



## Falmouth home attains rare 'passive' status

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FALMOUTH — Tucked down a dirt road through a heavily wooded area, a newly constructed Falmouth home attained a design standard rarely seen in the United States.

The home was certified a Passive House, one of only 31 in the the country, according to the Passive House Institute.

The standard requires more stringent heat-loss calculations, according to the group's website.

The 2,000 square foot home was built by the Falmouth-based Valle Group.

The walls are more then three times as thick as some newly constructed homes, said Christian Valle, the project manager for the home. The windows are triple glazed and custom built. The home was frequently tested for possible air escaping as its airtight quality is one of the biggest necessities to be certified, he said.

The home was designed by architect Steven Baczek, from Reading.

"You have to have the house fully designed and pre-certified before you even start," he said.

Because of the numerous air leakage tests and specific construction requirements, Valle said the project took 10 months. That compares to six to eight months for a standard house of similar size, he said.

The cost of labor and supplies was about a third higher.

Mike Duclos, who examined and certified the house as a Passive House consultant, said the design reduces energy use by about 80 percent, he said.

"Everything gets calculated," in terms of design and figuring out possible heat loss, said Duclos, of DEAP Energy Group in Stow.

Valle said his company, which has worked on several energy efficient homes, has never tackled a project this stringent.

"It basically had to be built airtight," he said.

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