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Stretched ceilings: covers a damaged ceiling in about two hours and can be silk-screened for decor.

Future of home building revealed

New technologies showcased at U of M

By Joel Schlesinger

GREEN, energy-efficient homes of Styrofoam and metal studs; a moisture-detection system warning of impending water damage; stretched, false ceilings that can be installed in two hours — these are some of the innovative, new technologies for home-building, interior design and renovation in Manitoba.

All were showcased recently at the University of Manitoba's Faculty of Architecture, and all have a French connection.

The Economic Development Council for Manitoba Bilingual Municipalities (CDEM) organized a builders' symposium last week, featuring five Manitoba-based companies, providing them the opportunity to meet with the public and, more specifically, members of the architecture and construction industries.

In some cases, those presenting were landed French immigrants importing their European artisan know-how to Manitoba, while others' connection to Manitoba's bilingual community is merely geographic, a business based in a bilingual community.

"As our brand states: C'est si bon, Ensemble — Together, we encourage co-operation between francophones and anglophones," said Rena Albaze, CDEM spokeswoman, who helped organize the event.

And in one case, the presenter was a company that will be part of the Manitoba government's contingent to Futureallia Quebec 2008, a business forum in Quebec City this May where new, technology-based businesses can forge partnerships with government and industry around the world.

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French connection

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Moisture detection

SMT Research Ltd. is based out of the University of Manitoba's Smartpark and will be a member of the province's contingent to Quebec later this spring.

At the CDEM symposium, SMT civil engineer Gamal Mustapha discussed a new moisture-detection monitoring system, developed by the company, already in use in buildings in Vancouver.

The new Manitoba Hydro building downtown will also employ the technology in its "living green" rooftop that will provide habitat for mosses, lichens, grasses and other plant life.

"This monitoring system will tell them if there's a leak in the roof, and instead of having to dig up the entire roof, which is costly, they'll know the exact location of the leak," he said to a group of about 30 people.

"Rather than spending millions to repair water damage, only a few thousand dollars would be needed to repair minor damage because of early detection."

Although it is presently used only in commercial and large-scale residential developments, Mustapha said it could have residential applications — particularly in Winnipeg where water damage to basements is a common problem.

Build green with polystyrene

Move over lumber. Galvanized steel studs and expanded polystyrene foam (think Styrofoam) may be the future of home building, according to Onet Mercado, president of Green Building System Ltd.

First used for home construction in the Las Vegas area, the technology allows home builders to construct an environmentally-friendly, energy-efficient home in a matter of days instead of weeks, he said. The design is also light-weight, sturdy and less expensive than conventional building techniques using lumber, which is increasingly expensive.

"A typical 2000-square-foot house could have its perimeter walls and roof up in five days," he said, adding the company has already manufactured pre-cut panels at its plant in Manitoba for several buildings under construction in Alberta.

The Starbuck plant is the first of its kind in Canada, he added.

New ceiling, without the mess

Dany Esminger is a third generation woodworker from France now living in St. Anne. But he's given up wood for synthetics and now runs European Ceiling Solution. Using PVC-free, polyester-based membrane, Esminger can install a new ceiling overtop a damaged existing one in about two hours.

The material locks into a frame and is stretched flat, much like a canvas for a painting. The technique is popular in Europe, and the material comes in hundreds of different colours, finishes and patterns.

It can even be silk-screened, Esminger said, adding it can be framed to make several different geometric shapes — vaulted ceilings and arches, for instance.

The fire-, water- and stain-resistant fabric can easily accommodate all light fixtures, and a sound-dampening version is also available, which is useful for commercial applications in areas with high levels of ambient noise.

A semi-translucent option even eliminates the need for framing around light fixtures. Instead, fixtures on the old ceiling underneath provide ambient, soft light.

One member of the audience asked how the lights would be replaced, to which Esminger replied the process is quite simple: the membrane can be unhitched from the frame and pulled back for access. The drawback being a professional installer should do it. Best to use LEDs, the audience member then said.

The best part is the old ceiling remains untouched, turning what would be a messy renovation and cleanup lasting a few days, into an afternoon project that doesn't require moving the furniture or sweeping up dust.

Craftsmanship from the Old World

Philippe Langlet's family has been in the painting and plaster moulding business since the 19th century in France.

Now residing in Lorette, he brings more than 100 years of tradition and family knowledge to Manitoba, offering several unique faux-finish options to customers that are normally seen in heritage buildings in France.

He can reconstruct and repair ceiling and wall mouldings in older homes, recreating precise details, such as intricate floral patterns and gold leaf.

His company, Stevenphil Painting and Decorating, also installs stretched fabric wall coverings for unique period finishes and trompe d'oeil — a French technique that gives images on a wall a three-dimensional appearance.

A cultured stone

Rheal Rochon's fledgling business Dynamic Boulders, offering man-made stonework and water-feature solutions to Manitobans, isn't yet ready to open its doors. But he said he hopes it will be very soon. That is if enough interest for synthetic rocks — made of cement and glass fibre or polystyrene — exists in Manitoba.

Manufactured in Portland, Ore., the rock can be used for landscaping outdoors or decorative features, such rustic stone fireplaces, at a lower cost than natural stonework, he said.

A landscaper from La Salle, Rochon said he hoped to receive feedback from industry players about the potential for cultured stonework in Manitoba.

Providing entrepreneurs with exactly that kind of opportunity was the driving force behind the symposium, Elbaze said.

"The partnership with the Faculty of Architecture's Partners Program allowed us to connect these entrepreneurs with professionals from the industry."

How to reach them

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