

# Four-Part Farmhouse

Uncommon design goals inform the organization of this multivolume home

BY CLAY SMOOK



This project was *Fine Homebuilding's* Readers' Choice Award winner in 2020. For more, visit [FineHomebuilding.com/houses](https://www.finehomebuilding.com/houses).

I've been designing houses and commercial buildings for 38 years. My projects run the gamut from custom homes to master plans for mixed-use communities, which means I bring to my residential work the perspective of an urban designer. For this house—a 2800-sq.-ft. new build in Needham, Mass.—I wanted to not only meet the clients' goals, but also make a positive impact on the neighborhood. The narrow half-acre lot is located at a three-way intersection on a busy street in a densely populated area, making it highly visible. The feedback the clients have received from nearby residents tells me that secondary goal was met.

There were a number of ways in which this project was unusual. First, the homeowners actually live in the house next door; their plan is to eventually downsize and move into this house, which was designed for single-floor living to accommodate the clients' mother, who occupies the house now, as well as their own needs when the time comes. Second, among their top priorities were the dining room and the garage—I've never had a client emphasize those functions; they usually take a back seat. I decided to design a four-volume structure inspired by historian Thomas Hubka's "big house, little house, back house, barn" idea. Described in his book of the same title, it is a type of connected farm building most commonly found in northern New England (see sidebar, p. 53). This



– configuration made the best use of the site, and allowed generous square footage for the dining room and the garage.

### Characterizing the volumes

The idea was to keep the forms simple, while playing with scale and proportion for architectural interest. The largest structure is meant to look like the original “big house” to which the other buildings were later added. I wanted each structure to feel autonomous, but they are linked together with structural components that I call “interstitial connectors.” For example, there’s an 8-ft.-wide cube between the two-story main house and the garage; the roof of it acts like a cricket between the two structures by T-boning into the otherwise independent garage roof.

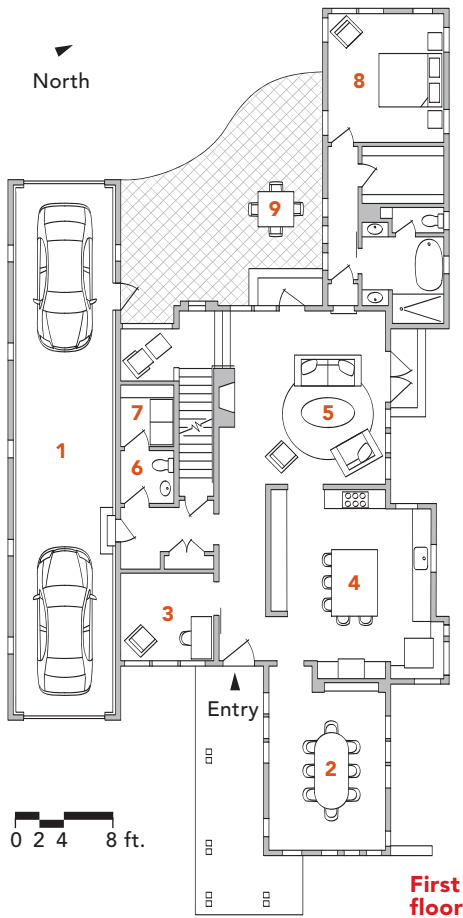
I went with standing-seam metal roofs on both the dining room and the garage—as opposed to the main house, which has asphalt shingles. The metal makes those

### Continuous architecture.

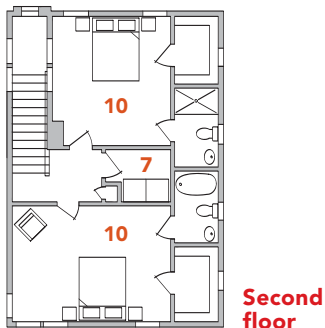
The design concept was inspired by the evolution of old New England farmhouses, which were often added on to over time to form one sprawling structure. Here, the “big house, little house, back house, barn” idea takes the form of a main house, dining room, sleeping quarters, and garage.

# CONNECTED YET SEPARATE

From the entry onward, the primary living spaces are loaded to one side of a main corridor. The interiors are organized for single-floor living with two guest suites upstairs. The garage and master suite were sited to form a backyard courtyard, which is integral to the success of the indoor-outdoor living experience. Each volume has exposure to daylight and views from three directions.



- 1 Garage
- 2 Dining
- 3 Study
- 4 Kitchen
- 5 Living
- 6 Powder room
- 7 Laundry
- 8 Master suite
- 9 Patio
- 10 Bedroom





**Elegant entry.** The foundation was formed using a mudsill detail that has the joists slotted into, rather than on top of, the foundation, meaning the house sits low to the ground. This profile helps accentuate the front porch.



**Slice of light.** The double-height box bay window provides natural light and views of the rear courtyard and landscape from the second-floor guest rooms.

structures more striking and also supports the idea of buildings added on to the original house.

The back of the house is meant to be just as architecturally engaging as the front—in my mind, there is no front and back. Because I am fond of courtyards, I created one by extending one of the master-bedroom walls and developing the rear elevation around it. Connecting the interiors to the outdoors is about more than putting a large sheet of glass between them. I wanted true transitional spaces, and for the clients to enjoy the feeling of being outside yet bounded by the house. When inside, they are able to look out toward views that include parts of the house, which helps to frame the landscape.

With the windows, I tried to walk the line between traditional and contemporary. Some are much larger than windows typically seen on a house of the period that inspired this one, but I prefer to use windows that are appropriate for what's happening inside. For example, in the kitchen I spec'd a sizable picture window above the built-in seating for the breakfast nook to allow natural light to fill that corner and brighten the work zone. The double-hungs tie the house to the established neighborhood, while the more modern styles give the exteriors some flair.

### Satisfying the priorities in style

The homeowner's mother loves hosting large Sunday dinners, so the dining room—the "little house"—was important. In fact, it is the cornerstone of the overall design,

**Concentrated courtyard.** The rear elevation centers around a courtyard; the backside exterior is meant to be as stimulating as the front of the house in terms of architectural interest. A mix of siding materials and window types reflect the blending of pseudo-traditional and true contemporary styles.



**Connecting the forms.** Portions of the house are attached with “interstitial” structure intended to both demarcate and celebrate transitional spaces. Larger, more contemporary windows are used in these locations.

and sits foremost on the lot. The exterior treatment—particularly the steeply pitched gable roof, contemporary asymmetrical window arrangement, and close proximity to the portico—was intended to draw the most attention of all the structures. The room sits atop a plinth of stone that is proud of the building—the idea was to elevate the importance of this portion of the home. Housing the room in what acts like a freestanding structure was meant to make it feel special, and the cathedral ceiling and heavy glazing create an expansive interior space. The tie to the kitchen works well functionally, but when the family is in the dining room, the work zone is out of sight, which the clients feel enhances the dining experience.

New England’s covered bridges influenced the shape of the garage (or “barn”). It has a linear configuration with entrances at both ends. Most of the homes going up in the area are overwhelmed with garage doors, which is why I chose a tandem design to limit how much of the garage is seen from the street. There’s no indication that the building is 60 ft. long; visually, it foreshortens to about half that length. The repetition of the board-and-batten panels and the trim wrap creates a balanced composition, while the small square windows call to mind the openings seen on covered bridges.

### **A mix of siding materials**

The main house is clad in 4-in. Hardie clapboards with 5/4 trim, which mimics cedar without the maintenance requirements. The rear elevation features a chimney and a double-height window with HardiePanel siding and decorative strapping. There was a time when I would have used metal to clad the chimney, but it is



**SPECS**

**Bedrooms:** 3

**Bathrooms:** 3½

**Size:** 2800 sq. ft.

**Location:** Neeham, Mass.

**Architect:** SMOOK Architecture & Urban Design, smookarchitecture.com

**Builder:** Rockwood Custom Building, rockwoodcustombuilding.com

subject to oil-canning, so I used painted Azek to get the look of metal’s crisp lines. It’s a durable solution and it saves the expense of another on-site installation crew. Because the master suite (“back house”) is meant to feel like an extension of the main house, I used the same Hardie siding there. For the dining room, I spec’d 2x trim and siding from Hardie’s Artisan line, which has about 7 in. of face exposure.

In addition to the covered-bridge inspiration for the garage, I considered the clients’ mother’s fondness for tobacco barns, which typically have vertical slats that open and close for air circulation. Covered bridges, on the other hand, often have both vertical and horizontal detailing. I wanted to thread the needle between these two models. To that end, I created the look of board-and-batten siding with two patterns—one has 12 in. between battens, the other has 6 in. (I say “the look of” because it is actually Hardie sheet stock rather than individual boards.) While the garage siding adds texture, the color ties it all together. Originally, I recommended red, which would have been a literal reference to the covered bridge, but ultimately the homeowners agreed to a palette of black, gray, and white for a more 21st-century feel.

Using a mix of Boral, Azek, and Hardie board is like pattern-making. It does require the builder to make some tricky transitions between material types, and the flashing details require extra thought, but the results are exactly what we hoped for—a distinct building form that draws the eye in to look more closely. □

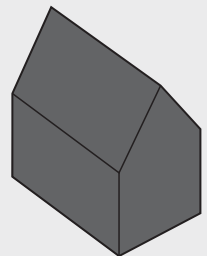
Clay Smook is the founder of SMOOK Architecture & Urban Design. Photos by Benjamin Cheung, courtesy of SMOOK Architecture & Urban Design.

## Big house, little house, back house, barn

Architect Thomas Hubka has written extensively about this type of connected farm building, which evolved in 19th-century northern New England as a way for farmers to organize their homesteads for mixed-farming and home-industry activities. Typically, the house and barn are joined by a series of support structures to form a continuous complex. The “big house” tends to face the road and displays the most architectural ornamentation. Formal parlors are on the first floor and bedrooms on the second. The “little house” incorporates the kitchen, and the “back house” feeds off that to form an “L.” The back house connects to the barn—which houses livestock—and is used as a multipurpose workspace that might also store a bale wagon or carriage. This project is a contemporary interpretation of the building type:

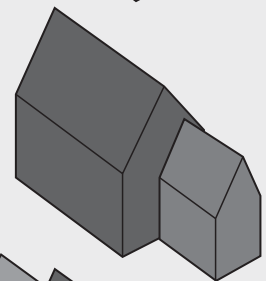
### BIG HOUSE

The kitchen, living room, and secondary bedrooms are located in the main volume.



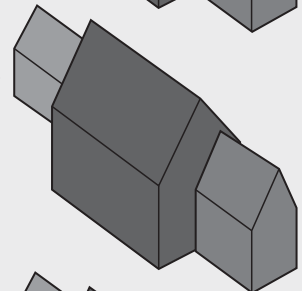
### LITTLE HOUSE

The dining room occupies the whole of this structure, which sits to the front of the main house.



### BACK HOUSE

This form feeds off the main house and is given to the master suite.



### BARN

The garage connects to the main volume and houses up to six cars.

