Same Space, Better Kitchen

Smart design and a clever cabinetmaker's techniques drive this cost-conscious remodel

Minimum charm. *Ripe for a remodel, the original space was cluttered and cramped. Adding insult to injury, the cabinets were falling apart.*

BY BRENT BENNER

I knew the homeowners were fed up with this kitchen the moment I saw its drooping white particleboard shelves and cabinets that looked like they held the weight of the world. A drawer front had fallen off and rested in a void between the base cabinet and the wall; it was the final straw.

In today's economy, everyone is trying to do more with less. Here, the homeowners wanted high-quality cabinetry that maximized storage without the costly expense of expanding the kitchen's small footprint.

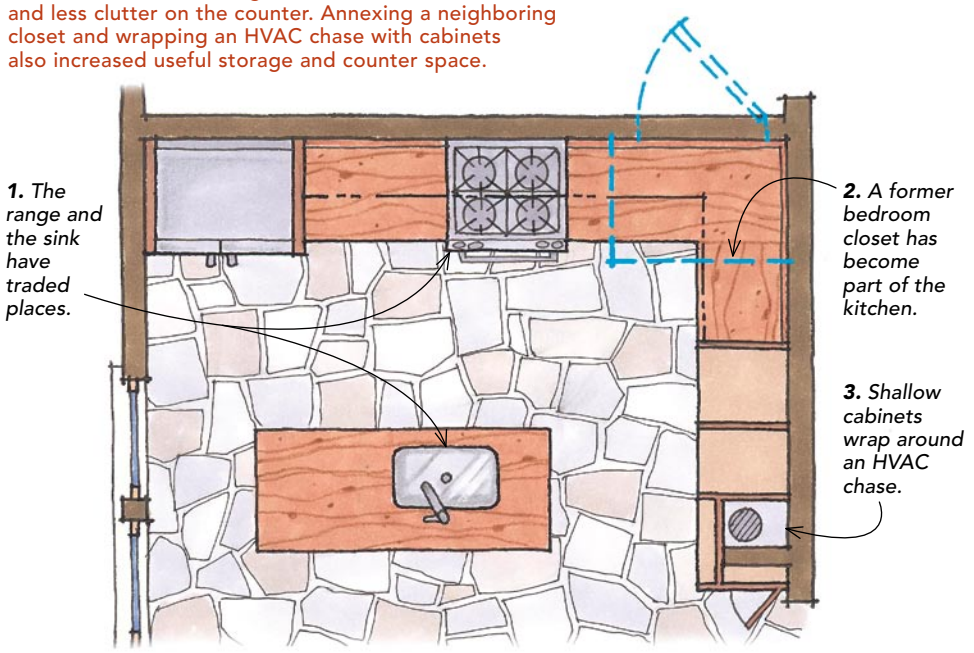
The line between budget and value

It's a challenge for many people to get the kitchen remodel they dream of at a price they can afford, so inevitably, they compromise.

Drawings: Martha Garstang Hill. Inset photo: Michele deMilly.

THREE MOVES FOR BETTER STORAGE AND MORE COUNTER SPACE

The original kitchen was small, and its cabinets offered little useful space, with inadequate storage and insufficient worksurfaces. Swapping the locations of the range and the sink was a subtle move that made a big impact. The sink got a view, the island became a more useful workstation, and the range was moved under a built-in microwave that offered ventilation and less clutter on the counter. Annexing a neighboring closet and wrapping an HVAC chase with cabinets also increased useful storage and counter space.



On this job, the homeowners and I made a number of cost-saving decisions that led us through the maze of this project.

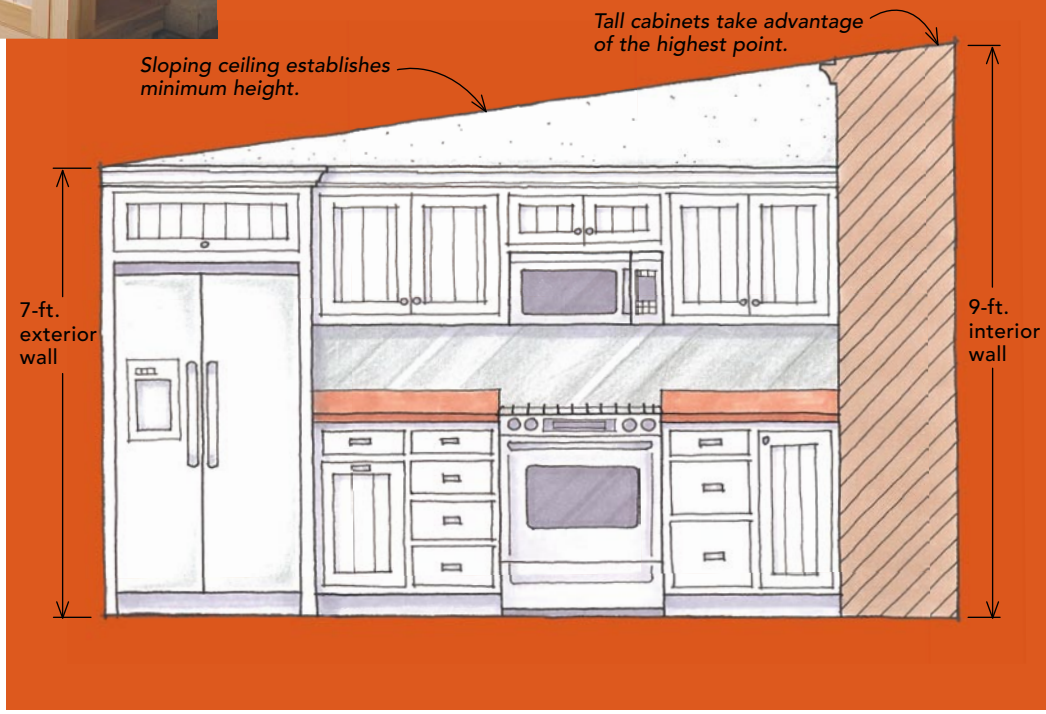
First, we decided to work with the existing space and footprint, maximizing a tall wall and annexing an adjacent closet. The ceiling climbs from 7 ft. on the east wall to 9 ft. on the west wall, where I installed floor-to-ceiling 22-in.-deep cabinets that serve as a pantry. I removed a small closet from an adjoining bedroom to gain valuable space at an inside corner. Taking over an adjacent closet can be a cost-effective way to gain utility in a kitchen without adding space. Generally, closet walls are not structural, and they don't have plumbing or electrical lines that need to be relocated. Another option for an adjoining closet is to relocate the door and then convert the closet into a kitchen pantry.

The next step was to decide what we wanted to keep. While there was no question that most things were headed for the Dumpster, the homeowners decided to keep the stone floor. For the fraction of the cost of a new floor, they had the old floor professionally cleaned and sealed before the new cabinets were installed.

The homeowners also decided to keep their refrigerator and dishwasher, which were less

Find every inch of storage

This kitchen, located under a shed roof, has a ceiling that rises from 7 ft. at the exterior wall to 9 ft. at the inside wall. To take advantage of the tallest part of the room, I designed cabinetry that extends all the way to the ceiling. I used pull-out shelf units to take advantage of the 22-in.-deep space **(1)** for pantry storage. Shelf locations are adjustable. At the right end of the cabinets, I hid an HVAC chase with two shallow cabinets fronted by doors identical to the pantry doors. At 5 in. deep, the spice cabinet **(2)** has just enough depth for small containers. Around the corner, the depth is a perfect fit for brooms and dustpans **(3)**.



than three years old. These appliances can be replaced as the need arises. On the other hand, the range and the microwave, which took a central spot in the new kitchen, needed to be updated.

The final compromises were made when we chose the cabinets and the countertops. Wary of the existing kitchen's particleboard and looking to maximize storage, the homeowners chose custom cabinets. While they were more expensive than stock cabinets, custom units could be built with any material and could be made any size. To keep costs in check, the homeowners chose paint-grade poplar and plywood.

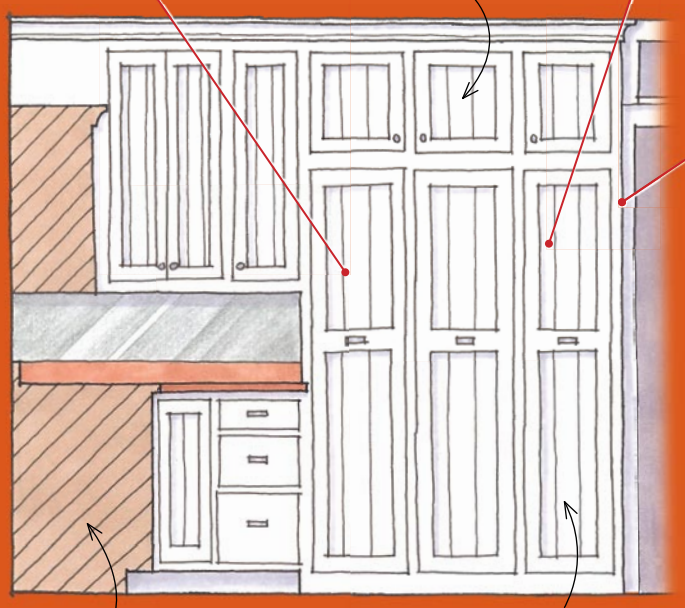
Although stain-grade cabinets would break the budget, the homeowners still were looking for the warmth and character of wood. Knowing that labor is a major cost in any project, they took an active role. During a search of a local architectural-salvage shop, they found just enough reclaimed wormy chestnut to make the countertops and even had the material delivered to my shop as part of the deal. I milled the lumber and fabricated the countertops (photo above), finishing them with multiple coats of Waterlox (www.waterlox.com), a wipe-on oil finish that the homeowners can reapply as needed.

Maximize storage with smart cabinets and quality hardware

First, to increase the amount of storage space, I made the upper cabinets 1½ in. deeper. The homeowners have a set of dishes that would not fit in standard 12-in.-deep upper cabinets, and I had to keep in mind the constraints of the built-in microwave.

Second, I used Blum's soft-close full-extension drawer slides (www.blum.com), which allow you to see the contents of an entire drawer and to access it easily. I also used a pantry-organization system from Häfele (www.hafele.com), which is essentially a rack with a heavy-duty slide mounted at the bottom of the cabinet and a guide at the top. The rack holds adjustable and removable trays while providing support for the door, which pulls out like a drawer and can be accessed from either side.

Finally, to maximize the space around an existing ductwork chase that could not be relocated, I built a shallow, 5-in.-deep spice



cabinet with a door that looks like the neighboring pantry units. Around the corner from the spice cabinet, I used the space for a shallow broom cabinet that encloses the side of the ductwork chase.

Custom cabinet details ease installation

The great thing about a custom kitchen is that not only can you customize the storage, but you also can build better cabinets. Construction begins with the boxes. In my cabinets, the top, bottom, and sides of the boxes

5 techniques for smarter construction and installation

Integral doorstops

I make the top and/or bottom edge of the cabinet carcase as a doorstop. First, I rip the intended piece 1/16 in. narrower than the rest of the carcase; then I apply a wood-veneer tape that hides the plywood's core. Lengthening the face frame creates a 5/8-in. (or so) rabbet for the door to stop against.

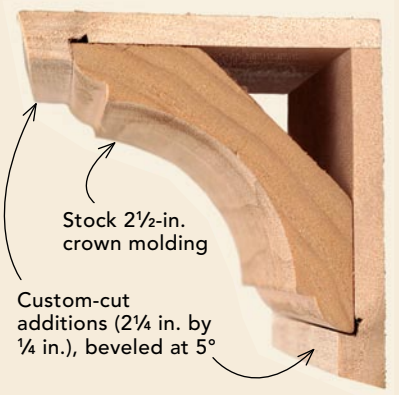
2 Bead the doors one at a time

It takes a little time, but cutting my own beadboard allows me to customize the width between the beads to the size of the cabinet doors. After gluing up poplar panels and cutting the rabbets along the panel edge, I used a molding cutterhead in my tablesaw to cut the beads. The cutterhead has interchangeable cutter profiles locked into the head with Allen screws. They're available from most tool catalogs or tool stores, starting at about $100.

3 When building base cabinets, separate the cabinet and its base

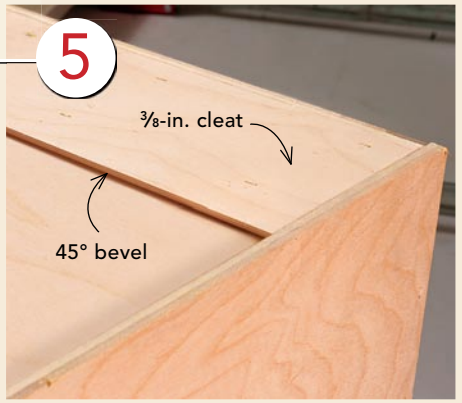
Most base cabinets are 34½ in. tall (without the countertop) and 24 in. deep. When I transfer 34½ by 24 to a piece of 4x8 plywood, I get only four pieces. If I build a separate 3½-in.-high base to support the cabinet, the dimensions of the cabinet sides become 31 in. by 24 in. Now I can get six pieces from one sheet of plywood. The separate base also allows me to level and fasten it to the floor before the cabinet is in place. This technique works well for base cabinets in a series because I can build one long base, level it, place the cabinets, and know that they are at the same height. This system also works well for cabinets that have legs that need to be scribed. I install the base, then add a ¾-in. plywood shim between the cabinet and the base. I then scribe the legs to the floor with a second ¾-in. scrap. After cutting the legs to the mark, I remove the plywood shim, and the cabinet sits flush to the floor.

Photos: bottom left (this page), top right, center (facing page): Chris Ermides



When stock moldings don't work, customize

The homeowners wanted a simple crown profile at the top of the cabinets, but we couldn't find the right proportions in a stock crown. Instead of having a custom profile cut, I bought a stock profile and added a thin piece to the top and bottom. Ripped on the tablesaw, the simple strips gave the profile the depth it needed.



Hang wall cabinets with a French cleat

This method combines an angled wall cleat and a mating cabinet back. As always, I mill a ⅝-in.-deep rabbet in the case and install a piece of ¼-in. Baltic-birch plywood in back. Then I apply a piece of ⅜-in. Baltic-birch plywood across the top with the bottom edge ripped at a 45° angle (photo above left). I notch the cabinet sides (photo above right); then I level and attach a mating piece of angled ⅜-in. plywood to the wall studs. I prefer to use a single long cleat for multiple cabinets; I can level one cleat, then slide each of the cabinets down the cleat along the wall. Adjustments can be made without removing the cabinets. Once the cabinet is plumb, I screw it from the inside, through the cleat, and into the studs.

are made of ¾-in. maple or Baltic-birch plywood. A series of rabbets, dadoes, screws, and glue hold the components together. To support the weight of the upper cabinet better, I add a beveled piece of ⅜-in. plywood to my standard ¼-in. back. This method (sidebar left) is known as a French cleat.

The cabinet face frames are made from poplar. I mill a ¼-in.-dia. edgebead into the stock to add a simple detail around the doors and drawers (see "Master Carpenter," *FHB* #200, and online at FineHomebuilding.com). The frames are joined with pocket screws and glue; then the entire frame is fastened to the plywood case with biscuits and glue.

Once the face frames and cases are complete, I build the doors. I use a cope-and-stick router-bit set to mill the door-frame stock. The homeowners wanted a solid-wood beadboard panel, so I glued up ¾-in. poplar stock for each panel, then ripped the panels about 3/16 in. narrower than the frame's panel groove to allow for seasonal movement. After I cut the edges to fit the groove in the door frame, I milled the beads into the panel with a molding head installed in the tablesaw. I sanded and primed the panels before assembling the doors. Another option for the panels is medium-density fiberboard (MDF); it takes paint well, mills easily, and is relatively stable.

For drawer boxes, I prefer solid maple that I dovetail with a router and a jig. In small drawers, I use ¼-in. Baltic-birch plywood for drawer bottoms; for larger drawers meant to carry pots and pans, I use ⅜-in. plywood. Once the drawer and slides are mounted in the cabinet, I mill the drawer front and fit it to the face frame. I tack it in place with a 23-ga. pin nailer, then open the drawer and install screws through the maple box and into the drawer front to secure it.

Crown molding finishes the top of the cabinets. It's sometimes difficult to choose a molding profile that complements the proportions and the style of the cabinetry. Here, the homeowners liked the simple cove and quarter-round in a stock crown, but that style was too small for the proportions of the cabinets. It was easy to mill some extra pieces on the tablesaw and then add them to a stock crown rather than to custom-mill a new molding. □

Cabinetmaker Brent Benner lives in Roxbury, Conn. Photos by Charles Bickford, except where noted.