## HOME, LAWN & ENERGY



## Home building methods face major changes

All across North America, home builders tend to agree that the better real estate investments – for both the occupant and for future re-sale value – may be best served by a whole new approach to construction. One major change addressing energy consumption and rising fuel costs, is the optional use of an air-tight, solid concrete system to replace inefficient wood framing. Insulated concrete forms (ICFs) erect a building with an interlocking system, similar to Lego.

"It's a switch for builders, but those who have switched over tell us it's quite easy to build with ICFs," says Todd Blyth at Nudura, a leading name in the field. "Customer demand has driven this change and builders are now seeing how green construction options can have a positive impact on their business."

Indeed, concrete is plentiful and

it's in high demand. The ICF system is now the choice wall-building method on 'net-zero' construction projects south of the border. The term net-zero applies to buildings that are so energy efficient they don't tap any public utility fuel supplies at all. ICF construction has already produced net-zero elementary schools in the United States, where Canadian technology was applied with the Nudura system of ICFs. The goal in the future is for as many homes, schools, and public buildings as possible to be designed for net-zero from the ground up.

## Building guide

If this type of energy-efficiency sounds right for you too, be sure to make specific requests to your builder, Blyth says. Underscoring these proactive measures, the non-profit organization, LEED, also reminds us that constructing a green home leaves a much smaller carbon footprint due to less demand on natural resources. It will create less waste and be healthier and more comfortable for the occupants. If you're thinking about building to the LEED standard, take a look at just one example of the efficiency and benefits if you switch from wood-framing to concrete. The ICF system is explained and found at nudura.com, with a snapshot here:

**Fuel Savings:** Walls built with ICFs are proven to reduce energy bills up to 70 per cent; reduce greenhouse gas emissions; and reduce or eliminate exposure to mold, mildew and other indoor toxins. The net cost over time is comparable to that of owning a conventional home and the resale return is generally assured.

**Durability:** Concrete is expected to stand the test of time. Due to high impact resistance, these concrete walls

assure maximum safety in high wind areas. Fire resistance is also reported to be maximized at four hours.

**Comfort:** As opposed to wood frames, air gaps are eliminated and that minimizes the potential for mould growth and draft. The end result is an airtight structure that enables the mechanical systems to heat, cool and ventilate the structure more efficiently, creating a healthier living and working environment.

**Responsibility:** The materials are totally recyclable and the system is designed to create less waste (for land-fill) during the construction process. Combined with other eco-construction methods, this concrete system will significantly reduce carbon emissions by lowering the amount of fossil fuels needed for heating and cooling.

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