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THE EVERGREENING OF TORONTO

BRICK WORKS PROJECT

Eco program makes the most of city's ravines

By Mary Teresa Bitti

It started very simply: In 2001, after 11 years of working to help restore and plant trees across Toronto and playing a strong leadership role in the ecological restoration of the city's near-11,000 hectares of ravines, the not-for-profit organization Evergreen decided to fill a gap.

"We felt we needed a site, a large-scale nursery and a venue to engage volunteers that would serve as a gateway into Toronto's ravine system," says Geoff Cape, executive director of Evergreen. "[Writer] Robert Fulford once said the ravines are to Toronto what the canals are to Venice. We have the largest ravine system of any city in the world. It distinguishes Toronto internationally and yet so few of its citizens know about it."

The boarded-up Brick Works produced 43 million bricks a year and played a unique and significant role in building the city. "In many respects, the city of Toronto was born at the Brick Works," Mr. Cape says. "We thought, let's open it back up and give this site, which had a role in building the city, a new role in restoring and rejuvenating the health of the city and as a place where Torontonians can come and find out how to green the city." In effect, it would become a hub for Toronto's green city strategy.

Now, as it prepares to open the first of its 16 buildings, it has already been celebrated with international acclaim. *National Geographic* has named Evergreen Brick Works one of the six best geo-tourism destinations in the world. It has also been deemed one of the 100 big ideas that will influence the future of the world by the World Economic Forum's Global Redesign Initiative.

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Evergreen executive director Geoff Cape sees the Brick Works site as "a little bit like a science centre."

"Taking the history of city building and translating that into the future is poetic," says Mr. Cape. "You can push an idea or ideas get pulled from you. This project was initially pushed out from us but over the last five or so years, various interests from the city, across Canada and, increasingly, internationally have been pulling us along and asking us to play a role." Most recently the pull has been from the World Economic Forum and the folks in Davos who see the site as representing some of the most outstanding leadership globally around the idea of sustainable cities and creating a facility that can celebrate best practices globally for sustainable green cities.

Evergreen Brick Works will, in fact, be showcasing the latest innovations in sustainable technologies. For example, visitors will be able to skate on ice made using the same super-efficient ice rink technology the Olympians skated on in Vancouver last month, thanks to the latest technology from CIMCO. They will also be able to take a walking tour and see demonstrations of the 10 most progressive ideas around concrete use thanks to Holcim, one of the largest suppliers of cement and aggregates in the world. In fact, one of the parking lots features concrete that is porous and reduces stormwater runoff by allowing rainwater to seep through the pavement.

"Inevitably architects, people who want to build, will come to the Brick Works to see, touch and understand what's available," Mr. Cape says.

For her part, Angela Burton, vice-president, communications and public affairs at Holcim (Canada) Inc., views Evergreen Brick Works as a place where people can come together and see sustainability in action.

"It's as much a meeting place and a social place as it is a showcase for environmental solutions. It's also a great example of reclaiming and repurposing land while respecting the heritage of the site. That was important to us."

Mr. Cape sees the site a little bit like a science centre. "We are developing an exhibition with George Brown College and the Institute Without Boundaries to showcase the most progressive thinking around residential design and sustainability concepts for houses." The buildings themselves feature those same ideas.

"From my perspective, Evergreen wants to play a leadership role in energy sustainable opportunities," says David House, principal of Earth Development, a development advocate for the not-for-profit charged with the task of making sure Building 12, which will be home to Evergreen's offices, is built in a timely, affordable and the most sustainable way possible. "Our mandate is to figure out ways to lead buildings into the future, and that means a number of things. We have to design buildings more efficiently. We have to show how the new thinking in the sustainable building world can be done cost-effectively so that others learn from our efforts and replicate it."

Evergreen Brick Works' building 12 is scheduled to open by early September. It will cost a little under $300 per square foot and is on track to beat the national energy model by 65% to 70%, thanks to R35 wall insulation systems and R50 roof insulation, solar chimneys, waste heat recovery systems, solar co-generation, a wildlife-friendly stormwater management pond and other innovations.

What does this mean for the city? "In the 1970s in Toronto, we built buildings like Commerce Court — amazing, efficient buildings people from all over the world came to see in order to learn about the technologies we were using," Mr. House says. "I am hopeful people will once again come here to see that the things that a little not-for-profit like Evergreen does can be parlayed into the commercial world. It's not out of reach."

Even though the goals have become far-reaching, Mr. Cape has not forgotten its roots and why the project began.

"On a simple level, Evergreen Brick Works will be a great place to come together and buy carrots Saturday morning from a farmer from the Oak Ridges Moraine or to drop your kids off to camp for the summer in the ravine system, or a place where you can see what a geothermal system looks like," Mr. Cape says. "The real solution to our environmental crisis is to embed sustainability into the culture so that it is part of our decision-making on a routine basis. A project like the Brick Works can change the way we think about our food, how we get to work, how we design our houses. It's about shifting a culture and changing behaviours. It's about the future."

National Post

IT networks keen to cut energy use

By Shelagh McNally

The explosion of communication and Internet traffic has made energy hogs of IT networks. Collectively, the information and communications technology industry emits 300 million tons of greenhouse gases annually — the same amount as 50 million cars.

While that represents just 2% of worldwide carbon emissions, the figure is expected to double over the next decade — and with it, the cost of doing business.

Energy costs were once so subsidized that little thought was given to reductions in use, says Aaron Hays, research manager at London, Ont.-based Info-Tech Research Group. "Instead, we developed networks opti-

within the ICT community that no one company or one region can redefine the entire network on this scale. We have to do it together. The ICT is no longer competing within itself," said Gee Rittenhouse, vice-president of R&D, Bell Labs and GreenTouch leader. "We must be doing pre-competitive research because we don't have the solutions today."

The groundbreaking project has wooed an international group of carriers, researchers, government agencies and industry labs to take on the mammoth task of creating a sustainable network in just five years.

The consortium's 15 founding members include research laboratories at the Massachusetts Institute of Technology, Stanford University, University of Melbourne and IN-