



Barbecue island

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Barbecue

Make your own all-weather cooking island with wood framing, stone veneer and stone tile

Want to transform your ordinary patio into an attractive gathering spot for family and friends? Build this handsome grill and table combo and watch the crowd flock around like birds at a feeder.

This grill island design easily adapts to the size of grill you want, then surrounds it with ample counter surface to hold food, spices and pans. Under the grill, there's plenty of space to hold the 5-gallon propane canister and the barbecue tools. For dining, the tabletop features a 14-in. overhang on two sides to comfortably seat four adults. And underneath the tabletop is added storage, perfect for a cooler or

other items. We wrapped these features in a weather-resistant tile top and stone veneer walls to deliver a low-maintenance and attractive patio feature that will last for decades.

In this article, we'll show you how to build a simple treated 2x4 and plywood frame, as well as how to lay the tile tabletop and grill surround and how to set the stone.

This project isn't for the novice. You should have some basic experience with carpentry tools and setting tile. Masonry experience will help too, but with some practice and attention to detail, you'll get the hang of applying stone veneer.



island

by Kurt Lawton



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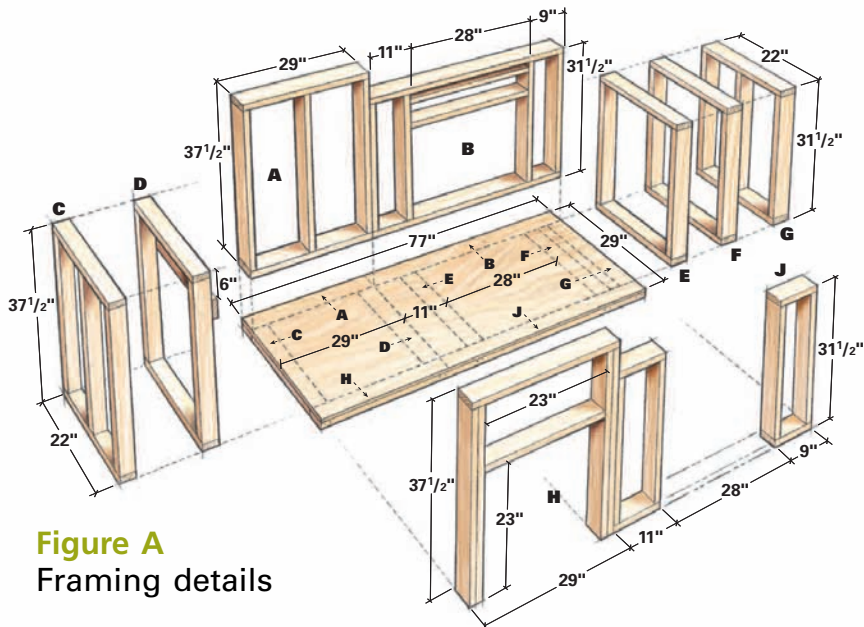


Figure A

Framing details

Tools and materials

In addition to carpentry tools, you'll need masonry and tile tools (**see photos**). The only special tools you need are a diamond wet saw to cut tile (\$45 per day to rent), plus a 4-1/2 in. grinder (\$60) or circular saw with a diamond-grit blade (\$30) to cut the stone. All the tools are available at home centers.

This is an expensive project. We spent \$1,500 on wood, stone, tile and other materials, and \$2,210 on a mid-level stainless steel grill and two stainless steel doors. While the price may seem a bit steep, you'd pay three to four times that total or more for a custom-built grill island. With all the materials on hand, plan to spend three weekends on the project.

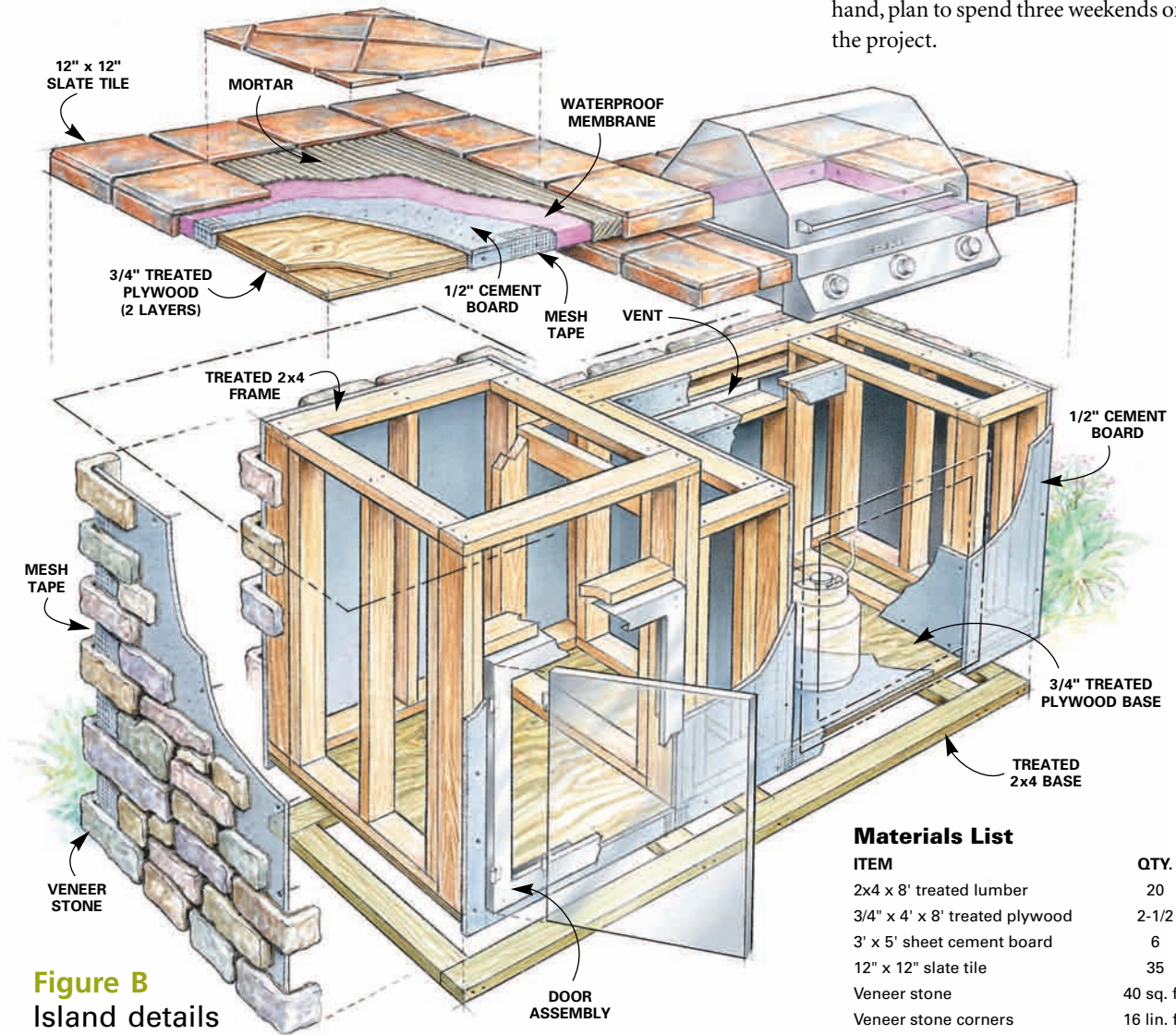


Figure B

Island details

Materials List

ITEM	QTY.
2x4 x 8' treated lumber	20
3/4" x 4' x 8' treated plywood	2-1/2
3' x 5' sheet cement board	6
12" x 12" slate tile	35
Veneer stone	40 sq. ft.
Veneer stone corners	16 lin. ft.

Planning

We designed a two-level island with grill and seating room for a family of four. Its base size is approximately 2-1/2 x 6-1/2 ft., but you can easily expand it. To picture how the island will fit on your patio, tape cardboard or paper together in the size you desire and position it on the patio. To seat more people, lengthen the tabletop by 2 ft. per person. However, don't increase the overhang beyond 14 in.

The exact dimensions of your plan will probably vary from ours, unless you select the exact same grill and doors (see Buyer's Guide). So, your first task is to buy the grill, trim kit and doors you want. Then adjust the frame design to fit them. Remember to allow space for opening the grill hood and doors, as well as to correctly position the vent location for the grill you choose. Then resize/redesign **Figure A** as needed.

TIP Don't rely on the manufacturer's instructions for grill and door measurements. Measure the pieces when you get them.

Choosing tile and stone

Select a surface for the grill surround and tabletop that can handle food stains and weathering. Stone or tile is best because it's durable and requires little maintenance.

Granite is the best stone choice because it's naturally resistant to heat and stains, plus it's smooth, easy to clean and very durable—but it is expensive. We chose slate because the rustic look fit our patio. The drawback to slate is that the surface is a little uneven, and it must be sealed to resist stains.

Glazed or unglazed tile is also acceptable for outdoor countertops; just check with the supplier or manufacturer to determine if sealants are needed. And in cold climates, frostproof tiles are best.

For the sides of the island, buy natural thin-veneer stone or manufactured stone (made of concrete that's cast to



1 Cut treated 2x4s and plywood for the base according to the dimensions in **Figure A**. Predrill and countersink 2-1/2 in. deck screws through the long sides and into the ends of the cross braces. Then apply a generous bead of construction adhesive.



2 Lay 3/4-in. treated plywood on top of the 2x4 base and make all edges flush. Drive 1-5/8 in. exterior screws every 8 in. along the 2x4s.



3 Build all 2x4 wall sections (A – J, **Figure A**). Attach back wall pieces A and B to the base and to each other with 2-1/2 in. deck screws driven every 8 in.

4 Screw in the end walls (C and G), then add the middle partitions (D, E and F), making sure they're square to the long side. Attach all to the base and to each other.



5 Install front pieces H and J and secure with screws. Square all panels, adding temporary braces if needed.



6 Measure all walls and cut 3 x 5-ft. cement boards to fit. Score boards on both sides with a carbide-tipped cutting tool and simply snap apart.



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look like real rock). The natural stone will cost approximately 25 percent more than the concrete type, and it's also heavier, which adds a little more challenge when you apply it. Both are available in a variety of styles. Buy the type that best fits with your countertop and patio.

To determine the quantity of veneer stone you'll need, calculate the square footage of the walls and add 10 percent. You'll also need to know the total length of all corners on your island, because you order corner pieces separately. For our island, we used approximately 40 sq. ft. of thin-veneer stone and about 14 linear feet of corners.

CAUTION:

Since wood is flammable, check the grill instructions for safety guidelines, and ask a local building inspector to approve your plan.

Start with the base frame

For this island, we crafted a sturdy base frame out of treated 2x4s and 3/4-in. treated plywood, and we protected our wood framework by fully encasing the grill enclosure with 1/2-in. cement board.

Assemble your island on a solid foundation: Either pour a 4-in. thick concrete pad for it or position it on a solid patio like we did. (See "Replace a Concrete Pad," May '99, p. 87. To order a copy, see p. 7.) It's heavy. Once you build it, it's almost impossible to move.

To assemble the base, position the cross members directly underneath the wall components, which you'll screw down into them (**Figure B** and **Photo 1**). Then glue and screw on the plywood top (**Photos 1 and 2**).

Next, nail or screw together all the wall sections (A – J, **Figure A**). These sections are designed as individual components—a taller table section and a shorter grill section—so you can easily build them in your shop or garage and then assemble them on the patio. And, you can easily customize specific pieces

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to fit the doors and grill you buy. Be sure to account for the 1/2-in. cement board layer when adjusting the grill area dimensions.

Attach the back sections first (**Photo 3**), followed by the side walls and middle sections (**Photo 4**), and finally the front two sections (**Photo 5**). Attach wall sections to each other with 2-1/2 in. deck screws. Make sure all the walls are square before adding the cement board.

To complete the sidewall framework, screw cement board to the outside walls of the island frame, as well as to the entire inside of the grill enclosure (**Photo 7**). Pick up a box of special 1-1/4 in. cement board screws when you buy the cement board. Keep the cement board 1/2 in. above the patio surface, and maintain tight corners and joints. We used a carbide cutting tool (see **Photo 6** and the Buyer's Guide) to score and snap clean, straight edges on the cement board. But you can get by with a utility knife.

Add the tabletop and the cement board

To achieve a solid tabletop for the slate tile—stiff enough to support a 14-in. overhang on two sides—screw down one 3/4-in. piece of treated plywood (4 x 4 ft.), add construction adhesive, then screw a second piece to it (**Photo 8**). Add 2-1/2 in. strips of cement board to all sides, then top it off with a layer of 1/2-in. cement board. Follow the same procedure for the grill area. Be sure to cover the edges along the grill opening with cement board as well (**Photo 9**).

Check to see if the unit is level and add composite wood shims under a corner to shore it up (**Photo 9**). Odds are good your island slopes slightly, since patios are built to slope. Once the unit is level, shove in additional shims along the base for more even support.

Next, tape all cement board joints with fiberglass mesh tape (**Photo 8**). Mix a batch of thin-set mortar and acrylic mortar additive (per directions).



7 Screw cement board on all exterior wall surfaces with special 1-1/4 in. cement board screws spaced about every 8 in. Also encase the interior of the grill area with cement board so no wood is exposed.



8 Cut both 3/4-in. treated plywood tabletop pieces. Position the first sheet and fasten it with 1-5/8 in. exterior screws. Then add adhesive and screw down the second sheet flush with the first.



9 Cut cement board and screw it onto the tabletop and edges, and to the grill surround top and edges. Lay cement board fiberglass tape over all joints, then spread thin-set mortar over the top. Let dry. Then check for level and add shims every 12 in. around the perimeter of the base as necessary.

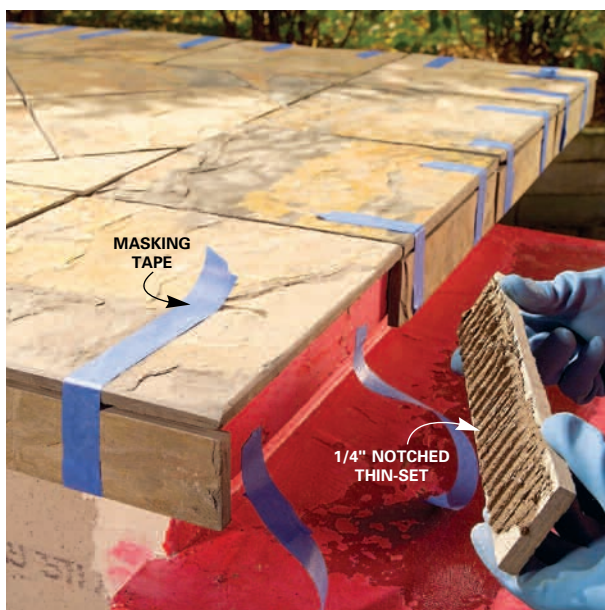
10 Brush a special waterproofing compound on the table and grill surround top. After it dries, lay out the tile pattern so the edges of the tile overhang the top by the thickness of the tile. Draw guidelines, then cut the tile to fit your pattern.



11 Remove the tile, spread thin-set mortar and comb it with a 1/4-in. notched trowel. Then set the top tile. Make sure the overhangs are even.



12 Cut the tile for table edge, then add a pair of masking tape strips as shown. Apply thin-set to each edge piece and press onto table edge. Loop tape up and over it to hold each piece securely until the mortar sets.



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Trowel on a thin coat over the tape, filling the joints.

After the mortar dries, brush on a special waterproofing compound (called a membrane) over the tops (**Photo 10**). It'll keep water from reaching the wood frame. This special compound is available only through tile specialty shops.

Lay the tile

If you plan the tile layout well in advance, you can adjust the plywood top size for the best-looking fit. We made our finished tabletop 48 in. square (46-in. square plywood) and used 12-in. tile to keep cuts to a minimum. We made only four cuts for the whole top to create the diamond pattern in the center. The cutoffs exactly fit the corners (**Photo 11**). You'll need a diamond blade saw for clean cuts.

Cut and lay out your entire tabletop tile pattern before setting it (**Photo 10**). The rustic slate tile we used (see the Buyer's Guide) doesn't require exact spacing, so we could eyeball the tile placement instead of using spacers.

Complete the tile layout, then remove it and mix up a batch of thin-set mortar with acrylic additive. Use a 1/4-in. notched trowel and set the tile (**Photo 11**). To hold the edge tile on the table, use masking tape looped from underneath the tile (**Photo 12**). Let the mortar harden overnight. For more details on setting, grouting and sealing tile, see "Tile Countertops," Oct. '03, p. 34. To order a copy, see p. 7.

TIP If frost occurs in your area, use a butyl latex mortar additive because it offers better protection against water and freeze/thaw cycles.

Before you apply grout, take an angle grinder and bevel off any sharp edges (**Photo 13**). To grout the slate tile, use a grout bag (**Photo 14**). Grout is forced only into the joints, rather than being spread over the entire surface. This greatly eases cleanup.

13 Grind off sharp tile edges with 80-grit silicone carbide sandpaper, then finish it with 120-grit sandpaper.



14 Squeeze grout from the bag with enough force to push it down between the tiles. Let it dry until it doesn't stick to your finger, then push it into the joint with a trowel. Scrape off the excess.



15 Install the stainless steel doors, then start the first stone layer with a corner piece. Butter it with mortar and press it into place with a wiggle. Use shims underneath the stone to hold it about 1/2 in. above the patio.



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Use a grout mortar mixed with acrylic or butyl latex additive, and mix it to the consistency of pudding so it will flow through the bag. Cut the grout bag opening slightly smaller than the joint, then force the grout into the joint so it fills from the bottom up. Once the grout stiffens to the point that you cannot see a thumbprint (15 to 30 minutes), press it into the joint with a margin trowel. Let it dry 20 more minutes, then cut the excess off the surface with the edge of the trowel. Clean the surface of the tile with a sponge and water.

Finally, after the grout has dried for about a week, apply a sealer that's appropriate for the tile you select. Ask your tile retailer for the best product.

Install the grill and doors, then the stone facing

Before you begin the stonework, attach both the grill and the doors. Be sure to hold the stone up next to the doors as a thickness gauge to ensure they will open without binding.

Next, grab several dozen stones from the open boxes and lay them on the patio to give yourself a wide variety of size and color choices. Mix up a gallon of mortar using one part Type M or N mortar with one part washed or masonry sand. Mix the dry ingredients first, then add enough water so the mix is the consistency of soft mud and will hold a ball shape.

Lay cardboard at the base of the wall to prevent mortar drips from staining your patio. Start with a corner piece and "butter" its backside with an evenly spread layer of mortar, 1/2 to 3/4 in. thick. Push it into place with a wiggle (**Photo 15**). Working from the corners to the middle, add stones row by row from the bottom up, maintaining a 3/8-in. to 1/2-in. gap between stones and between rows (**Photo 16**).

Cut as few stones as possible, because cut edges look less natural and cutting slows the process. Always dry-fit the next two to three stones ahead. Use

16 Work from corners to the middle, staggering vertical joints between rows of stone. Cut stone using a circular saw or angle grinder equipped with a diamond blade.



17 Support rows with small stones placed in horizontal joints. If a stone slips, you can drive a temporary screw underneath it. Finish by adding grout with a grout bag (Photo 14).



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stone chips to support the spacing between rows (**Photo 17**).

Once the stones have set for 24 hours, it's time to grout. Mix one part Type M mortar (not Portland cement) and three parts washed or masonry sand, adding enough water for a mashed potato consistency so it flows when you squeeze the grout bag firmly (without the metal tip). If the grout drips onto the stone face, don't remove it until it stiffens. Otherwise, it'll leave a smear that's difficult to remove.

Once the grout stiffens to the point that you cannot see a thumbprint (15 to 60 minutes), rake the excess grout back about 1/2 in. from the face of the stone with a 3/8-in. wide trowel. Then brush away any loose remaining mortar with a paint brush. For more specific details on setting stone, see "Wood and Stone Deck," July/Aug. '01, p. 50. To order a copy, see p. 7.

All you need now is a canister of propane to fire up the gas grill so you can enjoy the meat and vegetables of your labor. 

Buyer's Guide

You can purchase a grill, trim kit and doors just like ours by going to www.ducane.com to find a retailer near you, or call (800) 382-2637. The grill is a Ducane Stainless Series, model 7200R (rotisserie), plus trim kit to match. The doors are No. 7200 (under the grill), and No. 7100 (under the table).

Our 12-in. slate tile is called California Gold and can be found at many specialty tile shops.

The thin-veneer natural stone we used is called Fond du Lac Country Squire LedgeStone. Find a retailer near you by visiting www.buechelstone.com or call (800) 236-4474.

The cement board scoring knife (\$8) we bought at Home Depot (SKU 290432, also QEP10015) is made by QEP Tiling Systems, www.qep.com, (800) 777-8665.

The waterproofing membrane we used is called Redgard, www.custombuildingproducts.com, (800) 272-8786

