

A photograph of a two-story red house with grey trim and a white picket fence in the foreground. The house has a steep gable roof with dormer windows. A large green tree is on the left, and a smaller tree is on the right. The sky is blue.

# Living

SMALLER HOUSE,



with only

# What You Need

A small new house in a historic neighborhood makes the most of its 1100 square feet

BY BRYAN J. HIGGINS



## BETTER MATERIALS

*Window bays and a shed dormer create a pleasing composition of shapes on the outside and expand the usable space inside. Cedar siding, wood windows, and a copper roof are some of the upgraded details. Photo taken at A on floor plan.*

**M**y wife, Chris, and I moved from Boston to Portland, Ore., with the dream that we might work downtown and live nearby, within walking distance of our offices. We eventually found a condominium located in a neighborhood that is sprinkled with Victorian houses, brick office buildings, and even a carpenter Gothic church that's now home to a science-fiction bookstore. We loved the neighborhood we were living in and our 20-minute walk to work. But the reality of living in the condo started to wear thin. I'm an architect, and Chris is an engineer. We really wanted the chance to shape our own house.

Then we got lucky. A tiny 25-ft. by 50-ft. lot, just a Frisbee toss from the condo that we were living in, came on the market. The piece of land was too small for the multifamily projects that have dominated the neighborhood in recent years. The city was willing, however, to allow a single-family house to be built on the lot. The catch: We had to juggle tight

setbacks, height restrictions, zoning issues, and design guidelines to get the approval of the city's design-review board, yet still come up with a livable house. Here's how we did it.

## Keep the plan basic to maximize living space

City setbacks reduced the first-floor footprint of the house to 16 ft. by 38 ft. In a house this small, it's critical to keep the circulation space to a minimum. So we based the house on a simple diagram: circulation stair in the center with living spaces on each side (floor plans, p. 67).

The lot is oriented north-south. The south side faces the street, and the west side overlooks our neighbor's beautifully landscaped yard. Taking advantage of this sweet view, we put our living spaces and the majority of our windows on these two sides of the house (photo facing page).

To the east, an existing house sits 2½ ft. from our property line. Because of this proximity, we made the east side of our house the service

**Small house with a big ceiling.** With its timber-frame rafters and lofty ceiling height, the Higgins house avoids the claustrophobic feel that can curse a small house. Photo taken at B on floor plan.

side, with the bathrooms, stair landings, and kitchen all along this wall.

### **Dual-function rooms make the house flexible**

We designed each space with an eye toward possible changes that could happen in the future. We also thought a lot about what kind of furniture should be in each room, both for flexibility and for compactness.

The first floor contains the master bedroom and bath on the north side of the house. The bedroom has modular shelving and drawers in the closets. This storage eliminated the need for chests of drawers, allowing the room to be smaller.

Pocket doors, which slide into a cavity in the wall, are an advantage when space is tight. We put two of them in the bath off the master bedroom; that improved circulation by getting rid of the dead end so that Chris and I aren't running into each other in the morning. The

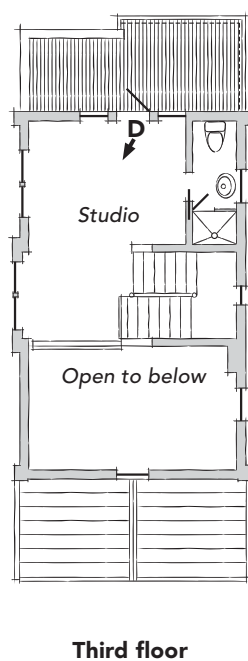
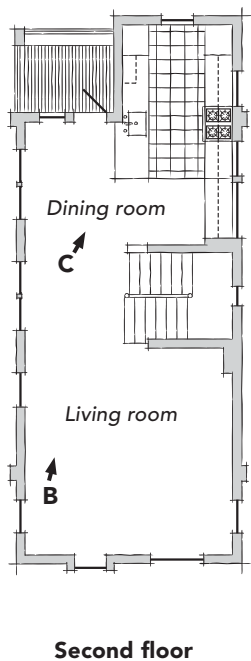
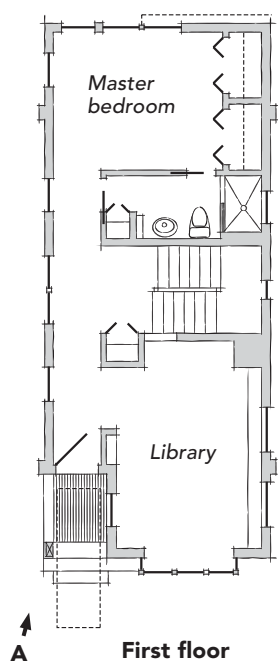


**Warm wood and crisp edges.** Instead of moldings or baseboards, orderly reveals border the intersections of wood and dry-wall, creating shadow-lines that frame the work.



## THIS PLAN STARTED WITH THE STAIR

With a modest 16-ft. by 38-ft. footprint, this house can't afford to squander unnecessary space on hallways and corridors. For efficiency's sake, the stair occupies the center of the house, with living spaces on each side. Modest bump-outs on each floor gain precious space and add visual interest to the exterior.



### SPECS

**Bedrooms:** 1 to 3

**Bathrooms:** 2

**Size:** 1100 sq. ft.

**Cost:** \$240 per sq. ft.

**Completed:** 2003

**Location:** Portland, Ore.

**Architect:** Bryan J. Higgins

**Builder:** Don Young & Associates



Photos taken at lettered positions.



**Daylight at counter height.** The galley kitchen features awning windows in the east wall that let in morning light and provide cross-ventilation. Photo taken at C on floor plan.



### Treetop studio.

The west-facing dormer is home to a drafting table and a window that looks out on a cluster of trees. With its own full bath and a deck to the back, the studio doubles as a first-rate guest room. Photo taken at D on floor plan.

## FEEDBACK

### Radiant heat UNDER WOOD FLOORS

One reason we moved to the Northwest is the moderate climate. That climate was key to our choosing a hydronic radiant-heating system, even though it was about 30% more expensive than a forced-air furnace. It will provide a savings in monthly gas bills, which will compensate for its higher initial cost. Our heating bills show at least a 15% savings. Because our house is small, it was nice not to have to gobble up space for ductwork and chases. And we also like the evenly distributed heat.

But a radiant-heating system cannot cool the house the way a forced-air system with an integral air-conditioning unit can. When it gets hot, we just open the windows and let convection currents cool the house.

Our system consists of a hot-water tank, an expansion tank, three-zone valves, thermostats, and several hundred feet of tubing that distribute the heat. The system, installed by a heating subcontractor, cost \$11,300.

Radiant heat is most efficient when installed in a concrete slab. It is, however, becoming more common in wood construction. Metal plates affixed to the underside of the floor help to distribute the heat evenly. We are pleased with the way the system performs.

#### ▲ PROS

Even heat distribution, no blowing or moving air, concealed in floor, no need for duct space, no visible vents, low noise, can keep thermostat lower because of even distribution, lower energy costs.

#### CONS ▼

Slow response time, travels in direct path upward, cannot heat around corners, higher initial cost, provides for heating only, ventilation is separate.

#### COST

\$11,300



second door also makes the bath easily accessible from the hallway for guests.

The east wall of the library is almost entirely built-in bookcases, with a couple of small windows high on the wall. This room could be converted to a full-fledged bedroom by turning the desk alcove next to the stair into a closet.

Incidentally, the library's signature detail, the bay window, projects 16 in. toward the street from the front of the house. That puts the window into the code-required setback from the street. But because it is a cantilevered bay with no foundation, the bay is allowed by code. This kind of small annexation of available space can be a big help in a small house.

The kitchen and dining area are on the second floor, at the north end of the house (photos p. 66, bottom left p. 67). Like the library bay, the kitchen bumps out 12 in. beyond the foundation wall, adding some space to a small room. The dining room, also small, has an expandable table that for everyday use seats two; away from the wall and with the top expanded, the table easily can accommodate eight people. When the weather is nice, though, we eat our meals on the deck, which is just large enough for a small table and a couple of chairs.

#### ONLINE CONNECTION

Tour this house on our Web site at  
[www.finehomebuilding.com](http://www.finehomebuilding.com).

Our main living space is on the south side of the second floor, overlooking the street. This plan enabled us to get the most out of the available square footage by not having the front entrance in our living room.

The roof steps up as it moves back from the street, reflecting the height of the house next door. The ceiling steps up along with the roof, reaching its highest point above the loft (photo right, p. 67). This space on the third floor includes a second full bath and a small deck off the back of the house. We thought that it was important on a site with almost no outdoor space to be able to step outside on each floor.

The loft is currently the design studio. But flip open the futon couch, and it becomes the guest bedroom. As our family grows, the loft eventually could become the master bedroom.

### Victorian influence with modern, high-quality trimmings

We kept the shape of the house similar to others in the neighborhood, with comparable roof slopes, shallow eaves, Victorian proportions, and asymmetrical window placement. But that's where the similarity stops. Chris and I both like crisp, uncluttered details, so we didn't apply gingerbread to the house. Instead, we chose flat, sage green window casings and water tables played against coral-colored beveled siding. And instead of the classic Victorian double-hung windows, most of ours are awning style, which is great for keeping out rain while allowing some ventilation.

Interior details are equally minimal, with gray trim and mostly white walls serving as a backdrop for varnished or oiled wood. The shadowline reveals along the stair's skirtboard are typical of this approach (inset photo, p. 66).

Because we were building a small house, we could afford some high-quality, long-lasting materials and mechanical systems. We used clear cedar trim and siding, wood windows, and a standing-seam copper roof. The roof and copper gutters cost \$6,200, but they should last 100 years or more.

Inside, we were able to afford some of the built-ins that are important to the success of a small house, such as custom bookcases and desks. And the white oak floor is heated by a boiler-fired radiant-heating system ("Feedback," left). On a winter day, it's a real pleasure after the walk home from work. □

Architect Bryan J. Higgins works at SRG Partnership in Portland, Ore. Photos by Charles Miller.