

From the "Metro" Section of the May 6th edition of the Sacramento Bee Newspaper:

New Natomas school roof is green - and growing

By Laurel Rosenhall



The H. Allen Hight Learning Center, part of a new school campus in Natomas, has a "green roof" covered in soil and plants that is designed to save energy and look soothing. Paul Kitagaki Jr. /

A new school being built in Natomas has something in common with the Chia Pet.

With a few sprinkles of water, plants will spring from its top, forming a cover of vegetation across the roof of the H. Allen Hight Learning Center.

The school's "green roof" is one of many construction features designed to save energy when the campus opens in August with 500 students. It's also likely the first local example of a building trend sweeping across rooftops worldwide.

Green roofs – roofs covered with soil and plants – have become a favorite feature among environmentally minded builders. They naturally keep buildings cool and absorb rainwater. Plus, they're neat to look at.

"Green roofs are one of the visible, sexy, fun green building elements that are attractive to people," said Leslie Hoffman, whose New York nonprofit, Earth Pledge, published a book about green roofs. "It's not very fun or sexy to talk about insulation."

Green roofs were first developed in Germany about 40 years ago, Hoffman said. The technique then spread to Japan before picking up in the United States in the last 10 years. New York City now has more than 100 green roofs; Chicago has about 300. A green roof sits atop the Gap offices in San Bruno and one is being built on the new Academy of Sciences in San Francisco's Golden Gate Park.

Of course, all those cities are graced with a lot more summertime moisture than Sacramento. So the roof on top of the Natomas school will be equipped with a sprinkler system. Without it, the plants wouldn't survive the germination phase, said Michael Cannon, assistant superintendent of the Natomas Unified School District.

Workers began laying soil and plants on top of the school last week. They're planting non-flowering strawberry, creeping thyme and blue fescue – all low-growing, ground cover-type plants that require little maintenance.

The green roof covers one of three buildings on the H. Allen Hight campus – a central library and administration building that sits between an elementary and a middle school. Students working from the third-floor chemistry labs in the middle school building will have a view of the green roof.

But other than that, the green roof will be hard to see. Unlike some green roofs that double as natural sciences labs or rooftop patios, this one won't be accessible to students or staff.

"It's being used entirely for building functionality – heating and cooling," Cannon said.

The green roof will account for about \$200,000 of the \$74 million school construction project, Cannon said. It's more than double the cost of a traditional roof, which would cost roughly \$80,000. But Cannon figures the school district will see a return on its investment in about 12 years.

With rooftop plants keeping the building cool, the school won't need to run the air conditioner very much. Not only will that save on energy costs, Cannon said, but it also means the HVAC system will last a lot longer, resulting in additional savings.

Natomas Unified has built other schools with environmentally gentle techniques. But this one goes even further.

The green roof is one of several features that earned H. Allen Hight recognition from the Collaborative for High Performing Schools, which promotes ecological school construction. The school's cabinetry is made from recycled wood; tackable wall panels are made from recycled paper; paint, flooring and ceiling materials do not emit toxins common in most building supplies, leading to improved air quality.

The school will become a demonstration site for other districts interested in green construction, said Kristin Heinen, assistant director of the Collaborative.

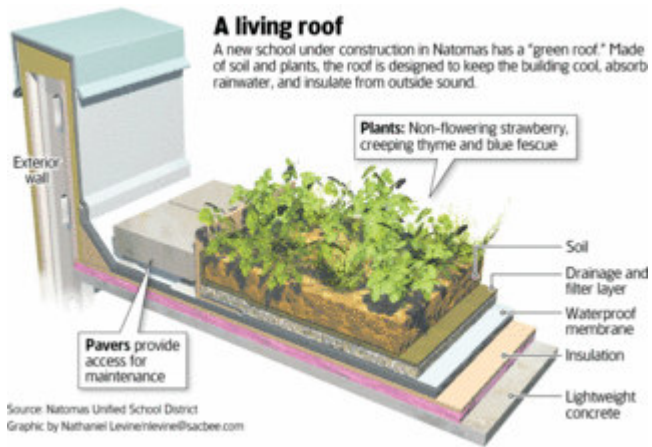
"There really hasn't been a school in that area for other schools to look at as a model," she said.

There is no official census of green roofs, but the one in Natomas appears to be a first for the Sacramento region: the first public building with a roof entirely covered in vegetation.

At least one home in Davis has a similar-style green roof, said Jamie Cutlip, an assistant planner who has worked on the city of Sacramento's green building program.

And the CalPERS building downtown has rooftop terraces lined with trees and planter boxes. That configuration gives some of the benefits of a green roof, Cutlip said, even though it's not completely covered in plants.

One more green roof may soon sprout downtown. Cutlip said there's been talk of building a small green roof on the new portion of Sacramento's city hall.



Workers lay water lines atop a "green roof" at H. Allen Hight Learning Center, being built by the Natomas Unified School District. Covering the roof in plants will cost about \$200,000, more than double the amount for conventional materials, but officials think energy savings will recoup that.

Photos by Paul Kitagaki Jr.

(Link to original article: <http://www.sacbee.com/education/story/915283.html>)