From Michigan, a Clean-Running Museum

By FRED A. BERNSTEIN

Correction Appended

PETER M. WEGE, a leading philanthropist in western Michigan, is not an art collector.

But he is an environmentalist. So when the Grand Rapids Art Museum, which was housed in part of an old federal building, decided to relocate, Mr. Wege pledged $20 million to the project, stipulating that the new building be “green.”

In fact, when the museum opens in October, it is expected to receive a gold rating from the U.S. Green Building Council. The council awards LEED ratings (for Leadership in Energy and Environmental Design) to buildings that meet a list of criteria, which includes using recycled and recyclable materials, minimizing energy consumption and even installing showers to encourage workers to commute by bicycle. The Provincetown Art Association and Museum, in Massachusetts, received a silver LEED rating in 2006, after completing a 9,000-square-foot addition. But the Grand Rapids Art Museum, being built from the ground up, is nearly 15 times as large.

While there are more than 700 LEED-rated buildings in the country, adding an art museum to the list is especially difficult. In other kinds of buildings, windows can be opened to let in natural breezes, reducing the demand for air-conditioning. But art museums, which contain delicate works, do not have that option. The Grand Rapids museum has more than 5,000 works in its collection; the oldest is a 16th-century engraving by Dürer.

Celeste Adams, the museum’s director, said its temperature must be 70 to 72 degrees, and its humidity around 50 percent. “It’s like a refrigerator, in that it’s always turned on,” said Kulapat Yantrasast, the architect who designed it.

But even an art museum can reduce its air-conditioning use. In Grand Rapids, fresh air will be collected and stored below the building, where the earth will cool it naturally before the air-conditioning kicks in.

Ms. Adams said there was no way to compute how much of the building's $60 million cost went to its green features. But, she said, among consultants she has spoken to, “the percentage that’s usually given is 15 percent.” That would mean about $10 million in the case of Grand Rapids.
Other donors, she said, joined Mr. Wege (pronounced WEGG-ee) in underwriting aspects of the building meant to reduce harm to nature.

Going green, in fact, can attract new sources of money to art museums. Chris McCarthy, director of the Provincetown Art Association and Museum, said her institution “got a lot of support from people who were less interested in art than in the whole green aspect.” Environmentalists provided grants to pay for features like 17 solar panels on the roof. The panels, she said, reduce the museum’s electric bills.

That would please Mr. Wege, whose father founded Steelcase, the office-furniture maker, which has its headquarters in Grand Rapids. Mr. Wege, 87 and a former vice chairman of the company, has long supported environmental causes, donating large amounts of money to the National Pollution Prevention Center and the University of Michigan’s School of Natural Resources and Environment. Ms. Adams said that when Mr. Wege proposed building a green museum, “at first we were just acceding to his wishes.”

“But we started down a road,” she said, “and over time, we grew to embrace the philosophy in a very profound way.”

Aiming for a gold rating — the second highest of the four conferred by the Green Building Council (platinum is higher; silver and “certified” are lower) — meant that no decision could be made without considering its environmental consequences. The museum’s design and construction teams required extra workers to document compliance with LEED criteria. Mr. Yantrasast, the architect, was born in Thailand and spent years working in Japan for the architect Tadao Ando before starting his own firm with his design partner Yo Hakomori in Los Angeles in 2003. He was chosen for his experience as project architect on Mr. Ando’s Modern Art Museum of Fort Worth, not for his environmental credentials. But his philosophy, Mr. Yantrasast said, fits Mr. Wege’s vision. For one, he said, his Buddhist heritage prepared him to view life as a circle rather than as a line. Thus he is comfortable using materials that are not just recycled but recyclable. That implies that the building will eventually be altered.

“Twenty or 30 years from now, people may have a different definition of art,” Mr. Yantrasast said. “If they want to be able to change the museum, you have to give them room to do that.” His style of architecture gave him a head start on making the Grand Rapids building energy efficient. Like Mr. Ando, Mr. Yantrasast works mostly in concrete, creating rooms that feel enclosed. “When you’re in a museum,” he said, “you want the experience to be inward looking.”

Luckily, concrete, unlike glass, reacts slowly to temperature changes, reducing the need for heating and air-conditioning. Where the Grand Rapids building does have glass, it is used dramatically, especially in the lobby, which overlooks a park designed by Maya Lin. There are
many skylights, which help bathe the artworks in natural light and reduce electricity use. But the light also creates heat, which can increase the need for air-conditioning. So the glass is filtered, layered and fitted with adjustable louvers.

Following LEED criteria, a high percentage of the building’s materials were produced nearby, minimizing the energy used to ship them to the site. But the white oak that Mr. Yantrasast wanted for the floors was not available in the Midwest, so he used wood from the Northwest that was certified by the Forest Stewardship Council. That added to the costs. “It’s like when you go to a supermarket to buy food that’s organic — you know you will probably have to pay more,” Mr. Yantrasast said. Other green features include tanks that collect rainwater, which is used to flush the building’s toilets. Ms. Adams said she was shocked to learn that rainwater couldn’t be used in bathroom sinks because it isn’t clean enough, a fact that she said helped her realize how important it was not to further harm the environment.

When the building opens, Mr. Yantrasast said, visitors won’t be overly aware of its environmental mission. “You don’t want it to be a science museum,” he said. “It has to be about the art.”

But Ms. Adams said the art and the museum’s green aspects were connected. “Protecting the environment, and art, are both about quality of life,” she said. Education programs in the new building will stress that relationship. Docents will discuss the green features, and a small exhibit, designed by Mr. Yantrasast, will focus on uses of natural light in art museums worldwide.

Of the LEED requirements, the architect said, “I never felt limited because the green features are all things I already felt I should be doing; for architects, they’re common sense.” Mr. Wege, who gave the museum its impetus to go for a LEED rating, said, “I hope it inspires other cultural organizations to follow.”

Correction: April 2, 2007

A picture caption in the special Museums section on Wednesday with an article about the relocation of the Grand Rapids Art Museum in Michigan misstated information about its site. The museum will be in a new building, not in a former federal office building.