

cool roofing

ENVIRONMENTALLY SOUND SOLUTION

A Roofing Contractor's House Showcases a Vegetative Roof



By Kate Gawlik

Wondering what affordable car performs the best? Check out what a mechanic drives. Curious about what hospital offers the best patient care? Find out where your doctor goes. Want to know what a quality roof system looks like?

Look at the roof system on a roofing contractor's house. The vegetative roof system on Mark Gaulin's house is a good example.

"I am in the roofing business and have installed many green roofs," says Gaulin, president of Jessup, Md.-based Magco Inc., part of Tecta America Corp., Skokie, Ill. He chose a vegetative roof system because he "felt it was functional and the aesthetics would fit with the high level of landscaping already installed [on the property]."

Gaulin founded Magco Inc. in 1987 and manages the company's field operations. Magco Inc. installs single-ply, metal, modified bitumen, built-up and vegetative roof systems. With years of experience and involvement in several roofing industry associations, Gaulin has become well known as a knowledgeable, professional roofing contractor. He will serve as the National Roofing Contractor Association's president for the 2006-07 term.

This knowledge helped him find a solution to reroof his large six-bedroom house in Severna Park, Md. The home, which sits on the Severn River near Chesapeake Bay, was built in 1995. The original cedar shake roof system had to be replaced not because of failure but because of code.

"We needed to increase our pervious area to meet Anne Arundel County and the critical area requirements," Gaulin notes. "We are restricted by the amount of nonpervious area (roof and paving) by a percent of building to property size." Gaulin had a grassy pervious driveway installed this year for the same reason. The total vegetative roof area is about 600 square feet (56 m²).

CONSTRUCTION

In May 2003, six crew members began tearing off the cedar shake roof system to the plywood. With Gaulin serving as project manager, the crew began installing a TectaGreen™ system. The first step was to install a Sarnafil PVC membrane, which also has a natural root resistance. Next, a 1/4-inch- (6-mm-) thick felt moisture-retention mat was laid in place followed by a 3-inch- (76-mm-) thick soil media slope system. The mat is made of 100 percent recycled materials, and the system weighs 18 pounds (8 kg) per square foot when fully saturated. To hold the plants and soil in place, a WebTec support system was installed. WebTec is an 8- by 8-inch (203- by 203-mm) grid made of high-density polyethylene.

All the plants are sedum and succulents. Proper drainage was ensured by installing an extruded-aluminum perforated bar around the roof system's perimeter so water can run into the gutters. The vegetative roof system requires little maintenance — just weeding.

ON THE RIVER

Though the roof system helps the house meet code, Gaulin believes it serves another purpose. "It shows our commitment to the environment and the Chesapeake Bay," Gaulin says.

And passersby certainly are noticing the commitment. Gaulin notes, "We are on the river, and boat traffic always is looking and pointing at it, so it gets a lot of attention." 🌱



COMPANY COMMITMENT

In spring 2003, Tecta America Corp., Skokie, Ill., officially unveiled TectaGreen™, a complete vegetative roof system. TectaGreen is a multilayered system that consists of a waterproofing layer, protection membrane, drainage, filter mat, lightweight growth media and plants. In addition to being installed on Mark Gaulin's house, the system has been used on the PEPCO Pump House, Washington, D.C.; Wells Fargo Japanese Garden, San Francisco; Magco Inc.'s headquarters in Jessup, Md.; and several other buildings throughout the United States. Visit www.greenroof.com for more information.

The vegetative system, designed for all roof types, meets green building rating system standards and contributes to points needed for the U.S. Green Building Council's LEED® program. Vegetative roofs can extend a roof system's life span, improve site use, increase energy savings and provide tax benefits.

"Green roofs can save millions of dollars in energy consumption, improve air quality and reduce greenhouse gas emissions. We're committed to making green roofs an important part of our future commercial roof efforts," says Gaulin, president of Magco Inc.