

NEW HOMES

Energy misers

Beat down high energy bills. J3

Clever decor

Living on the cheap. J4

Cardinal delight

Love is for the birds. J10



The concrete advantage



JOHN MAJOR, THE OTTAWA CITIZEN

Phoenix launches concrete and steel homes, promising energy savings and comfortable, healthy living

BY SHEILA BRADY

Phoenix Homes is once again raising the bar in new home construction, this time forging a partnership to build concrete and steel homes that are wired for technology and promise to cut energy costs, reduce noise and transform the construction industry.

Last spring Phoenix, the region's fifth largest builder in 2000, partnered with Bell Canada and a long list of suppliers and retailers to open the Millennium House. The \$1-million grey stone bungalow with a Mensa IQ attracted thousands of visitors and raised \$20,000 for the Children's Hospital of Eastern Ontario.

The Millennium House also showcased information and entertainment technology, starting with wiring that hooked the sprawling bungalow to the world and a security system to defy the smartest crook.

There was a lavish home theatre in the basement and a huge plasma television on one wall of the soaring family room.

Now Phoenix owner Cuckoo Kochar has formed another ambitious business consortium to build concrete and steel homes that are eight to 10 per cent more expensive than traditional wood-frame homes. However, the homes promise big energy savings, a high comfort level for buyers and the potential of construction savings for builders.

"These are extremely solid houses, which will last for years and years without any service," Mr. Kochar says. "No matter how well-built a wooden house, it will move and the wood will shrink a little."

Technology for concrete and steel homes has been around for several years and there are variations in the marketplace, including Blue Maxx, where concrete is poured into foam moulds.

Traditionally, large builders have bypassed concrete, leaving it to small custom builders.

Now there appears to be a bubbling interest in concrete homes.

Last month, Ottawa-area builder John Teixeira and his clients, Anne and George Brealey, opened their concrete and steel bungalow to the public. In two days, more than 1,100 drove to see the Perth-area EnviroHome.

High tech, smart tech

The Barrs are marrying wired smarts and the reliability of steel and concrete in an innovative home designed for family living. **Sheila Brady reports**

Don and Debbie Barr have two oversized teenage sons, seven computers, four DVD players and plans for a concrete house that may revolutionize the home-building industry.

The Barrs have also learned patience as they squeeze into a modest townhouse in Stittsville, waiting for crews to build their 2,750-square-foot home that promises to slash energy bills, shut out sound and eliminate bouncing, squeaky floors and pesky nail pops.

The Barrs' concrete home

will be ready by June, more than a year after they first saw Phoenix's brainy Millennium House in Kanata and their plans for a new Stittsville community called Deer Run.

"I like being a technology guinea pig," says Mr. Barr, a technical support engineer for Informix Software, a high-tech company specializing in storing and retrieving information databases.

"I'm always on the bleeding edge. I just like to be ahead of trends instead of behind them." Mr. Barr works from home, tapping into the power of several computers.

There is also a souped-up computer for Debbie, who is a veterinarian working for the federal government, and the two teens, Alex, 15, and Matthew, 13, have their own computers.

The Barrs have lived in a traditional home in Stittsville for seven years, but the family felt cramped and wanted a larger lot for a swimming pool.

See BARRS on page J2

Cuckoo Kochar, right, and Ted Lusk of Phoenix Homes. The small shed behind them demonstrates the concrete construction technique to interested buyers.



WAYNE HIEBERT, THE OTTAWA CITIZEN

Looking forward to leaving the cramped townhouse where they are living while waiting for their new home to be built, Don Barr and sons Matthew, 13, standing, and Alex, 15, go over plans for the new house.

See CONCRETE on page J2

Cutting energy bills: New homes deliver savings. J3

Concrete: Costlier but more solid

Barrs: Smart and comfortable

Continued from page J1

"These were not tire kickers," Mr. Teixeira says. "They were serious buyers."

Throughout the two days, the builder demonstrated the mechanical systems to 50 people in the basement and another 50 would-be buyers upstairs. "Yet we couldn't hear any noise," says the builder, who will likely build 10 to 15 concrete homes this year and partner with other builders to meet the demand.

"People know they are going to have to pay, maybe 10 to 15 per cent more than (the price of) a normal house, but they see the benefits of strength, longevity, energy conservation and clean, comfortable living," Mr. Teixeira says.

Now Phoenix is driving concrete and steel to the next level: Production housing and a national campaign promoting the benefits of an insulated concrete form or an ICF home.

This is the first time a major or production builder has taken a close look at a concrete alternative to traditional wood construction. Phoenix is working with Owens Corning, manufacturers of the foam form, St. Lawrence Cement, which has developed a new slippery concrete recipe, and Hambro Systems, manufacturers of the steel floor systems. Phoenix has also signed a deal with Ottawa Carpentry to build the ICF houses.

Bell Canada has also joined the consortium, offering the same kind of smart technology and smart wiring that went into the Millennium House.

Phoenix has already sold three ICF houses and started building a concrete model home that will sit next to a traditional wooden home in its new Deer Run community in Stittsville. Completion is set for June.

However, there is a small concrete and steel demo house at Heritage Hills in Kanata Lakes that tells the story. There isn't any furniture or heat in this mini-demo house, but buyers can see the construction system.

"This is an upscale product and, from a company point of view, it keeps our momentum from the Millennium House rolling," says Ted Lusk, Phoenix general manager and the spark plug behind the ICF house. "We wanted to build a better house and this is a better



WAYNE HIEBERT, THE OTTAWA CITIZEN

Don Barr and his son Alex, 15: The family is living in a Stittsville townhouse, waiting for their new home to be completed in June.

quality." Concrete and steel homes are more expensive to build than traditional wood-frame homes, but big payoffs include lower energy costs and a home that approaches R2000 standards for energy conservation.

Concrete homes eliminate bouncing or squeaky floors, because wood is flexible and concrete is rock solid and doesn't move. There are no nail pops because concrete does not shrink. Noise is eliminated or muffled because of the additional insula-

tion, and designers can offer wide open spaces with few walls.

"This home isn't for everyone because it is more expensive, but there is a market," Mr. Lusk says. If everything goes to plan, he predicts ICF homes will make up 20 per cent of Phoenix's sales within a few years.

There is a learning curve to building concrete and steel, Mr. Lusk admits. But Ottawa Carpentry is training crews who will be able to build a home faster than its wooden cousin.

Concrete and steel homes

may also ease construction shortages because there won't be a reliance on framers, a trade in short supply in the city's super hot housing market, Mr. Lusk says. Framers will only be required at the roof stage.

The foam panels are delivered in eight-foot sections and concrete is poured into them on site. St. Lawrence's new concrete recipe also means fast construction can go on through the winter months.

Mr. Kochar, who is a director of Canada Mortgage and Hous-

ing Corp., plans to export the technology to India, a nation with limited forests and sources for wooden construction.

There are plans for two concrete homes, one affordable aluminum jigsaw house and walk-up apartments to be built as a demonstration project on a half-acre site in New Delhi in 2001, says Mr. Kochar. Canadian companies would supply the parts and expertise and then license Indian companies to continue building in a country hungry for affordable housing.

Continued from page J1

Then early last year, they noticed a new community, Deer Run, opening in Stittsville. The land was ideal because it backed onto green space. The appeal sharpened last spring when one of the developers, Phoenix Homes, took the wraps off the Millennium House, an ultra-smart house in Kanata that was wired for technology and comfort.

It was bleeding edge mixed with family comforts of a larger kitchen and space for a three-car garage to ease laneway congestion when the boys start to drive, Mr. Barr says.

During negotiations, the Barrs were also wooed and won by Phoenix's plans for a concrete and steel house.

"We wanted the technology and jumped at it because the prices seemed reasonable."

Floors in their former Stittsville house squeaked and bounced, but they won't move in their new 2,750-square foot home that will cut energy costs and stay warmer in the winter and cooler in the summer.

The Barrs have also been told there will be little or no noise transfer, so the boys can turn up the music in the basement. The basement ceilings will also be higher than normal, because wiring is snaked through dead air space between the floors. That's good because father and older son are over six feet. Floor plans are also open, thanks in part to the strength of concrete walls.

However, the high-tech high-flyer has had to slow down and wait for a construction start on his smart concrete house because Phoenix and Richcraft, developers of Deer Run, had to delay the community, waiting for government approval.

The Barrs were one of the first to buy in Deer Run in March 2000, putting their Stittsville house up for sale. It sold quickly, prompting the family to buy a modest townhome and storing a lot of their furniture.

Space is tight, but anticipation is high for their new home which will be ready in June. "It's going to be cool because of the technology and basically because it is a superior house," Mr. Barr says.