



# PREFABULOUS + SUSTAINABLE

BUILDING AND CUSTOMIZING AN AFFORDABLE, ENERGY-EFFICIENT HOME

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FOREWORD BY

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# The Method Cabin

Modular

**PHOTOGRAPHER:**

Lannie Boesiger

**ARCHITECT:**

Balance Associates

**MANUFACTURER AND BUILDER:**

Method Homes

**LOCATION:**

Glacier, Washington

**SIZE:**

1,811 square feet

**GREEN ASPECTS:**

FSC-certified wood

Passive solar

Cellulose insulation

Polyurethane insulation

Reclaimed cedar

ENERGY STAR-rated appliances

Energy-efficient lighting

Hydronic radiant heating

Eco-friendly counter tops

No-VOC paint

Low-VOC stains

CFL and halogen lighting

Standing seam metal roof

High-efficiency windows

Dual-flush toilets

Low-flow fixtures

High-efficiency boiler

Bamboo floors and cabinets



FLOOR PLAN



BELOW Because the house is in a flood plain, it's built up on a tall foundation, which gave Method a design opportunity.

OVERLEAF A window-filled bridge connects the master bedroom and common areas of the house to the two children's bedrooms.













Mark Rylant remembers an entire day spent carrying sheet after sheet of heavy, bulky drywall up three flights of stairs. There had to be a better job than construction laborer, he thought at the time. And there had to be a better way to build.

Over the years since, Mark has looked for new and innovative ways to add efficiency to construction (ways that didn't include hauling drywall up stairs). And after years of working on site-built construction—first for other companies, and then as an independent contractor—he found his *better way*.

Inspired by the growing number of modern prefab companies that have popped up all over the country, a light bulb (compact fluorescent, most likely) went off in Mark's head. Although, like many people, he had harbored a number of misconceptions about modular construction, these were shattered when he saw the quality and design coming out of these new companies.

Mark had grown tired of building in the rain and the mud. He decided to build modular homes. Teaming up with high school friend Brian Abramson, who had been working in commercial real estate and development, the partners found they had a passion for building prefab and for energy-efficient, healthy, durable construction, made with sustainable materials and minimum waste. The rest just came naturally.

### A New Type of Factory

Unlike many established home construction factories, the one Mark and Brian created operates

a bit differently. The partners leased a large facility, similar to most prefab factories, but decided to build their houses not with expensive, high-tech machines, but by hand, the way Mark built them on-site for years. They prefer hand building their houses, using the skills of master craftsmen, much the way houses are built in high-end timber frame shops.

Even without the sophisticated mechanization, they build a house in their factory in a quarter of the time it takes to build on-site. And their building materials are always indoors, out of the weather, so they don't soak up moisture that often leads to warping and twisting (a recipe for poor construction). On ordinary construction sites, wood can get wet, which often leads to mold and mildew problems in the finished house.

The Method Cabin was completed in three months with a 70 percent reduction in construction waste over a similar sized house. They achieved this simply by keeping tight control over details and quantities. Unlike modular companies that turn their houses over to a builder to complete, Method Homes maintains its own construction division to complete local projects. This way they maintain high quality and keep to schedule and budget.

Mark and Brian believe they have the ability to make an impact on the home building industry by making less of an impact on the *built* environment. Their motivation, they say, is their children, the next generation to inhabit the earth. They are concerned about the depletion of natural resources and our dependence on foreign oil.

OPPOSITE Simple, clean lines connect the dining area with the elevated deck, which is home to many a family cookout.







## Standing-Seam Roofing

Metal is one of the most recyclable and durable materials in the world. And it's excellent for low-maintenance, long-lasting, fire-resistant, cost-effective roofing. It can be installed over existing roofing, reducing the amount of debris going into landfills. If effectively coated with zinc, aluminum, or aluminum alloy, metal roofs resist corrosion and last nearly indefinitely. A leading aluminum alloy roofing is Galvalume, which has 55 percent aluminum and 45 percent zinc alloy bonded to its steel base. A highly reflective paint, which is factory-applied to the surface, reflects sunlight and reduces heat transmission into the house. That, in turn, reduces the need for air conditioning. And though it may seem odd, steel roofs weigh only half as much as asphalt roofs, though they provide greater protection against snow, wind, ice, fire, and hail. Standing-seam panels run vertically, from the roof ridge to the eaves, and are interlocked with raised, overlapping seams and secured with long metal screws sealed by heavy rubber washers. Panels can be precut or cut on-site. To learn more, visit [www.metalroofing.com](http://www.metalroofing.com).

## Eco-friendly Countertops

The countertop materials that are currently available rival natural stone and other commonly used materials for good looks, price, and durability. These healthy and durable options are friendlier to the environment and fabricated using typical woodworking tools. One of the newest products, and the product used on the Method Cabin countertops, is called EcoTop. EcoTop is a fifty-fifty blend of Forest Stewardship Council-certified (FSC) bamboo fiber and recycled wood fiber salvaged from demolition sites. Binding them together are water-based resins, which are petroleum and VOC-free. Another material that has been available for several years is Paperstone, which is made from post-consumer waste, recycled paper, and petroleum-free phenolic resins. Both products earn points toward green certification. To learn more about these products, visit [www.kliptech.com](http://www.kliptech.com) (for EcoTop) and [www.paperstone.com](http://www.paperstone.com).

A long, elevated countertop made of locally harvested maple divides the kitchen from the great room. The cabinets and flooring are bamboo. The other countertops are made from eco-friendly EcoTop.





BELOW This great room is one with nature, thanks to its 16-foot wall of glass and eight-foot sliding doors. Clerestory windows across the space add further daylighting.

BOTTOM Natural materials shine through everywhere in this house, including the v-groove pine used on the ceiling and locally harvested maple on the floors. Furnishings were all purchased locally from a sustainably conscious local store.



To do their part, they intend to constantly look for new technologies and systems for creating better, healthier, and more responsibly built houses.

### A Lighter Footprint

To build more responsibly, they choose materials and systems that conserve resources. They substantially cut down on waste by building in a controlled environment and carefully ordering materials to the required sizes (and there are never weather delays on their construction site). The standing-seam metal roof (see sidebar) is both durable and recyclable. All wood in the house is FSC-certified so they are assured it came from responsibly managed forests. The cedar siding was recycled from another construction project. Kitchen countertops are made from FSC-certified bamboo and recycled wood (see Eco-Friendly Countertops sidebar, opposite).

To save energy, they designed the envelope of the house as a well-insulated barrier against the elements. A combination of polyurethane foam and blown-in cellulose (see Old News is Good News sidebar, page 217) gives their walls an R-25 rating. With high-efficiency windows, and ENERGY STAR appliances and lighting, they save even more energy. The hydronic radiant system effectively heats the house using much less energy than traditional systems.

Brian and Mark's goal was to build the house as *green* as they possibly could. Currently, the partners are going through the process of having the house LEED certified.

Brian says building in a healthy, environmentally responsible way "should be prerequisites for any building in this day and age."