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TAPPING INTO RENEWABLES

Increasingly, local companies are leading their industries to renewable energy. Meet Posty Cards, a Kansas City-based business greeting card company that just installed the largest solar installation in the city and is slated to be the first LEED Platinum-certified manufacturing plant in the country. Then discover SubTropolis, the world's largest underground business complex that uses the constant temperature of the Earth for energy savings of up to 70 percent. It, too, is right here in Kansas City.



(From left) Lance and Erick Jessee, Posty Cards' owners, climbed a ladder to the roof of their new sustainable addition to show a better view of Kansas City's largest solar installation. The company prints business-to-business greeting cards, including a sustainable line.

Shedding light on sustainability

Posty Cards leads manufacturing in **GREEN** building

By Jan Landon

When Posty Cards began planning to double its manufacturing space, its owners wanted a sustainable addition. What they got goes beyond anything like it in the country. It's so green, it's headed to platinum.

Erick Jessee, the figure at the center of Posty Cards' ambitious new building, aims to have the first manufacturing plant in the United States to earn a LEED (Leadership in Energy and Environmental Design) Platinum rating – the highest rating possible. From solar energy to creative use of sunlight, Jessee is excited about the energy savings and the effect the project is having on his employees.

“The big idea is the courtyard,” says Jessee, president of the company that specializes in business-to-business greeting cards. “The courtyard meets our goals in so many ways. It allows us to bring in a lot of natural light, but it also transforms the work environment, providing views and a visual connection across the expanded facility. I love knowing that our employees are able to look out the window and see trees from the production line.”

Posty Cards, in Kansas City’s urban core at 1600 Olive Street, is packed inside and out with sustainable systems that started out as small, medium and big ideas. Completed in October, the building is more than twice the size of the original facility.

“The need to expand spurred this entire project,” Jessee explains. “Originally we looked at it purely to add square footage. The vision for a green building came with the realization that the expansion gave us the opportunity to bring our entire operation in line with company sustainability goals.”

When Jessee leads a tour through his company, every turn reveals another green component. He starts outside pointing to the roof of the new building that is topped with Kansas City’s largest solar photovoltaic panel array. From the native landscaping surrounding the building to the highly efficient heating and cooling system to the interior finishes of recycled carpet, water-saving toilets and programmable lighting, Posty Cards uses both established and cutting-edge green technology.

Green technology

The building has the city’s first variable-volume HVAC system.

“The principle is you have different loads depending on the needs of the area,” says Jessee. “If you can vary the heating and cooling based on the load in an area, you’re going to be a lot more efficient.”

The system uses constant incoming data to determine if an area should be heated or cooled. Traditional systems are either on

or off, but with a variable system it might be off in one room and on in another, dependent on need. This type of system is expected to reduce energy usage by 40 to 45 percent, Jessee said.

Systems – heating and cooling, lighting, water – installed at Posty Cards have monitoring components to provide information on efficiency.

“The whole idea is to be in the forefront, to put systems in place and have the ability to test different theories,” he said.

Even the impact of the Big Ass Fans – yes, that is the brand name – will be evaluated. The two industrial-sized fans are in the factory area of the building.

“There’s plenty of days in the year when you don’t need heating and cooling; you just need to move the air,” Jessee said.

Common sense also is highlighted with the native plants in the Posty Cards’ landscaping.

“Once they are established, they are not expected to need any irrigation,” Jessee said. “They evolved to thrive in the climate we have. Another goal met with native plants is to reintroduce native vegetation to the area, which benefits and strengthens indigenous wildlife.”

When rain falls on the 2.19 acres of Posty Cards’ property, it has a good chance of staying there, instead of contributing to Kansas City’s aging rain/sewer water system. Water is retained in rain gardens and a large retention basin under the parking lot.

While Posty Cards is working to keep as much water as possible on the property, visitors won’t find any in the company’s urinals.

“Our low-flow sinks, faucets, waterless urinals are all part of our water conservation plans,” Jessee said.

Even using recycled or reused furniture in the conference room wasn’t enough for Posty Cards. The company did both. The AllSteel #19 chairs are made from 100-percent recycled aluminum, and 88 percent of the materials used in its manufacture are recyclable. Jessee bought them from an architectural firm that was closing its doors.

All of Posty Cards’ sustainable components are aimed at moving the company toward the coveted LEED Platinum rating.

Push for platinum

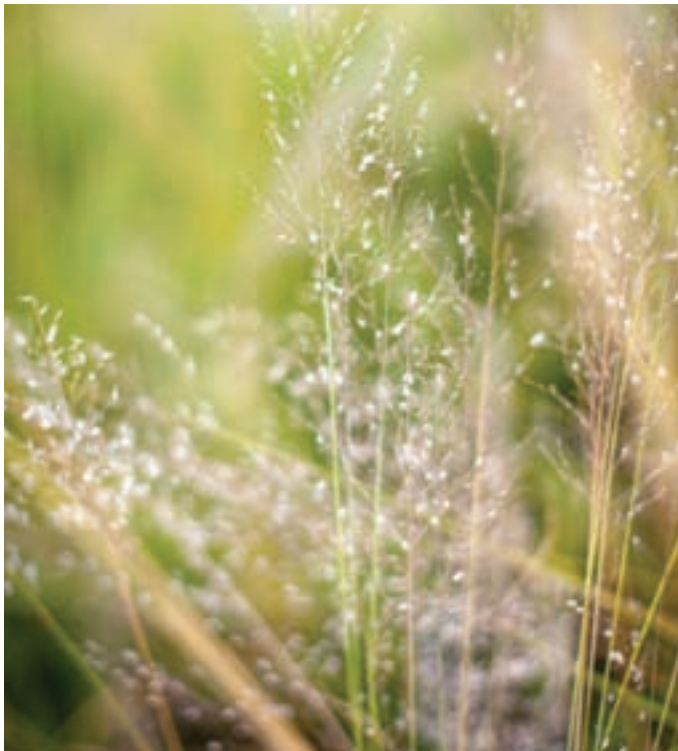
When the \$6.4-million project first started, Jessee was seeking a LEED Gold rating. LEED, developed by the U.S. Green Building Council, certifies buildings based on environmental performance of the structure.

Christopher Mitchell, principal with McHenry Shaffer Mitchell Architects of Kansas City, designed the building. He recalled that during the design process, he and Jessee realized the project was just a few points shy of moving from Gold to Platinum LEED certification. The company expects to receive its certification in early 2011.

Neither the design of the building nor the sustainable components came first in the building’s plan, Mitchell says. Instead, design needs and green needs were integrated from the beginning.



(From left) Christopher Mitchell, principal with McHenry Shaffer Mitchell Architects, reviews final building plans with Steve Wiitanen, a Turner Construction Co. field engineer, and Erick Jessee, president of Posty Cards.



(Top to bottom) Sustainable features at Posty Cards include a central courtyard that provides natural light throughout the building, huge ceiling fans to efficiently move air, and native grasses that use less water.

The Posty Cards facility grew from 22,000 square feet to 45,000 square feet. Initially, the building was in an L shape; now, it is rectangular. The different components of the plant – including receiving, printing, custom printing, fulfillment and shipping – flow around the courtyard at the center of the building.

For both Jessee and Mitchell, the courtyard represents the spirit of the project.

The rest of the building draws energy from the courtyard, Mitchell says.

One of the most noticeable structures in the courtyard is the 8,300-gallon water reclamation tank. The tank stores rainwater that is collected from the roof. That water is then used on the landscape and in the toilets.

“It’s one of those things we got away from in the last 100 years,” Jessee says about collecting and using rainwater. “We just became accustomed to in-house plumbing and getting water from the water department. Now we’re going back to what people have done for millennia, just in a more high-tech way.”

Bad economy brings opportunity

The building took about a year to complete.

“It stands to be quite a success story, because of where it was done, how it was done and that it was done in the middle of a recession,” Mitchell says.

A business expansion, especially one with a lofty sustainable goal, seems gutsy in a down economy. Instead, the sluggish economy combined with other components provided the perfect opportunity for growth.

“We had done all the preparations for expansion, and then there was the down economy with low interest rates, subcontractors who were hungry and aggressive in bidding and local, state and federal agencies offering opportunities to help fund the green features of the building,” Jessee says.

A solar rebate from Kansas City Power & Light helped influence the solar system that was installed, said Susan Brown, vice president of business development and marketing for The Energy Savings Store. Jessee wanted a renewable energy solution that was cost-effective and would help the company achieve the LEED certification.

“We discussed all the options including solar photovoltaics, solar lighting, solar hot water, solar air heating and small wind,” Brown recalled. “Because of the new KCP&L solar rebate, it was soon apparent that solar photovoltaics would be the best option for their needs – the best payback and the best fit for the type of facility they were building.”

To reach a goal of offsetting 11 percent of the company’s energy usage, a 45-kW grid-tied array was installed, consisting of 198 solar panels. The panels were fastened to the roof without drilling holes. Six inverters in the mechanical room convert the DC energy produced by the panels into usable AC energy.

“Every solar project we install lets other small business owners know that solar not only is good for our health (by displacing polluting coal emissions) and environment, but also is a good business investment,” Brown said. “Businesses are all about the bottom line, and more and more of them are installing solar because it fixes an ever-increasing operating cost and it provides a good, safe return on their investment.”

Support spurs success

Jessee stresses again and again that his new building was a community effort.

The Kansas City MO Community Development CDE (Community Development Entities) New Market Tax Credit Program was a perfect fit for the Posty Cards project, according to Ruben Alonso III, executive director of the KCCDE.

“The New Market Tax Credit Program allows organizations to help finance projects that represent investment in low-income communities,” Alonso said. “It is a very geographic-specific program. It is a powerful tool in helping businesses invest in their own community.”

The tax credit program allowed Posty Cards to make the expansion a one-phase rather than a two-phase project, which saved the company both time and money. It also helped Posty Cards incorporate many of the green elements that were vital to the expansion, Alonso said.

From the beginning, Alonso remembers, the collaboration on the project seemed special, offering a perfect example of public and private sectors working together to accomplish something for the community.

Among the private companies involved were Pearson Kent McKinley Raaf Engineers in Overland Park, KH Engineering Group in Lenexa, SK Design Group in Overland Park, Patti Banks Association in Kansas City, MO, and Turner Construction Co. in Kansas City, MO.

The grand opening of the new building is set for Spring 2011. Jessee said he is sure his grandfather, Carl “Posty” Postlethwaite, would be thrilled with the new building and proud his family was thinking about the future.

“Posty” founded the Postlethwaite Company in 1948. The name of the card company was changed several years later to Posty Cards. The baton eventually passed to Posty’s son-in-law, Lance Jessee, Erick’s father, who is still involved with the company. It has been in its current location since the late-1980s.

The company’s niche is business-to-business greeting cards, calendars and other products. For more than 60 years, it has quietly operated in a city known for high-profile greeting cards.

Jessee, understated and modest, acknowledges his company is receiving more attention for its sustainability.

“We tend to be low-key, but we also have a big vision for the role that small businesses can play in a more sustainable future,” Jessee says. “We’re pleased that Posty Cards can be a role model for what small businesses can do. Collectively, the decisions that small businesses make will have a huge impact on how quickly we as a country reduce our energy consumption. It is vitally important that businesses begin taking advantage of increasing opportunities to make their operations more efficient.”



A view from above the Posty Cards courtyard shows the top of the water tower that will be used to water trees and plantings in the area.

Government incentives that encourage sustainability

- Federal Solar Energy Investment Tax Credits
- State of Missouri Enhanced Enterprise Zone State Tax Credits
- Federal and state New Market Tax Credits administered by the Kansas City, MO Community Development CDE and Missouri Department of Economic Development
- Land Clearance for Redevelopment Authority tax abatement, administered by the Economic Development Corporation of Kansas City, MO
- Kansas City Power & Light Solar and Commercial Energy Efficiency Rebates

Sustainable components include:

- First manufacturing plant in the United States slated to earn a LEED Platinum rating
- 45 kW grid-tied array of 198 solar panels, with six inverters in the mechanical room that convert the DC energy produced by the panels into usable AC energy
- Runoff water managed via rain gardens and a large retention basin under the parking lot, preserving ground water and helping rivers and streams stay cleaner.
- Use of low-VOC, recycled, used and sustainable materials throughout the project.
- 100% solar-heated water
- High-efficiency variable volume HVAC – heating, venting and air conditioning system.
- Use of extensive natural lighting with active artificial lighting controls
- Planting of native landscaping
- Offsetting 100 percent of electricity with renewable wind power
- Recycling as much as possible, and encouraging employees to bring their recyclables to work with them
- Addition of used furniture, mostly recycled from other companies



(From left) Janet Coats, marketing director at Posty Cards, reviews a Sustainable Sentiments card proof with pressmen, Craig Young and John Underhill.

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Posty Cards introduced Sustainable Sentiments, a new line of greeting cards, in late 2009. The design and messages on the cards are environmentally inspired, and the printing process is even greener.

“The response has been very good,” said Erick Jessee, president of Posty Cards. “We’re finding we have customers who really want to demonstrate to their clients that they care about the environment.”

The cards and envelopes are made from 30- to 100-percent recycled paper and printed with soy-based ink. The manufacturing process is offset with 100-percent renewable energy.

“We know more and more of our customers are going to care about the environment,” Jessee said. “We want to be ahead of the curve in what we produce and the way we produce it.”

For more information on the card line, go to www.postycards.com.

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Resources: Posty Cards LEED Project

The Posty Cards construction project is Leadership in Energy and Environmental Design (LEED) registered, seeking certification at the Platinum level. Suppliers participated in the process by meeting general LEED specifications, including on-site recycling, use of low-VOC products, maximizing the amount of recycled content in all products and sourcing as many products as possible that were manufactured and harvested within 500 miles.

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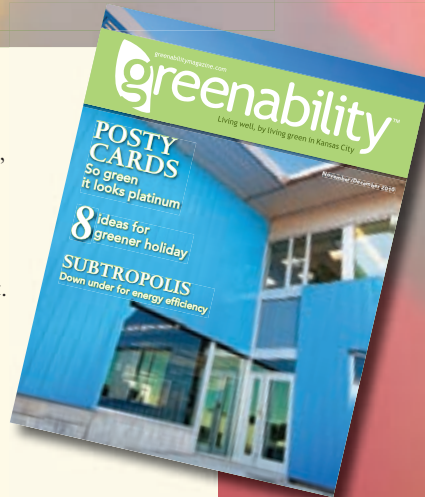
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