

# Family-Friendly Remodel

Contemporary details and a new floor plan turn a near teardown into a practical home

BY CALEB JOHNSON



**Facade reinvented.** The back of the house wasn't restored so much as it was reinterpreted. It now serves as the family's primary entry, while still retaining privacy and functional access to the backyard.



**K**aty and Bruce, recent transplants to Maine, were looking to live in a nice neighborhood in a hip, new energy-efficient house. They found the ideal neighborhood with little difficulty. The house didn't come so easily. After a stretch of renting, the two eventually came upon an old house that had been poorly renovated and was being used as a rental property. They bought it, not so much for the simplicity of its roofline and its proportions—which were among its only attributes—but rather for the quality of the neighborhood. The house was merely an affordable way to buy into it.

Given the condition of the house, Katy and Bruce were unsure about what could be accomplished. They debated whether it should be kept or torn down to start anew.

They settled on remodeling, though, and hired me to design an energy-efficient, modern home. Our goal was to use the bones of the old house to create a home in tune with the old New England neighborhood but with a warm, open, and modern interior.

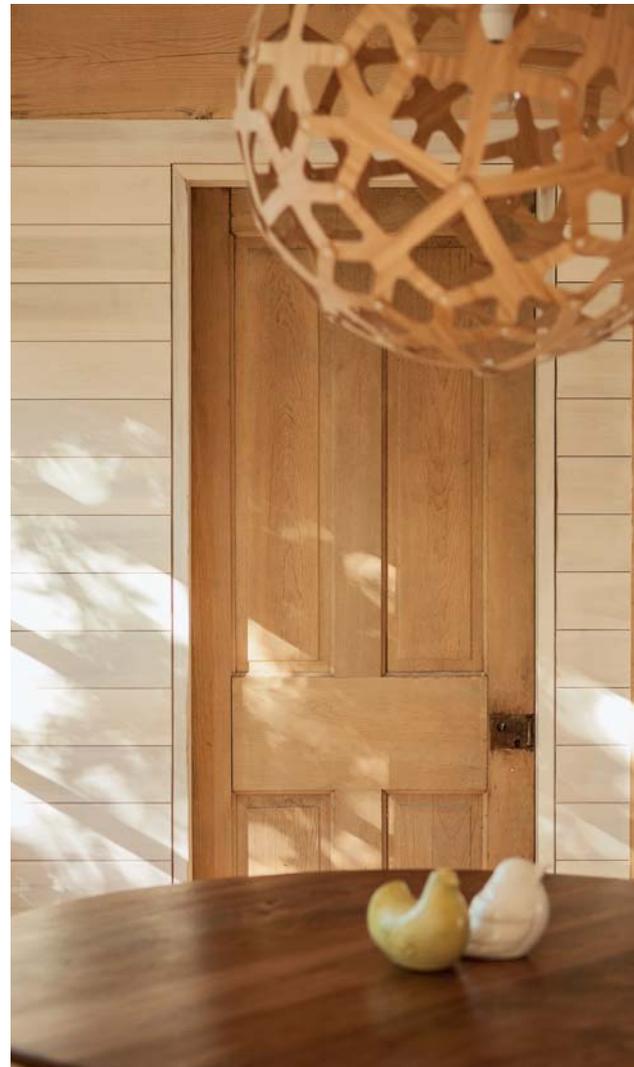
#### **A focus on the structure**

The exterior of the original home was comprised of a mix of old vinyl replacement windows, original wood windows, and peeling wood siding. The interior wasn't in any better shape. It had multiple layers of old flooring, some original-looking tin ceilings, and walls wrapped with a combination of old plaster, new wallboard, and 1970s wood paneling. An old oil-fired boiler labored away to keep the two-unit house heated through a sparsely insulated roof and walls.

Reducing the home's energy demand was high on the priority list. The original house was built with 2x4 stud walls, 2x8 roof rafters, and board sheathing that had tar paper and siding applied directly over it. Because we chose to salvage most of the siding, and because we didn't want to reduce the floor space by adding to the interior of the stud walls, our insulation options were limited. We chose to gut the interior and to fill the walls and roof with closed-cell spray foam. The roof is now an unvented hot roof. The house sits on a crawlspace, which we also insulated with closed-cell foam. This gave us a tight envelope with an R-14 foundation, R-22 walls, and an R-48 roof.

It was clear that this decision would pay off when we had Horizon Residential Energy

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## HOW TO SAVE ON A HIGH-END DESIGN

High-end design does not need to be executed with high-priced materials. All of the materials used in this project are relatively inexpensive, but they are arranged so that they stand out as highlights in the house's overall design.

### BEAMS

Green Maine-sourced hemlock beams are far cheaper than other options—Douglas fir, for example—and cost between \$80 and \$200 each.

### BEAM HARDWARE

Local metal shops weld the custom beam connections at roughly \$200 each. If a timber framer is part of the framing crew, not uncommon in New England, timber-to-timber joinery is even less expensive.

### CABINETS

Cabinetmaker Derek Prebble recommended kitchen cabinets made of plywood carcasses and painted MDF doors. This saved \$70 per door. The pulls are made of inexpensive pipe cutoffs, and the orange paint that really makes this kitchen a standout is Sherwin-Williams Raucus Orange.

### FLOORING

The flooring for this house is made of locally sourced ash at a cost of less than \$2 per sq. ft.



**DOORS**

Beat-up doors set against clean, neutral interiors with crisp new trim add a level of texture and narrative that can't be achieved with a new door. A few of the doors were acquired at no cost, while one was sourced through a salvage yard for less than \$100.

**STAIR RAIL**

The new stairway was built with simple, inexpensive (less than \$100 each) newel posts that complement equally simple ash handrails. The stainless-steel cable rail suggests a refined level of detail without adding mass to the stairway, allowing the space to feel more open.

**ENTRY POST**

At \$1500, this item wasn't inexpensive, but it immediately suggests the level of care and craft with which the house was designed and built. Details such as this, not used in excess but integrated wisely, can dramatically shape the feel of a home.

**TILE**

Slate is available locally for only about \$5 per sq. ft. For backsplashes and bathrooms, simple white subway tile from big-box stores looks good and costs less than \$2 per sq. ft.

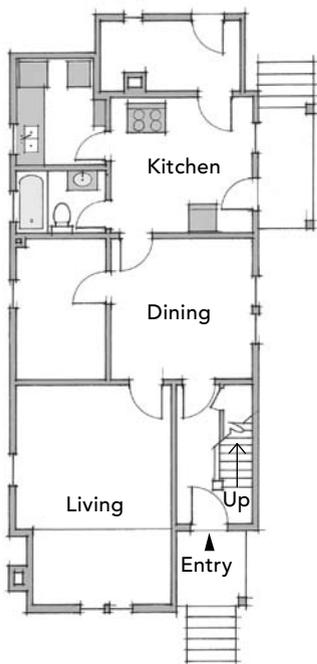
# A BETTER APPROACH TO A COMFORTABLE PLAN

Good designers shape homes around the client's lifestyle. In order to do that, I start by placing the furniture and cabinetry first, even before walls, doors, or windows. Once I have a comfortable arrangement, I design the space around it. I love kitchens where the foot traffic behind the island leads you directly outdoors, so here I placed the island first and then integrated a new sliding-glass door and large window immediately adjacent to it. I also encourage soft seating in the kitchen, so I made space for a large chair in one corner. Now someone can sit comfortably and read while observing the cook in the kitchen or the kids at the dining-room table. Similarly, the couch sits comfortably within sight of the kitchen and the dining area. A mudroom and an office help define the living room and make it feel more private.



**A new framework for living.** Hemlock beams help define the specific areas of the open floor plan. A muted, natural palette of local materials is brought to life with bursts of color to help make the house equally traditional and modern.

**First floor before**



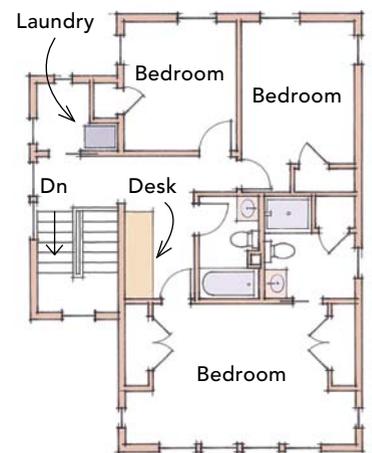
**First floor after**



**Second floor before**



**Second floor after**



North

0 4 8 16 ft.

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Services conduct a blower-door test. At 2.9 ACH50, it was the second-tightest home that they had tested at the time.

The following winter, Katy and Bruce burned only half a cord of wood in their new woodstove. Supplemental heat came from a new high-efficiency propane boiler. Their average monthly bill was only \$30, which included the energy for the domestic hot

water. During the most recent winter, brutal by anyone's standards, their monthly utility bills averaged \$40 to \$50, while their wood usage increased to just over a couple of cords for the season.

To keep a steady supply of fresh air circulating, a heat-recovery ventilator (HRV), which preconditions filtered intake air with heated exhaust air, was installed in the home's small attic. It satisfies the couple's concern for a

healthful environment for themselves and their young son.

## A new, casual plan

Katy and Bruce lead an informal lifestyle and wanted their home to reflect that. An open floor plan with easy access to the outside was a must. We worked hard to reconsider the layout and had to make some rather unconventional decisions. For instance, it was clear



**Comfortably apart.**  
The kitchen, dining area, living room, and office all open to each other, but they are organized and detailed also to serve as separate spaces for retreat.

from the beginning that the front door, which faces the street, would operate more like the back door and that the back door would be the primary entry. We moved the entry to a new small addition designed to house the stairs. Moving the stairs was a big change, but it improved access through the home.

The logic in the renovated layout was to have the major indoor and outdoor living spaces pinwheel around the kitchen

island, which is a common approach these days. While working in the kitchen, Katy and Bruce can keep an eye on their son no matter where he is on the main floor. Also, from every major living space, the outside is merely a step away. From the kitchen, Katy and Bruce can quickly access the deck and the backyard through new large glass doors. From the sitting area off the kitchen, they can step onto a small porch that is perfect

for enjoying morning coffee and reading the newspaper. From the living room, they can access the front porch, which is a perfect spot for relaxing and for participating in the life of the neighborhood they enjoy so much. This carefully choreographed indoor and outdoor relationship makes the relatively compact house function as a much larger home, and it provides greater access to the light and air that many Mainers crave.

### **A modern and traditional interior**

My inspiration seems always to come from materials in their natural state. My goal is to assemble them in a way that enables others to appreciate their character. Katy and Bruce allowed me to bring this sensibility to the design of their house, and nowhere is that approach more evident than in the interior living spaces, with their neutral palette of ash, maple, hemlock, slate, and steel.

I did not pursue a style so much as I tried to accept the existing parameters set by the home, by Katy and Bruce's lifestyle, and by their budget. I mixed this with my own principles about a transparent, honest use of materials and construction techniques, and I allowed the final result to speak for itself.

Katy expanded on the natural palette of materials, products, and finishes by adding punches of bright color, which skewed the house's interior style toward a more modern look. With most of the house subdued, the few bold moves make an impact without becoming overwhelming.

### **Design reflective of living**

People who have seen this project gravitate to it because of its comfortable union of different eras and styles. Traditional New England design is rendered in modern lines set amid rough timbers. I think this type of design approach speaks to the very nature of our lives. Rarely is life distilled into a single stream; rather, human experience is an eclectic mix of theories, aesthetics, and personalities. I encourage those I work with to allow this to come through in their homes. □

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