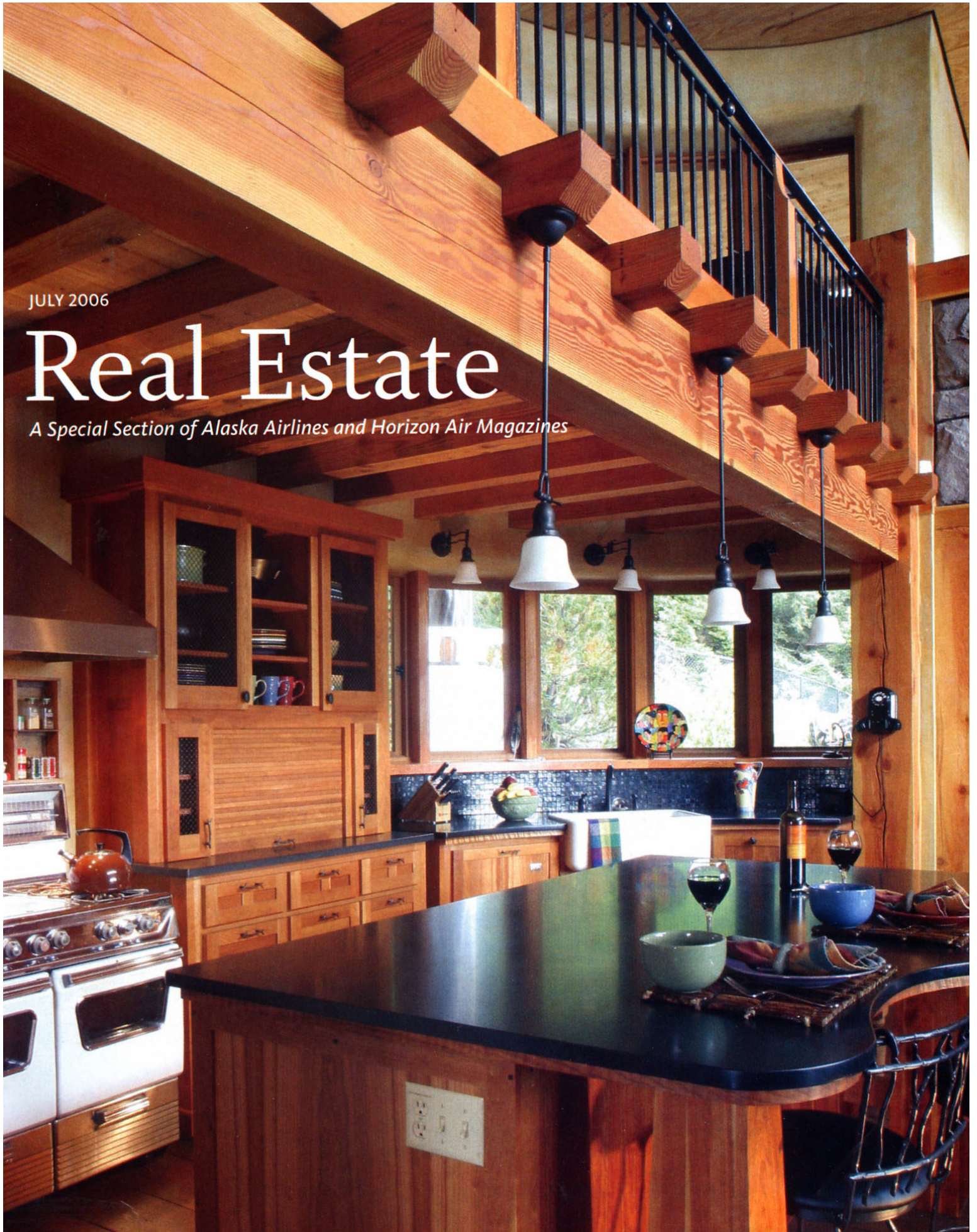


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It's Easy Being Green

Sustainable home design is rapidly changing the suburban landscape—for the better. Here are five homes that prove it.

By Jenny Quill

GREEN BUILDING has many definitions, but at its core, it means smart, responsible building that respects the environment. In recent years, savvy architects, builders and home owners have been pushing green building further into the mainstream, and are finally seeing results. Given the benefits, it shouldn't be all that surprising. By going green, homeowners can save money on electricity, water and heating bills, and have healthier, chemical-free homes that work with the environment instead of against it. Best of all, there's no need to sacrifice aesthetics, as demonstrated by the five gorgeously green dwellings featured here.

THE NET-ZERO HOUSE

“One of the reasons why they built this home was to influence the market, to demonstrate what's possible and what should become the norm,” says architect Nathan Good of his clients, a husband and wife who have long been champions of green building in Oregon.

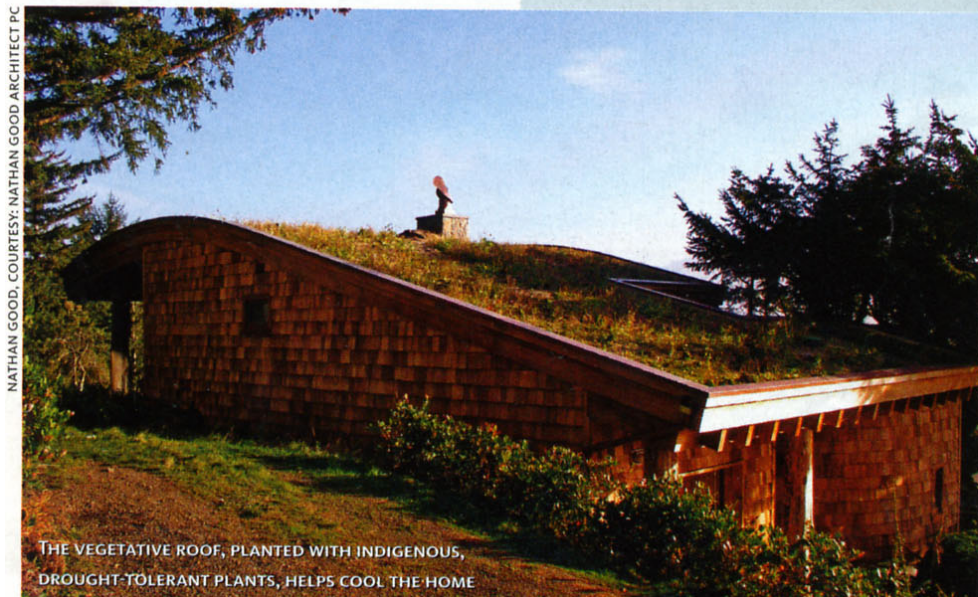
Their house, located in Cannon Beach, was actually a replacement for the first, which burned to the ground after a neighboring home caught fire. This event partly explains why Good chose to build the home with Durisol block, a durable and fire-resistant material made from mineralized wood shavings and chips combined with cement. The breathable material can withstand

high winds and moisture, and is pest-proof, all essential qualities for a home on the Oregon coast.

The home is designed to generate as much energy as it consumes, an effect known as “net zero.” But current definitions of net zero don't factor in the use of heating oil, propane or natural gas, all things eliminated by Good and his team in an effort to build a home that is truly net-zero, or what Good calls “carbon neutral.”

To do this, he incorporated multiple systems that simultaneously work together to make the home energy efficient. First, he installed a series of photovoltaic panels on the lower roof, and connected them to the local utility's electrical grid. (Sometimes the meter spins backward if the house is generating more electricity than is being used.)

Instead of building a vented crawl space below the house, Good built a short basement with insulated concrete floors. By closing the gaps in the crawl space (which lose energy) and keeping moisture out, Good improved the energy efficiency, comfort and indoor air quality of the home. Solar thermal collectors located on the south slope below the house gather energy to heat water for household use and space heating, and are part of an elaborate storage system that diverts the excess hot water



THE VEGETATIVE ROOF, PLANTED WITH INDIGENOUS, DROUGHT-TOLERANT PLANTS, HELPS COOL THE HOME

PROJECT STATS

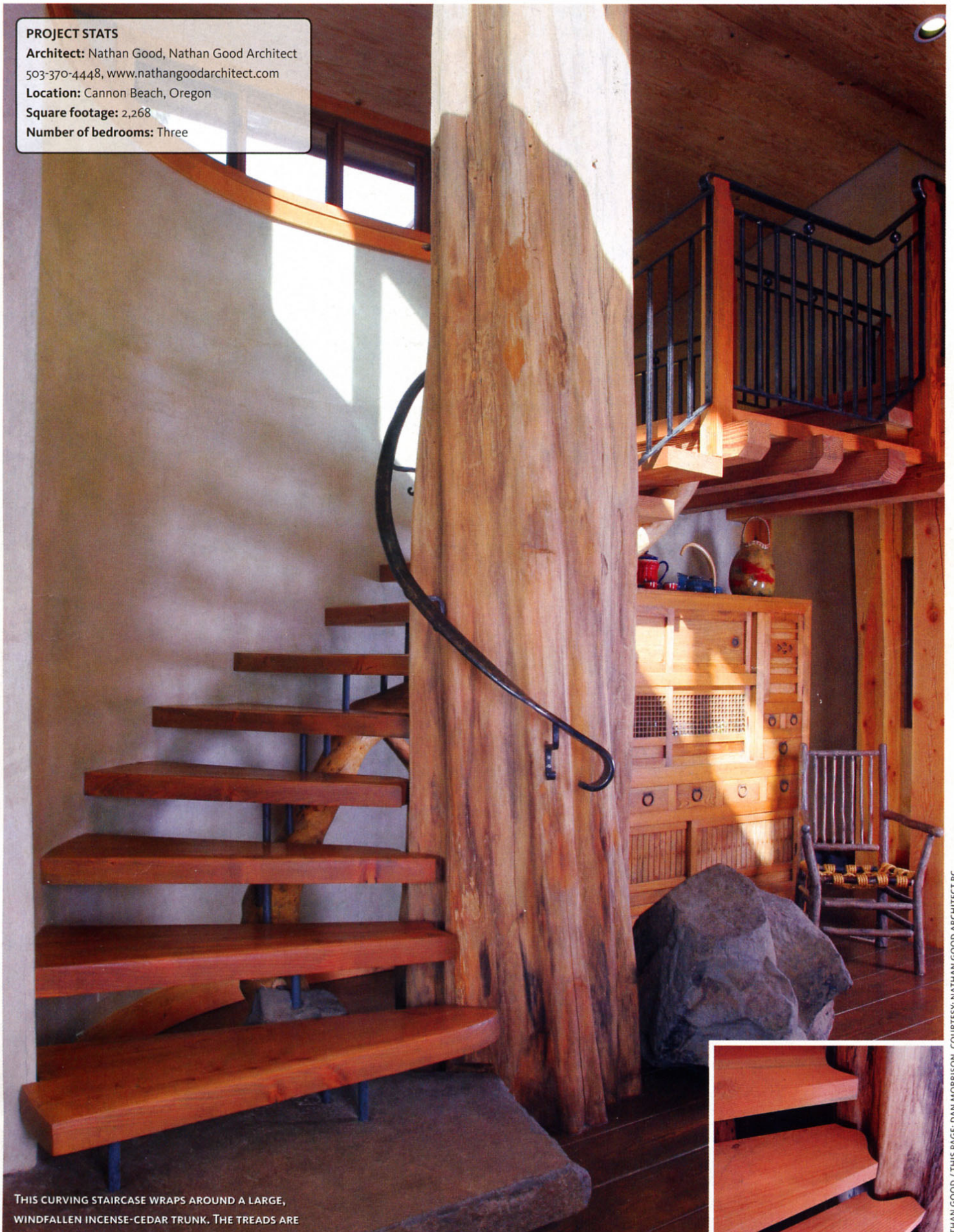
Architect: Nathan Good, Nathan Good Architect

503-370-4448, www.nathangoodarchitect.com

Location: Cannon Beach, Oregon

Square footage: 2,268

Number of bedrooms: Three



THIS CURVING STAIRCASE WRAPS AROUND A LARGE, WINDFALLEN INCENSE-CEDAR TRUNK. THE TREADS ARE

THE NET-ZERO HOUSE

produced during the sunny summer months down into bedrock 250 feet below the home. The heating continues throughout the summer, allowing the excess heat to be transferred to the water lines and stored until winter.

Since occupancy began in May 2005, the house has been continuously monitored by the Oregon Department of Energy (it's developing a case study of the home's design), which found that for the first three months (May through July), electricity bills were between \$10 and \$20. That August, the house generated more energy than was used, resulting in a credit on the homeowners' utility bill. So far, the system has largely performed to expectations.

The pièce de résistance of this house, though, is the vegetative roof, home to more than 20 drought-tolerant, noninvasive species selected because they thrive in a coastal environment. The roof helps cool the home, is fire resistant and decreases storm-water runoff. "The clients wanted the neighbors above to look on a meadow rather than an asphalt or metal roof," Good says. "It's part of community building."



SHBERGER, COURTESY: NATHAN GOOD ARCHITECT PC

THE DOORWAY, FRAMED WITH TIMBER FROM SALVAGED TREES, OPENS INTO