

Install Decorative Urethane Shutters for Years of Low-Maintenance

Extreme How-To®

The Enthusiast's Guide to Home Improvement

OUTDOOR PROJECTS

FENCES, DECKS & HANDRAILS

PLUS:

SIMPLE REPAIRS FOR **ASPHALT ROOFS**

INSTALLING A NEW HANDLE-SET IN AN ENTRY DOOR

FRAME A NEW HOME OR ADDITION FOR **ENERGY EFFICIENCY**

Summer Digital 2015
www.extremehowto.com



TG
KIK
PRO SERIES

www.MyTGTools.com

YOUR ONE SOURCE SOLUTION

**FASTER
EASIER
CLEANER**

KIK® Forstner Bit

KIK® HS Brad Point

KIK® Spade Bit

**135° Split Point start from Contact
3-flat shank, less chuck slippage**

Concrete

High Speed

**Titanium
Coated
High Speed**

Heavy Duty

Solid Cobalt

S&D

**Stronger, Faster
Less Walking**

General Purpose

Longer Lasting

**Heavy Duty
Steel Usage**

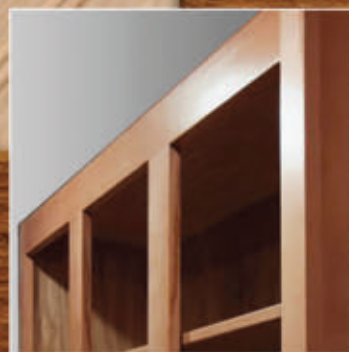
**Heavy Duty
Steel Usage**

**Special Use Heavy
Duty Steel Usage**

www.MyTGTools.com/kik1.php 1-800-687-4122

TG® Tools • 1010 Cedar Ave. • St. Charles, IL 60174 • ph 800-687-4122 • fax 630-584-4722

Face it!



This is *the* cutting-edge Face Frame Jig System

**Clamp, drill and fasten
in one simple set-up!**

This easy-to-use system increases productivity by simplifying fabrication of face frames, cabinet doors and other woodworking assemblies.

You can't afford not to have one.

Get yours now at:

generaltools.com/faceframejig



Specialty Tools & Instruments

Precision, Specialty & Innovation...since 1922

tel. 800-697-8665 | www.generaltools.com



Visit Us At:



JULY 22-25, 2015
LAS VEGAS CONVENTION CENTER
LAS VEGAS, NEVADA
www.awfsfair.org

Booth #4707



General Tools & Instruments



GeneralToolsNYC

Check out General's full line of woodworking jigs



Crown King Crown Molding Jig

helps you make seamless, perfectly mitered interior and exterior corner joints.

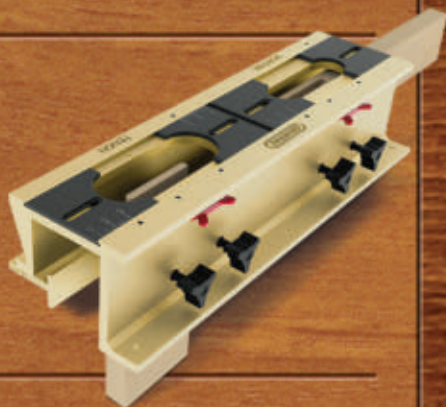
#880



The E•Z Pro™ Mortise & Tenon Jig

lets you make perfectly matched mortise & tenon joints with one jig.

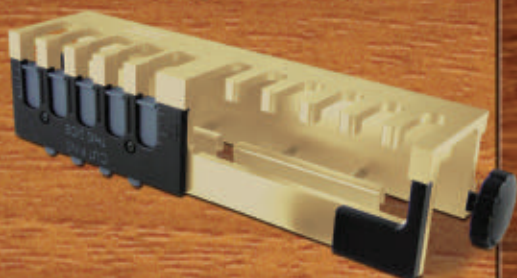
#870



The E•Z Pro™ Dovetail Jig

lets you make dovetail and box joints – through or half-blind.

#861



The E•Z Pro™ Pocket Hole Jig

has everything you need to make flush, corner and angle pocket hole joints.

#850



The E•Z Pro™ Doweling Jig

lets you make perfectly aligned dowel joints every time.

#851





TG
KIK
PRO SERIES

www.MyTGTools.com

YOUR ONE SOURCE SOLUTION

**FASTER
EASIER
CLEANER**

KIK® Forstner Bit

KIK® HS Brad Point

KIK® Spade Bit

**135° Split Point start from Contact
3-flat shank, less chuck slippage**

Concrete

High Speed

**Titanium
Coated
High Speed**

Heavy Duty

Solid Cobalt

S&D

**Stronger, Faster
Less Walking**

General Purpose

Longer Lasting

**Heavy Duty
Steel Usage**

**Heavy Duty
Steel Usage**

**Special Use Heavy
Duty Steel Usage**

www.MyTGTools.com/kik1.php 1-800-687-4122

TG® Tools • 1010 Cedar Ave. • St. Charles, IL 60174 • ph 800-687-4122 • fax 630-584-4722

We Put a **KIK**® in Your Boring Tasks!

6 Cutting Edges

The revolutionary **KIK**® Spade Bit has over 30% more cutting surface making them much faster and longer lasting than standard spade bits. There is no protruding tang to bend or break allowing these bits to even bore non-ferrous sheet metals and curved holes too! Tested and Proven Superior by an Independent Lab.

Plastic

Brass

Acrylic

6 Cutting Edges

KIK® HS Brad Point

Independent Lab Tested and Proven
Designed for Drilling Sheet Metal, Wood and Plastic Faster, Cleaner with Longer Life and no Walking on the Surface.

In Wood:

- **Approximately 100% Faster** Compared to Common Brad Point
- **40% Faster** Compared to Standard Drill Bits

In Sheet Metal:

- **50% Cleaner Entry**
- **Consistently Round Hole**
- **20% Less Walking**

In Acrylic:

- **No cracking** Drilling Acrylic
- **150% Faster** Compared to Standard Drills
- **690% Faster** Than Other Brad Points

KIK® Forstner Bit

Proven Superior by an Independent Lab
Cleaner Entry and Exit

9 Cutting Edges
3 on Each Blade

- **Titanium Coated**
- **3-Flat Shank**
Open Head Design for no Clogging
Easy Drilling and Direction Control

- **Bores through Hard Woods 100% Faster** Compared to Standard Forstners

- **Bores**
- **Mills**
- **Routes**
- **Cuts**
- **Bores Curved Paths**
- **Channels**

- **Bores Through Acrylics Cleanly Without Melting**
Able to Bore 90 Degree Curved Paths

www.MyTGTools.com/kik1.php **1-800-687-4122**

TG® Tools • 1010 Cedar Ave. • St. Charles, IL 60174 • ph 800-687-4122 • fax 630-584-4722

CONTENTS



24



46

FEATURES

24 Decked Out in Vinyl

A PVC decking and handrail system serves as an attractive, low-maintenance alternative to traditional building materials.

36 Strong and Stylish

Decorative accessories take a wooden deck handrail to the next level.

46 Building a FenceScape

Fences are game-changers—for homeowners and their neighbors. Here's a composite alternative to the traditional wooden fence.

54 Shutters, to Think

Replacing your shutters? Consider installing decorative urethane shutters for years of low-maintenance curb appeal.

COLUMNS

6 Q & A

10 Do-It-Yourself

Installing a New Handle-set in an Entry Door

16 Spot Light

Frame a New Home or Addition for Energy Efficiency

DEPARTMENTS

64 Skill Savvy

Simple Repairs for Asphalt Roofs

70 Hot Products

Create Exceptional Outdoor Living Spaces with Fast Driving, Code Approved ÜberGrade Fasteners from GRK™



R4™ Multi-Purpose Framing Screws



Frame with Ease and Confidence



RSS™ Rugged Structural Screws



Speedy Lag Bolt Alternative with Immense Drawing Power.



FIN/TRIM™ Trim Head Screws



Smallest Head on the Market for a Clean Finish.



KAMELEON™ Composite Deck Screws



TREX SELECT® APPROVED

*No Pre-Drilling.
No Mushroom Effect.*

Drive with Speed, Quality and Confidence

FASTER INSTALLATIONS- no pre-drilling. Innovative, patented features are specially designed to reduce torque and bite instantly for effortless fastening.

NO STRIPPING, NO SPLITTING, NO HEAD POPS- no wasted time on the job site. High tensile, torque and shear strength allow for immense drawing power out performing most other competitive fasteners.

BUILDING CODE APPROVED- for structural use in treated lumber. All GRK screws have been evaluated for structural and AC257 corrosion resistance to be in compliance with IBC/IRC specifications. That's why all our fasteners come with a limited lifetime warranty, so you can rest assured your installations will withstand the test of time.

GRK
FASTENERS™
ÜberGrade



**For a Special 25th Anniversary
FREE Test Drive, Visit us at:**

800.263.0463 WWW.GRKFASTENERS.COM



Q: We have roll roofing on a garden shed. During a storm a tree branch fell and stabbed a hole in the roofing material. What's the best way to repair the hole?

A: If the roof deck is in good shape, then it should be a fairly straightforward repair. Roll roofing is typically made of the same material as asphalt shingles, but it can be cut into strips. For small holes, it might suffice to clean out the damaged area and fill it with roofing tar or roof sealant. Larger areas of damage may require you to cut out the damaged area and replace it with a new section of roll roofing. (If the underlayment is damaged then replace that, too.) Overlap the existing roofing by 6 inches on the sides and 3 inches at the top and bottom. Install it with roofing cement and roofing nails as you would for any new roof installation.

.....

Q: I installed a 2x2-foot dry-wall patch into a ceiling, but it turns out the piece is too thin and has a "pushed in" look, compared to the original. The difference is about 1/8 inch. How I can fill the dip in the drywall?

A: It's common for ceilings to utilize 5/8-inch drywall while the walls are 1/2 inch, which would account for the difference in thickness that you're experiencing in your ceiling patch. You have three options: Remove the patch and replace with 5/8-inch drywall; push out the patch from behind with furring strips; or, fill in the void with several thin coats of drywall compound. If you choose the latter, use a setting type compound for heavy fill coats. You can do a final skim coat with standard ready-mixed joint compound.

Your Healthful Home...Our Priority!



Mold Detection and Protection





5-Minute Mold Test

- No need for costly inspectors
- Like no other DIY test on the market!
- Detects over 32 unhealthy mold species... including *Stachybotrys chartarum*
- Free professional consultation with positive result

Results in as little as 5 minutes

Highly Effective Mold Killing Action and Lasting Protection

Spray Cleaner

- EPA Registered
- Innovative enzymatic formula
- Independently tested & proven
- Kills in minutes
- Months of lasting protection
- Safe for your family and pets
- Restores indoor air quality
- Anti-allergen
- 100% biodegradable





SAFE ON ALL SURFACES



Aerosol Fogger

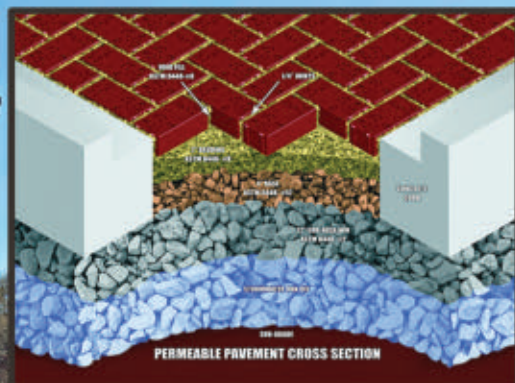
- Hard to reach places
- No exposure risks
- Ideal for use in attics and crawl spaces
- Safe on all surfaces
- Sprays at any angle

Visit us at www.HomeMoldTest.com

HARDSCAPE ON TOP

StormPave...it's like hiding your retention pond under your hardscape.

With a BMP installation, you can have a traditional clay paver hardscape and storm water storage too. StormPave permeable clay pavers have been independently tested to have an infiltration rate of 720 inches per hour.



From the base storage, storm water can dissipate back into the soil or be routed to underground tanks to be used for landscape irrigation. Either way, you don't have to give up valuable real estate for a retention pond.

800.334.8689

www.americaspremierpaver.com

www.pathwaycafe.com

WATER STORAGE BELOW

Q: While visiting a restaurant I noticed the walls had a faux finish with vertical striations like wood grain or the texture of certain plant leaves. I liked the warm and organic look. How is this accomplished?

A: We've seen a faux finish like this accomplished with a tire brush. Just like it sounds, a tire brush is designed to scrub automotive tires, and it comes in a variety of sizes and bristle textures. The coarseness

of the bristles will determine the size of the striations in the faux finish texture. This is a "negative" technique, in which a glaze is applied over the painted wall and the texture is achieved by removing the glaze to reveal the complementing paint color beneath it. For a tire brush negative effect, pull the brush downward across a wet glaze to create the thin parallel lines, similar to a wood-grain effect.

Q: What's an effective method to kill clover on my lawn? I don't like the little white flowers that attract insects.

A: Clover is a low-growing perennial weed that infests lawns across the U.S. Depending on where you live, a preemergent weed-and-feed product can be an effective preventive measure. If you have St. Augustine grass or carpetgrass, make sure to select a product that won't harm them. To spot-treat clover, you need an effective post-emergent weed killer that won't harm your grass. Some weed killers are specially formulated for southern lawns. Always follow the directions for application on the label. **EHT**

THE BEST PORTABLE TOOL STORAGE AVAILABLE

Water
Resistant

Lockable

Rolls
Anywhere



Stop Lifting and Start Rolling!

- High volume tool storage and transport
- Takes the work out of carrying tools and parts
- Double wall polyethylene durability
- Store - Lock - & Roll tools and supplies to the job IN ONE TRIP!



1-800-KADDIES (523-3437)

WWW.KADDIES.COM

Live the Outdoors!®

DIY FRIENDLY COATINGS WITH CONTRACTOR GRADE RESULTS

Superdeck protects and beautifies all your outdoor wood structures, allowing you to spend less time on projects and more time enjoying your home improvements.

SUPERDECK WOOD STAINS

- Oil based formula penetrates deep into the wood
- Choose from transparent, semi-transparent and solid color coatings
- Superior protection and water repellency
- Maximum UV protection
- Easy to use



DUCKBACK.

Live the Outdoors!.

1-800-825-5382

www.superdeck.com

First Impressions

Installing a New Handle-set in an Entry Door



Shown is the new Addison handle-set from Schlage.

handle with a more modern style, can spruce up an entryway for a whole new look.

Installation of a new door handle-set can be a quick and simple project, especially if you're installing in precut knob holes. However, in some cases the pre-cut holes are actually located too low for comfortable use of a latch handle, so compare the hole's height with the recommended installation height of a handle-set; a knob may be more appropriate for some pre-cut doors.

If the holes aren't precut, then you will need to cut the holes using a hole saw, a spade bit and a powered drill. Aside from that, the only tools required are a Philip's head screwdriver, hammer, tape measure, wood chisel and a smaller drill bit for drilling the handle's lower through-bolt.

The methods of installation shown here are specific to the Addison style handle-set from Schlage (www.schlage.com). However, the procedure will be similar for other manufacturers' handle-sets. The Addison handle-set is available with a variety of interior knobs and levers, and comes in several finishes, from satin nickel and aged bronze to bright chrome and matte black.

IN WITH THE NEW

For this project we replaced an old handle-set that was more than 20 years old and falling

by Matt Weber

They say you never get a second chance to make a first impression, and a home's entryway is the focal point that any visitor will notice first. Whereas a simple doorknob

often goes overlooked due to its small size, a handle-set is designed to highlight the decorative appeal of the door hardware. Upgrading from a simple knob design, or replacing a worn-out



Create - A - Color[®] **Custom Colored Caulk**

Create custom colored caulk to match tile, trim, fixtures, or walls in just a few minutes.





The old door handle had an integrated key, which left an ugly key hole in the door surface that we would have to fill and paint.

apart. The old handle had an integrated key lock, but the new Schlage unit did not. This meant the door had an extra key hole bored into it that would have to be filled with putty or Bondo.

The existing knob hole did conveniently fit the new handle, but it was necessary to drill a new hole for the handle-set's separate deadbolt. Naturally, you want to line up the holes on top of one another,



Test-fitting the new handle ensured that the existing knob hole was cut with the appropriate diameter.



Schlage includes a paper template to help locate the holes for the door hardware.

and Schlage conveniently includes a paper template in the package that helps to locate the knob holes.

Before drilling the deadbolt hole, double-check your manufacturer's instructions for the recommended diameter, because they can vary somewhat. Schlage recommends a 2-1/8-inch hole for the Addison handle-set, and our 18-volt Bosch drill easily powered through the wood stock.

For the deadbolt, it was also necessary to use a 1-inch spade bit to drill the bolt hole in the edge of the door, as well as for the strike plate in the door jamb. And, anytime you're cutting new knob holes, you'll also have to cut mortises for the faceplates of the latch and deadbolt. This is done by tracing the faceplate perimeter with a pencil and using a wood chisel and hammer to chip out a recessed area just deep enough to set the faceplate flush with the wood surface.

Another handy feature of the Schlage model is that it also features a patented through-bolt at the bottom of the handle that slides up and down. So, if you're

replacing an older handle-set you probably won't have to drill a new hole for the new through-bolt. However, the old latch didn't utilize a through-bolt—only a short screw that didn't completely penetrate the door—so we had to drill it through.

Once the door is drilled, installation is a simple job. Mount the latch and deadbolt into the mortises with two screws each. Then, install the handle-set according to the instructions, aligning the spindle with the latch. Add the interior lever, rotating the chassis tabs so it slips through the latch and easily joins the handle. Two screws are all that's required to fasten the handles together.

Finish the handle-set by installing the lower through-bolt, which comes with a cover cap



A hole-saw was necessary to cut a new hole for the deadbolt assembly.



We used a spade bit to bore the holes for the bolt and strike plate.



Rain or shine,
dry all the time.

SPACEMAKER™

SpaceMaker is the only solid core outdoor flooring with a water-diversion ceiling in one easy-to-install product. A patented interlocking and water seal design allows you to create a beautiful, quality deck, while easily adding dry outdoor living or storage areas underneath. SpaceMaker's top surface is cap-coated for beauty, extreme durability while the bottom surface creates a pebble grained extreme scratch resistant ceiling.



For more information or to become a Certified Installer visit our website or call 1-844-772-2362



Screened Porches



Sheltered Entry Ways



Under-the-Deck Storage



Multipurpose Storage Units



Porticos & Car Shelters



Outdoor Cooking and Dining



A through-bolt anchors the bottom of the handle to the door.



The faceplates install simply, using just two screws each.

to conceal the interior bolt head for a finished appearance.

The deadbolt housing installs in a similar simple fashion, requiring only two bolts to join the halves over the deadbolt.

When installing the strike plate, the deadbolt striker comes with two long, 3-inch screws to drive into the door jamb. This design provides extra holding power for the deadbolt.

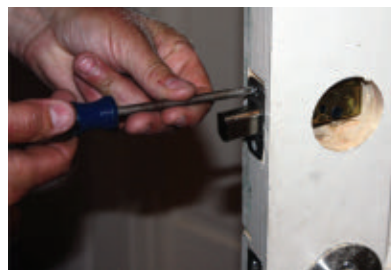
And, that's the last step to this fairly straightforward project. Of course, it never hurts to repaint the door, or in our case, fill a big, ugly key hole. Once that was finished, the door boasted an updated look to welcome the neighbors. **EHT**



Two bolts are all that's required to install the interior handle.



A wood chisel and hammer are required to cut the mortises for the faceplates.



In some cases, the entire installation may require no more tools than a Philip's head screwdriver.



Fastening the deadbolt assembly is the last step in installing the new handle-set.

ARMSTRONG'S WOOD STAINS



Photos
courtesy of
Beth and Rod
of *See Dirt
Run!* Leaders
in the wood
restoration
industry

**Long Lasting, Easy to Apply
and a Breeze to Maintain**

Armstrong Wood Stains are available in thirteen attractive colors

Manufacturers of VOC-Compliant, Oil-Based Wood Finishes Since 1989

(800) 916-8211 • www.armclark.com

Tight and Outta Sight

Frame a New Home or Addition for Energy Efficiency



advanced planning. Your building material dealer may be able to assist with software that can turn a basic home plan into detailed drawings showing energy-efficient framing.

ADVANCED FRAMING METHODS

The National Association of Home Builders (NAHB) developed so-called “advanced framing” methods (also known as “optimum value engineering” or OVE) several decades ago. Don’t let the names frighten you. The practices are relatively straightforward, just different from how framing is traditionally constructed. They include (Figure 1):

- 2 x 6 studs at 24-inch on-center (OC) spacing
- Two-stud corners
- Ladder blocking at wall junctions
- Double rim board and insulating foam in lieu of headers
- In-line framing
- Single top plate
- Minimal trimmers or jack studs

Anyone contemplating an energy-efficient room addition or building their own home has likely given careful thought to the insulation. Which material is best? What thickness should be used? Is the R-value sufficient? But often they ignore the structural framing, which holds everything together. It doesn’t matter how good the insulation is if air leaks around it. The design and placement of the studs, joists, headers and other framing members affect how well the insulation can do its job.

Framing techniques your grandfather didn’t know, and your dad may not have taught you, can help reduce heating and cooling costs—and use less wood. The trick is to

lay out the framing in ways that help eliminate gaps in the insulation and that lessen the number of thermal bridges through the framing members. While not difficult to build, these methods require

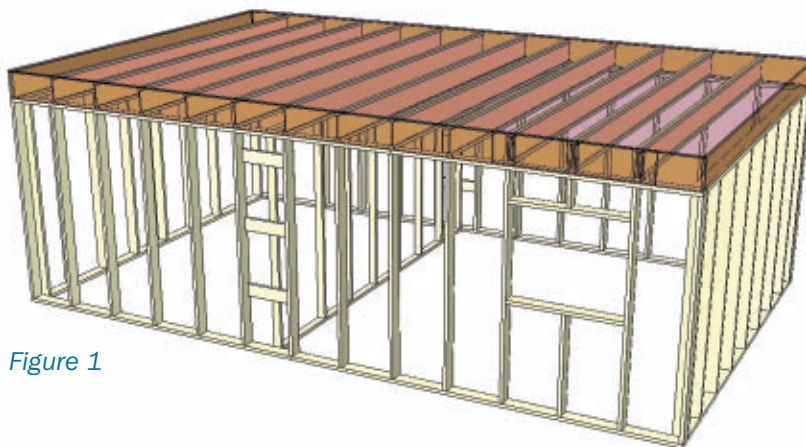


Figure 1

TREATED LUMBER NEVER LOOKED SO GOOD.



It's beautiful. Even before you build.

ProWood Dura Color® lumber is color-treated and guaranteed to retain its beauty for years. You don't have to stain it or paint it. Just build with it. (It's also protected from termites and rot.)

ProWood Dura Color. There's nothing else like it.

pro'wood
DURA COLOR®

ProWoodLumber.com/DuraColor
Learn more about ProWood Dura Color
and get your free sample.



As an example of the potential benefits of these methods, iLevel by Weyerhaeuser built a 24-inch OC demonstration wall with 2 x 6 studs that achieved an 86-percent increase in insulation volume and a 58-percent increase in the wall's overall R-value, compared to a traditional 2 x 4 wall at 16-inch OC spacing. Further, the demonstration wall used 8 percent less wood volume. The U.S. Dept. of Energy estimates that advanced framing can reduce annual heating and cooling costs up to 5 percent, and for a 2,400-square-foot house, save up to \$1,000 in materials.

2 X 6 STUDS AT 24-INCH OC SPACING

Increasing stud spacing from the standard 16 inches OC to 24 inches increases the overall insulation in the wall cavity, as well as reduces the thermal bridges through the wood since fewer sticks are involved. Interestingly, the use of 2 x 6's at 24 inches OC versus 2 x 4's at 16 inches on center provides the necessary structural support using a similar volume of framing material. Yet, the wider spacing enables fewer interruptions in the insulation, while the deeper studs allow for two more inches of insulation between the outside and inside walls.

As with all advanced framing techniques, be sure to check local code requirements. In some

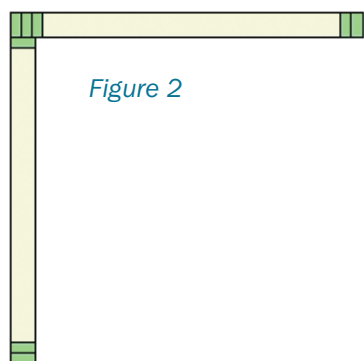


Figure 2

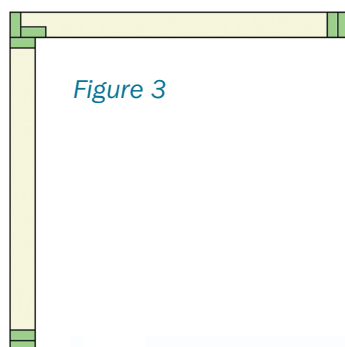


Figure 3

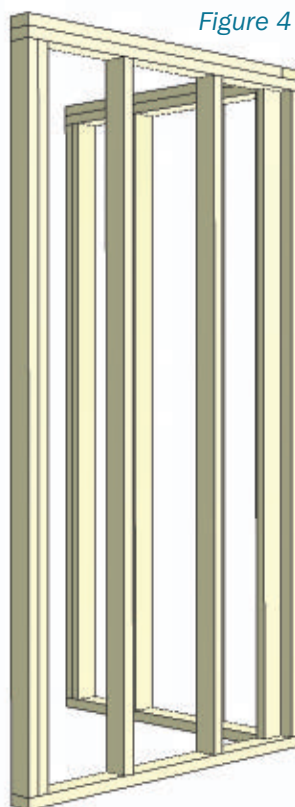


Figure 4

instances, wider stud spacing is not allowed in areas with high winds or earthquakes. Your building material dealer or manufacturer may be able to assist with alternative framing approaches, such as pre-fabricated wood shear braces that can provide the necessary bracing while maintaining a narrow footprint within the wall.

TWO-STUD CORNERS

Corners typically involve three studs set back-to-back to create nailing points for the exterior

sheathing or siding and interior drywall (Figure 2). However, using two studs placed perpendicular to one another provides the necessary structural support, while enabling attachment of the sheathing (Figures 3 and 4). For the drywall, one of the studs provides the nailing point for the material on one wall, and the material for the intersecting wall is attached with a drywall clip. This approach allows insulation to penetrate farther into the corner, instead of leaving gaps and a large thermal bridge created by multiple studs. Plus, it saves on material by eliminating one extra stud at each corner.

LADDER BLOCKING AT WALL JUNCTIONS

Where interior and exterior walls meet at "T" intersections, extra studs are usually added to provide a nailing surface to join the walls (Figures 5 & 6). The drawback is this creates narrow spaces along the exterior wall that are difficult to insulate effectively. The gaps are either too thin to place insulation in, providing a clear path for air to leak from the home, or require the insulation to be cut to a narrower width, which creates voids. As with three-stud corners, the additional studs on the exterior wall where it connects to the interior wall add to the thermal bridging.

An effective solution is installing horizontal lumber pieces between studs to provide the attachment point for the intersecting wall, resulting in a "ladder"-like appearance (Figures 7 and 8). Scrap lumber can be used for this blocking, helping reduce overall material costs and using pieces that would otherwise end up in the dumpster.

This approach allows the full width of insulation to be placed between the exterior wall studs.

Quality you can ...

TRUST

TRUST



IMPORTED NAILS - PRICE



MADE IN USA
QUALITY

**DOUBLE HOT-DIPPED
GALVANIZED**

**ULTIMATE CORROSION
RESISTANCE**

**YOU GET WHAT YOU PAY FOR ...
IT PAYS TO BUY MAZE!**

NAIL IT ONCE. NAIL IT RIGHT.®



**1.800.435.5949
mazenails.com**

Division of W. H. Maze Company
Helping to build America since 1848





Figure 5

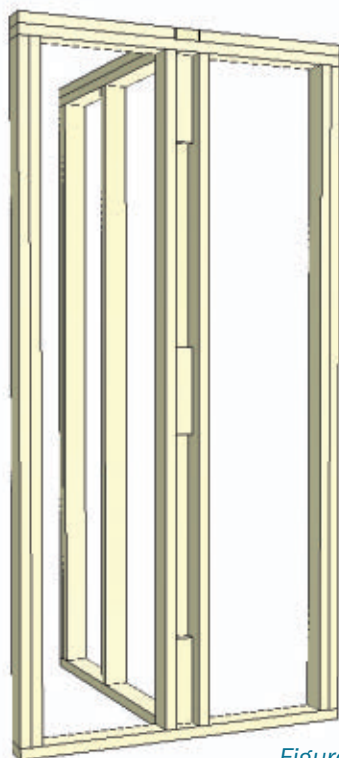


Figure 6



Figure 7

This is particularly effective if 2 x 6 studs are used in the exterior wall since there are still several inches of depth behind the ladder blocking for insulation.

DOUBLE RIM BOARD AND INSULATING FOAM IN LIEU OF HEADERS

In some cases, door and window headers may not be structurally necessary, especially for interior, non-load-bearing walls. They may also be able to be sized smaller, or removed in some exterior walls. These are difficult judgments and calculations to make, but your building material dealer may have access to structural frame design software that can determine if a header is needed and avoid oversizing it, while ensuring a sound structure. If in doubt, consult a structural engineer.

Addressing headers in exterior walls is important because they create a large thermal bridge for heat to escape. You may be able to eliminate headers by using a double thickness of rim board along the top of the wall (Figure 9). Adding 1/2-inch-thick insulating foam to the outside face of the rim provides an effective and simple barrier against heat gain and loss. Laminated strand lumber (LSL) rim board such as TimberStrand LSL works well for such applications since it is strong, dimensionally stable and warp-resistant.

An added benefit is that without a header, there is additional space for insulation above the window or door.

IN-LINE FRAMING

Also called “stack framing,” in-line framing is a building method where studs, roof trusses and floor joists are all aligned at the same spacing. Because loads transfer directly downward from member to member, this can help reduce or eliminate headers and other materials (see “single top plate” discussion below for one such efficiency).

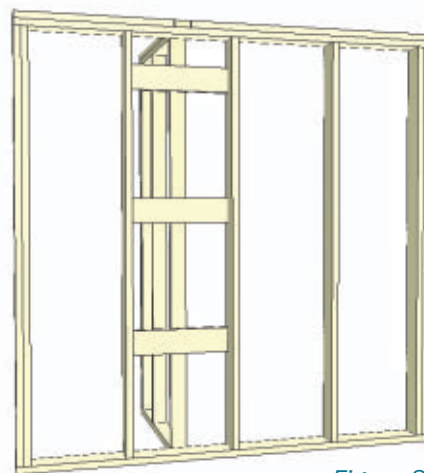


Figure 8

An added benefit for pride of craftsmanship is that the framing looks more orderly and well planned. Of course it will soon be covered up by exterior and interior finishes, but you will know you have done a good job inside and out.

Another effective practice is modular construction in which the entire addition or home is designed to 2-foot increments. Sizing the structure to match the framing member size helps eliminate scrap from all types of framing members and sheathing stock and can be an effective way to help reduce material costs.

SINGLE TOP PLATE

If in-line framing is used, it may be structurally sufficient to use one, instead of two, top plates. The reason is that the loads from the roof members go straight down through the top plate into the wall studs. In essence, the top plate becomes a transfer point for the load, instead of a primary carrying member. As with headers, this is another instance where structural frame design software can help determine what is structurally appropriate. Be sure to consult code requirements for

arkè
contanot

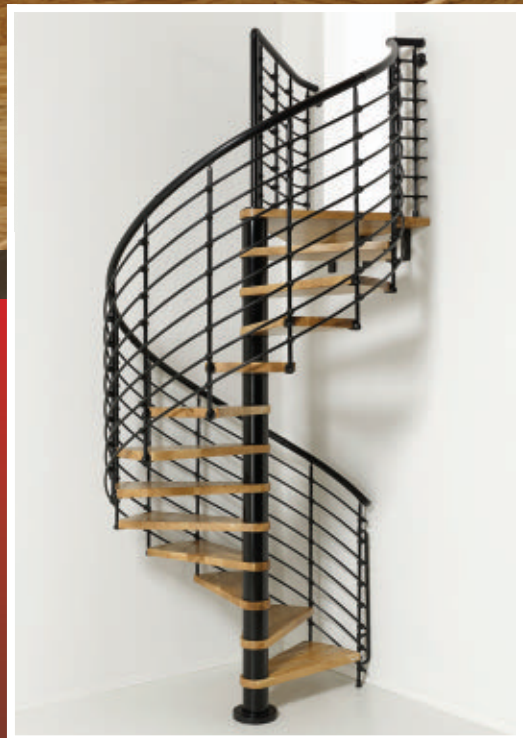
SPIRAL STAIRS AND MODULAR STAIR CASE KITS

AVAILABLE THROUGHOUT THE USA, ARKE SPIRAL AND MODULAR STAIRCASE KITS CAN BE BUILT IN A DAY BY THE AVERAGE DO-IT-YOURSELF HOME ENTHUSIAST.

The OAK 70.XTRA ▶

The Oak 70.XTRA is an adjustable premier series spiral staircase that features solid Oak wooden stair treads and landing to complement and add style to any interior living space. Surrounding the full length of the staircase, the horizontal balusters and railing design is visually unique when compared to the traditional vertical baluster design of most stairs. The staircase can be easily installed by the homeowner in a single day using common household tools. The Oak 70.XTRA is available in 2 diameter sizes and is available in 2 choices of color...Hi-Gloss Black and Hi-Gloss White.

- Standard kit includes 12 oak wood stair treads, a landing, a complete handrail, and all necessary hardware and connectors.
- Diameters available include a 5 ft. 3 in. model and a 4 ft. 3 in. model.
- The height range for the standard kit is adjustable from 8 ft. 3 in. to 10 ft. 2 7/8 in. and with additional components, can be installed to a maximum height of 11 ft. 9 5/16 in.
- Powder coat finished painted in either Hi-Gloss Black or Hi-Gloss White.
- Can be installed in a clockwise or counterclockwise rotation.
- Stair treads and landing are made of solid Oak wood with a natural stain and a polyurethane protective coating.
- Balcony rail kits are available in matching color and horizontal baluster and railing design.
- Handrail is manufactured from an aluminum core surrounded by a soft PVC cover to allow the handrail to be curved at the time of installation to accommodate the radius of the staircase.
- Rise between stair treads is adjustable from 8 3/8 in. to 9 1/4 in.
- Interior installation only.
- A complete installation guide is included in all kits and an installation video is available upon request.
- Homeowner should consult with local building department concerning building codes prior to purchase.

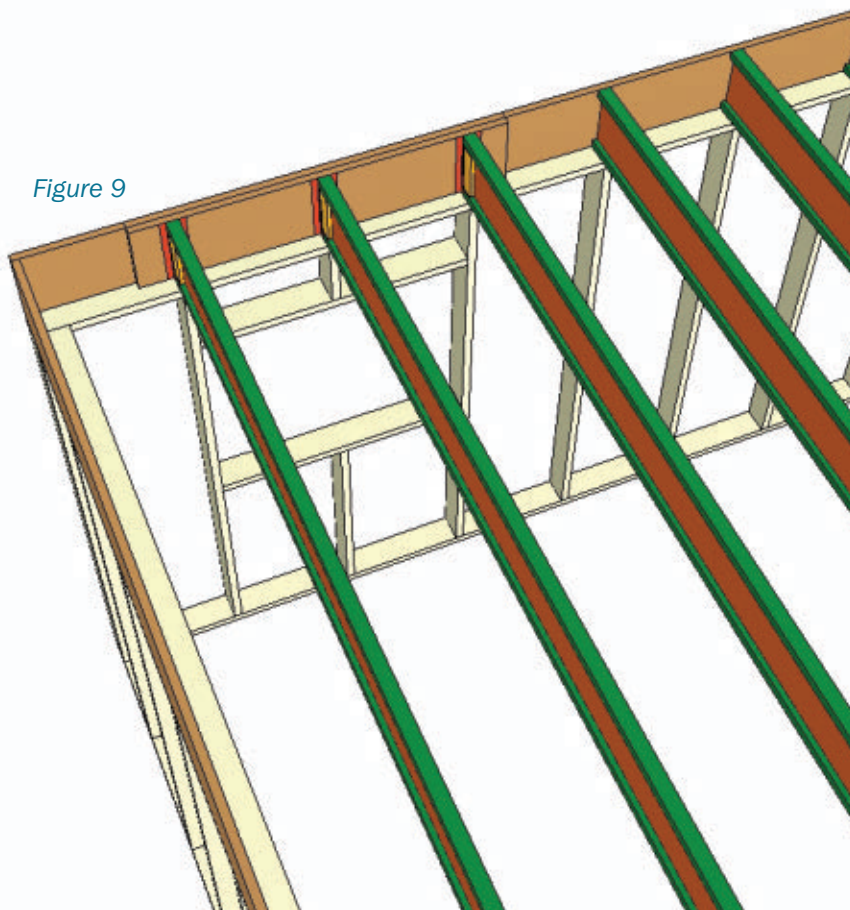


(888) 782-4758

arkè
contanot

www.arkestairs.com

Figure 9



attaching the top plate at joints, corners and wall intersections to ensure lateral load transfer through the wall lines.

MINIMAL TRIMMERS OR JACK STUDS

Jack studs/cripple studs typically are not necessary when headers

are not used, which helps reduce materials and thermal bridges. The challenge can be a narrower nailing surface for siding and trim. If the nailable area is too small, a compromise can be to add a 2 x 2 nailing block (scrap wood works well) to the outside edge of the window or door opening.

PLAN CAREFULLY FOR ENERGY EFFICIENCY

Building an energy-efficient home or addition starts on the inside. Carefully planning the framing and insulation can help provide a tighter home that can save up to hundreds of dollars per year in heating and cooling costs. Plus, advanced framing techniques can help reduce material costs as well as dumpster fees since less wood is needed overall and because scrap can be used in places such as ladder blocking.

As with any project where structural design or construction is involved, consult a qualified design professional or engineer, and comply with all applicable building codes.

To get started, contact your building material dealer or framing product manufacturer for information on the design tools and support they offer. **EHT**

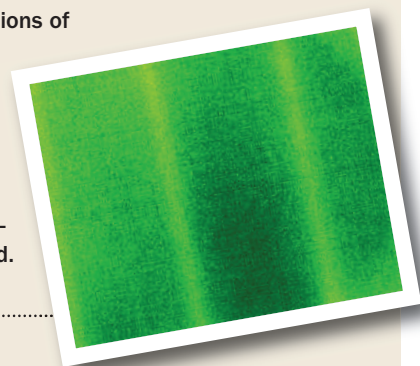
Editor's Note: Gregg Shea is the division technical support manager and John Stewart is a structural frame specialist for iLevel by Weyerhaeuser. iLevel offers a range of structural framing materials, technical support and software, including Javelin® design software. www.iLevel.com, 888-453-8358.

DRYWALL DECISIONS

Question from an *Extreme How-To Blog* reader: Are there any important considerations of which DIY'ers should be made aware when hanging drywall panels on studs spaced greater than 16 inches?

The answer is "maybe." You may have to upgrade the thickness of your drywall panels. Steer clear of 3/8-inch drywall and thinner panels in these applications to avoid sagging. Half-inch drywall can be installed on 24-inch OC framing, unless the panels are hung with their long edges parallel to the ceiling joints. Like 1/2-inch drywall, 5/8-inch thick drywall can be hung on 24-inch stud centers unless it is hung horizontally. The extra thickness improves resistance to sagging and absorbs more sound. In some areas, 5/8-inch drywall is required because of its superior fire resistance.

Check out the *EHT Blog* at <http://blog.extremehowto.com>.



PLAN THE FRAMING WITH SOFTWARE

If advanced framing offers greater energy efficiency and reduced materials, you may ask why it is taking decades for it to be adopted. The primary reason is builders know and trust the old methods. They have been passed down from generation to generation, and they work. With fewer sticks used in advanced framing, there is an obvious visible difference, which can create the perception that the home is not as stable. In reality, much of traditional framing is redundant, but you can't start removing materials without due consideration. Structural frame design software can provide the peace of mind that the home is adequately designed for all necessary loads, while providing a straightforward way to implement advanced framing.

Fortunately, you do not need to be a software expert to make use of these tools. A design technician at your building material dealer can take basic plans or sketches and work up a detailed framing plan showing the placement of every member. They can provide plan printouts and material lists, as well as show you on screen a 3-D rendering that allows viewing of the frame from all angles. These plans can be shared with your building design professional for review and approval.

In addition to supporting advanced framing techniques, programs such as iLevel Javelin design software enable designers to solve potential building conflicts before construction begins. This helps eliminate rework in the field when you discover problems like a misplaced drop beam or column that is too short. The software allows for design of walls, floors and roofs as an integrated system, and accurately tracks gravity (vertical) loads from the ridge to the sill plate to help ensure a strong and stable structure.

The software program also provides the flexibility to meet local building requirements and practices, as well as evolving industry standards.

Learn more at www.woodbywy.com.

MONKEYRACK®

LADDER STABILIZATION SYSTEM

ISHN/ASSE Safety 2014 Attendee Choice Award Winner

Safety Innovation in Fall Protection



WE HOLD
EXTENSION
LADDERS

US Patent 8,047,331





PROVEN
PERFORMANCE

941.747.8697

DURABLE
RELIABILITY

Order Today!

www.monkeyrack.com





- *Steel head easily rotates 180° to allow for use in 2 directions.
- *Removes boards attached with nails OR screws.
- *Uses leverage, not strength.
- *Drastically reduces project time.
- *Corrosion resistant.
- *Features a strong and durable lightweight fiberglass handle with a padded non-slip grip.

Now Available On:



homedepot.com



amazon.com



DECKED OUT IN VINYL

A PVC decking and handrail system serves as an attractive, low-maintenance alternative to traditional building materials.

When selecting materials to remodel a deck, the maintenance requirements of the product is often a major consideration. The deck in this project was located in a shady backyard with a lot of tree cover, making it susceptible to collecting leaves and other debris that can cause surface staining to wooden deck boards. The homeowners wanted a stain-resistant deck that was easy to install and required little more than an occasional cleaning to keep it looking good as new. They decided to use a tongue-and-groove decking system made from solid PVC.

PVC (Polyvinyl chloride) is a moisture-resistant building material that is not subject to bacterial rot, nor does it split or swell from water absorption as wood does. This moisture-resistance is especially useful on flat, exterior surfaces, such as decks, that provide a place for standing water to accumulate. PVC decking is also lightweight and easy to cut and install. Standard woodworking tools are generally all that is required to saw it, glue it, drill it and fasten it.

By Matt Weber





The PVC decking from Genova Products is fastened to the deck joists with pan-head screws driven through slots in a nailing flange, which allow the boards to move with temperature changes.

Additionally, PVC has another significant maintenance-saving advantage over wood: color retention. Whereas wood needs to be sealed or stained periodically to combat moisture, protect from UV rays and impart a durable color tone, the latest integrated color technology for PVC promises a lifetime of weatherability with a low-gloss, wood-grain surface. The prospect of easy upkeep combined with DIY-friendly installation and the availability of a complementary deck-railing system sold the homeowners on the PVC decking.

FIRST STEPS IN INSTALLATION

The Genovations line of PVC deck boards from Genova Products interconnects along each seam in a tongue-and-groove fashion to conceal the deck-fasteners. As with any deck project, before beginning installation check your local building department regarding

codes and regulations for deck framing, hand rail construction and stairway installations. This project entailed re-decking a previously constructed deck that was built with joists on 16-inch centers, which is a requirement for the

5/4-inch PVC decking that he selected.

With the old deck boards and fasteners completely removed, the installation of new decking began with the placement of a PVC Deck Starter strip, which features a groove to accept the tongue of the first deck board. Before installing, make sure your deck ledger board is properly flashed to the house wall to prevent any future water damage to that critical framing connection. Screw the deck starter strip along the ledger board, flush with the edge closest to the house.

When fastening the PVC components, each piece features a flange with slots for the screws. Much like vinyl siding, the slots on the starter strip, deck boards and trim pieces allow flexibility in placing screws for expansion and contraction of the material as temperatures fluctuate. Generally it's advisable to place a screw in the center of the slot to allow the deck board to move in either lineal direction. If you want to restrict movement at a certain point, drill



Installation begins with a starter strip fastened over the ledger board and an adjacent trim strip fastened to one of the rim joists, which conceals the ends of the deck boards.

Better-built decks start with DexSpan™



Engineered to last. Built for life.

Improve the look and performance of your deck with a lower total-cost-of-ownership. DexSpan™ extruded aluminum deck and dock framing systems are engineered for longer-lasting deck construction. Precise fit and high-quality finish will enhance your choice of decking materials. Contractors and homeowners agree, DexSpan™ is the first step to a better-built deck.

Stronger & Safer - 100 lbs. per sq. ft. exceeds most codes

31% Longer Spans - longer spans than treated lumber

Versatile - supports most types and brands of decking

Simpler - less tools to install and even less to maintain

Installs Faster - install a deck in hours, not days or weeks

40% Lighter - weighs less than treated lumber on average

Long Lasting - won't warp, bow, split, mildew, rust or decay

11 standard finish options eliminate treating, staining or painting! Learn more at dexspan.com



**Come see us
at DeckExpo
Booth # 2319**

 **DEXSPAN™**
Extruded Aluminum Deck and Dock Framing Systems

DECKED OUT IN VINYL



Common woodworking tools will easily cut and drill the PVC material. A jigsaw is a handy tool for cutting notches to install around handrail posts.

a hole in the fastening flange and anchor that hole with a screw. Use pan-head deck screws that are coated for use in pressure-treated lumber or made from stainless steel.

With the starter strip down, we installed a C-channel trim strip on the adjacent rim joist to accept one end of the deck boards, which conceals their profile to provide a neat, finished appearance to the deck.

BOARD INSTALLATION

With the two starter strips in place, the PVC deck boards go down next. To install the decking, place the tongue of the first board into the groove of the starter strip. Align the slots of the deck board over the center of the joists. If the slots don't align, you can add a

wooden nailing block along the edge of the joist and flush with its top to provide a solid anchoring surface. Fasten the deck board to every joist.

Repeat this procedure for the remaining deck boards, inserting the tongue of the new board into the groove of the preceding one, which conceals the nailing flange for a deck surface that appears free of any fasteners.

It may be necessary to rip the last board to width before fastening. Once installed, the exposed edge of the last board can be concealed with another trim strip and/or a fascia board.

It may also be necessary to notch the boards to accept deck-rail posts. The PVC can easily be cut with a jigsaw, using predrilled holes at the intersection of the

FROM THE MAKERS OF DRYLOK®

A 'NEW DECK' IN EVERY CAN

UGL
THE MAKERS OF DRYLOK®

NUDECK

WOOD AND CONCRETE RESTORATIVE COATING

A paintable solution for aged and weathered wood and concrete.

Extensively tested for durability, performance and ease of application.

Complements the ZAR® Deck and Siding Line with color selections and durability

No special applicators or primers needed.

Visit us at www.ugl.com or call 1-800-845-5227

UGL



As the decking is installed the boards interconnect with a tongue-and-groove system that conceals all the fasteners.

cuts to allow room to turn the jigsaw blade. (The notches cut in the deck boards can be concealed with 4x4 PVC trim pieces included with Genova's rail system, which slide over the posts and collar them at the bottom.)

We ran the deck boards "wild," meaning we left the ends of the boards hanging over the edge of the framing to be trimmed all at once after the decking was complete. Where the deck boards crossed the rim joist, we snapped a chalk line over their surfaces flush with the edge of the deck, then cut all the boards along the chalk line for an even installation. We then concealed the exposed ends of the decking with a final PVC trim piece. This final step completed the new deck surface.



PVC DECK RAILING

Although Genova Products does offer railing systems colored to match its deck boards, the homeowners opted for a white-colored

system that matched the existing trim of the house. The Genova railing system gets its strength from the use of solid, pressure-treated posts and aluminum rail channels

STRUCTURE

HIGH-VELOCITY WINDS

PREVENT UPLIFT

FINISH GRADE

CONSTRUCTION TUBE

#4 or #5 REBAR

BIGFOOT

UNDISTURBED GROUND or 4" - 6" of COMPACTED GRAVEL

PREVENTS UPLIFT

BIGFOOT SYSTEMS® The Original.

800-934-0393

www.bigfootsystems.com

Canadian Construction Materials Centre

ES

Tips for Installing Concrete Pier Footings

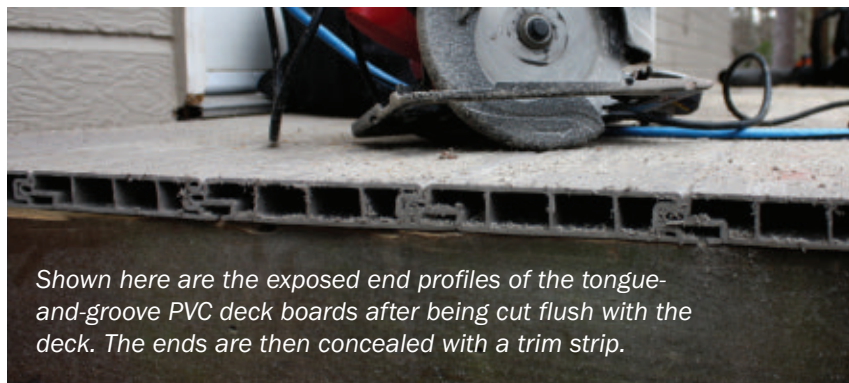
Here are some useful tips to ensure your footings are installed properly and the integrity of your project is maintained:

- You should always make sure that a qualified engineer has designed your footing forms and that they have been tested by an accredited organization.
- Select a footing form that can carry the weight of your new construction and has met the proper building codes.
- Select a footing form made of environmentally friendly, sturdy materials.
- Ensure you are placing the footing form on solid ground. The more solid the ground the less likely movement will occur.
- Install your footings 4-6 inches below the frost line to avoid potential movement. If you are in an area without frost, then the form should be back filled 2 feet to hold it in place when it is being filled with concrete.
- Should rebar be required pour concrete into the system first. Insert three or four number 4 or 5 rebar rods into the tube. To determine the length of rebar, measure the distance from the top of the tube to the air holes located on the Bigfoot Systems® Footing Form before you place the system in the excavation and backfill.
- Purchase the amount of concrete stated on the form label. You will use all of it.
- Use a Bigfoot Systems® Footing Form as a funnel to pour concrete into the system by placing an inverted Bigfoot on top of the construction tube.
- For a marine application, such as constructing a wharf, pour the concrete into the footing and tube on shore and have an excavator set them in place in the water. The other option will entail using a diver and pumper truck.
- Footing forms should always be used when installing footings as they provide added stability, strength and safety to your new construction.
- Don't risk having to redo the job, do it right the first time!

Visit our web site
www.bigfootsystems.com
to view a complete set of our installation instructions.



We ran the deck boards long and cut them all at once after installation was complete.



Shown here are the exposed end profiles of the tongue-and-groove PVC deck boards after being cut flush with the deck. The ends are then concealed with a trim strip.

that are concealed in PVC sleeves. The railing system is offered in three styles and four colors, available in 6- or 8-foot sections. The package includes all the hidden brackets and hardware needed for installation.

The deck must be built in accordance with local codes with treated wood posts installed on 71-3/4-in. centers (maximum). The wood posts should be cut 36 inches above the deck surface.

Begin installation of the PVC system by sliding the 4-by-38-in. Post Cover over the posts just like a sleeve. Shim the covers as

necessary to hold them plumb. Then, slide the Post Trim Base over the post cover and push it down flush with the deck.

Attach the metal Mounting Brackets to the posts using the corrosion-resistant lag screws included with the kit. Predrill the holes for the 1/4-by-1-1/2-in. screws, using two per bracket and ensuring they are mounted level and plumb and centered on the posts. The bottom bracket should be 1-3/4-in. from the deck surface, and the top bracket should be 32-3/8-in. from the surface.

Measure the distance between each two opposing brackets, and if necessary cut the aluminum P-channel Rail Inserts to the appropriate length.

Next, subtract 1-3/8-inch from the cut aluminum P-channel and use this new measurement to cut (if necessary) the corresponding 2-by-4 PVC rail and rail cover to length. The PVC rails are manufactured with uniformly spaced slots to accept the balusters of the rail system, so when trimming the rails to size, cut off equal amounts of material from each side to maintain symmetrical baluster spacing.

Insert the aluminum P-Channels into the PVC rails. Orientation of the railing components are key because the aluminum insert and the PVC rails must be positioned to accept the balusters. Furthermore, the long legs of the aluminum P-channel must face the inside of the deck. It's always a good idea to test the fit of a railing system before final installation. The top rail includes a PVC Rail Cover, which features a symmetrical chamfered profile for decorative appeal and a comfortable



The L-shaped trim piece at the far end of the decking provides a finished look to the edges of the deck.



Sometimes it's what you don't see
That makes a deck beautiful.



Performance,
Durability,
Easy to Install,
Versatility . . .
A Strong and Secure
Concealed Deck
Fastening System



Sure Drive USA® | Conover, NC & Hayward, CA | 800-951-2222 | www.suredrive.com

DECKED OUT IN VINYL

grip. Attach the rail cover to the PVC rail with vinyl adhesive. Then, slip the PVC bracket covers onto each end of each rail.

With the rails assembled, we first installed the bottom rail onto



The PVC deck railing begins with the installation of post covers that slip right over the existing 4x4's.



Each deck rail is supported by two metal mounting brackets that are bolted to the center of the posts.



The PVC Rails, the Aluminum P-channel Inserts and the Rail Covers are all cut to length, according to your post layout. When cutting the rails, be sure to keep the routed holes in the rail spaced symmetrically (they accept the balusters).

Test-fit the rails over the mounting brackets before final installation.



the brackets with the baluster holes facing upward. The balusters then slip into the routed holes of the bottom rail. Cap the balusters with the top rail, threading them into the holes on the underside of the rail.

At this point, the system should have a little wiggle room to slide the rails to the left or right until the balusters are perfectly plumb. We then drove No. 10 sheet-metal screws through the mounting brackets and into predrilled holes in the aluminum P-channel

inserts. The PVC bracket covers simply slide over the ends of the rails to conceal the exposed metal connection.

The end result is a weather-resistant deck with minimal maintenance requirements and a strong, complementary railing system that the homeowners will enjoy as long as they own the house. **EHT**

Editor's Note: For more information on Genova Decking and Railing products, visit www.genovaproducts.com.



The balusters simply slip into the routed holes of the rails.



The top rail mounts over the balusters, followed by a rail cover for a comfortable hand grip.

Post caps and bracket covers give the rail system a uniform, finished appearance.



SECRET WEAPONS OF THE MODERN HOUSEHOLD



THE TRUSTED BRANDS

for professional strength, high performance adhesives. **Shoe Goo** and **Boots & Gloves** are the #1 shoe adhesives! Ideal for fixing worn soles or damaged heels, and for coating and sealing shoes, boots, gloves & more. The unique formulas never become brittle and remain highly flexible once cured.

Amazing GOOP II MAX is the ultimate repair glue. It remains flexible while bonding to almost any material and withstanding harsh environmental elements.



Stay connected with us on [f](#) [p](#) [t](#)

www.eclecticproducts.com

MADE in USA by Eclectic Products



MARKSMAN

NO VISIBLE

☐ NO GAPS



BA
AP

CAMO

EDGE DECK FASTENING SYSTEM

CHANGING THE **FACE** OF DECKING®

For use

EDGE™

LE SCREWS ☐

AP

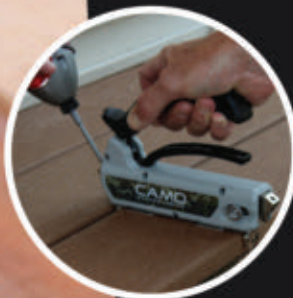
AREFOOT
PROVED™ ☐

Say goodbye to cracking, ugly boards and splinters by installing your deck screws on the edge. This innovative system delivers a fastener free surface that's easy to install, affordable and beautiful.



MARKSMAN PRO-X1

- For use with treated, cedar or hardwood
- Automatic 1/16" spacing
- Dual screw guides



MARKSMAN PRO

- For use with composite / PVC
- Automatic 3/16" spacing
- Dual screw guides



MARKSMAN PRO-NB

- For use with any 4" board
- Automatic 3/16" spacing
- Dual screw guides

Use with treated or cedar | Attaches to any drill

WWW.CAMOFASTENERS.COM

Strong &

A photograph of a wooden deck with a wicker chair and a fire pit. The deck is made of reddish-brown wood planks. A wicker chair with a dark, textured seat and backrest is positioned in the center. To the right, a round fire pit with a metal rim and a black metal stand is visible. The deck is bordered by a wooden railing with vertical balusters. In the background, there are green plants and a wooden fence. The word "Strong" is written in a large, white, serif font, and a large yellow ampersand is to its right.

Stylish

Decorative accessories take a wooden deck handrail to the next level.

Constructing a deck gives the builder ample opportunity to customize it with a personal touch. The deck shown in this article was built from pressure-treated lumber and stained to match the fence that surrounded the back yard. However, when it came to the railing system, I decided to incorporate some different materials and construction methods to give the design some extra flair. As with any major project, consult local building codes for specific requirements in your area.

STRONG POSTS

To build any handrail system you must start with a strong foundation. For the posts I used 4x4's stained to match the deck. When installing the posts, EHT recommends using a minimum of two 1/2-inch galvanized through-bolts with



Measure carefully the handrail length between posts. If using Decorators Railing Connectors, subtract 1/2" from the measurement and cut to size.



When installing handrail posts, *EHT* recommends using a minimum of two galvanized 1/2-inch through-bolts with washers. A metal post-to-deck bracket will reinforce this connection even further.

washers driven through the framing and the full 4-inch thickness of the post (rather than notching the post, which weakens it). To bolster this connection, we also recommend using a post-to-deck metal bracket, such as that manufactured by Simpson Strong-Tie or Deck-Lok. These metal brackets

fasten to the through-bolts and connect flush to an adjacent framing member with galvanized screws. If the posts don't line up next to an adjacent joist then you may have to install blocking to provide a fastening surface. Using the metal brackets takes a little more time, money and

effort, but this stronger connection will ensure the posts stay safe and sturdy.

The posts must be at least 36 inches high and spaced no more than 6 feet apart.

Once the deck boards were installed, I finished the bottoms of the posts with traditional Post Base Trim by Decorators. This profiled wooden trim piece slips over the 4x4 posts and glues in place to conceal the gaps between the deck boards and post.

HANDRAILS

For the design of this system I didn't want to stray very far from the stained wood, which was my primary visual theme. So I used



Clamp the top and bottom rails together, and mark them 4-1/2" on center.



Screw on the plastic Railing Connector, and fasten the lower rail between the posts.

Attach the Designer Baluster Connectors on each mark.



2x4's for the handrails and stained them to match the posts and decking. (Note: As you'll see in the accompanying photos, I installed the first two rails prior to staining. It occurred to me afterward that it would be easier to stain the remaining handrails on a couple of sawhorses before installing them).

It's acceptable to fasten through the face of the 2x4 rails and into the interior face of the posts using 2-1/2-inch galvanized screws, but toe-nailing is not a good approach, as the connection can easily weaken over time.

As an alternative, I installed the handrails using Deckorators Railing Connectors. These durable plastic brackets make it easy

to install the rails flush between the posts, but with much more holding power than toe-nailing and a cleaner finished appearance with no visible gaps. This also helps prevent the rail from splitting. Just zip two screws through each connector and into the ends of the rails to attach them. The

connectors then attach the rails to the posts using three screws each, driven through the guide holes at offset angles for a firm connection.

DECORATIVE BALUSTERS

Another sleek design element for this handrail system was the incorporation of aluminum balusters. Whereas purchased wood balusters tend to twist and warp over time, the aluminum balusters will never distort from weather exposure, nor will they rust or develop mold. Universal Forest Products, Inc., offers the Deckorators line of balusters in a wide array of styles and colors—even glass—with a lifetime warranty. For this project, I selected the "Classic" cylindrical style of aluminum baluster in a stainless finish.

I installed the balusters on the handrails using the Deckorators Designer Baluster Connectors. The connectors are rubber boots that provide a sturdy connection and a molded look to the balusters. Additionally, certain types of treated lumber are known to corrode aluminum, and the rubber connectors provide a

Slide the aluminum balusters onto the rubber baluster connectors.





Carefully seat the connectors of the upper rail onto the ends of the aluminum balusters, and fasten the rail securely.

barrier between the aluminum and the chemicals in the wood. To install this system, it's necessary to install the baluster connectors before installing the rail between the posts.

Measure the railing opening from post to post to determine the length of the railing section. Subtract 1/2 inch from that meas-

urement to allow room for the two 1/4-in. thick railing connectors, and cut the top and bottom rails to size. Clamp the rails together. Mark the top and bottom rails 4-1/2 in. on center, beginning at the center of the rails. Use the stainless steel screws included with the baluster connectors to fasten the rubber boots on each

mark. Once the balusters are installed, their spacing measures less than 4 inches, which is the maximum typically allowed by code.

Place the bottom rail between the posts with the rubber connectors facing up. The Railing Connectors sit right on top of the post base trim, providing two inches of space between the deck surface and the bottom edge of the rail. Center the rail, and fasten the railing connectors securely. Then, slide the round ends of the balusters over the rubber connectors until they are firmly seated on the bottom. Carefully place the top rail over the balusters, making sure each baluster is properly seated inside the upper connectors. This may require a little encouragement from a rubber mallet.

I then cut a 2x4 spacer block to size (2 inches in this case) and glued it flush beneath the center point of the bottom rail to provide extra support from below.

Next, you're ready to rinse and repeat for the next section of handrail.

SOLAR POST CAPS

This handrail was looking mighty handsome, but I didn't stop with the enhancements. The crowing jewel(s) were the stainless Maine Ornamental Solar Post Caps. The good news for the DIY installer is that these decorative post covers provide illumination without the need to run wiring. They lap up energy from the sun during the day, and activate automatically at nightfall.

It occurred to me after beginning this project that it would be easier to stain the rails prior to installation rather than afterward.





I glued a 2-x4 block beneath the center of each bottom rail for extra support.

Repeat the installation procedure for each 6' section of railing.



COOL QUALITY

Black Jack® Ultra-Roof 1000
White Siliconized Elastomeric Coating



- Helps save \$ by lowering cooling costs
- Protects roofs for extended life
- Flexes up to 350% to resist cracking
- Delivers a brightest finish for improved aesthetics & cool roof benefits

Black Jack
 Professional's Choice Since 1913

www.gardner-gibson.com



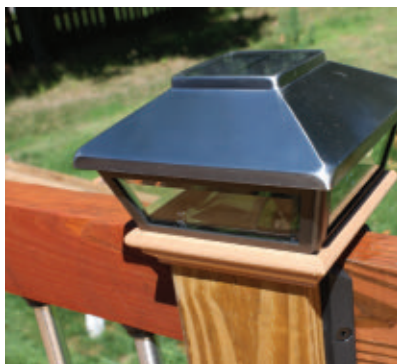
Activate the Solar Post Lights by removing the plastic tab from the battery terminal.



The post lights mount to the posts with a quality exterior-grade adhesive.

Activation and installation couldn't be simpler. To activate, simply pop off the metal cover, remove the plastic tab between the solar batteries and their terminals, and slide the little switch to "on." The lights install over the posts with construction adhesive or exterior-grade wood glue. I would suggest checking the lights for level and shimming as necessary until the glue sets.

I topped each post with a Solar Post Cap, and my selection of a stainless finish matched perfectly with the stainless balusters. I was proud of the completed project, as it incorporated real wood, my stain of preference (Sierra Redwood tone from Armstrong-Clark), as well as the stainless aluminum material that gave this deck a unique look unlike anything else in the neighborhood. **EHT**



The stainless finish of the Maine Ornamental Solar Post Caps complements the stainless finish of the Decorators balusters. The Maine Ornamental and Decorators line of products are available in a broad range of materials, colors and styles.

The deck and handrail system were stained with Armstrong-Clark's wood stain in Sierra Redwood tone to tie all the decorative elements together.



After a full day of sunlight, the solar lights activate automatically at dusk.



You're not ordinary.

Your deck shouldn't be, either.

Break free from the commonplace with a deck that stands out as much as you do. Deckorators offers an amazing selection of decking, balusters, rails, post caps and more in a wide range of colors and finishes, so you really can have your deck your way.

Find inspiration at Deckorators.com, and let your personality shine through.



DecXorators®
Go Beyond Ordinary

STOP LEAKS PERMANENTLY. MAXIMIZE PERFORMANCE.



DON'T BE HOT THIS SUMMER!

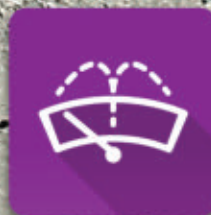
Red Angel A/C Stop Leak & Conditioner / Aerosol repairs leak points in automotive A/C systems. Red Angel "One Shot" is intended for the retail customer seeking a quick and easy installation. Complete with an attached coupler, Red Angel "One Shot" is a complete delivery system. Red Angel's aerosol product is for R-134a systems only. Each unit also includes a refrigerant charge. Permanent repair or your money back. GUARANTEED!



SCAN TO
REVIEW
OUR NEW
2015
DIGITAL
CATALOGUE



2015 bluedevilproducts | all rights reserved



BlueDevilTM PRODUCTS

STOP LEAKS PERMANENTLY. MAXIMIZE PERFORMANCE.

-  Guaranteed permanent repair for cooling and fluid oil system leaks
-  Compatible and safe for gas & diesel engines
-  Alternative cost-effective solution for vehicles not worth the hard part repair
-  Easy to use and non-harmful to vehicles, equipment, and shop machinery
-  Products available nationwide at your favorite auto parts retailer

1.888.863.0426 | www.gobluedevil.com



BUILDING A

Fences are game-changers—for both homeowners and their neighbors. Here's an alternative to the traditional wooden fence.



An alternative to an all-wood fence is one built from composite material, taking a cue from recent trends in the deck-building industry. Like synthetic decking, this composite fence material offers two major selling points: longevity and low-maintenance.

And, the benefits of composite material don't end there. With its integrated color, no painting, staining or sealing is required. Importantly, this means no repainting or re-staining down the road. The material won't split, warp, crack, splinter or succumb to termite damage. Furthermore, composite fencing features UV-inhibiting pigments so fading will be minimal.

The fence boards feature a natural wood pattern along with the same versatility of design as real wood. It works like wood, requiring no special tools or fasteners, and the fence can follow the contour of the terrain for safe containment of the family pet.

My project is a 6-foot, three-rail privacy fence running 18 panels long. It strikes a line between three urban back yards. Each end-panel swoops to an elegant and friendly finish.

FENCESCAPE

By Mark Clement

BUILDING A FENCESCAPE

STEP 1: LAYOUT

I mapped this fence run from control-post to a stake because it ended at an imaginary line between two houses, but I wanted the string to run all the way to the property line to ensure accuracy.

Carpentry Tip: Use a carpenter's pencil as a spool to play out the string. If you plan to re-use the string, roll it back up carefully.

Because the composite posts are hollow I used the fence parts for layout; not the U-jig I usually employ with wood fences. To mark the post-hole centers, I dropped brightly colored kid's driveway chalk into the center of the post cut-off that I was using as a template.



The hollow composite posts make full-size templates of the layout easier. I marked the center of the post with brightly colored kids' driveway chalk.



If you're going to re-use string, make sure to coil it back up carefully. Jeeze!

STEP 2: POSTS & RAILS

Install post heights wild. You can trim them to size later.

I rented a Dingo because I can maneuver the Dingo's auger to pinpoint layout. This is a huge time-saver compared to manually digging the post holes.



Since I used a 12-in. auger there's fudge factor to shift the post. Before setting the post, tamp the soft earth in the bottom of the hole with a digging bar.

The hollow posts are easier to move than solid posts. Once I got them located and plumb, pouring in 4 inches of gravel traps them in place.

MIGHTY PORTABLE

*Built for performance & endurance.
Mi-T-M has the equipment for all your construction needs.*



POWERED by
HONDA

ek
rap

TYVEK COM
cience

This 14,000-watt portable generator is built to withstand the most demanding work conditions and can be easily transported from jobsite to jobsite.



Learn More

- 688cc Honda engine
- Electric start
- Pneumatic tires

Cold & Hot Water Pressure Washers • Air Compressors • Portable Generators
Air Compressor/Generator Combinations • Air Compressor/Generator/Welder Combinations
Wet/Dry Vacuums • Jobsite Boxes • Portable Heaters • Water Pumps • Water Treatment Systems

800-553-9053

www.mitm.com

BUILDING A FENCEscape

Using the fence system's powder-coated brackets, I fastened the bottom rails on layout—on the high post, 8 inches up from grade. I pocket the rail, level it over and install the other end on the low-side post. The top rails come next—66 inches up from the bottom of the bottom rail. Use a



Tamp the soft earth with the blunt end of a digging bar.



Set the post in the hole. Use rail stock as a gauge-stick and plumb both faces of the post.



Set the rail layout on the high side then level over to the low side, mark the post and set the bracket.

speed square and combination square to lay out the rail bracket location then install the bracket. Installing the top rail further secures the posts for the application of concrete, which I mix and pour from a wheelbarrow—quickly spraying off any over-pour.

Once the concrete is dry I back-fill and tamp the holes, compacting the earth every 8 inches or so.

Next: Post cuts. I stepped these posts 4 inches above the top rail on the high side, marked and cut them with an 8-1/4-in. worm drive.

STEP 3: MIDDLE RAILS AND PICKETS

I installed the middle rail off-center—30 inches above the bottom rail—for a cool look. The fence's 2x rails remain rigid via an internal steel mesh but they cut easily with standard circ saw blades. Take note: They're crowned—or bent—so eye-ball them and install the crown up, like an arch. Store the rails as flat as possible before installing.

While the manufacturer recommends using screws, 1/2-inch crown staples, 1-1/2-inch ring shank nails or screws, I selected screws. I liked Grip-Rite's 1-5/8 inch composite screw which



Mark the post height, mark the rail location and install the rail bracket. Or, use cleats as in a wood fence.



eliminates the “mushrooming” common with fasteners in composite material, and it blends with the material’s color. It worked for the brackets, too, with the washer-head set flat. Undeniably, however, using staples would save hours.

When installing the pickets, or “slats,” I gang-cut them all at once. I typically employ a 2x4 spacer under my slats to allow a 1-1/2-inch weed-whacker gap—this is something I like as a homeowner and something my inspector likes to see, too.

Crown the rail stock and install with the crown up. Fasten with screws. I liked 1-1/2” Grip-Rite composite decking screws for this application.



TOOLS

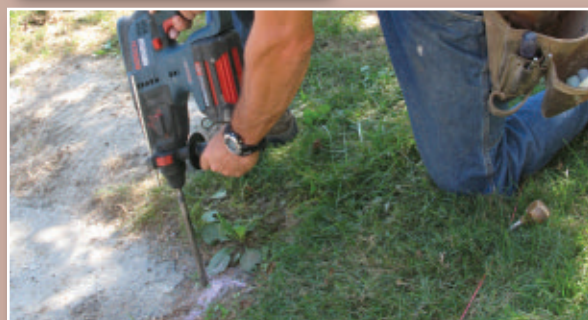
If you think you’ll only be using a few carpentry tools—make sure your landscape stuff is gassed up, anyway. I couldn’t get by without my chainsaw, string trimmer, pruners, recip saw, gasoline-powered blower and two different rakes, plus remodeling tools like a recip saw and cordless chipping hammer to zap out some asphalt that was paved past the property line. And, a buried concrete blob needed to be chipped away to make room for a new post.



Fences are about 90 percent carpentry but to leap all the hurdles a fence site throws at you, it’s best to be ready with your landscape stuff, too. My chainsaw was the best tool for clearing this underbrush.



In another instance of “be-ready-with-your-landscape-stuff,” pruners save the day cutting roots out of this hole.

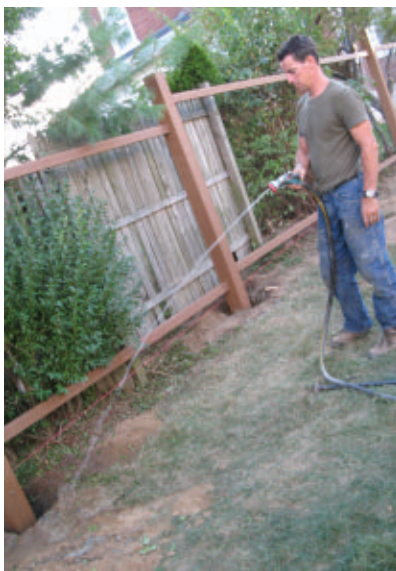


This one from the “nothing’s ever easy department”: The edge of the driveway was under a fence post. Alas, my cordless chipping hammer made quick work of the asphalt.

BUILDING A FENCE



Drop 4 inches of gravel into the hole, then mix and pour concrete. Be ready with a garden hose to spray off any spillage.



STEP 4: TRIM PIECES

For a completed look, you can pop the post caps on with a finish nailer, but I found them a little too brittle. A few dabs of Phenoseal on the underside is actually easier anyway, then just lay them on.



I use a 2x on the flat as a spacer to create a weed-whacker gap at the bottom of the fence. Also, I cut the first two slats to length and install. The rest I install wild until the last two, which are also cut to fit.



Cut the last post to height. An 8-1/4" circ saw like this Skil worm-drive makes quick work of this because you can make the cut in two passes.

Because the posts are proud of the rails, you have to install the first two fence slats to fit. Then install the rest wild—until the last two. Again, because of the posts, they are cut to fit. The last slat gets ripped to fit.

When it's time to trim the wild boards, you can gang-cut the slats from either side of the fence.



Cut wild slats to length, then cap with trim pieces.





Beautify Exterior Design with a Luxury Hardwood Look

1. Position 2. Click 3. Admire

Now there's a proven, affordable way to extend the home's hardwood flooring to the outside living area.

Deck-A-Floor is the patent-pending composite timber system that requires no screws, joints, or nails to install. The revolutionary system mimics the luxury look of exotic hardwoods right down to the timber's subtle color variations. Architects, designers, and homeowners like the rich, authentic hardwood look that's nearly impervious to sun, wind, rain, snow, temperature extremes, as well as stains, scratches and other entertaining hazards.

The 40-inch long flooring boards snap-in-place to a grid system easily configured to nearly any design requirement. Have a unique outdoor pattern in mind? No problem. It's easy to showcase flooring creativity and a stylish hardwood look with Deck-A-Floor.

- **Perfect for decks, patios, or pool surrounds**
- **Stain-proof, scratch-resistant**
- **Nearly maintenance-free – no sanding, staining, or painting**
- **Hardwood looks in Westminster gray, Spanish walnut, and Peruvian teak**
- **25-year limited warranty**

Homeowner Eric Anderson of Charlotte, N.C. says:

"Deck A Floor is perfect. Our porch has hardwood beauty without maintenance headaches."

Beautify exterior environments with the luxury look of hardwood with the durability and versatility of Deck-A-Floor. Available now exclusively through The Home Depot.

NewTechWood
281-570-6450
www.newtechwood.com

Patent Pending

DECK-A-FLOOR®

By NewTechWood

BUILDING A FENCESCAPE



Use construction adhesive to set the post caps.

The composite fence system also features slat and rail caps. Trim the slat tops with a nominal 1x4 piece, then cover that and the rail with a second 1x4.

Layout Note: The rails were 96 inches, but the 1x4 stock is shorter. Double-check these elements against each other before building for tighter tolerances in the end.

STEP 5: SWOOP ON IN

For a decorative arc, plotting the cutline is a snap. After setting my last post—a 48 inch— and slats, all I do is flex some 1x4 between two points on the high and low side, eye-ball the most graceful curve, then trace it. Note: I start the arc one full, square board inward from the high side to give the saw room to travel. I install an angle brace to support the slats then set my circ saw about 3/4 inch depth of cut and follow the line.

The result is a cool-looking fence that will last years with minimal upkeep. **EHT**



Bend a piece of composite to locate the swoop and trace it. I always start the bend, one full board in from the end to give the saw room to cut. Then I set the saw just past the depth of the material and cut.





**PERMANENTLY BONDS TO
ALMOST EVERYTHING!**

QUICK ROOF™

ULTRA BOND

with



STEEL-LOC
ADHESIVE

**INSTANTLY
STOPS LEAKS IN:**

- ROOFS
- SKYLIGHTS
- GUTTERS
- FLASHINGS
- RV's/MOBILE HOMES
- TRUCKS/TRAILERS
- GARDEN SHEDS
- POND LINERS
- TARPS, TENTS
- BRICK/CONCRETE
- AND MORE



Available in both black & white
6"x25', 4"x25' & 4"x10' rolls.

**VISIT US AT THE
INTERNATIONAL BUILDERS
SHOW BOOTH #2418**



**COFAIR
PRODUCTS, INC.**

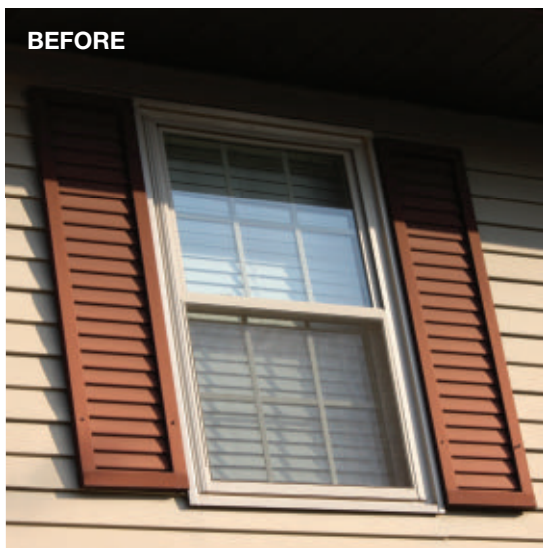
**800-333-6700
www.cofair.com**

SHUTTERS,



TO THINK

BEFORE



Replacing your shutters? Consider installing decorative urethane shutters for years of low-maintenance curb appeal.

A home makes its first impression through its curb appeal. When repainting the exterior siding and trim of EHT's current project house, we decided to boost its curb appeal by replacing the old, hollow aluminum shutters with solid urethane shutters that had a more contemporary style.

Although aluminum holds up to weather fine, over the years the painted shutters had severely faded and become dull with chalky residue. We would have to remove them from the house, even if it was just to repaint them. Since this was the case, we took the opportunity to replace them completely, opting for a raised double-panel design rather than the louvered look of the old shutters.

By Matt Weber

SHUTTERS, TO THINK

We removed the old shutters by simply backing out the mounting screws. Be sure to have a plan to support the weight of the old shutters.

Aside from the stylistic update, urethane shutters offer several other material advantages. Solid urethane shutters are insect-resistant, will not bow or fade over time, and they're more resilient to weather exposure than wood or polypropylene shutters. Urethane is a very lightweight material, making the new shutters easier to lift and install than the old ones, and the material is easy to drill and screw.

We selected three pairs of shutters from Fypon, a company which offers 123 different sizes and styles of shutter and shutter accessories, such as quarter-round, elliptical or transom accent pieces to extend the height and



decorative appeal of the shutters. The roof clearance above the windows of our project house didn't leave room for trim pieces, but the replacement shutters alone went a long way toward providing a fresh, modern look to the house façade.

PAINTING AND DESIGN OPTIONS

The shutters we chose had a smooth white finish, although Fypon also offers wood-grain as a finish option. The shutters can be painted any color or stained, and will not chip or peel, since the material cannot absorb water. Whereas we chose a double-pane design, you can also choose from raised triple-panel shutters, traditional louvered shutters, and louvered shutters with center rails.

If you're interested in wood-grain styles, you now have the option of two-, three- or four-panel arch top board shutters, along with new three- and five-board shutters. A realistic cedar wood-grain texture is available to complement the southwest



The shutters were painted with a high-quality acrylic latex paint.



Use a foam roller to achieve a smooth, uniform paint finish free of bristle marks.

style popular in homes from Texas to California.

To add color to the shutters, I applied a high-quality acrylic latex paint to tone the shutters just a shade darker than the gray-beige tone used for the house siding. A 2-inch brush works well to work paint into the recessed channels of the raised panels. For the face of the shutters, I applied the paint with a foam roller. The foam roller does a great job of eliminating bristle marks for a very uniform paint finish. Apply two coats and allow drying time between each.

HOW TO REPLACE

While the shutters were drying, I pulled the old shutters off the house, which were held with a few 2-1/2-inch aluminum screws

fastened through the siding into the house sheathing. If removing old shutters, make sure you have a plan to support the weight of the shutters once you remove the fasteners. Once removed, I sealed the old screw holes in the siding with silicone sealant to keep out any insects.

To mount the new shutters, I first used a countersink bit to

pre-drill holes for the fasteners. These shutters were 48 inches high, so I predrilled six screw holes per shutter, two at the top, middle and bottom.

In addition to fastening with screws, I glued the shutters to the siding using polyurethane construction adhesive. Due to the beveled profile of the aluminum siding, I ran a bead of adhesive only along the ridges of the siding that would contact the rear of the shutter.

Before installing, I measured the windows and then the shutters. I then marked the shutters at the top and bottom with some faint pencil marks that indicated where the shutter should be installed along the window casing to be perfectly centered against the window.



Elevating the shutters on a few Painter's Pyramids provided easy access to paint the edges.

SHUTTERS, TO THINK



Pre-drill countersink holes so the screw heads will be recessed below the surface of the shutters.

I used 2-1/2-inch self-starting wood screws as fasteners.



For a belt-and-suspenders approach, I also glued the shutters in place with polyurethane construction adhesive.



The urethane shutters are light enough for one man to install. Just zip in a couple of screws at the top to support the weight, and that's enough to hold the shutter in place while you finish the installation.

Make sure the screw heads lie below the surface of the shutter, leaving room for the wood filler to follow.



Thanks to the light weight of the shutters, I was able to install them alone, even while working on top of a ladder. Holding the shutter in place with one hand, I drove a couple of 2-1/2-inch self-starting aluminum screws into two of the predrilled holes, fastening from the top downward. Two screws is enough to hold the shutter in place while you drive the remaining fasteners, moving the ladder if necessary. It's important to use self-starting screws so the tips feed easily into the siding on the opposite side of the shutter

and bite solidly into the house sheathing.

Repeat this procedure for each remaining shutter—it's a fairly easy job. The heads of the screws were recessed in the countersunk holes I had drilled. So, once all the shutters were installed, I filled all the fastener holes with plastic wood filler that had a similar tint to the paint color. Once the filler cured, I carefully sanded the patched spots and touched up the paint with a foam roller.

Painting time aside, it only took an afternoon to replace

EngineerSupply™
Smart Products. Smarter Shopping.

Authorized Dealer of:

AGL

Bosch

Crain

CST/Berger

Johnson Level

Leica

Pacific Laser

Seco

SitePro

Sokkia

Topcon

**GET ON
OUR LEVEL**

ENGINEERSUPPLY.COM



SHUTTERS, TO THINK

the shutters, and the result was a snappy enhancement to the exterior décor that would last for years with minimal maintenance from the homeowner. **EHT**

Editor's Note: For more information on Fypon shutters, millwork and trim products, visit www.fypon.com.



Wood putty tinted similar to the shutter paint will make it easier to conceal the dried filler when repainting.

Once dry, sand the wood putty smooth with the shutter.



The final step is to touch up the patched screw holes with paint.

ETERNA-KOTE®

Silicone Waterproofing Technology 

High Performance SILICONE Roof Coating

Ideal for Flat Roofs with Ponding Water

- 50 Year Warranty
- 100% Silicone - Bright White
- Can help lower cooling cost*
- Best Ponding Water Resistance
- Stretches to resist cracking
- Faster application



eterna-kote.com

* This product can help lower cooling costs in buildings that use air conditioning. This product will reduce the surface temperature of the roof, which lowers the amount of heat gain that penetrates through roof surface.

What are the symptoms of a Blown Head Gasket?

There are some makes or models of cars that have a reputation for blowing head gaskets. One vehicle I owned had such a bad reputation for head gasket problems that there was a group of owners trying to get the manufacturer to have a recall on them. If you happen to own one of these vehicles, don't worry... it does not mean that you have a bad car or that you are going to spend lots of money.

The head gasket forms a seal between the engine block and the cylinder head. This seals both the combustion chamber and the coolant passages in your engine. This means your head gasket has to seal both extremely hot high pressure combustion gases as well as engine coolant which can be anywhere from cold ambient temperatures to the normal operating temperature of your engine. Due to the wide range of temperatures and relatively large surface area, it is not unusual for head gaskets to develop leaks over time.

Since the head gasket seals the coolant passages both from the atmosphere and the combustion chamber, you can't see or get to much of the head gasket on a vehicle. Because much of the gasket can't be seen without disassembling the engine, it can be very difficult to diagnose a head gasket leak. Since a visual inspection usually will not prove a head gasket leak, it is important to know the other symptoms so you can accurately diagnose a head gasket problem.

Blown Head Gasket Symptoms:

- Coolant leaking externally from below the exhaust manifold
- White smoke from the exhaust pipe
- Overheating engine
- Bubbles in the radiator or coolant overflow tank
- White milky oil
- Significant loss of coolant with no visible leaks

The only externally visible sign of a blown head gasket would be coolant externally leaking from the head gasket. The head gasket will be below or inboard of the exhaust manifold. Most head gasket leaks will be between the combustion chamber and the coolant passage in your engine. On the intake stroke of the cylinder closest to the leak, coolant will be drawn in under the vacuum created along with the intake air charge. Upon combustion, the high pressure will force exhaust gases past the head gasket into the coolant passage. This process will repeat itself for every revolution the engine makes.

As coolant is pulled into the combustion chamber it will cause your engine coolant level to drop. This can cause a low coolant light and overheating if the cooling system on your vehicle is not continually topped off. Also, once your engine is turned off the coolant still left in the engine cylinder will seep past your piston rings into your engine oil. Coolant mixed with oil will make a white milky substance. You may see this on your engine oil dip stick or on a ring around your oil cap.

If your engine is running the small amount of coolant that is in the combustion chamber will turn into steam and white smoke upon combustion. If you are checking your exhaust pipe for signs of white smoke, make sure your vehicle is fully warmed up and idling during a warm part of the day. A cold engine on a cool day will produce a small amount of water vapor which will look like white smoke from your exhaust pipe. If the exhaust has a sweet smell to it then it mostly likely is a head gasket problem.

Lastly, during the combustion process the high pressures in the cylinder can push exhaust gases past the head gasket into the engine cooling system. The exhaust gases will be trapped in the cooling system and will be circulated through your engine and into the radiator. During normal operation your engine's cooling system remains under pressure, so never remove the radiator cap while the engine is operating or still warm. If your vehicle has a coolant overflow tank you can check that for the presence of bubbles. To be certain you can purchase a test kit from your local auto parts store that will chemically check your engine coolant for the presence of exhaust gases.

Usually one of these symptoms by itself is not enough to prove you have a head gasket leak, but if you have multiple symptoms at the same time it is likely that you have a head gasket leak. It is important to drive your vehicle as little as possible if you have a head gasket leak. The hot gases and cold coolant moving through the hole in the gasket can quickly erode or warp the metal head or engine block leaving you with costly machining bills or even having to purchase new heads or a new engine.

To quickly and permanently seal your blown head gasket, go to your local auto parts store and pick up a bottle of BlueDevil Head Gasket Sealer. Installation requires the removal of your vehicles thermostat and a complete cooling system flush but is guaranteed to fix your blown head gasket!

Don't risk getting stranded or damaging your vehicles engine by driving with a blown head gasket. Stop by your local auto part store today and pick up the quick and easy solution from BlueDevil Products!

BlueDevil
PRODUCTS
STOP LEAKS PERMANENTLY. MAXIMIZE PERFORMANCE.



Simple Repairs for Asphalt Roofs

Add life to your shingles.



By Matt Weber

Roofing installation is a costly and complicated project, which is why it makes sense for homeowners to stretch their improvement dollars by maintaining their existing asphalt shingles to the best of their abilities. The roof is the primary weather barrier of the home—a place where damage should never go unaddressed. The forces of harsh weather and ultraviolet rays will inevitably wear the roof to the point of requiring replacement, but homeowners can conduct some basic upkeep procedures that will help keep out the rain a little longer.

SHINGLE REPAIR

Do-it-yourselfers who aren't afraid of heights can make simple but important repairs

to loose shingles and flashing. Asphalt shingles are the most widely used roofing material in residential construction, accounting for roughly 80 percent of the U.S. market. Today's asphalt roofing greatly outperforms the shingles available 30 years ago, but still cost significantly less than higher-priced rivals (including tile, wood, cedar, slate and metal). Typically, very little maintenance is required; but that does mean *some*.

After a couple of decades, or after severe storms, you'll need to inspect an asphalt roof for signs of deterioration. The most obvious perpetrator is a roof leak, indicated by water stains or wet areas in the attic. In some cases these can be patched, but in the case of a serious leak you may need

to re-roof. Remember that when tracking the source of a leak, once the water has penetrated the roof it often will flow down the ceiling or framing before dripping onto the ceiling below. So evidence of a leak on the ceiling can be misleading about where it originates on the exterior of the house. If you have access to the attic, first locate the entry point of the leak from inside the house before trying to address it at the roof level.

Also, excessive loose mineral granules in the gutter or bare spots on the shingles are evidence that the asphalt is deteriorating. Sunlight and freeze/thaw cycles can weaken the adhesive that holds the granules to the roofing material, which will eventually require replacement or recovering. Shingles also tend to crack or curl from sun exposure, and wind can blow them off the roof.

Repair loose or buckled shingles with roofing cement. The idea is to prevent simple loose shingles and dog-eared corners from catching a strong wind and pulling away from the roof and opening a major gap in the building envelope. You can pick up roofing cement/sealant in caulk-type tubes for use in a caulking gun. Make sure the product is labeled for your intended application. Also, roofing cement can be used to patch cracks or minor breakage in the shingles. While asphalt shingles are designed for years of low-maintenance performance, eventually—hopefully 15 to 20 years—it will need to be re-shingled.

If necessary to replace a shingle, tear off the uppermost damaged

World's first and only integrated safety gate latch and alarm



Child Safety Gate Latch with **ELECTRONIC ALARM**



NEW Visual & Audible alarms • Visual indicator provides locked and unlocked status • 6-pin rekeyable security lock • Vertical & horizontal alignment indicators and adjustment • Superior performance in extreme climates • Release knob is out of the reach of children and pets • Tested to 2 million cycles • Rust and corrosion proof • Meets international pool barrier codes



MagnaLatch ALERT is available in a 20" model for child and swimming pool safety as well as a 10" model for child and pet safety.

 **D&D Technologies**
World's most trusted gate hardware

P: (714) 677-1300

E: info@ddtechusa.com

www.ddtechglobal.com



Available on Amazon or through your local fencing contractor

For the complete line of premium gate hinges and latches, visit
www.ddtechglobal.com

shingle by grabbing its sides and pulling it loose. Do the same to the other damaged shingles beneath it. Use a pry bar to remove the old roofing nails. Patch any holes with roofing cement. Reinstall new shingles using the manufacturer's standard shingle-replacement procedures, and working toward the upper courses (see diagram for typical nail/sealant application). When you reach the top course, coat the top of the last shingle above the seal line with roofing cement. Insert the last shingle beneath the overlapping shingle. It may help to drive a couple of nails to anchor the installation. Bear in mind that the heads of roofing nails should be fastened flush to the roofing material but not penetrate through the shingle.

ROOF PENETRATIONS

Keep an eye on roofing penetrations such as flashing around pipes and skylights, which are prime candidates for leaks. For loose flashing, refresh the seal with new roofing cement.

Many of these metal roofing fixtures, such as HVAC pipes, vents, etc., are prone to rust. Not only can these be unsightly detractors of your home's curb appeal, but if left unchecked the



Excessive mineral granules in the gutter can be an indication of wear on asphalt roof shingles.

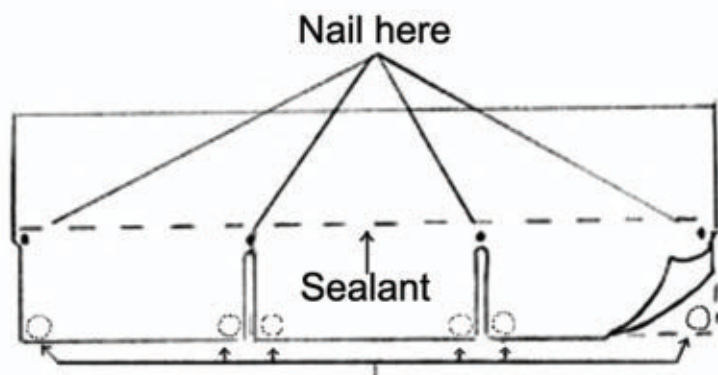
metal can completely corrode through the material and cause structural problems. A handheld wire brush is a good tool to scrub away rust from roof fixtures. Or, boost your abrasive power by chucking a circular wire brush into an electric drill. Knock off all the reddish brown spots and wipe away the loose dust. Then, apply oil-based metal primer to the fixture. A quality primer helps protect the metal, and they're available in a wide variety of colors to complement common roofing tones. Always use drop cloths when

painting at the roof level to avoid accidental spills that can be very apparent on the roof surface.

CLEANING AND PREVENTION

One common complaint about aging roofs is the presence of black streaks or stains that may develop over time. The dark streaks are usually algae, and without the right chemicals, they can be difficult to address. Whereas a bleach or chlorine-based solution applied with non-pressure methods will kill black algae and generally rid the stains with the rinse phase, this method alone won't prevent the algae from returning in just a few months.

Another option is to use a sodium hydroxide-based product like Stainhandler from Savetime Corporation (www.stainhandler.com). Stainhandler is a biodegradable product and when properly mixed and applied according to directions it will not harm your plants. The product is sold in a concentrated formula, which the user dilutes and applies with a pump-up



On steep slope roofs (over 21/12), apply 1" spots of roofing cement beneath the corner of each tab.

type of garden sprayer. The entire surface should be sprayed to avoid streaking. Allow the product to work for fifteen minutes and then rinse off the roof with a garden hose. (EHT recommends avoiding the use of a pressure-washer when working on roof shingles, because too strong a stream can blast holes in the asphalt.)

To prevent future staining for up to 20 years, homeowners can follow the cleaning procedure by installing zinc strips at the ridge line of the roof. With this system, when rain flows over the zinc, harmless zinc oxide is created. The invisible zinc oxide then coats the roof surface and inhibits the growth of fungus, moss and algae. Zinc strips are available from a



variety of manufacturers and can be used on new or existing roofs.

To install zinc strips, start at either end of the roof peak and install a continuous row under the



Sand away rust on metal roof fixtures and coat with an oil-based metal primer.

ridgeline. Apply roofing cement along the sealant edge and slide the strip beneath the shingle, leaving the lower half exposed to treat the rainwater. Nails are not

ALTERNATIVE MEDICINE

If your asphalt shingles are beyond repair and recovery, it may be time to pull the plug on them and install a new roof. Replacement shingles are always an option, but it's one of many. Here are a few notable products that help round out the world of roofing.



ATLAS ROOFING'S "SELECT YOUR ROOF" APP

Compatible with iOS 7 and iOS 8, Atlas Roofing's free Select Your Roof app is a must-have visualization tool for homeowners considering new roofing styles and shingle colors. Select Your Roof is a free, two-component app for the iPad that takes homeowner stress out of choosing and purchasing a new shingle roof. The first component is called the Shingle Visualize, which allows users to pick from among Spanish, Colonial, Cape Cod and other housing styles and select from an array of Atlas shingle styles and colors. The app allows homeowners to mix and match as often as they want to find the perfect look for their home. The second component in the app is called My Roof Color Gauge, which offers the same features with an additional benefit: Homeowners can use pictures of their

own homes—taken with their iPad—instead of pre-selected image styles. There isn't a more accurate way to envision the outcome of a particular shingle. If you don't have an iPad, you can still access the Select Your Roof app online at www.atlasroofing.com.

HEATIZON ROOF DEICING

ZMesh from Heatizon is a durable, low-voltage bronze screen heating element that serves as a long-term solution for winter ice and snow problems on roofs. ZMesh is installed under non-conductive (non-metal) roofing surfaces including asphalt, slate, cedar shake shingles, as well as membrane roofs. It can be nailed and stapled, providing an easy installation for invisible protection that lasts. The heating elements carry a 25-year warranty. For gutter deicing, GutterMelt features a self-regulating cable with a 10-year warranty, and can be installed in gutters, downspouts, along eaves and in valleys. Learn more at www.heatizon.com.



required, although there should be a 1/8-inch gap left between the strips to allow for thermal expansion.

From basic repairs to preventive maintenance, these simple procedures for asphalt roofs amount to no more than a weekend's worth of work, but they can pay off greatly in the long run of your roof's performance. **EHT**



Zinc strips installed over asphalt shingles can protect the roof from algae stains.

ALTERNATIVE MEDICINE



METAL ROOFING WHOLESALERS

Metal Roofing Wholesalers is a low-cost supplier of quality metal roofing products at competitive prices. Products include the most economical and widely used 3-foot wide roofing panels (custom cut to any length per your specifications); metal shakes, Mexican tile, metal slate and many other styles, all with a baked-on enamel coating using the most advanced coating systems on the market today for years of durability. Also available are different styles of standing-seam panels for both residential and commercial use. Metal Roofing Wholesalers sells roofing products nationwide and ships direct to the consumer from one of many manufacturing facilities located throughout the country. Learn more at www.metalroofingwholesalers.com.

LEAK STOPPER CLEAR PATCH

Gardner-Gibson's Leak Stopper Clear Patch (0339-GA) goes on white but dries clear. This advanced clear sealant has outstanding adhesion to a variety of surfaces, and provides a long-lasting rubberized seal for almost any application. This premium formula has outstanding UV resistance, stays clear and will not "yellow or cloud" over time like other products. It is ideal for repairing cracks in exterior or interior applications where you need an elastic seal but don't want it to be noticeable. The product is water-based, and will have a cloudy white appearance when applied, but dries clear and can be painted if needed. Visit www.gardner-gibson.com.



HIGH PERFORMANCE ROOF FLASHING

Why Choose Perma-Boot?

Modern roofing systems demand modern flashings.

Do it right the first time by choosing the only pipe flashing engineered to go the distance.

- No Rubber Gasket To Fail
- Designed For Standard Roof Pitches From 3/12 - 12/12
- Color Match Compliments Shingles
- Sizes Available 1.5" / 2" / 3" / 4"

Colors Available:



Black



Brown



Gray



Weathered Wood



PERMA-BOOT™

.com

MANNING
BUILDING PRODUCTS



HOT PRODUCTS



C80 VERTICABLE RAILING

Digger Specialties, Inc. announces its latest line of Westbury Aluminum Railing—the C80 VertiCable. New to the industry, the 1/8-in. vertical 316 SS cables offer virtually unobstructed views, accompanied by 9/16-in. round balusters for durability. Cable tensioners are gone and no unsightly fasteners are required. The VertiCable sections are factory-assembled and shipped on pallets ready for quick installation. Level sections are offered in 36-in. and 42-in. heights including 4-, 5-, 6- and 8-ft. lengths. The full line of Westbury “C” Series standard posts, crossover posts, caps, flairs, and time-saving brackets complement C80 VertiCable. All 12 standard AAMA 2604/PCI A2 architectural-grade colors are offered with VertiCable. Visit www.diggerspecialties.com or call 1-800-446-7659.

SPYDER 3X3 DOUBLE-SIDED BLADES

Spyder Tools expands its unique line of rounded tip, double-edged blades with a longer-lasting, cobalt-strengthened version. Spyder’s 3X3 double-sided reciprocating saw blades allow users to plunge cut and make multi-directional cuts with ease, even through metal. Spyder has taken its unique 3X3 design,



with its double-sided cutting surface and rounded tip, and added 8-percent cobalt for longer-lasting, tougher cutting. With three cutting surfaces—the traditional bottom edge, the top and the rounded tip—these blades allow users to get the most productivity. The double-edge blade allows for multi-dimensional cuts without flipping the saw over. The rounded tip makes plunge cuts easier, eliminating the need for pilot holes. With two cutting edges, users also get double the cost effectiveness. These blades are designed to cut wood with nails, pipe, sheet metal, plastic, fiberglass and other common construction materials. Visit www.spyderproducts.com.



ARCHITECTURAL REMNANTS LAMINATE FLOORING FROM ARMSTRONG

The Architectural Remnants line of laminate flooring pairs the exquisite look of high-end, reclaimed hardwoods with various species and colors and realistic rustic textures. True reclaimed woods are usually not readily available and are often impractical (or unaffordable) to most homeowners, but Armstrong’s new laminate floors offer truly unique, vintage-inspired designs. For high-traffic areas and active households, the durability of Armstrong laminate is hard to beat. The offering comes with Commercial VisionGuard, a commercially-rated wear layer, to protect it from staining, fading and wear-through. In addition, the line is also equipped with HydraCore Plus, a core that is built into the product in order to make it feel more lavish than your everyday laminate flooring. Visit www.armstrong.com. **EHT**



CARGO Max

XRT 8-57 Xtreme Rugged Technology

With Ultra Body™

Perfect for the yard, woods, or freeway
Frame and bed will never rust, rot, or ever need paint



The ultimate large capacity grab and go trailer



Combines strength, functionality, and style

Watch the video!



1983-2015
CELEBRATING
32
YEARS
FLOE International



Want the best? Go with the FLOE! floeintl.com

PEER to PIER

Navy Pier 2015

**remodeling
SHOW**

deck **EXPO**

JLC LIVE
RESIDENTIAL CONSTRUCTION SHOW

THE PREMIER TRADE SHOW FOR RESIDENTIAL BUILDERS AND REMODELERS

EXHIBIT HALL: OCTOBER 1 – 2 | CONFERENCE: SEPTEMBER 30 – OCTOBER 2 | NAVY PIER

REGISTRATION OPENS IN JUNE!

USE PROMO CODE M17 TO RECEIVE A FREE EXHIBIT HALL PASS!

WWW.REMODELINGDECK.COM

Official Show Sponsors



Official Publications

remodeling deck builder JLC

Promo Code: **M17**



P R E M I U M S T A I R P A R T S C O L L E C T I O N



Gather Inspiration.
Design with Dramatic Flair.
Create a Unique Masterpiece.

We've focused our passion for excellence in design and craftsmanship to produce a series of Hardwood Collections that offer a varied palette to create the style, scale and look that is right for any room or foyer.

Select from a broad array of designs that easily adapt to any decor and can be combined with our Iron Collection and Box Newel Collection to create a truly unique look.

SINCE 1874 - WE'VE GOT YOU COVERED EVERY STEP OF THE WAY. **WM-COFFMAN.COM** (800)-810-9204