

Student builders learn to do construction the green way

Local high schoolers get hands-on experience in energy-efficient methods

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Daily Times

The hum of automatic drills and the banging of hammers echoed from beneath the white tents set up at Viessmann Manufacturing in Warwick yesterday.

National Grid, Conservation Services Group and a number of other sponsors came together to coordinate the annual Green Building

Learning Exchange. At the event, high school students from around the state were given the opportunity to test out some of the newest techniques in energy-efficient building.

Receiving instruction from some of the best professionals in the industry, the high school students were able to try working with HVAC sealing and advanced diagnostic testing, build with Lego-like insulating concrete forms and learn the proper installation technique and weatherization of windows and skylights.

The purpose of the event, according to Paul Wolff, the technical school outreach manager for Conservation Services Group and the man behind the event, is to make Rhode Island technical school students more marketable when they graduate. By attending these events and using the hands-on experience as an opportunity to learn, Wolff said, they will have knowledge in energy-efficient

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Justin Spirdione of Smithfield drills part of a shed together while Russell White of Coventry looks on.

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construction methods that prospective employers will likely find impressive.

"Our goal here today is to get these kids at an early age and show them the best way to do the quality work that professionals in the industry should be doing today," said Lisa Rinkus, the spokesperson for Conservation Services Group. "This is tomorrow's workforce and, because of that, it is important to expose them to and make them understand the type of emerging energy-efficient technologies that are being used in the industry today."

Close to 200 students from various schools attended the Green Building Learning Exchange yesterday. It was, according to Rinkus, the biggest turnout that Conservation Services Group has had at any of its events.

Ryan DeCesare and Michael Marietti, both seniors at Coventry High School, took a break from clapboarding a house on Johnson's Pond to attend the Learning Exchange with their carpentry teacher, Scott Leavitt. Leavitt had about 10 students with him at the event. Each student was allowed to branch off into any one of the separate tents to participate in the activity that was being offering.

Luke Medeiros, a junior, and Ray Laurenzo, a senior at CHS, were under the "Duct Dog" tent. Here, students were clustered in various positions around metallic dog-like structures. Some students were on the ground, lying on their stomachs, some were hunched over the structures and others were standing back and watching. The objective of this tent, Rinkus explained, was for the students to illustrate the importance of learning proper HVAC sealing.

"Paul [Wolff] thought it would be easier for the kids to understand how important proper sealing is if they had a fun way to do it," Rinkus said. "So the dogs were assembled and the kids had to come in and use either a special duct tape or plaster-like material to seal the cracks and crevices in the ducts. You can save 20 to 30 percent in heating costs if your ducts are properly sealed."

Under the center tent, Coventry and Warwick students were helping one another to construct an 8- by 10-foot shed-type structure made of structural insulated panels (SIPs). SIPs are an energy-efficient alternative to conventional framing. They are load bearing, Styrofoam-like insulated panels used as walls and



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Coventry, Warwick and other career technical students learn how to install a skylight. They also worked on a shed (below)

roofs in both residential and commercial buildings.

"The SIPS are not necessarily new, but they are to most of the kids in these technical schools," said Wolff. "They have extremely high R value because they completely eliminate a step in the building process. You do not have to have studs in the wall when using these because

the wood is sandwiched around and laminated to an insulation so they are already much stronger and make construction slightly more convenient."

Devon Fluette, a senior, and Joe Carruolo, a sophomore from the Warwick Area Career and Technical Center, said that, if they had a choice between building with the SIPS versus using a more traditional technique, they would opt to use the SIPS.

"The material is probably a lot more expensive, but it is a lot easier for us to use because it eliminates a step," Fluette said. "You don't have to use as many studs because the Styrofoam insulation can hold and support the frame as is, whereas fiberglass insulation is just soft and cushiony."

Other tasks that the students from Warwick said they enjoyed were the carpentry competitions.

"There was a nail station where we went up against other students to see who could nail the fastest," Fluette said. "There were three nails that had been started and we were timed to see how long it would take to finish hammering them in. I wanted to try and redeem myself after they told me it took me just under 7 seconds. That was pretty embarrassing."

The students were also asked to see who could hold a circular saw in the elevated position longest. "It got pretty heavy after a while," Fluette said.

Almost all of the products used in the hands-on student demonstrations were donated to the Conservation Services Group for the Green Building Exhibition. Some of the contributors were Veloux America, Foard Panal and Harvey. All of the industry professional also donated their time and their talents for the day's events.

"Over time, we have been able to make numerous connections in order to make this day happen," said Wolff. "We get tons of donations and the willingness of various professionals who come into work with the kids. This is a great opportunity for them because, normally, these kids wouldn't work with professionals with this status. We are grateful to all of them because, without them, we couldn't do it."