

The Green Cottage at Suequehanna

Located in the quaint area of Glenn, Michigan this home is situated on a previously developed site nestled between Lake Michigan and the Southwest Michigan Land Conservancy's 365 acre Wau-Ke-Na nature preserve. This beautiful, natural setting insisted upon a high performance home, thus every effort was made to construct the most efficient, sustainable and environmentally conscious house possible, which, in the end, earned it the highest designation possible for LEED certification.

To begin, much care was taken to preserve the site and ensure long lasting beauty. Thus, water collection, curtain drain and bluff stabilization measures were employed to ensure site durability. A rain water harvesting system was implemented for irrigation and rain gardens were put in place to manage bulk water run-off. A drought tolerant landscape plan was then formulated to include no invasive species.

Another major component of the LEED Platinum certification of this home relates to energy usage, as it makes use of a special geothermal vertical well closed loop heating system. Predesigned heating and cooling load calculations were used to design a zoned, insulated and sealed ductwork system. Also, the domestic water supply is preheated with the geothermal system and an insulated, circulating loop is used for the hot water line, further reducing energy usage.

Of course, many other green features were applied inside this home, including: Icynene® insulation, highly efficient faucets, toilets, lighting fixtures, windows and appliances, zero VOC, low odor, silica free Green-Sure™ designated paints, timer-run bath fans, an exterior vented central vacuum system, and an energy recovery ventilator to control fresh air exchange in the house. To have some fun, a recycled brick fireplace surround (bricks found on Craig's List) was used, along with a recycled barn wood laundry room door and wall (from our painter's old barn), and recycled glass tiles in the shower.

The result is the perfect blend of a natural setting and environmentally conscious home – one that will withstand the harsh Lake Michigan elements and stands as a shining example of how LEED is not only practical, but fun as well.

LEED™ Facts

LEED for Homes

Certification Awarded: **September, 2008**

Platinum 99.5*

Innovation in Design	7/11
Location & Linkages	5/10
Sustainable Sites	17.5/22
Water Efficiency	12/15
Energy & Atmosphere	25/38
Materials & Resources	16/16
Indoor Environmental Quality	15/21
Awareness & Education	2/3

*Out of 136 possible points.

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

Certified: 51.0	Gold: 81.0
Silver: 66.0	Platinum: 96.0





Key LEED Feature

Energy & Atmosphere

Closed loop geothermal system which utilizes a ground source heat pump.



OLD GROUND LOOP SYSTEM

