

CLIENT'S VIEW

Green Roofs Top LEED-Built Home

ArHaus, a small residential development company in Encinitas, CA, builds high-end, modern homes with a sustainable focus. President Rich Williams sat down with *Interiorscape* magazine to talk about two green roofs they recently commissioned GreenScaped Buildings, San Diego, to incorporate into a gut rehab project in Leucadia, CA. Williams expects the residential project to receive platinum certification under the LEED for Homes program.

What inspired the idea to incorporate green roofs into this project?

The aesthetic was really our primary reason for the main green roof, located above the garage and on the master bedroom's roof deck. We split the roof deck into a green roof, which is about 400 square feet, and a regular seating area for the homeowner.

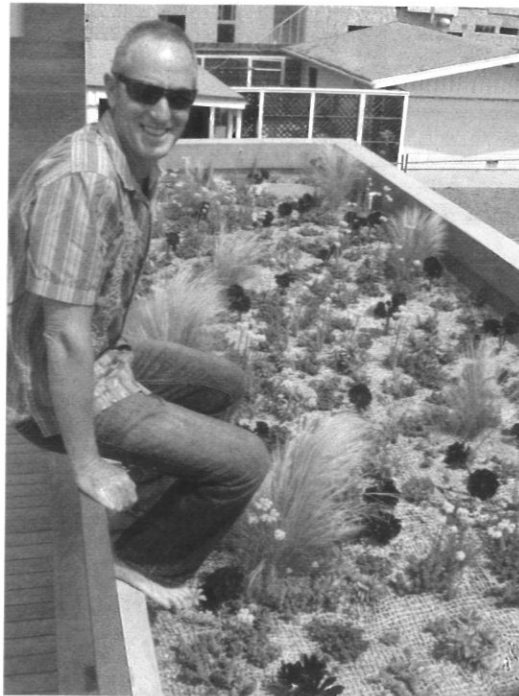
The smaller green roof, 18 square feet, was not in the original plans, but it provided a solution for us. We have a little architectural pop-out that we had to roof - it's only a 2'x9' area. We thought it would look strange if the roofing was visible there since the rest of the roofing isn't. A green roof was the solution. It added to the architecture of the home, too, because the dune grass enhanced our articulation of the pop-out section. It waves in the wind in front of the home like a banner that says, "Hey, this is a green home!"

What are the benefits of these green roofs?

Green roofs complement green homes. The architecture of this home is fabulous, and the green roofs enhance it. They also provide cooling to the garage and the deck area adjacent to it, thanks to transepiration. Managing storm water runoff is another benefit.

What reaction do the green roofs generate?

Everyone absolutely loves them. Green roofs are still pretty unique here in San Diego, even though they shouldn't be.



People are truly amazed by them. If I take a couple to tour this home, and one of them sees the green roof, she immediately grabs her spouse and says, "You must come look at this!"

How did the main green roof take shape? What's included?

A built-up or layered system, with an organic drainage layer and subirrigation drip lines, were used. The plants are all low-water-use and hardy to the elements - "bulletproof," as GreenScaped Buildings' Owner Jim Mumford calls them. Three plants per square foot, of various shapes, textures, colors and heights, from 4 to 18 inches tall, were installed. They included 3-inch plugs of *Aeonium 'Zwartkop,' Sedum rupestre 'Blue Spruce,' Sedum nussbaumerianum 'Coppertone,' Sedum spurium 'Dragon's Blood'* and *Sedum kamtchaticum* and 1-gallon *Aristida purpurea*.

What are the main green roof's maintenance requirements?

It's very minimal. For the first couple of months, it had to be top-watered once a week until the roots established to the

depth of the drip lines. Once a month, it is weeded, and the irrigation rates are monitored. The drains have to be checked for debris every three months, and it needs to be fertilized one to two times a year.

Any future plans for green roofs?

We will add one wherever we can. It's a wonderful thing to do. By having green roofs installed on my properties, I hope other people will see them, and they'll want to do it, too.

What's the LEED angle of this property?

We should easily get platinum certification under the LEED for Homes program for this property. Unfortunately, however, the green roof is not large enough to earn credit toward the certification,

but it is a possibility in future projects. At least 50 percent of the roof area must be a green roof in order to get credit; a minimum of 50 percent earns a half point, and 100 percent equals one point.

Some of the many sustainable features of this home include high-efficacy lighting, solar PV, solar hot water and framing treated with sodium borate, a non-toxic pest control. The list goes on and on.

Why go for LEED certification?

The nice thing about the LEED process is that you're not green washing - just throwing a few bells and whistles on a home and calling it green. It's a rigorous process.

On the consumer side, there are health benefits of living in a LEED for Homes project. We assure everything that goes into the home, whether it's paints, adhesive or sealants, are low VOCs. It's good for the homeowner's pocketbooks, too, because the home is durable and is going to last longer.

We don't realize what's in our homes, sometimes. Typically, there is 30 to 100 times more pollution inside than outside, so that's a huge reason for buying a LEED for Homes project.