

# The Summer's Gate Cottages

## LEED™ Facts

### Summer's Gate Four

LEED for Homes

Certification Awarded: **November, 2011**

**Platinum** **86.5\***

Innovation in Design	5/11
Location & Linkages	6/10
Sustainable Sites	17.5/22
Water Efficiency	5/15
Energy & Atmosphere	21.5/38
Materials & Resources	13.5/16
Indoor Environmental Quality	17/21
Awareness & Education	1/3

\*Out of 136 possible points.



Summer's Gate Four



## LEED™ Facts

### Summer's Gate Eight

LEED for Homes

Certification Awarded: **November, 2011**

**Platinum** **85.5\***

Innovation in Design	5/11
Location & Linkages	6/10
Sustainable Sites	17.5/22
Water Efficiency	5/15
Energy & Atmosphere	21/38
Materials & Resources	13/16
Indoor Environmental Quality	17/21
Awareness & Education	1/3

\*Out of 136 possible points.



Summer's Gate Eight



Designers & Builders of  
Well-Appointed Beach Houses & Cottages

# Key LEED Feature



## Energy & Atmosphere

Exceptional energy performance.

Built as Cottage Home models of sustainability and energy efficiency, Summer's Gate Four and Eight showcase many important green features. To begin, both utilized tight building envelopes. The natural, wooded sites lent themselves to Cottage Home's desire to keep the site impact at a minimum, by ensuring the disturbance zone was very small. Then, once the homes were built, we surrounded them with natural landscaping again. The landscaping plan includes 100% drought tolerant, indigenous species plants, which eliminated the need to add a sprinkling system.

On the inside, these cottages are intended to be compact, no maintenance, low operating cost vacation homes. So, we installed a hybrid heating system with forced air to make the home as efficient as possible. The thermostat chooses the best method (most efficient) based on outside air temperature. If the temperature is above 45 degrees, the system will use an air-source heat pump (see diagram). If it is colder than that it will use the high efficiency gas furnace, which has an ECM (electronic controlled motor) for the fan control, can modulate blower speed to match demand, and runs at 96.7% AFUE (efficiency rating).

Between an ultra tight and insulated envelope and this high performance heating and cooling system the projected\* ANNUAL heating cost for each house is \$379. In fact, ANNUAL utility costs are estimated to be only \$1407 total, which includes heating, cooling, electric and water. Now that's model efficiency.

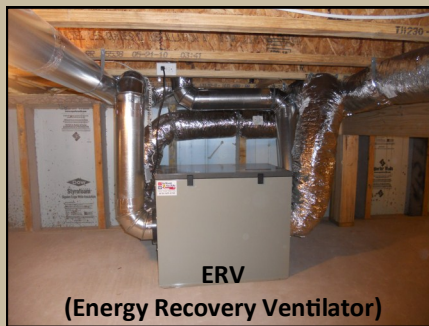
\*Projected by Energy Star Report.



Furnace

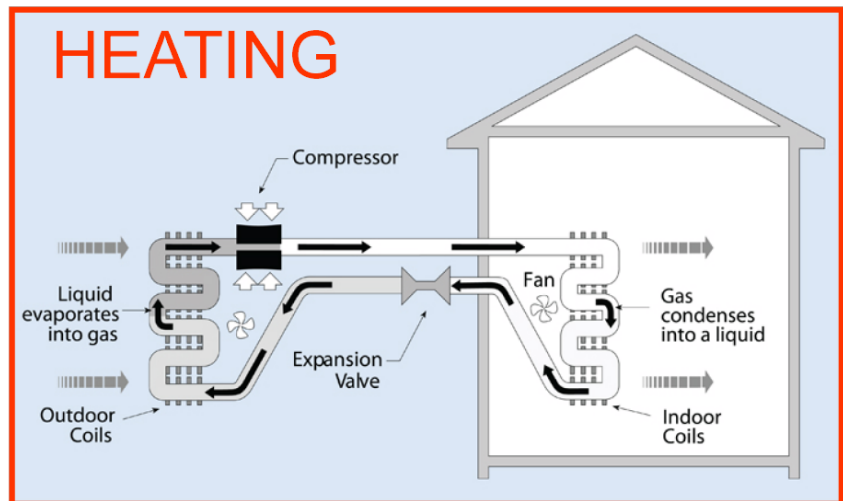


A/C Unit

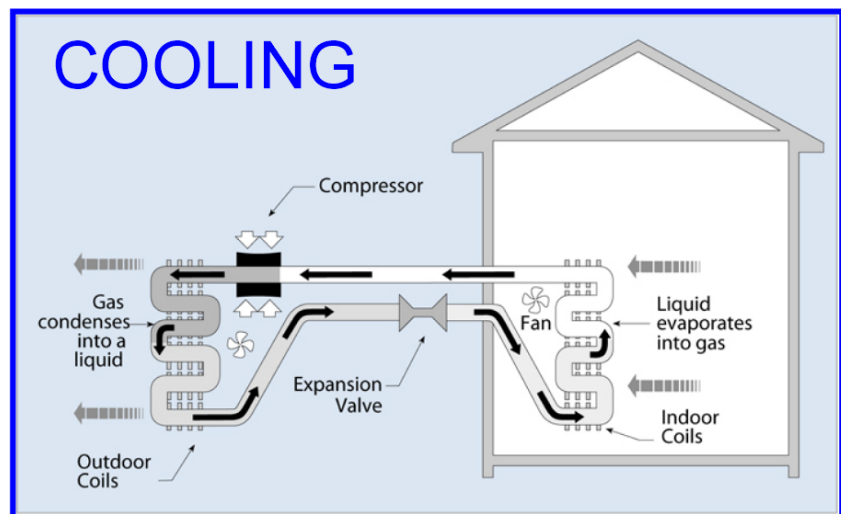


ERV  
(Energy Recovery Ventilator)

## AIR-SOURCE HEAT PUMP



In heating mode, an air-source heat pump evaporates a refrigerant in the outdoor coil; as the liquid evaporates it pulls heat from the outside air. After the gas is compressed, it passes into the indoor coil and condenses, releasing heat to the inside of the house. The pressure changes caused by the compressor and the expansion valve allow the gas to evaporate at a low temperature outside and condense at a higher temperature indoors.



In cooling mode, an air-source heat pump evaporates a refrigerant in the indoor coil; as the liquid evaporates it pulls heat from the air in the house. After the gas is compressed, it passes into the outdoor coil and condenses, releasing heat to the outside air. The pressure changes caused by the compressor and the expansion valve allow the gas to condense at a high temperature outside and evaporate at a lower temperature indoors.