-fours. But everything taken out has been carefully sorted into piles.

"We're trying to use as much of the old material as possible," Rostan said.

The couple plan to keep 70 percent of the house's wood flooring, the mantels for the fireplaces and original molding. They're also planning to add more energy-efficient windows and spray foam insulation to make the house as energy-efficient as possible.

The landscaping will include vegetation that is native to this region, which will make the land drought-resistant and prevent the need for fertilizers.

"That's really all it takes to do a LEED-certified project," Johnston said.

The couple plan to collect rainwater in two 500-gallon tanks in their basement for irrigation and will talk to the city about using the water inside the home.

The certification process also involves energy tests to determine the size HVAC unit needed and a blower door test to gauge the house's energy efficiency.

Contractor Niko Gilman, of Gilman Construction and Renovation, said the house is his first LEED project.

"No one has a lot of experience with green building, but unlike a lot of other contractors, Niko was excited," Johnston said.

Gilman said the toughest part of the process is the patience to sort the materials being taken out during the renovation.

"Normally, you kind of trash an old house," said Gilman, who said everything, including nails, had to be carefully removed.

Gilman said the time involved also means that contractors must watch the workload they take on, but he thinks it's a good direction to take. He said the work being done to the house could preserve it for another 100 years.

"There are few people who are doing it, and to be part of it when it's starting is important," Gilman said. "It's a good business move and good for the environment."

Gilman said the couple could save about \$1,700 a year on heating and cooling costs based on the insulation company's estimates.

Parts of Hampton Heights are on the National Historic Register. Rostan and Johnston's home isn't on the list, but it is still in a historic district, so an architectural review board must approve plans for the home.

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