

The LakeBridge Beach House

The LakeBridge Beach House is absolute proof that sustainable building does not have to be a compromise. This outstanding Lake Michigan home was designed and built according to the owners' desire to host and entertain many guests at once. Therefore, it needed, above all, to be durable and efficient.

To meet these needs, a zoned high efficiency forced air heating system was employed to most effectively condition air in areas of the home being used. There are three separate zones in the upper level, two on the main level and a couple more in the lower level. This ensures that the rooms in use are being conditioned, and those that aren't can be turned off to save energy and promote efficiency. Also, sealed walls and high performance foam insulation were used to keep the air in. At the same time, advanced ventilation energy recovery ventilator systems were installed in lieu of bath fans, allowing the collection of stale air and pushing it outside, rather than bath fans simply exhausting conditioned air.

Also importantly, an advanced hot water distribution system was implemented with three tankless hot water heaters. Lots of guests means lots of hot water usage, and these three units are staged to fire only when demand requires, matching the demand exactly, and using nothing when vacant. Along the same lines, highly efficient plumbing and electrical fixtures were also installed to accommodate all of the use.

As a beach house with many visitors, the home definitely needed to be durable as well. For this reason, nearly all of the floors in the home are locally harvested quarter sawn white oak with a Greenguard® certified commercial grade finish; in other areas you'll find either tile or natural slate. So, guests don't have to worry about sand affecting the beauty of the floors as they run in from the beach, and at the same time the homeowners can feel good about the indoor air quality.

Overall, it is a win-win and a great beach house that is sure to offer fun times and great memories for many years to come.

LEED™ Facts

LEED for Homes

Certification Awarded: **March, 2009**

Certified 66.5*

Innovation in Design 5/11

Location & Linkages 6/10

Sustainable Sites 11/22

Water Efficiency 4/15

Energy & Atmosphere 19.5/38

Materials & Resources 8/16

Indoor Environmental Quality 12/21

Awareness & Education 1/3

*Out of 136 possible points.

Based on the home size adjustment factor, the point total thresholds for certification for this home were:

Certified: 60.5 Gold: 90.5
Silver: 75.5 Platinum: 105.5



Key LEED Feature



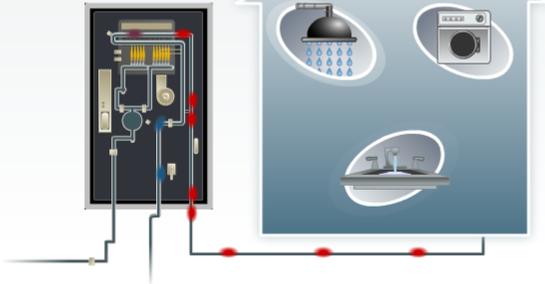
Energy & Atmosphere

Efficient water heating and distribution.

What is a Tankless Water Heater?

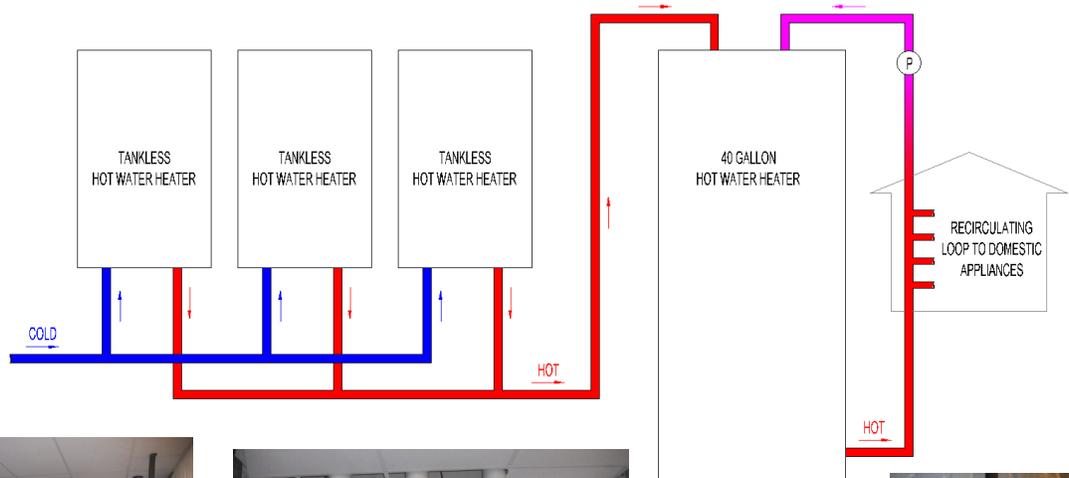
A Rinnai tankless water heater only heats water when you need it. So you get an endless source of hot water, while also saving money on energy costs by not heating and reheating the same tank of water.

The Rinnai Way



Rinnai

1. When opening a hot water tap, or starting the dishwasher, the Rinnai tankless water heater recognizes the need for hot water and starts the heating process.
2. The temperature of the incoming water is used to calculate how much heat the burners must produce to deliver water at the desired temperature.
3. When the demand for hot water ceases the unit shuts down and uses no energy, waiting until more hot water is needed.
4. The end result -- hot water that is not limited to what's available in your tank. You always have clean, hot water when you want it for as long as you need it!



Designers & Builders of
Well-Appointed Beach Houses & Cottages