Advantage ICF System® helps innovative concept school work towards net-zero energy

Brent and Monica Krueger wanted to start something different in Craik, Saskatchewan. They had been teaching business development for years through the Praxis School of Entrepreneurship, but they wanted to extend some of those principles to younger students. Their new Praxis International Institute in Craik will be the first private high school in Saskatchewan focusing on socially and environmentally responsible entrepreneurship.

The Kruegers got in touch with Ed Eichler, owner of Jade ICF Construction Ltd., about constructing the school’s first building: a 7,000 sq. ft., eco-friendly residence and learning facility. Eichler specializes in the installation of energy-efficient insulating concrete form (ICF) walls and foundations using the Advantage ICF System®.

“After doing their research, the Kruegers decided that ICFs were the best option for that area, based on their interest in longevity, durability and energy efficiency” said Eichler.

Building on the sustainable attributes of the Advantage ICF system, the home features a passive solar design, gray water recovery system and composting toilets. With the planned addition of solar and wind generation, the building will be designed to use net-zero energy.

“There are so many benefits to ICF construction,” said Eichler. “The energy efficiency is unbelievable, and the cost is very reasonable because the insulation and air barrier are built in.”

For heating, the home uses an efficient in-floor radiant heating system powered by a wood pellet boiler. Eichler installed Plasti-Fab® PlastiSpan® HD insulation underneath hydronic tubing to prevent downward heat transfer.

“There are a lot of ICF suppliers on the market and my experience with Plasti-Fab has been totally awesome,” said Eichler. “Plasti-Fab is more than willing to go out to the jobsite and go over the construction challenges of the project. Their technical support is fantastic.”