



PHOTOS BY MIKAELA MACKENZIE / WINNIPEG FREE PRESS

Dueck Builders president Cal Dueck (left) and co-owner Josh Friesen have used low-carbon concrete in nearly a dozen homes. They plan to use it in every project unless a customer objects.

Concrete CHANGES

Builders take steps to reduce carbon footprint



Dueck and Friesen show the paring line where concrete was poured.

GABRIELLE PICHE

A HOME-BUILDING company is touting new measures to reduce its carbon footprint, just days after Manitoba adopted new construction guidelines.

Dueck Builders, which specializes in creating sustainable homes, wanted a low-carbon concrete from mass supplier Lafarge Canada.

"We chatted (their) ear off for quite a long time," said Josh Friesen, co-owner of Dueck Builders.

The cement industry accounts for eight per cent of carbon emissions globally. Making cement — an ingredient in concrete — is an energy-intensive act that requires plenty of heat and resulting in carbon dioxide emissions.

The Winnipeg business uses concrete to make basements, foundations and driveways. It has used EcoPact, Lafarge's low-carbon concrete, in nearly a dozen homes. Dueck Builders announced its commitment to the concrete this week.

The builders plan to use EcoPact in every project unless a customer objects, said Dueck Builders president Cal Dueck.

"Even if it's not completely carbon-neutral, anything we can do is well worth our effort to try to reduce our carbon footprint," he stated.

So far, every client has shown concern about their own carbon footprint, he said.

The new concrete option costs "a few \$1,000" more than standard concrete per detached home, but it's worth it, Dueck said.

Lafarge didn't outline EcoPact's cost but said it varies according to market conditions and material availability. A spokesperson noted the market for EcoPact is growing.

The new concrete acts the same as regular concrete, Dueck stated.

Lafarge advertises EcoPact as lowering carbon dioxide emissions by 30 to 90 per cent, compared to standard concrete. It uses recycled aggregates and lower-carbon blended cements during production.

Reducing the carbon output caused by concrete creation often means changing concrete's ingredients, noted Ahmed Soliman, executive director of Concrete Manitoba.

Nearly all organizations that make concrete have shifted to less cement in their mix, he continued.

Instead, companies incorporate ingredients such as fly ash, a residue found at coal-fired power plants, into concrete.

Lafarge's product will be "a game changer," Soliman said.

A major focus in the industry is combating climate change and reducing its own emissions, he said.

"I'm sure in five or 10 years, everything will be different — the way we use concrete... and even the properties of concrete," Soliman stated.

Getting contractors, consultants

and producers on board to use low-carbon concrete remains a challenge, he noted.

"If I achieve net zero carbon, and no one wants to use this material, then that's a big problem," he relayed.

Meantime, the Manitoba Home Builders' Association is educating its members about new provincial changes to energy use.

The 2020 national model construction code was implemented in Manitoba on Jan. 1. Energy usage rules that affect builds and renovations are set to change as Canada strives to increase energy efficiency.

Manitoba now requires a 20 per cent energy efficiency improvement over past guidelines for large and complex buildings.

"Manitoba hasn't really had many real net zero homes, or net zero renovations, to date, but it's something we're definitely building the capacity for," said Lanny McInnes, president of the home builders association.

He believes Manitoba builders are at a disadvantage: electricity connection to home builds starts later than other provinces, meaning workers need to use more gas-powered generators, he said.

It will be a problem as regulations on energy usage on construction sites shift, he said.

The federal government has set a target of net-zero emissions by 2050.

gabrielle.piche@winnipegfreepress.com