

New Boise lab helps designers go 'green'

By Ken Miller

SPECIAL TO THE IBR

With a few strokes of a keyboard, Kevin Van Den Wymelenberg sends a miniature mock-up of an elementary school spinning on a remote-controlled table, simulating the amount of sunlight the building will receive during various times of the year and how designers can best capture that light to reduce the building's energy bill.

Van Den Wymelenberg is the director of the new Integrated Design Lab, a cooperative project sponsored by the University of Idaho, Idaho Power Co., the state Idaho Energy Division and other partners interested in promoting "green building" efforts to save energy and other resources in construction projects.

Situated in downtown Boise, IDL offers architects, building contractors, and others a free service to make new buildings more energy efficient and economical.

From private projects such as the new Tumble Time Gymnastics facility, which will capture available sunlight to illuminate the building, to school buildings in Nampa and Meridian, the lab is breaking new ground in green construction statewide.

"It's a wave that's not going away," Van Den Wymelenberg said of the boom in green construction that's taking root in Idaho. "I would say there have been more suc-



KEN MILLER

Idaho green building player Kevin Van Den Wymelenberg is the director of the recently opened Integrated Design Lab in downtown Boise.

cesses here (in Idaho) and quicker than what I expected."

The IDL was created to help builders and architects better understand the virtues of environmentally friendly projects. Based in a roomy office at Sixth and Main in Boise, the laboratory opened in October. Van Den Wymelenberg is the lone full-time employee and is assisted by two part-time University of Idaho Department of Architecture graduate students. The operation is funded by BetterBricks, a nonprofit effort of the Northwest Ener-

gy Efficiency Alliance; Idaho Power and the Idaho Department of Water Resources Energy Division.

IDL offers free consultations to builders, architects, and property owners looking to build energy-efficient projects. The lab currently uses a high-tech Overcast Sky Simulator to use tiny building models to determine the best use of available light rather than bulbs. It also employs a Heliodon, featuring a high-powered spotlight and a mirror, to see how natural light hits a building at various times during the year.

Using data, computer models, and other information from the tests, the lab can help designers determine the best way to situate their buildings and use skylights and other features to reduce energy consumption.

Half of Van Den Wymelenberg's salary is paid by UI and the other half by BetterBricks, while Idaho Power pays for the lab and office space.

Architects and developers don't pay for the lab's consulting services, which Van

See LAB, page 2

Integrated Design Lab opens in Boise

Continued from page 1

Den Wymelenberg expects will expand as the lab grows in the coming months.

“It’s a no-cost service; there are no costs related to it,” he said, adding that the state Division of Energy and the IDL’s other partners pay for the consultations.

He said he’ll hear about a construction project and then approach the architects to find ways to integrate energy-saving design. As word of the IDL’s presence spreads, he hopes developers will contact the lab to seek advice.

“If I hear about a project that I think is interesting, I may go and talk to the architect,” he said. “But a lot of the design firms that are working on these projects ... the architect calls us and we get rolling.”

He said the lab’s benefits range from energy savings to public and private building owners to showing how energy-efficient buildings can boost productivity and reduce absenteeism.

Schools that optimize natural sunlight show higher test scores, he said, while businesses using these new green technologies report lower absenteeism and higher productivity by employees.

Van Den Wymelenberg moved to Boise from Seattle, where he worked at the University of Washington and the BetterBricks Daylighting Lab, early this year to set up the IDL. He said one of IDL’s goals is to demonstrate these conservation and cost-saving benefits and to show how using new green building practices can pay off in the long run.

“Our goal is market transformation,” he said, noting that the IDL doesn’t have the budget to mount an industry-wide transformation in shifting to green construction practices. Rather, it’s focusing on making incremental changes to building designs.

Van den Wymelenberg said as the IDL continues to grow, it will likely seek another part-time staffer to handle the added workload.

“We’ve been really fortunate,” he said. “We’ve had really good support from Idaho Power and BetterBricks,” as well as funding from UI. “We’ve got our eye on putting together a wind tunnel and looking at natural ventilation.”

“I would say there have been more successes here (in Idaho) and quicker than what I expected.”

– Kevin Van Den Wymelenberg

©2004 Idaho Business Review. All rights reserved. Originally published in the Idaho Construction Review, a publication of the Idaho Business Review, November 15, 2004.

For IBR information or to subscribe, call 208.336.3768, ext. 11 | info@idahobusiness.net | P.O. Box 8866 • Boise, ID 83707