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'Green roof' seed planted but private sector not buying it yet

The Brick Cos. own real estate and manage golf courses, but the green on its rooftop terrace isn't just for putting practice.

Next to the green carpet where employees can work on their game is about 1,000 square feet of spongy vegetation, four stories above the street.

Climbing a ladder to the roof reveals an even bigger garden covering another 8,000 square feet.

"Imagine all those roofs having living roofs," CEO Lex Birney said as he gazed from his \$100,000 investment over the South River Colony shopping center and a drugstore next door. "It would have a profound effect."

Because of the high up-front cost, the Edgewater building is one of only a few private ones in the county with a "green roof" that minimizes heat and runoff, two enemies of the environment.

Instead of installing the standard black tar roof that reflects heat into the atmosphere and absorbs heat into the building, The Brick Cos. covered the sheet metal roof with a rubber liner and added about 6 inches of soil and hundreds of plants. The list includes yellow ice plant, jellybean sedum, blue spruce sedum and sedum *Weinestaphaner gold*. Besides the colorful flowers that are pleasing to the eye, the plants also suck water from the soil, which acts like a sponge, thereby limiting the amount of rainwater that cascades off the roof.

What if the behemoth Westfield Shoppingtown Annapolis sported a greenery on its nearly 18-acre roof? Sounds nice, but the cost would be a whopping \$8.7 million, according to an analysis by the engineering firm Ecosite, Inc. based in Columbia.

Scott DeGraffenreid, marketing director for the mall in Parole, said green roofs are a good idea, but the cost of retrofitting a roof nearly a mile long is just too high.

"What we're big on is rain gardens," he said. "Obviously for every square foot of space of concrete, you need to account for where the rain will go."

A rain garden has a dip that collects rainwater and melted snow. The water helps nourish the plants and attract birds and butterflies.

The mall a year ago constructed a rain garden to protect Cowhide Branch, a tributary to Weems Creek and the Chesapeake Bay. More rain gardens can be added if a proposal by the mall to add about 300 parking spaces is approved. A standard roof costs roughly \$3 per square foot, compared to about \$12 per square foot for a living roof. And that doesn't include watering.

But Anne Pearson, director of the Alliance for Sustainable Communities, said installing a green roof can cut costs in the long term because they last much longer than standard roofs and decrease air conditioning bills.

Several public buildings in the county have living roofs, including the county police Southern District Station in Edgewater, Fire Station 31 in Brooklyn Park and three county office buildings in Parole and Crownsville.

Other buildings under construction or planned will have green roofs, including the West County library in Odenton, the Annapolis police station on Taylor Avenue and the new Annapolis recreation center. The state has called for the use of green technology in its new construction projects.

Ms. Pearson said corporate citizens must pay their share of environmental and health costs of development.

“The amount of asphalt we have currently creates urban heat islands, and the urban heat island is the effect that causes low-level ozone,” she said. “That’s when you have red alert days or orange alert days.”

Mr. Birney said the private sector is interested in green roofs, but there’s no tax incentive to build them.

The state awards commercial tax credits of up to 8 percent of the cost of a “green building,” but has no specific tax break for green roofs, said Sean McGuire, a planner for the Department of Natural Resources. Points are awarded for each feature, such as a green roof, solar panels, waterless urinals and the use of locally-produced building materials.

The General Assembly passed legislation this year that allows counties to offer property tax breaks to “high performance” green buildings. The bill is still under review by Gov. Robert L. Ehrlich Jr.

In addition to setting an example, Mr. McGuire said governments are more willing to install green roofs and other environmental features because they will own the buildings forever.

Conversely, private-sector companies often think in the short term because they don’t know what the future might hold for a building.

“Are you going to go out and put a solar panel on a house that you rent?” Mr. McGuire said. “Probably not.”