

IN THE LOOP

National Geothermal Day is October 20

National Geothermal Day aims to raise awareness about environmental and economic benefits of geothermal energy and its vital role in building a clean and secure energy future. It has been identified as most efficient, earth-friendly technology in the world, and it pairs perfectly with Infloor radiant heating.

A recent U.S. Department of Energy study showed that 75% of the average home's energy needs can be met with the earth's stored thermal energy.

Here are some other interesting facts:

- Geothermal heat pump installations displace the equivalent of 1,242,528 tons of CO₂ emissions every year. That is equivalent to removing nearly 220,000 cars from our nation's highways annually.
- There are more than one million installations in the United States today.
- Installations have doubled over the past decade.
- Across the country, schools retrofitting to geothermal systems are saving a combined estimated \$25 million in energy costs. These schools also prevent half a billion pounds of CO₂ emissions from entering the atmosphere each year.

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In The Loop is a publication for customers, distributors, contractors, and friends of Infloor Heating Systems; a division of Infloor Sales & Service, Buena Vista, CO. www.infloor.com.

Radiant Made Simple with Mechanical Boards

Zoning is one of the great benefits of radiant heating systems, with endless expansion opportunities. From a few zones, to a few dozen, each one can be set to a different temperature, giving you ultimate control over your heating needs, comfort, and energy management. But the more zones there are, the more labor is required in the mechanical room, right? Nope, not at all... thanks to Infloor's custom-made mechanical boards.

A new home currently under construction in Bloomfield Hills, MI boasts some unique additions you

don't often find in many homes, including a **Squash court, a 2-lane bowling alley, and the largest custom mechanical board** (to date) ever produced by Infloor Heating Systems. The massive 10,000 sq. ft. ranch-style residence has a fully finished basement and is equipped with an Infloor hydronic radiant heating system throughout, sectioned into **13 zones**, and powered by a boiler.

The entire system was installed by **Michigan Energy Services**, who identifies Infloor's mechanical boards

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The Top Benefits of Heating Zones



Indoor Comfort – Most members of a household feel comfortable at different temperatures. Zoning provides individual temp. control of rooms or zones, allowing them to be changed without affecting others.

Energy Efficiency – Having the flexibility to customize the temperature of various areas through zoning can save homeowners up to 30% on a typical heating and cooling bill, according to the U.S. Dept. of Energy.

Radiant Made Simple with Mechanical Boards Continued

as a key component in reducing the labor required for that part of the job. "The main reason we use Infloor's custom mechanical boards is time savings," said Rob Derksen of Michigan Energy Services. "Installing all the components you need in the mechanical room is extremely labor intensive."

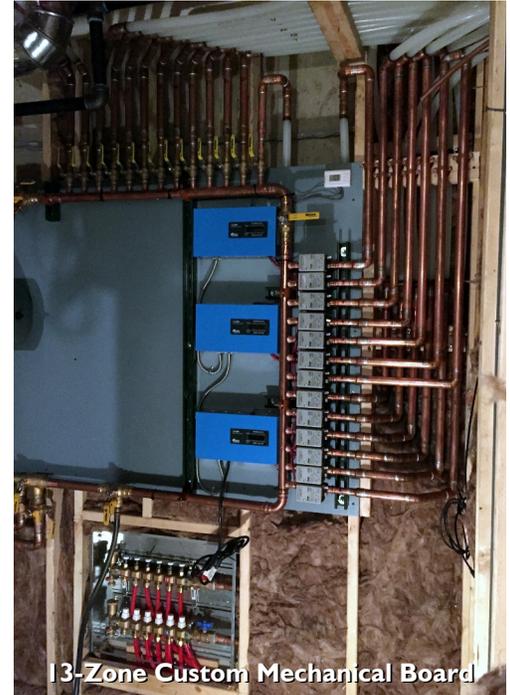
The Squash court is built into the ground underneath the garage, of which both floors are heated on separate zones. The master bathroom and master bedroom are on different zones, which is often the case. Most people prefer to sleep in a cooler room and shower in a warmer one. "The only floor not warmed by radiant heating is the bowling alley. We weren't sure of its impact on the lanes," Rob shared.

The 13-zone custom-made mechanical board measures out to 8' wide by 4' tall, and easily mounts to the wall. From there, the installer connects the water lines, plugs in the mechanical components, and chooses the system settings. "**Infloor's custom mechanical boards simplify our installation process**," said Rob. This particular board is accredited with reducing the installation time from a few days to a few hours.

"Infloor also does all the math as part of their layout designs and reports. The scale of the calculations that went into picking the pumps was huge," Rob said.

And it's one of a kind. "**This is the largest custom mechanical board we have created so far**," shared Infloor President Michael Willburn. "It was

a fun and exciting challenge that we were thrilled to be a part of," he said. "Our custom mechanical boards come pre-piped and pre-wired with a diagram that identifies each part, taking the guess work out of installing the mechanical side of a hydronic radiant heating system."



"Because this project was so big, we used a 230 volt Wilo Stratos magnetic drive pump to achieve the proper head pressure and flow rate for the system," Michael identified. The Wilo Stratos has advanced features to accommodate the larger system including a digital read out, diagnostic capabilities, and a self-exercising function to keep it fit and running right, which increases the longevity of the part. It is also covered by a 3-year warranty.



"**Infloor makes radiant simple**," said Rob. "The products, services, and assistance they provide really helps our installers," he concluded. The home is anticipated to be completed, with the system running, in December 2015.



"The boards are neatly organized and very clean looking," he continued, "which says a lot about the workmanship that goes into them, which also translates into our work. When a customer is spending that kind of money for a custom system, it should look like a custom system."

About Michigan Energy Services

Since 1994, Michigan Energy Services has been providing homeowners across Michigan with custom designed high-quality geothermal heating and cooling, and radiant heating system installations, with great passion for their field. They are located in Whitmore Lake, MI, near Ann Arbor. Rob Derksen has 25 years of experience working in the geothermal industry, and has been a partner with Michigan Energy Services since 1998. Learn more by visiting them online at www.energypath.com.