



Grading green: USGBC chapter evaluates LEED buildings

Published: Thursday, December 09, 2010, 9:00 AM



By **Olivia Pulsinelli** | **Business Review West Michigan**



Photo by Johnny Quirin

USGBC West Michigan Chair Rena Hesselink at downtown Grand Rapids' David D. Hunting YMCA, one of the 40 buildings in the Green Buildings of West Michigan project.

Rena Hesselink describes the **Green Buildings of West Michigan** project as a journey — one that is still continuing.

The **U.S. Green Building Council West Michigan Chapter** initiated this project — which included a tour this fall and a **recently published book**, along with data analysis on 40 buildings — to showcase West Michigan's leadership in green building, as well as gauge the effectiveness of LEED, said Hesselink, chair of USGBC West Michigan.

For the project, which began in January, chapter volunteers and 25 student interns from **Grand Valley State University, Aquinas College** and

Kendall College of Art and Design collected, input and analyzed the data. They entered energy usage data for most of the 40 participating buildings into the **Energy Star Portfolio Manager** or the LEED EB B/C Calculator, which gives an equivalent score to those buildings without a comparable building type in the Portfolio Manager.

Of the 40 buildings, 20 could qualify for Energy Star. Seven buildings did not have comparable categories and therefore obtained an equivalent score from the LEED EB B/C Calculator. The remaining 13 could not obtain a score for a variety of logistical reasons.

Of the 27 buildings receiving a Energy Star score, the high score was 99 — meaning that building performs better than 99 percent of similar buildings — and the low was 55. The average was 81.

However, the study also found many things that building owners can do to improve energy efficiency, plus changes that need to be made to better evaluate buildings' energy performance.

One of the main challenges stemmed from the uniqueness of the participating buildings.

"We wanted the diversity for the marketing tool to show that we have all these different types of (LEED) buildings, but doing that caused us some problems with Energy Star because they don't categorize all buildings at this point,"

Hesselink said. "They continue to add categories, but not as many as we would like."

Another challenge for some buildings was a lack of discrete metering. Either a facility's operational load — such as hospital or manufacturing equipment — was not metered separately from the building's process load, or some facilities were not metered separately from the rest of the buildings on their campuses.

"We knew that might be a possibility, but we had no idea who hadn't done that," Hesselink said. "But that's kind of a lesson learned from a design perspective because that should be put in place when they're designing a building."

Despite those challenges, building owners are adamant about the benefits of LEED-certified buildings, especially not-for-profit organizations, such as the **YMCA of Greater Grand Rapids**.

"The really tangible (benefits) are certainly energy savings and how that translates to the bottom line because every dollar that we don't spend on operating costs is a dollar that we can put back into the community helping children and families," said Brett Butler, association property director for the YMCA.

Another project participant, **Haworth Inc.**, increased the size of its headquarters by 20 percent but now uses 10 percent less energy and 45 percent less water than before, said Ken Brandsen, the facility manager during construction of the new headquarters.

Forest Hills Public Schools also can prove the benefits of LEED. Tom Walters, energy manager, controls the energy usage in all 25 district buildings, and he operates the three high schools identically.

"Our LEED high school, Forest Hills East, is saving at almost 40 percent," Walters said. "The other two high schools are saving around 22 percent."

Despite those kind of results, the USGBC chapter doesn't want building owners to think LEED certification means they don't have to consider how they use energy within their building.

"Our hope is that this exercise challenges building owners to question all aspects of their performance and not take their LEED rating for granted. ... Complacency is not an option, and a good score today is only a performance snapshot that will require continuous improvement to retain," states the "Green Buildings of West Michigan" report.

Participating in the project inspired many building owners to take further action to improve energy efficiency, and the report suggests that even newly constructed LEED buildings could benefit from the energy-efficient practices followed to achieve "LEED for Existing Buildings: Operation and Maintenance." The infrastructure used in measuring building performance for LEED EB O&M is less expensive to include in new construction compared to retrofitting existing buildings, the report states.

The chapter's next steps in this ongoing project include talking to the "next round of potential building managers to get, hopefully, 40 more buildings going down this path," Hesselink said.

The chapter also would like to evaluate water usage in LEED-certified buildings and, eventually, how workplace productivity increases in those facilities.

And others might soon follow the chapter's example, as the USGBC and its LEED system increase the focus on a building's energy usage after it's completed. The national organization told Hesselink it will be pushing the West Michigan Chapter's model throughout the country.

"West Michigan has been a pioneer when it comes to sustainability and green building," Hesselink wrote in the "Green Buildings of West Michigan" book, "and this project is no exception."

© 2010 MLive.com. All rights reserved.