

LEED for Homes Project Snapshot

Meadowlark Builders
THE NAUTILUS HOUSE
Ann Arbor, Michigan
LEED PLATINUM

56% Expected Energy Savings
 Based on HERS Score

90% Construction Waste
 Diverted from Landfill




Photo Courtesy of: Meadowlark Builders

STRATEGIES AND RESULTS

The Nautilus House sprung from a need to fix a leaky roof, and a vision for energy and water independence on a beautiful wooded building site. Form follows function in this building designed to capture sunlight, water, and air currents. Like a nautilus, it unfolds in an organic shape spiraling upward and outward on the original foundation, with existing materials and spaces re-inventing themselves within and around the structure. The owner, architect and builder worked together to create a unique vision of home that will become Michigan's second LEED Platinum residential remodel.

EXEMPLARY PERFORMANCE

All water from house collected and re-used. 600 gallon tank for a exterior shower on one side, and a 400 gallon recycled grain hopper on the other side. The shower can also be used to water plants, as can the grain hopper, and both overflow to rain gardens on the lot. The house recycles the heated air radiantly through an advanced duct system Energy Recovery Ventilator. The form and openness of the home also take advantage of another product of solar energy - wind - to create convective currents that cool the home passively. A 4 kW Solar Photovoltaic's system with Sharp fixed panels and a Sunny Boy inverter.



LEED™ Facts

NAUTILUS HOUSE

LEED for Homes
 Certification Awarded 2009

Platinum **101***

Innovation in Design 6 / 11

Location & Linkages 9 / 10

Sustainable Sites 19 / 22

Water Efficiency 13 / 15

Energy & Atmosphere 23.5 / 38

Materials & Resources 12.5 / 16

Indoor Environmental Quality 16 / 21

Awareness & Education 2 / 3

*Out of 136 possible points

PROJECT BASICS

Project Type	Single Family
Conditioned Space	4100 sq ft
Bedrooms	7
Bathrooms	2+1/2
Lot Type	Previously Developed
Construction Type	Gut Rehab

KEYS TO SUCCESS

HVAC Type	Geothermal
Advanced Framing	30% less lumber
Low flow fixtures	Toilets, Sinks & Showers
PV, 4 KW system	Grid Tied Net Metering
Able to be changed over time for different uses.	

THE LEED FOR HOMES DIFFERENCE

Construction Waste Management Plan	<input checked="" type="checkbox"/> YES!
On-Site Performance Tests	<input checked="" type="checkbox"/> YES!
Custom Durability Planning Checklist	<input checked="" type="checkbox"/> YES!
Third-Party Verified Documentation	<input checked="" type="checkbox"/> YES!

About the Project Team

Meadowlark Builders combines artful finishes with the best in building science to create quality sustainable homes and workplaces - healthy, comfortable and energy efficient. Based in Ann Arbor, Michigan, we are a nationally recognized award-winning building company.

LEED for Homes Provider

AES

About LEED for Homes

LEED for Homes is a voluntary, third-party certification program developed by residential experts and experienced builders. LEED promotes the design and construction of high-performance green homes, and encourages the adoption of sustainable practices throughout the building industry.



www.usgbc.org/homes

The information provided is based on that stated in the LEED® project certification submittals. USGBC does not warrant or represent the accuracy of this information. Each building's actual performance is based on its unique design, construction, operation, and maintenance. Energy efficiency and sustainable results will vary.







