STUDENTS READY TO BREATH NEW LIFE INTO ECO ROOF

Houston, Jan. 15, 2013 – The eco roof at the Burdette Keeland Jr. Design Exploration Center is about to come back to life.

Students with the University of Houston’s Horticulture Society soon will begin planting seeds, including many native Texas grasses and wildflowers, on the slanted roof of the metal facility that sits just to the east of the Gerald D. Hines College of Architecture building.

Dr. Donna Pattison, the faculty adviser for the Horticulture Society, envisions the project becoming a tool to educate students and visitors to the types of grasses and plants that once thrived naturally in the Houston area.

“The plan is to put down at ground level in front of the building some signs explaining what the plants are that are growing on the roof,” said Pattison, who is the assistant chair of Undergraduate Affairs for the Department of Biology and Biochemistry.

The vegetated roof, which covers about 2,000 square feet on the south side of the building, originally was installed in 2007. Over time, its upkeep declined.

Pattison, who is a molecular biologist, began hearing from students who wanted to revive it. After permission was received from the College of Architecture to pursue the project, a handful of students submitted proposals to Pattison on what to plant on the roof.

“It’s a very brown eco roof at the moment. Not a whole lot is living up there now. It’s gone completely wild,” Pattison said. “The Katy Prairie Conservancy is serving as advisers to help us.”
The existing plant life isn’t being removed, but is being cut down to about an inch. That, Pattison said, will allow the existing root structures to keep the synthetic soil in place, but still allow new seedlings to receive enough sunlight and space to grow.

“The beds on either end will be sown with a mix of 30 types of native Texas wildflowers and grasses. The center bed will feature the interlocking UH logo in red coleus framed by white falling snow plants on a bed of green ground cover,” Pattison said. “While the center bed consists of common garden plants rather than natives, the students wanted to show their school spirit in plant form.”

An additional two beds, she said, will feature swaths of Texas wildflowers that will be both visually pleasing and easy to use to maintain seed reservoirs for future plantings.

The roof is outfitted with a drip irrigation system to bring water to the seven beds. The water to each bed can be individually controlled. Over time, that system stopped working and needed repairs. The College of Architecture still had some money left over from the original project, so last May the funds were used to fix it.

The building is one of the original metal buildings built on the campus. It has gone through several reincarnations over the years, having served at one time or another as a print shop, auto shop and even an annex for the UH band.

When the new design center was unveiled in 2007, the roof was being billed as the only sloped green roof in the city of Houston. It even received a Certificate of Recognition from Keep Houston Beautiful.

Besides providing habitats for birds and insects, green roofs have the potential for cleaning the air, acting as insulation for a building, and, in large numbers, slightly lowering the core temperature of urban areas.

Student Christopher Huynh, the treasurer for the UH Horticulture Society, said the organization wanted to revive the roof for a number of reasons.

“We support sustainability on campus, and the sloped green roof is a prime example of sustainable architecture,” Huynh said. “We saw many advantages to working on the green roof: It was a semi-isolated environment, so given enough time we could potentially conduct research up there, and it would also improve the campus’ image as a whole.”

Pattison hopes that, in time, the roof can be used in research on the benefits of green roofs and how to maintain them in the hotter southern U.S. climates.

“We’d like to eventually be able to do undergraduate research using this space, but we don’t have the expertise on campus quite yet to make that leap,” she said. “Part of what we’re doing is just learning how to do it, and then we can go back and start designing undergraduate research projects.”

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