

## Emory & Henry debuts 'passive house' residence hall

BY ALLIE ROBINSON | BRISTOL HERALD COURIER || Posted: Thursday, March 21, 2013 9:44 pm

EMORY, Va. — Those gathered inside the residence hall lobby were wearing coats, but probably didn't need to be. The temperature in the room was 64 degrees, despite the freezing temperatures and brisk wind outside – and the heat was not on inside.

That was probably the most ideal scenario Emory & Henry College officials could have sought when demonstrating the airtight energy efficiency of the building, the newly constructed Hickory Hall.

"This is the largest passive house building in the U.S.," said Steve Strauss, co-owner of STRUCTURES Design/Build of Roanoke, Va.

The passive house design is modeled after German passivehaus engineering, he said.

The buildings are airtight and well-ventilated, he said. Any heating and cooling systems are energy-efficient. He said a typical building, constructed in the 1970s or 1980s, will essentially reheat the inside air six times an hour, because air leaks in around window and door cracks and essentially changes over every 10 minutes. With the passive house design used in Hickory Hall, Strauss said, less than 30 percent of the building's air changes over in an hour.

The building uses geothermal energy, triple-paned windows and is well insulated.

"In Europe, there are 40,000 passive house buildings," Strauss said. "In the U.S., we are pushing to get 200. This building is a shining example of where [architecture] is going."

The building outperformed the standards required for passive house buildings, said Jesse Freedman, the college's energy manager.



BHC 032213 Emory and Henry 08.jpg

The new Hickory Hall dorm on the Emory & Henry campus feature community kitchens on each floor. (Photo by David Crigger/Bristol Herald Courier)

"It's modeled to use 50 percent of the energy Elm [Hall] does, and that's the most efficient building on campus," he said. "This is kind of our marquee residence hall and sets a high bar for Chestnut, our next residence hall."

Jeff Powell, vice president of operations for Mod-U-Kraf, which built the hall with modular units, said the test on the building performed last week showed it functioned 50 percent better than required.

Hickory Hall cost \$7.5 million to build and will house 119 students. Upperclassmen get priority, and those who have had rooms reserved in the building will be able to move in as soon as the building is issued a temporary occupancy permit. The cost to live in the new building will be the same as to live in Elm Hall, which was opened in 2010, college officials said.

"I'm jealous. I'm a senior and I'm graduating," said Yancey Wilmoth, president of the Student Government Association.

She said she's glad the college has taken steps toward environmental sustainability – President Rosalind Reichard signed a commitment for the college to become carbon neutral by 2036. Wilmoth also said she hopes that the new residence hall will inspire students to be more environmentally conscious.

"And, for the first time in campus history, we have a residential quad," she said, referencing the residence hall built in 2010 and another on the way. "We can have a community developed here."

Leroy Strickland, a senior and chairman of the Student Government Association's housing and grounds committee, said he is looking forward to the space the new hall offers students.

"Being a student here, you learn most of the memories you have from your years here will be in the dorms," he said. "Memories you cherish the most ... will be within these halls."

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