



Photo by Kimberly McKinzie

"One of the first questions, because it's a very popular thing these days, is, 'Do you have any expectations when it comes to sustainability?'" says Spencer Read, vice president of Mitchell Design Build's construction company.

## Building projects evolve to include discussions, plans for sustainability

Though interpretations are different, eco-friendly sites have become popular

By MIKE COSTANZA

Sustainability can be in the eye of the beholder in commercial construction. "One of the challenges that we have in this field is that there are different interpretations of the word 'sustainability,'" asserts Nabil Nasr, director of Rochester Institute of Technology's Golisano Institute of Sustainability.

Despite that difficulty, local construction firms describe the concept of sustainability in much the same general manner.

"Sustainability is building a project, or doing a building or renovation, that minimizes environmental impact," explains Nancy Jendryaszek, a partner at Pathfinder Engineers & Architects LLP. Pathfinder engages in sustainable design and construction and consults in the field.

Multiple factors determine the sustainability of a building, including the site on which it stands, how it is cooled and heated, and the manner in which those who tear the building down dispose of the waste. All depend upon the nature of the building, desires of the customer involved and the materials and resources available.

Mitchell Design Build raises questions regarding environmental sustainability at the start of just about every project it undertakes.

"One of the first questions, because it's a very popular thing these days, is, 'Do you have any expectations when it comes to sustainability or LEED certifications or other green building certifications?'" says Spencer Read, vice president of Mitchell Design Build's construction company and senior project manager of its architectural company.

The non-profit U.S. Green Building Council developed the Leadership in Energy and Environmental Design rating system in 2000.

"That's one of the rating systems that a lot of ... projects use to confirm and certify

that they are sustainable buildings or projects," says Jendryaszek, who is a member of the USGBC New York Upstate Chapter.

Under the LEED system, buildings are rated on design, construction and operation and placed in one of four categories—from the lowest, "certified," to the highest, "platinum." The use of energy-saving thermal windows and low-flow, water-conserving plumbing fixtures in a building can be pluses, for example, as can the structure's placement near public transportation lines. In addition to being environmentally friendly, such measures can also improve the bottom line of the businesses involved.

"There's all these different things that we can incorporate in a project that are sustainable, save energy, and make it a better environment for employees and for productivity," Jendryaszek notes.

Though LEED has come to be a recognized standard for environmental sustainability nationwide, all construction firms do not give it the same importance. Read says that while Mitchell Design Build believes very strongly in sustainability, aiming for LEED certification can be costly. Gypsum board with a high amount of recycled material can cost as much as 50 percent more than the standard board, for example, and even applying for LEED certification can add tens of thousands of dollars to a project's cost.

"It doesn't always make sense to get these high certification levels on buildings," Read says. "You end up spending a lot more money for something that isn't necessarily much different and isn't necessarily doing a whole lot for the environment."

In part for that reason, Mitchell Design Build will develop the plans for and construct a building that meets LEED standards without applying for certification, Read says. The resulting building might, for example, incorporate a heating, ventilation and air conditioning system that is more appropriate for its size and purpose than originally called for.

"You can often downsize the system, which obviously saves inherent energy right off the bat," Read explains.

As a result, the system would also be more environmentally friendly. Mitchell Design Build also makes use of recycled materials where warranted—as long as they are available close to its work sites.

"If you have to drive that material from California to here ... you're now expending a lot of energy in transportation that may offset the amount of energy you save by using some recycled materials," Read explains.

His firm also reduces waste by ordering just the right amounts of materials, and it recycles what it can. Recycling bins wait at its job sites to be filled with metal, cardboard, and wood products. While recyclers generally charge to haul the material away, some carpet manufacturers will haul old carpeting away for free.

"They end up using that as the recycled content that they put in their product," Read explains.

Environmental sustainability also helps drive building designs and construction practices at LeChase Construction Services LLC.

"The word 'sustainability' is coming up ... pretty much in every planning scenario of most of the buildings we do," says Will Mack, executive vice president of LeChase.

The firm attempts to act on the concept in a manner that transcends the bricks and mortar of the buildings it erects.

"We're doing the right things for the environment," Mack explains. "The exact benefit of that is ... a healthier building that produces a healthier workforce."

Such views show themselves in LeChase's growing use of reclaimed wood and recycled wood products on its construction projects.

"We're actually out there sourcing lumber that has been used in previous structures or previous buildings and reusing it," Mack says. "We're not out there chopping down trees."

They can also manifest themselves in the design of a building.

"Areas where people typically need privacy ... are in the core, the center of the



**Owner:** Southpoint Cove LLC

**Location:** 1440 Empire Blvd., Webster

**Project information:** 26-acre development to include eight 40-unit, three-story apartment buildings with underground parking and community center with pool

**Cost:** \$46 million

**Start date:** October 2013

**Expected completion date:** September 2016

**General contractor:** Spoleta Construction LLC

**Architect:** Passero Associates P.C.

building, today," Mack says. "Folks that are actually in their offices or at their workstations are on the perimeter of the building, which allows the natural light to get in and increases productivity."

Coupled with other environmentally friendly features, effective office placement can also cut a building's energy consumption and save its owner or tenant money.

Sustainability Institute Hall, GIS' headquarters, is a test bed and demonstration platform for sustainable building construction and operation that has earned LEED platinum certification.

A multitude of features helped the 84,000-square-foot facility, which LeChase designed and built, reach that level of sustainability. For one thing, its windows have as much as three times the thermal insulation of regular panes and allow many employees a view of the outside. On sunlit days, the building's lighting system reduces the output of its fixtures or turns them off completely. The building also boasts a geothermal system and can generate its own power using an on-site fuel cell, solar panels and windmills.

"We use 40 percent of the energy a year that a building of our size built today would use," Nasr asserts.

Recycled materials also feature prominently in the facility, and a 45-foot green wall inside the main entrance helps improve its air quality. LeChase carefully selected the plant used, since mowing it

"(You'd) have to have a vehicle go in there that is gas-powered or electric, and the emissions off it or the energy used would defeat the purpose of the green wall," Mack explains.

The climate for environmentally sustainable commercial building design and construction has grown more positive in recent years, according to Nasr, and might continue doing so.

"Historically, the building community has done a really good job in promoting sustainability," he notes.

Mike Costanza is a Rochester-area freelance writer.