

**102** FINE HOMEBUILDING



y wife, Judy, and I were finishing a house in Alaska when our daughter called from Oregon to tell us that she was ready for her own home. We knew this could be our chance to build the project we'd been planning for years, the one called simply "the small house."

Our small-house concept would work well for Christine, a single parent on a tight budget. We had been working on the plan off and on for 20 years, starting with the idea that there should be a way to create a small house—around 1000 sq. ft.—that would be both efficiently laid out and comfortable to live in. Over the years, we had sketched plans and built scale models. We visualized the final results, but we could never know whether the house succeeded until we built it.

Our goal was to include all the essentials of a small home: two bedrooms and a study, a single bath, a living/dining area open to the kitchen, a laundry room and large exterior porches (photo left).

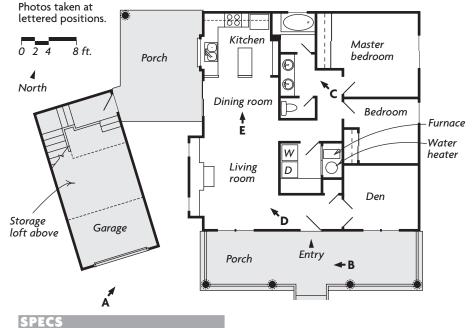
The bath is probably the most unconventional thing about the plan (floor plans, p. 104). Adopting a European design, we separated the toilet, lavatory and bath so that one person can use the water closet while another takes a shower or uses the lavatory. For



A full-size porch extends the living area to the outside. Sturdy columns add to the feel of the house. Photo taken at B on floor plan.

### MAKING THE MOST OF A SMALL SPACE

The house just fits within the setbacks on a small lot. A square plan yields the most square footage for any given perimeter, but generous porches mask the square shape. Hallways are minimal but provide buffers between public and private spaces.



Bedrooms: 2, plus den Bathrooms: 1 Size: 1048 sq. ft. Cost: \$76 per sq. ft.

Completed: 1999 Location: Springfield,

Oregon Architect: Dennis Parker

Builder: Dennis Parker

# ON-LINE CONNECTION

Tour this house on our Web site at FineHomebuilding.com.



Divided bath space allows privacy. Doors separate the shower, vanity and toilet, with the vanity area occupying a bay in the hallway. Photo taken at C on floor plan.

a small young family, that layout works just as well as the more usual bath-and-a-half.

#### Making every dollar count

Christine's \$102,000 budget needed to cover the lot, permits, fees and hard building costs. While we were still in Alaska, she found an affordable lot. Other builders had bypassed this small corner lot, but our small house just fit within the narrow setbacks. The lot and fees totaled about \$36,000, so we had about \$66,000 to build with.

We chose a square footprint for the house because except for a circle, a square encloses the most square footage for a given perimeter. In a 32-ft. square, I could fit bedrooms on one side and a living/dining space on the other, and still have room for a bath, laundry and hallway in the middle. The only variation from the square plan is the 2-ft. deep by 12-ft. long fireplace bay (photo above).

At 32 ft. sq., this house is designed to take advantage of standard-size building materials. From the foundation up, there was practically no waste. You could measure the house in sheets of plywood: eight vertical sheets for each wall of the house. The garage is three sheets by six sheets. And having a 4-ft. panel at each corner of each wall eliminated the requirement for seismic hold-downs.

The manufactured I-joists were ordered as exact lengths and spaced 24 in. o. c. As an added economy, we were able to reuse the oriented-strand-board materials from the foundation forms for the subfascia. To reduce foundation costs, we ordered roof trusses that extend past the front wall to carry the load of the front-porch roof. The trusses let the footer for the porch be smaller.

We used 2x4 exterior wall framing. Nobody in this area uses 2x4 walls, the conventional wisdom being that 2x6 walls are required because they can hold more insulation. Instead, we wrapped the house with 1-in. thick rigid-foam insulation, which gives us the required R-value and puts the added insulation on the outside of the wall.

It is simple math that 2x6 walls in this house would have stolen more than 21 sq. ft. of usable living space. If the house costs are, say,

FINE HOMEBUILDING Drawing: Mark Hannon



A welcoming fireplace bay enlarges the room. The gas fireplace occupies a cantilevered bay so that it does not take valuable floor space. The 9-ft. ceilings, generous crown molding and windows flanking the fireplace enhance the perceived size of the room. Photo taken at D on floor plan.

Attractive stock cabinets save the budget. Laminate flooring and midrange appliances also help to keep costs down while yielding an attractive, usable kitchen for a small family. Photo taken at E on floor plan.



from \$60 to \$80 per sq. ft., then we are talking about saving around \$1,500. My computer modeling shows that exterior foam makes a better-insulated wall, and the costs are no higher.

#### Stock materials save money

We thought we could get good results from stock materials bought at local suppliers if we chose well and combined them with care. The only special-ordered item was the set of fiberglass columns (photo p. 102). The cabinets were stock maple units, picked up at the home center and assembled on site (photo above right). The kitchen counters are 12-in. sq. granite tiles with narrow grout joints and a maple edge molding. The same granite tile was used for the direct-vent gas-fireplace surround and hearth, and even as a tile trim in the shower. We used stock 8x8 ceramic tile for wet-area floors in the bath and laundry. Laminate flooring throughout the study, entry, living/dining and kitchen areas uses a low-maintenance, durable surface to unify and to enlarge the space visually. By using these less expensive alternatives, we were able to create the same effect as in an expensive home with granite-slab countertops or hardwood floors, but at a price that we could afford for the project.

## Quality details make the difference

Planning let us upgrade prominent details to achieve the charm of an old house. For example, the 8-ft. deep front porch, with its 9-ft. ceiling and sturdy columns, feels spacious and elegant (photo right, p. 103). The 9-ft. ceilings continue inside, where the extra headroom and volume make small spaces feel bigger. The cantilevered fireplace bay with flanking windows adds space to the living/dining area at the point where the long room would otherwise seem narrow.

Another feature that adds to the perceived sense of size and solidity is the trim. The crown molding is built up from four pieces of medium-density fiberboard, contoured with a router. Exterior trim follows the same approach with the emphasis on continuous horizontal lines that run all around the house.

The continuous water table, cornice and fascia lines help to make the house seem larger.

## The family pitched in

One thing that made this project special as well as affordable was family participation. My father, Jay, is a carpenter trained in the old school. He taught me most of what I know about building houses. The only work subcontracted on Christine's home was the plumbing, heating, insulation, carpet installation and concrete flatwork. Family performed all remaining labor. The \$76-per-sq. ft. estimated cost includes a labor allowance that subcontractors would have added.

Although special to our family, this house may offer other lessons. Well-designed small spaces can be gracious and resource-efficient. The enthusiastic local response to this home makes us think there is a better market for small homes than most builders realize.

Architect Dennis Parker lives in Honolulu, Hawaii, and runs his firm on-line at www.classicsmallhomes.com. Photos by David Ericson.