

BY BARB SLIGL | *Courtesy of Homeswest magazine*

RENOVATION INSPIRATION

Walking into this newly renovated house in North Vancouver, British Columbia, Canada, one is struck by how spacious the small home feels. Only 300 square feet (28 m²) were added in the renovation, but the open-concept great room that serves as the main living space with its 12 1/2-foot- (4-m-) high ceiling gives the home a grandness you might not expect in a 1,621-square-foot (151-m²) space. And that is the point—bigger is not always better. This renovation is all about staying small but growing in quality.

A HUSBAND AND WIFE WORK ON THE GREEN RENOVATION OF THEIR HOME



PHOTOS COURTESY OF HELEN GOODLAND

“We both subscribe to the smaller and nicer philosophy,” says Kevin Hanvey, LEED-AP, architect and homeowner, who designed the home with his wife, Helen Goodland, LEED-AP, architect and executive director of Vancouver’s Sustainable Building Centre. “We were prepared to live with less space but much higher quality. For us, it was important to spend money on those things we see and touch and live with every day rather than simply adding square footage.”

The couple had a growing family and bought the home in 1997 primarily for its location close to a great day care. The idea to renovate wasn’t far behind. “I don’t think there’s an architect drawing a breath that doesn’t look at a piece of property and imagine renovating it at some stage,” Hanvey says.

The original home was one of three little houses built at the same time, what Goodland

calls glorified double-wide trailers. With simple and average quality construction, the challenge for the couple was how to approach renovating the house.

“A commercial builder would bulldoze in a minute,” Goodland says. “For us it was more a question of what else could you do with it. Could you save it? Is there something in there that’s worth retaining, and what could you do to provide a more sustainable alternative?”

Goodland admits the reason for renovating was not primarily to be sustainable but to add another bathroom and bedroom; the original three-bedroom, one-bathroom house couldn’t accommodate two kids, in-laws and guests. But before going the renovation route, Goodland and Hanvey looked into gaining an extra bedroom and bathroom simply by selling and buying up.



"First of all, there isn't a house out there that provides the four-bedroom, two-bathroom solution that is much less than 2,000 square feet [186 m²]. For us to buy up from a 1,300-square-foot [121-m²] house was a very large financial leap."

And Hanvey and Goodland didn't want to trade a small home in need of improvement for a larger home that required even more maintenance and upkeep.

"So the business case actually made absolutely no sense for us to go and buy big when what we really wanted to do was to renovate our house so that we reduced the amount of square footage we needed but designed it in a way that we got all the functionality we wanted," Goodland says.

Goodland and Hanvey extended this challenge by making the renovation as

environmentally friendly as possible. They found that the costs weren't much different than with a conventional renovation with one exception: the money spent to have construction debris carefully recycled or disposed of in an environmentally sensitive manner as opposed to throwing it all in a big Dumpster and carting it to the landfill. Even so, the renovation came in at about \$150 to \$160 per square foot, which Hanvey says is standard or slightly on the high end of a conventional renovation.

The couple paid no more for the green features and even saved some money. The salvaged flooring (from an old sawmill) was a sustainable choice and cheaper than conventional flooring. (The flooring was nailed down rather than glued to minimize toxins.) The granite for their kitchen counters is from Fox Island, British Columbia, where mines

opened in the 1920s to provide the granite for big old buildings like the Sinclair Centre in Vancouver and the legislative buildings in Victoria, British Columbia.

"There's a perception that if it's more exotic it's somehow more valuable," Hanvey adds. "What I've learned and what I try to teach clients is that buildings should really reflect their place, their climate and the locally available building materials. That's a large part of what makes a building green."

The old cedar ceiling from their living room now is part of a concession stand in Vancouver's Stanley Park. They also recycled all the bricks from the original wood-burning chimney to create the patio. "It's a different kind of budgeting," Goodland says of going green. "Rather than spending any more, it's a matter of choices."

Renovating shouldn't just be out with the old and in with the new. "We took a life-cycle approach to all of our material selections, which is why you see some of the old windows relocated," Goodland says. "There were two sliding windows that had a good deal of service life left in them. They're still single glazed, but you replace when they wear out. You don't replace for the sake of replacing necessarily.



With the house being very small and efficient energy-consumption wise, we couldn't make the business case for replacing those windows because even though they lose energy they lose so little in terms of the dollar value."

Paint used throughout the home is no or low VOC. The drywall has recycled-content gypsum and backing paper that contains 100 percent recycled content.

Water usage in the renovated home has been reduced by 50 percent from 208 gallons (786 L) to 107 gallons (403 L), which, for all four family members, is less than one-third of the Lower Mainland's average usage per person—86 gallons (325 L)—of water per day. New faucets and showers have a flow rate of just 2 gallons (8.5 L) per minute. The home also has 0.79 gallon (3/6 L) dual-flush toilets and a 90 gallon (341 L) rain barrel for watering the garden. A gravel path instead of pavers was chosen for the garden, allowing storm water to soak into the ground.

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The millwork and cabinetry is made from Forest Stewardship Council- (FSC-) certified wood and wheat straw, a waste product of the agricultural industry. FSC-certified wood was also used in the framing and wherever possible. Trim used throughout the home is British Columbia fir. Natural linoleum is used as flooring in the home's utility space.

Making energy-efficient choices was also key, like replacing the old fireplace with a natural-gas fireplace that zone heats the new front portion of the house. Switching from an electric stove to a natural gas cooktop and going with ENERGY STAR® appliances wherever possible resulted in a 30 percent reduction in electricity consumption. "I'm monitoring all the consumption of both the hydro and the gas," Goodland says. "We're down 18 percent in terms of greenhouse gas emissions and about 40 percent in terms of actual megajoules per square foot."

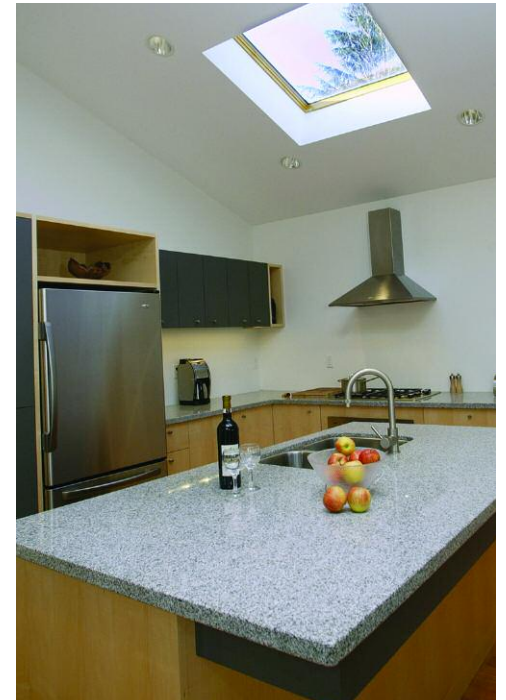
In the end all the green choices made may have given the home its biggest value from a resale perspective. "I wouldn't underestimate the value of the fact that the home has been renovated to a higher environmental standard," Hanvey says. "We live in a part of the world where a lot of people place a high priority on that."

And the most valuable green choice may simply be the fact that the couple kept the new space small. "There's really very little out there in the small compact house sector, and to provide one that's got a much higher level of quality around it ... that's what we would've wanted to buy in the first place," Goodland says.

In the completed home, the soaring great room leaves most visitors blown away; it's what Hanvey identifies as his favorite element of the new home and it may just epitomize the entire renovation. "It's such a great family space; it reflects so well the way we live, the four of us, which is in a very open and social way. In the evening, the sun's streaming through the skylights and we're making dinner and setting the table and hanging around. And for me, as an architect, it displays how well architecture really can reflect, and, more importantly, enhance the way people live. So much of the space we inhabit on a daily basis is really generic space that's been designed without people in mind and it's so nice to inhabit a space that is really about who we are and who we aspire to be." 🌱

PROJECT TEAM

- ▶ **ARCHITECTS**—Kevin Hanvey and Helen Goodland, partners in Brantwood Design Consulting, Vancouver, British Columbia, Canada, (604) 904-8825
- ▶ **GENERAL CONTRACTOR**—TQ Construction, Vancouver, www.tqconstruction.ca



GREEN MATERIALS

- ▶ **SKYLIGHTS**—VELUX, Hørsholm, Denmark, www.velux.com
- ▶ **PAINT**—Eco Spec® from BENJAMIN MOORE AND CO., Montvale, N.J., www.benjaminmoore.com
- ▶ **TOILETS**—CAROMA INDUSTRIES LTD., Brisbane, Australia, www.caroma.com.au
- ▶ **LINOLEUM**—FORBO, Hazleton, Pa., www.forboflooringna.com