small homes case study





Noble Kit Homes – Western MA

Passive Solar kit homes made with Forest Stewardship Council (FSC) certified lumber

The Noble Homes can be purchased as a kit delivered to site or assembled with assistance from Noble Homes. The lumber is from locally sourced environmentally and socially responsible managed forests.

Construction and Design: The 422sf Amherst Cabin model is a one story open studio design with 380sf of useable space inside the walls. The footprint of the building is 17'3" wide and 24'6" long with a height at the peak of the roof of 11'7 1/2". The Noble Home building system is configured for ease of material handling and simplicity of construction. All of the kit components can be carried by 1-2 people.



422 square foot Amherst Cabin model by Noble Home

Building Specifications:

- Wall and roof panels are 7.5" EPS foam panels by ThermaSteel with an R38 insulative value.;
- Corrugated Galvalume metal roofing with a 40 year warranty;
- Ceiling ¾" tongue and groove exposed pine decking boards;
- Locally harvested FSC rated timbers and lumber for ceiling trusses and siding. Most of the eastern white pine for siding, rafters and posts is sourced within 20 miles of the shop. (siding can also be metal);
- Radiant heated floor slab w/south facing glass for passive solar heating which provides base heat for the house with a propane heater as a booster.;
- 8'x8' Pella Series 350 Slider insulated glass doors;
- Pella aluminum clad exterior insulated glass windows;
- All specialty fasteners are included with the kit. Nails and screws are not included.; and
- The cabin met required Home Energy Rating System code (HERS) when it was built.

Cost Details and Financing:

There was no cost for the land as this built on the site of an existing house. A personal equity loan funded the building of the cabin as a rental property to create an income stream. Site prep/excavation cost is excluded since it relates to specific site.

Noble Home Kit Cost (design/plans/and prefabricated materials kit)	\$27,000
Slab Foundation	\$4,572
Plumbing and Heating (including radiant floor heating system)	\$16,044
Electric	\$6,890
Builder to assemble	<u>\$10,744</u>
Total costs to build	\$65,250
Total cost per square foot \$155	

Regulatory:

This is an accessory dwelling unit (ADU) created with a special permit for building a ADU housing unit for 1-2 people with the clear permit guidelines that it is to be used as a rental property and that either the main house or the ADU needs to be owner occupied. The ADU is located on a property shared with the original house and shares utilities with the main house including electricity (with a separate meter), town water and town sewer. The land where the cabin is located cannot be subdivided.



Learn More: http://www.noble-home.net/

