



GreenBuilder®

2012

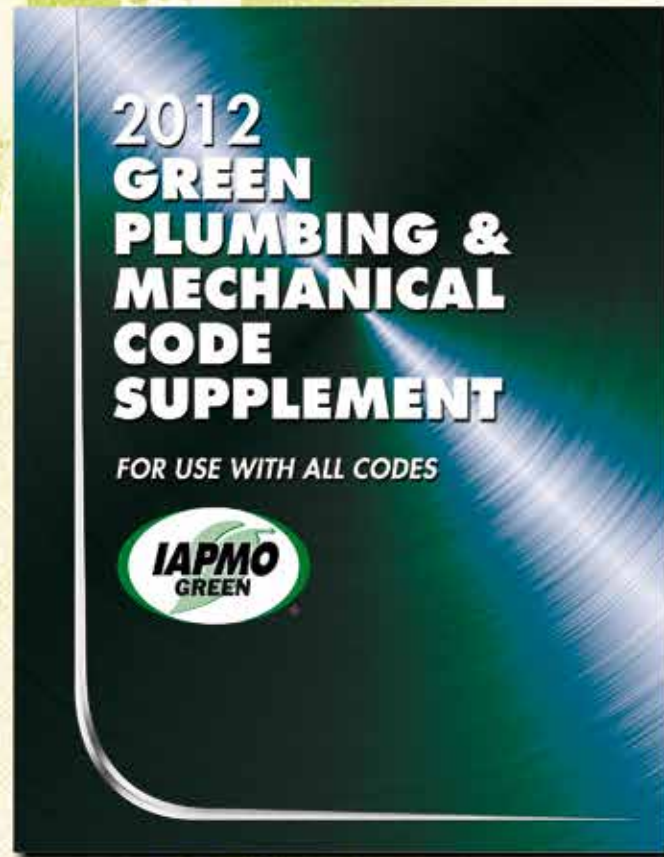
THE HOT 50 PRODUCTS

Looking for eco-friendly products that you can trust? Here's our annual list of editors' picks, chosen for their overall impact, innovation and reliability.



Black and White and **GREEN** All Over

Only one publication spells out the best sustainable plumbing and mechanical building practices in simple, straightforward code language: the *Green Plumbing and Mechanical Code Supplement*.



- Provides needed guidance for designing, installing and inspecting sustainable plumbing and mechanical systems called for in green building rating systems and standards such as LEED for Homes and NAHB's National Green Building Standard™
- Provides the most comprehensive collection of plumbing and mechanical provisions available toward increased water and energy efficiency
- Provides related installation and maintenance requirements
- Where possible, the *Green Supplement* provides commentary detailing the water and energy savings associated with the provisions detailed within its language

The Green Supplement is not a "greener" version of the Uniform Codes, but rather a separate document establishing requirements for green building and water efficiency applicable to plumbing and mechanical systems.

www.iapmogreen.org



JOHNS MANVILLE'S BEST-IN-CLASS HYBRID SOLUTION

IS THE INSULATION OF CHOICE IN PURSUIT OF ZERO ENERGY



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With the Johns Manville best-in-class hybrid solution, the versatility of our different insulation systems will fit the design of your build, not the other way around. That's why experts chose JM as an insulation provider for the Best Practices Research Alliance's Energy Efficiency Lab Home.

JM is the only company to manufacture and offer a complete hybrid solution that includes both spray foam and certified Formaldehyde-free™ fiber glass insulation. This means you can increase energy efficiency, deliver thermal comfort and provide acoustical performance with a single insulation source no matter what the situation. And wait until you see how easy it is to install.

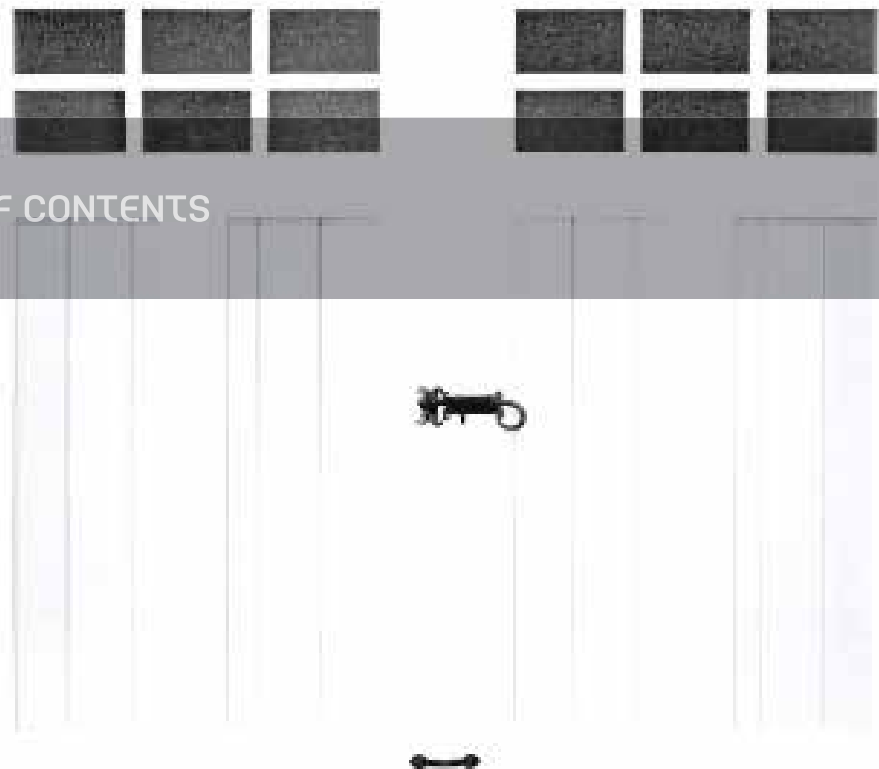
Learn more about the Best Practices Research Alliance's Energy Efficiency Lab Home and how you can use JM to build better homes faster with our innovative product line. Visit specJM.com/casestudies to learn more.

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Photo: Clappay



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HERE'S A SAMPLE OF WHAT'S INSIDE:

"Branding is about perception, and it's not always a rational response, even among architects, builders, energy auditors and engineers. But that's what makes this key area of sustainable building so interesting."

THIS MONTH'S GIVEAWAY FROM ICYNENE **04**

THE HOT 50 GREEN BUILDING PRODUCTS **10**

Our second annual editors' choice selection of 50 top green building products reflects the state of the industry. While the next game changing technology hasn't arrived yet, it's easy to create outstanding green buildings by combining products like these.

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THE CLOCK TOWER PROJECT **38**

Ravaged by storms, slowed by politics and daunted by design challenges, this novel and outstanding rehab proved all of the skeptics wrong. The end product is a functional work of art.

READERS' CHOICE GREEN BRAND SURVEY RESULTS **49**

Wonder which brands are winning the hearts of our readers? Here's the full survey, with brief commentary from *Green Builder's* editors.

FROM THE TAILGATE **64**

New offerings for the sustainable minded.

ON THE COVER

THE HOT 50 PRODUCT GUIDE

Artist: Philip Cottrell

Background Graphic: The Pharos Project (www.pharosproject.net);

Center Image: PowerConcrete (p. 12)

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for up-to-date news analysis, case studies, new green projects, code and reg updates, thought-provoking blogs, cutting-edge products and much more.

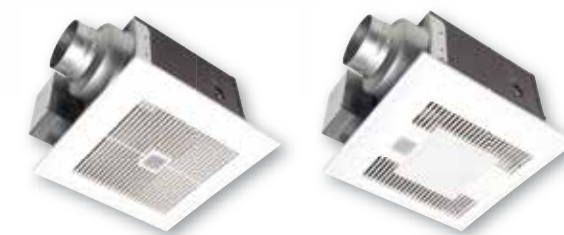


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Learn more at www.panasonic.com/ventfans

Visit us at the International Builders' Show (IBS), Booth #W3929

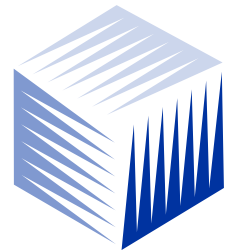


Panasonic ideas for life

ENERGY STAR® is a registered mark of the U.S. Department of Energy (DOE).

This Month's Giveaway

Win an Icynene insulation package: \$2,000 worth of high-performance spray foam insulation.



ICYNENE®

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Prize must be claimed by September 30, 2012

For general information, visit their Web site: www.icynene.com/save



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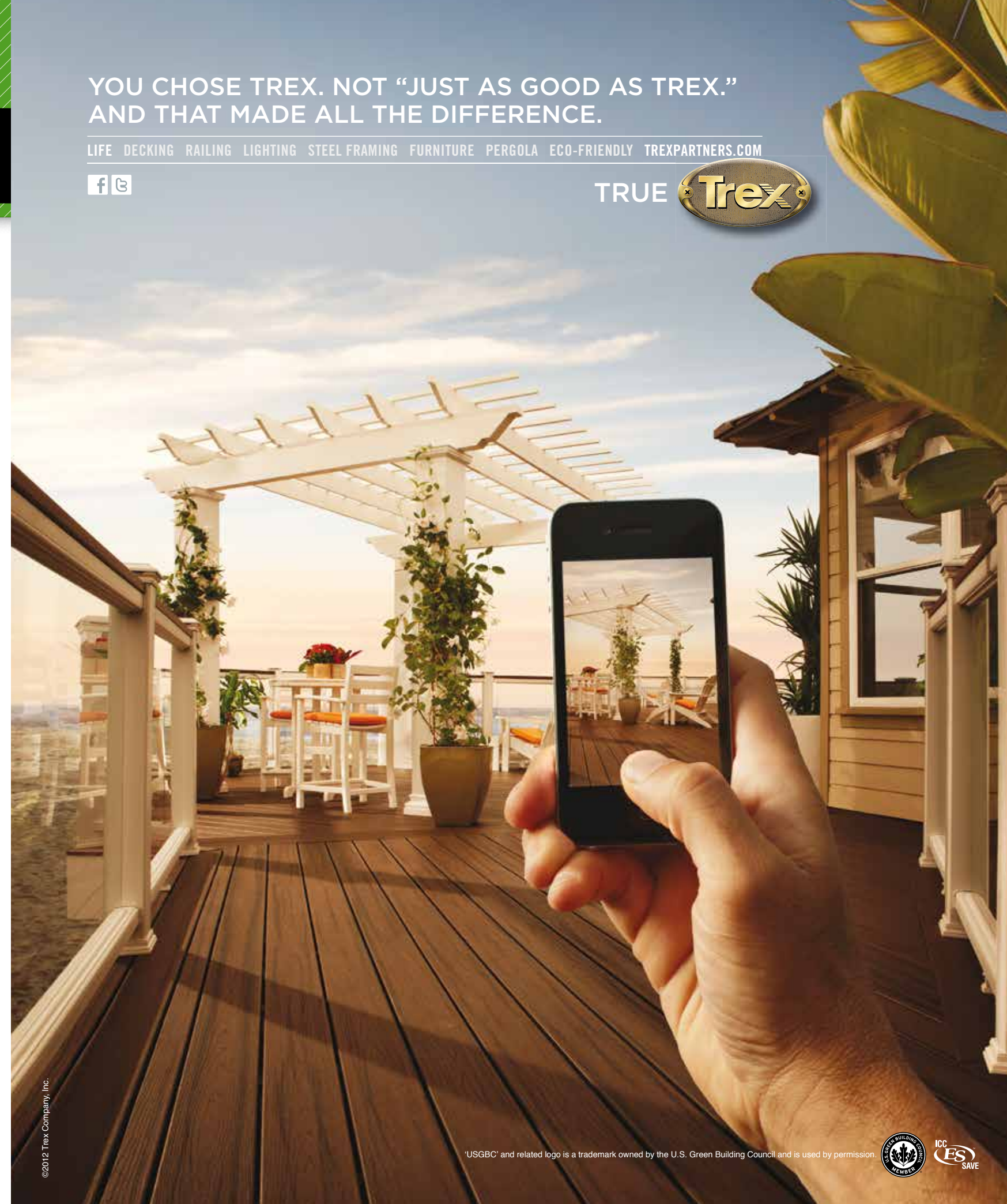
MISSION STATEMENT: "Our mission is to effect meaningful, positive change for a better world. As advocates for sustainability, we provide mind-expanding information that catalyzes and inspires commitment to sustainable living."

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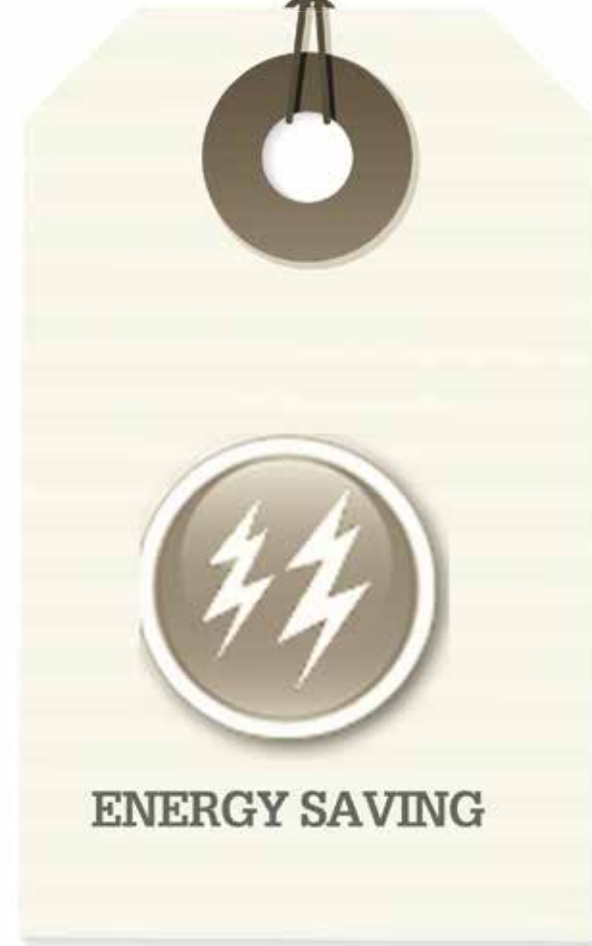
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MAKING THINGS BETTER

Here's our annual list of 50 products chosen by *Green Builders'* editors for their innovation, performance and ecological features—along with market viability. By **Cati O'Keefe and Christina Birchfield**



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Not every new green product is ready for prime time. Cotton insulation is a perfect example: The first time it came onto the scene, its manufacturer lacked the infrastructure needed to survive. A similar product has now gained a market foothold, by avoiding the same mistakes. Early low-VOC paints got a bad reputation too. Now they're practically a green standard.

So, what you'll find in this year's Hot 50 list is a heavy mix of trusted brands with a scattering of new players. Our Readers' Choice survey (p. 49) confirmed something we had long suspected: You're more likely to trust a green product (even a brand new one) from GE, Bosch or Icynene

than a similar product from an unknown company. Established companies tend to have in place the distribution, after-market service and in-house research needed to get more efficiency from familiar technology—to create upgraded products that outperform their predecessors.

Innovation matters, yes, but until the next revolutionary product comes along (affordable PV roofing, for example), it's our view that the best path toward greener homes is an incremental one. With this in mind, we've chosen 50 building products that raise the bar a little higher, and work together in harmony.

SCAN HERE!



For a complete list of the Hot 50 Products with Web site links, visit:
www.greenbuildermag.com/hot502012

STRUCTURE

SIREWALL

SIREWALL Stabilized, Insulated, Rammed Earth walls add interlocking forms and 4" of rigid insulation in the center of the wall, to update the traditional and ancient rammed-earth method. Walls range from 14"- to 20"-thick. SIREWALL insulation values are five times higher than those of a typical rammed-earth wall, without sacrificing the advantages of thermal mass inherent in heavy-wall systems. www.sirewall.com

[SPECIFICATIONS]

Compressive Strength	6,000 psi
Earthquake-Resistant	Yes
Water-Resistant	Yes
R-value	R29+
Durability	Lifetime plus



[NOTABLE FEATURE]

➤ Rebar, insulation and an interlocking-form system update a venerable and ancient earthen building method.

Tapco "Sturdimount"

Preflashed, pre-assembled and color-matched mounting blocks are designed to coordinate with fiber cement siding. The blocks provide a flat, sturdy and attractive mounting base for a variety of applications such as dryer vents, porch lights, receptacles, hose bibs and gas lines. They require no flashing, less caulking and very little maintenance. www.tapcoint.com

[SPECIFICATIONS]

Size	6" x 8.5" and 8.5" x 11"
Material	Fiber cement
Water-Resistant	Yes
Paint Warranty	25 Years

[NOTABLE FEATURE]

➤ Pre-flashed, color-matched mounting blocks are an attractive and low-maintenance solution for mounting porch lights, dryer vents, receptacles, hose bibs and gas lines.



"PowerBoard" by PowerConcrete Building Technologies

PowerBoard panels connect with patent-pending, high-impact plastic PowerSpacers. Once in place, the system is permanent, with concrete forms that support both horizontal and vertical steel reinforcement. Six installers can erect about 2,000 sq. ft. of PowerBoard walls in one day. The green angle? Material and labor savings: The forms bond with the concrete and remain as walls, supplanting the need for drywall. The exterior form/wall is a bondable surface ready to stucco—with no wire mesh required.

www.powerconcrete.us

[NOTABLE FEATURE]

➤ This concrete form remains in place, and provides substrate inside and out to replace drywall and accept direct application of stucco.

[SPECIFICATIONS]

Size Panels	4' x 8' or 4' x 10'
Use for walls, floors and roofs	Yes
Disaster-Resistant	Yes
Fire-Resistant	Yes
Windproof	Yes
Resistant to Mold/Fungus	Yes
Waterproof	Yes
Sound Control	Yes



Supreme Energy Products "Energy Max Panel System"

The Energy Max Panel & Installation System can be used for the walls, floors and ceilings of a home. Along with new construction, it's also suitable for retrofits, add-ons and remodeling projects. As insulation, vapor barrier and sheathing, it saves materials and labor—at the same time raising R-values. And the open wall cavity it creates acts as a chase for heating, plumbing and wiring, or space for additional insulation.

www.supremeenergyproducts.com

[SPECIFICATIONS]

Panel Size	4' x 8', 3' x 8', 4' x 12' and 3' x 12' sheets; 2"-, 4"- and 6"-thicknesses
Recyclable/Reclaimable	Yes
Money Savings	According to the manufacturer, this product can reduce heating and cooling costs up to 70% compared with homes built to code minimums. It achieves more than twice the R-value per inch of fiberglass batts.
Mold Resistant	Yes
The dew point lies in the center of the panel, so no moisture is trapped inside the material.	



[NOTABLE FEATURE]

➤ Because Energy Max Panels are applied to the exterior of the stud wall and the seams are spray foamed, thermal bridging is eliminated.

STRUCTURE

Hardy Frame Shear Panels

Hardy Frame Shear Panels are pre-manufactured narrow shear walls that allow larger openings to be designed into a structure. They provide engineers with high lateral load design values, and can be installed in wood or cold-formed steel framing. HFX-Series panels are manufactured to standard wood stud heights, and HFX/S panels are manufactured to standard cold-formed steel stud heights. www.hardyframe.com



[NOTABLE FEATURE]

➤ You can produce quick and efficient designs with these panels, using the company's BuildingWorx 2011 Structural Design Software.

[SPECIFICATIONS]

Applications	
Used for foundations, wood sills, raised floors, upper floor systems, balloon walls and steel framing.	
Panel Sizes	
Available in widths of 9", 12", 18" and 24"; the 18" and 24" widths are available up to 20 ft. tall. Brace Frames are available in widths of 32" and 44", in heights up to 13 ft. Moment Frames are available in column widths of 9", 12" and 18", in single-story heights up to 20 ft.	
Wind-Resistant	Yes
Earthquake-Resistant	Yes

INSULATION AND AIR SEALING



[NOTABLE FEATURE]

➤ The product offers "breathable protection" by means of a low-E metallized surface that offers R-2 thermal resistance in a wall cavity-when facing a minimum 3/4" air space.

DuPont Tyvek "ThermaWrap"

Tyvek ThermaWrap takes the balanced properties of DuPont Tyvek weather barrier, and adds a low-emissivity (low-E) metallized surface. This helps to reduce radiant heat flow through walls. In hot climates, the low-E surface reflects radiant heat away from the wall-reducing air conditioning needs. In cold climates, the low-E surface reduces radiant heat flow through the wall, reducing heating demand. www2.dupont.com

[SPECIFICATIONS]

Roll Sizes	5' x 150' (750 sq. ft.) 9' x 100' (900 sq. ft.)
Water-Resistive	Yes
Air Barrier	Yes
Regional Use	Both cold and hot climates



Icynene Spray Foam

This time-tested insulating product meets or exceeds the ASTM E283 protocol, validating it as an air barrier material. It expands into cracks, crevices and gaps to reduce air leaks, providing an energy-efficient, healthy home. The product also significantly reduces random air leakage, and reduces up to 40% of a typical building's energy loss. www.icynene.com

[NOTABLE FEATURE]

➤ The company's Builder Advantage Program helps pros demonstrate the energy savings their clients can expect if they specify Icynene. Using REM/Design energy analysis software, Icynene provides an estimate of the energy payback for any floorplan.

[SPECIFICATIONS]

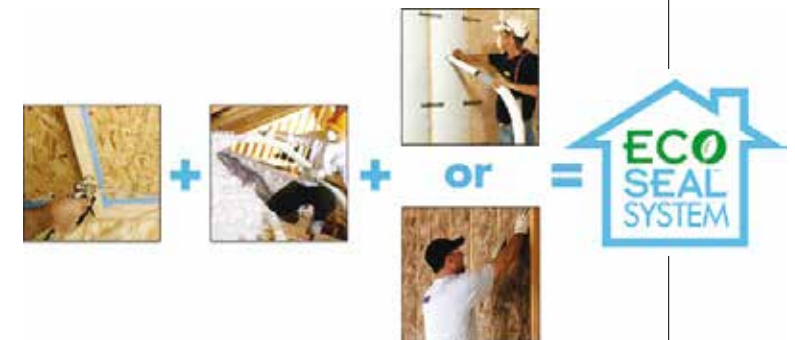
Bio-Based Version Available	
The company's LD-R-50 product is a renewable-based formula, with part of the mix derived from castor plants.	
Noise Reduction	Yes
Air Sealer	Yes
Icynene has been tested to ASTM E283 protocol and validated as an air barrier material.	
Moisture Control	Yes
Regional Use	Both cold and hot climates

Knauf "EcoSeal" System

By combining EcoSeal with Knauf EcoBatt or premium blowing insulation, the Knauf Insulation EcoSeal System delivers protection against air infiltration, along with solid thermal performance. EcoSeal is a water-based elastomeric sealant that goes on first, followed by EcoBatt Insulation or Jet Stream Ultra Blowing Insulation, depending on the application. <http://ecoseal.knaufinsulation.us/kiss.html>

[SPECIFICATIONS]

Recycled Content	
More than 40% of the system is post-consumer recycled content.	
Noise Reduction	Yes
Air Sealant	Yes
Durability	
The company guarantees no settling and no off-gassing for the life of the product, backed by a limited lifetime warranty.	
Regional Use	Both hot and cold climates



[NOTABLE FEATURE]

➤ EcoSeal products are water-based, contain no solvents or hazardous materials, and are low-VOC (less than .3%). No CFCs or HCFCs are used in the manufacturing or installation of the product.

INSULATION AND AIR SEALING

Johns Manville Hybrid System with "JM Spider" and Spray Foam

JM Spider spray-in fiber glass and spray polyurethane foam form an innovative and adaptable hybrid insulation system that is an effective method, combining the robust air barrier and vapor retarder of foam with the economical benefits of fiber glass. Since both products are spray based, they allow for installation in oddly shaped cavities and hard-to-reach areas. Insulating a house requires not only effective thermal and acoustical building materials, but also air-sealing techniques to provide an effective building enclosure.

www.specjm.com



[SPECIFICATIONS]

Spider Custom Insulation is urea formaldehyde-free, and can fill 2" x 4" cavities up to an R-15 thermal rating, 2" x 6" cavities up to R-23, and 6" steel stud cavities up to R-25.	
Noise Reduction	Yes
Achieves a sound transmission class of 43 in a standard 2" x 4" wood-framed wall.	
Air Sealer	Yes
Mold Resistant	Yes
Resists mold because it sprays in almost dry (less moisture content than wood framing), and is treated with a U.S. EPA-registered mold inhibitor to protect the insulation against mold.	
All Regions	Yes

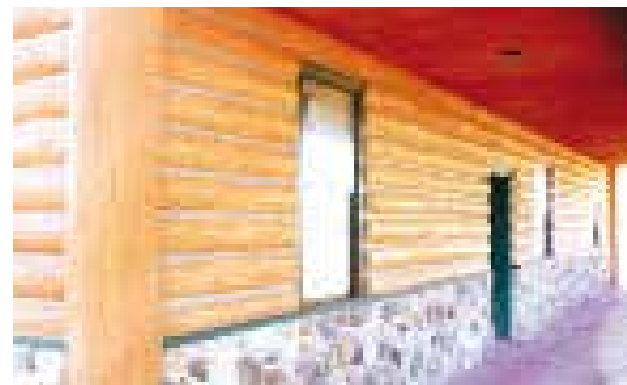
[NOTABLE FEATURE]

> This product is especially useful in areas that are challenging to seal—such as spaces that connect to the garage, within tub and shower enclosures, at the rim/band joist, around electrical outlets and pipes/tubing and at building transitions such as wall-to-roof.

ROOFING AND SIDING

FOSSILCRETE

The patent-pending Fossilcrete system is useful for creating window and door entry surrounds and trim, as well as surfacing walls with a variety of patterns. Fossilcrete consists of a custom lightweight concrete mix, VertiBond polymer, specially designed vertical stamps, pattern tools and Nature's Palette coloring system. Used as a trowel-on or sprayed wall coating on various types of surfaces, it is a three-coat system: base, scratch and finish. It adheres directly to most surfaces (no need for mesh), including the foam common in Insulated Concrete Form (ICF) construction. www.fossilcrete.com



[NOTABLE FEATURE]

> Fossilcrete adheres to most surfaces, even foam, and is perfect for forming window, door and trim treatments on Insulated Concrete Form (ICF) homes.

[SPECIFICATIONS]

Bonds to Most Surfaces	Yes
Requires Mesh	No
Compressive Strength	+/- 2700 psi
Waterproof	Yes

Nichiha "NichiFrontier"

NichiFrontier shake product is an affordable fiber cement siding that mimics expensive cedar, but is quick to install because the shakes are 8'-long planks. NichiFrontier is made with 50% recycled content from fly ash and from recycling the company's pre-cured scrap. Factory-primed, the shakes are also available in three finished colors: Terra, Hazelnut and Shadow. The product has a lifetime limited warranty; the finish warranty is 15 years. www.nichiha.com



[SPECIFICATIONS]

Size	7/16"-thick, 9 1/4"-high by 8'-long
Material	50% recycled fiber cement
Green Code Points Eligible	Yes
Warranty	Yes

[NOTABLE FEATURE]

> NichiFrontier mimics cedar shakes but is an affordable, green alternative that lasts longer and is easier to maintain.

Fullback Siding Insulation

Adding insulation to siding can help your homeowners reduce energy bills substantially, create more comfortable indoor temperatures and reduce warm and cold spots in the home. Fullback Siding Insulation is a contoured insulation that is installed under siding. The product "forces" panels to be installed perfectly for straighter lines and reduces wavy, uneven wall lines by leveling the wall under the siding. www.progressivefoam.com



[SPECIFICATIONS]

Applications	Can be used under vinyl, composite, wood, fiber cement, steel siding, cedar shake, stone, stucco, aluminum and brick.
Air Sealer	Yes
Mold-Resistant	Yes
Pest-Resistant	Yes
All Regions	Yes

[NOTABLE FEATURE]

> This product is made of closed-cell non-toxic EPS, which is 98% air and 2% plastic. Polystyrene is made of carbon and hydrogen. Styrene occurs naturally. Pentane is used to blow the product, which is not a CFC and is not harmful to the ozone layer.

ROOFING AND SIDING

BoralPure "Smog-Eating Tile"

BoralPure Smog-Eating Tile is the first-of-its-kind product in sustainable concrete roofing tiles that reduces the formation of smog. The photocatalyst in BoralPure Smog-Eating Tile naturally oxidizes harmful airborne pollutants, helping clean the air. This revolutionary roof tile includes a micro-mortar surface with the key ingredient titanium dioxide, a photocatalyst, which is activated by the UV content in daylight. The active surface interacts with harmful nitrogen oxides in the air and helps convert them into calcium nitrates. When it rains, the calcium nitrates are washed off the roof. The tile can also break down organic substances, such as dirt and algae. The product is available nationwide. www.boralna.com/rooftiles/smog-eating-tile.asp



[SPECIFICATIONS]

The tiles are made from naturally occurring, locally sourced raw materials that are produced in a low-impact, environmentally conscious manufacturing process with almost zero waste.

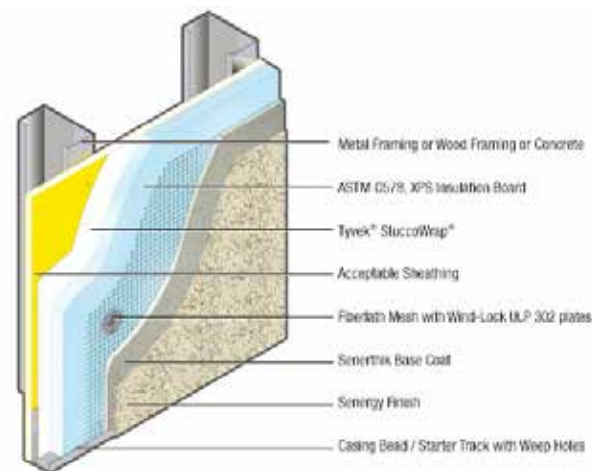
Profiles

The product comes in four profiles: Barcelona, Villa, Saxony Slate and Saxony Shake.

Regional Use	Nationally available
Material	50% recycled fiber cement

[NOTABLE FEATURE]

➤ In one year, 2,000 sq. ft. of the Smog Eating Tile mitigates the same amount of nitrogen oxide (a major component of smog) produced by one car driving up to 10,800 miles.



BASF "Sentry Stucco CI System"

Sentry Stucco CI Wall System by BASF is a continuously insulated, water-drainage stucco system that includes a water-resistant barrier to protect the substrate. The system offers design flexibility, aesthetic appeal and energy savings. Integrated system components include mechanical fasteners, a water-resistant barrier, means of drainage, an XPS (extruded polystyrene) insulation board, base coat, reinforcing mesh, 100% acrylic polymer finish and other accessory components. www.senergy.basf.com

[SPECIFICATIONS]

Finishes	"Limitless" color selection, which offers performance enhancement options, including increased resistance to dirt pick-up and mildew.
Fire-Resistant	Yes
Wind-Resistant	Yes
Abrasion-Resistant	Yes
Moisture-Resistant	Yes

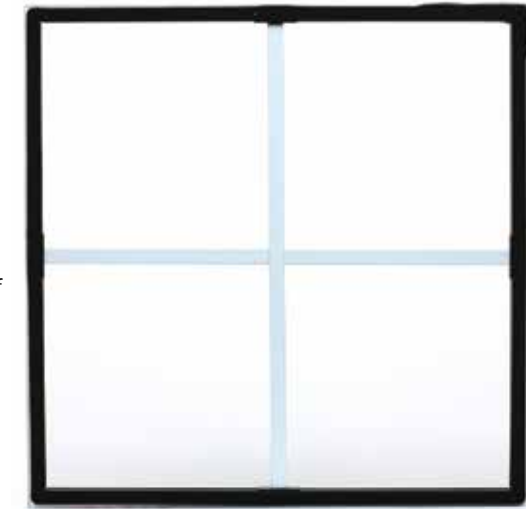
[NOTABLE FEATURE]

➤ A blanket of continuous external insulation provides high R-values, and lowers heating and cooling costs.

DOORS, WINDOWS AND HARDWARE

PPG Passive Solar Glass

PPG Industries introduced samples of a new passive solar, low-emissivity glass at the 2012 International Builders Show (IBS). Designed for residential use in colder, heating-dominated climates, the new insulated glass unit (IGU) is made with a 3mm pane of low-E glass on the fourth surface and SOLARBAN 60 glass on the second surface, separated by a 1/2" air space. The configuration yields R-5 (a U-value of 0.22 or less). PPG's dual-pane, dual-coat technology enables window manufacturers to make better-insulating products without multi-cavity IGUs. www.ppgideascape.com



[SPECIFICATIONS]

Pane Thickness	3mm
R-Value	R-5
Heat Gain Coefficient (SHGC)	0.72
Visible Light Transmittance (VLT)	76%
Transmission of Ultraviolet Light	Reduced
Light to Solar Heat Gain (LSG) Ratio	Up to 1.73
Availability	Early 2012
Warranty	10-year against coating failure

[NOTABLE FEATURE]

➤ Passive solar, low-emissivity glass, designed for colder climates, achieves R-5 in a dual-pane, dual-coating window.

Zola Terrace Doors

Zola Terrace Doors can be as large as window walls—glass sliders set in tracks that can go floor-to-ceiling. Each glass-door pane can be as wide as 4 ft. Offered in Classic and Thermo styles, either can be combined with Zola's premium rain screen. The Thermo style's wood frame is 3 1/2" deep, with a layer of German-patented purenit insulation sandwiched between 1-7/8" premium triple-glazing. Thermo's glass U-Value is 0.088. Zola provides all data needed for Passive House planning. www.zolawindows.com

[SPECIFICATIONS]

Depth	68mm or 88mm
Glass U-Value	0.13 BTU/Hr/ft ² to 0.088 BTU/hr/ft ² /F
Solar Heat Gain Co-Efficient (SHGC)	0.5 W/m ² /k
Lock	Cylinder
Warm-Edge Spacers	Standard

[NOTABLE FEATURE]

➤ Grand window walls are a passive-solar winner, because Thermo windows meet Passive House standards, and Zola provides all data needed for those calculations.



DOORS, WINDOWS AND HARDWARE

TILTCO "E70" Tilt and Turn Window

These TILTCO windows open as hopper windows for ventilation and as casements for ease of cleaning. They make low-tech ventilation of the home simple and flexible. The windows are hurricane tested to Miami-Dade County standards and are Texas TDI approved. The uPVC/vinyl is composed of 57% salt by weight, and wood laminate versions are also available. Tilt and turn windows, widely used in Europe, were installed in the Tidewater solar home at the 2011 Solar Decathlon. They are eligible for environmental design accreditations such as LEED, passive house and net-zero housing. www.tiltco.net



[SPECIFICATIONS]

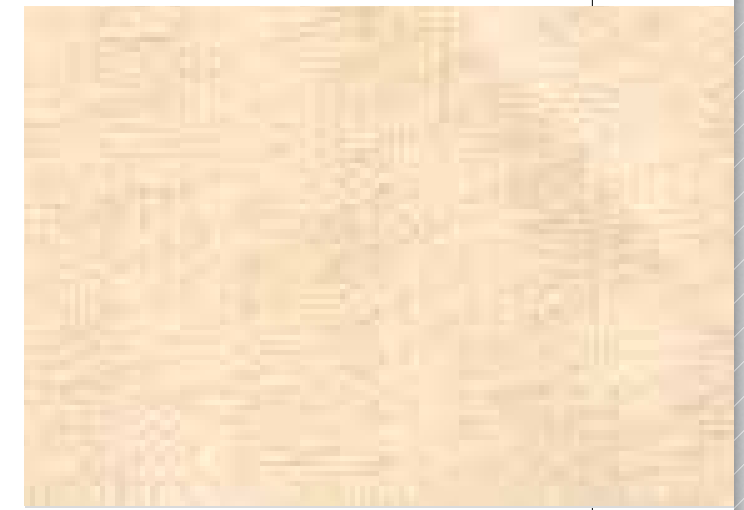
Materials Recyclable	Yes
Impact-Resistant	Yes
Wind-Resistant	Yes
Salt Corrosion Warranty	Yes

[NOTABLE FEATURE]

Environmentally friendly, wind- and impact-resistant, hurricane-ready windows open two ways: as hopper windows for ventilation, and as casements for ease of cleaning.

TempAssure Drapery Linings

Drapery linings can not only block out light but they can also increase the R-Value rating of a window, making it more energy efficient. These linings trap air and form an insulating barrier that prevents thermal loss. TempAssure linings claim to increase the R-Value of an opening by as much as 300% over unlined drapes. Prima Sateen, TempAssure's all-natural 100% sustainable cotton drapery lining, is finished with no bleach, dyes or chemicals. <http://liningbyjpc.com>



[SPECIFICATIONS]

Unbleached	Yes
Dyes and Chemicals	No
R-Value Increase	Yes
Light Control	Yes

[NOTABLE FEATURE]

TempAssure's drapery linings not only control light, but they also add to window R-Values. Newer products are made from unbleached natural cotton.

Masonite "Safe 'N Sound" Interior Doors

Made of rapidly renewable wheat straw, Safe 'N Sound doors, part of the West End Collection, are also urea-formaldehyde-free and Forest Stewardship Council (FSC) certified. Safe 'N Sound doors contribute to industry certifications such as the USGBC LEED program, NAHB Green Home Building Guidelines, as well as local and regional environmental building programs. The doors significantly reduce sound transmission, and are lighter than conventional particleboard cores, allowing for easier handling, installation and less hinge and jamb wear. www.masonite.com

[SPECIFICATIONS]

Size	6'8", 7'0" and 8'0"
Low VOC Emissions	Yes
Certified Wood	Yes
Green Code Points Eligible	Yes

[NOTABLE FEATURE]

Safe 'N Sound doors are made with wheat straw, and are formaldehyde-free and FSC-certified. Lightweight and "green," they have good sound deadening performance.

Schlage "Nexia" Security System



Nexia Home Intelligence is a smart home automation system by Ingersoll Rand that leverages the advanced technologies of Trane and Schlage to make everything in a home speak one language. Nexia enables your homebuyers to remotely manage features and functions in their homes, including door locks, heating and cooling, video surveillance, lights, shades and

energy usage via any Web-enabled computer and most smartphones.

Not only can homeowners kick on the heat with a Trane ComfortLink II Control, unlock the front door with Schlage locks, and switch on lights while away from home, but they can also receive a text alert when their kids arrive home from school safely, the pet sitter comes and goes, or a contractor arrives and then departs after completing a job. www.nexiahome.com

[SPECIFICATIONS]

Video Storage	Allows homeowners to record live home video and trigger recording based on specified parameters, working with their existing Schlage cameras.
Sensors for Windows and Doors	Can be activated during nighttime hours for extra security, and can eliminate unnecessary daytime alerts.
New User Interface Design	Fueled by subscriber feedback and extensive research, the new interface features an easily accessible dashboard and omnipresent device navigation.
Mobile Phone Activation	Features a dedicated Android app for Android tablets.
Networking Option	An optional subscriber community provides a way to share resources and network expertise.

[NOTABLE FEATURE]

New for 2012, the company will offer whole-home energy monitoring that allows homeowners to closely control their energy use. Through a relationship with Powerhouse Dynamics, Nexia Home Intelligence delivers energy management at the circuit level. Also, an astronomical clock can adjust lighting and shades based on sunrise and sunset times.

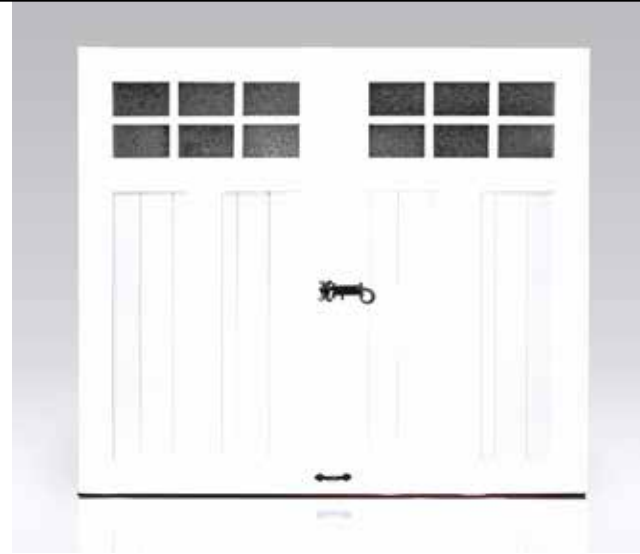
DOORS, WINDOWS AND HARDWARE

Clopay "Canyon Ridge" Garage Door

This five-layer construction is available with 2" polyurethane insulation with an R-value of 19.2. Half-inch-thick polymer composite cladding and overlay materials are molded from actual wood to replicate the species' natural texture and intricate grain patterns as well as its imperfections, including deep, irregular pockmarks, knots, cracks and holes. Lightweight, durable and easy to maintain once installed, these rustic beauties are virtually indistinguishable from the original style they emulate. www.clopaydoor.com

[SPECIFICATIONS]

Function/Appearance	Available with swing-out appearance, overhead operation
Design	Fourteen base designs with optional windows and hardware
Style	More than 200 unique style combinations. Factory finished in Medium, Dark and White finishes. Also available as primed for field staining.



[NOTABLE FEATURE]

➤ The five-layer construction (steel + insulation + steel + cladding + overlay) not only offers an R-value of 19.2, but also makes the door extremely durable.

HVAC

Carrier "Infinity 20" Heat Pump

The Infinity Series heat pump with Greenspeed intelligence is highly efficient, quiet, and among the highest energy-efficient heat pumps on the market. It has 29%-69% greater heating efficiency than other air source heat pumps available today. Variable-speed technology enables precise delivery of heating and cooling comfort in longer, lower speed run times. Full Silencer System II makes for quiet operation. A WeatherArmor System protects the exterior. www.residential.carrier.com

[SPECIFICATIONS]

SEER	Up to 20
HSPF	Up to 13
Sound Rating	As low as 58 dB
Refrigerant	Puron
Warranty	10-year parts when registered

[NOTABLE FEATURE]

➤ This 20 SEER, variable-speed heat pump operates quietly, at way-above-average efficiency.



HVAC

Trane "EarthWise Hybrid"

The EarthWise Hybrid system is a dual-fuel system capable of heating a home using either electricity or fossil fuel. It combines an electric heat pump with a variable-speed gas or oil furnace. With two fuels, homeowners can optimize energy use by switching back and forth. www.trane.com



[SPECIFICATIONS]

Air Circulation	The variable speed blower motor helps control humidity and circulates cooled air more evenly throughout a home.
Energy Efficiency	Up to 16.60 SEER, 80% AFUE
Compressor	Two-stage
Outdoor Operation	Yes
Quiet Operation	Yes
Uses advanced airflow management.	

[NOTABLE FEATURE]

➤ The company's EarthWise Hybrid all-in-one system contains the same components found in an EarthWise Hybrid Split System. However, they are all engineered to work and fit together in one attractive cabinet.

Uponor "Radiant Ready 30E"

The Radiant Ready 30E is a complete radiant mechanical room designed in a compact, preassembled panel. The installer simply hangs the panel on a wall and connects the tubing, thermostat and electrical power. For plumbing the panel, Fast Trak knobbed mats provide a faster, easy method for installing PEX tubing in over-pour applications for basements, recreation rooms, bathrooms or any area of a home. www.uponor-usa.com



[SPECIFICATIONS]

System	Includes a 30,000 BTU/h electric boiler, a Uponor Engineered Plastic (EP) Heating Manifold, a pump, expansion tank, pressure-relief valve, isolation valves, thermostat and more.
Capacity/Range	Handles up to 2,000 sq. ft. of radiant floor heating (based on 15 BTU/h/sq. ft.), and 4,000 square feet of radiant floor warming (based on 7.5 BTU/h/sq. ft.).
Customization	Comes standard with a five-loop manifold which can be customized to add additional loops (up to eight) inside the unit.
Package	Includes a Uponor Heat-Only Thermostat, an Outdoor Temperature Sensor, fastening hardware and additional accessories.

[NOTABLE FEATURE]

➤ Radiant floor heating is a good way to address indoor air quality, as there are no ducts to collect dirt/allergens. The "more comfortable" heat, rising from the floor versus being blown around in the air, means homeowners may be able to keep the temperature lower.

HVAC

Panasonic "WhisperGreen"

The WhisperGreen exhaust fan incorporates highly energy-efficient DC motors. These models come with variable 2-speed and delay timer controls built-in or as as single-speed fans. A motion sensor model is also available. WhisperGreen models are one of the few quiet, efficient exhaust fans on the market that comply with green building IAQ standards. www2.panasonic.com



[SPECIFICATIONS]

Quiet Operation	.25" w.g.
CFM Output	Constant
Variable Speed Control	Yes

[NOTABLE FEATURE]

> This product is up to 871% more energy efficient than Energy Star standards.

FAUCETS, FIXTURES AND PLUMBING

Caroma "Invisi Series II"

The water tanks for Invisi Series II wall-hung toilets hide in the wall between the studs. The toilet maximizes floor space, especially useful in small bathrooms. The only visible parts are "the smooth, clean line pan" that hovers above the floor, and the designer buttons that control the SmartFlush dual flush mechanism. These can be mounted on the wall or on a bench-top or counter. Dual flushing reduces water usage by 40% when compared to 1.6-gallon single-flush models. www.caromausa.com



[SPECIFICATIONS]

Half Flush	0.8 gpf
Full Flush	1.28 gpf
Meets North American High Efficiency Toilet Standard (HET)	Yes
Water Savings Per Person	330 gallons
Green Code Points Eligible	Yes

[NOTABLE FEATURE]

> Convenient buttons, tanks hidden in the wall and high performance ratings make Caroma Invisi Series II toilets a good choice for small bathrooms.

Aquatherm Piping



Color-coded piping makes water management much more practical. Aquatherm's polypropylene piping is designed for specific tasks. Greenpipe, for example, is highly stable, made for potable water. Climatherm is engineered for chilled water, hydronic heating and industrial applications. Lilac is specifically designed for rainwater and greywater distribution. Like Greenpipe, Lilac is fused at all joints with Aquatherm Greenpipe fittings. www.aquathermpipe.com

[SPECIFICATIONS]

GreenPipe Rating	100 psi (at 180°F)
Lilac Pipe Rating	185 psi (ambient)
Greenpipe Potable Approved	Yes
Hanger Spacing	Not less than 32"
Subject to Corrosion or Scaling	No
Warranty	10 years

[NOTABLE FEATURE]

> Whether for potable water (Greenpipe) or greywater (Lilac) systems, Aquatherm Piping is a safe and permanent water delivery solution.

Kohler "Rêve"

The unique design of this elongated one-piece toilet with dual-flush technology adds a sculptural element to the bathroom. Along with geometric lines and contemporary styling, Rêve also offers substantial water savings. The dual-flush toilet activates with the press of a button, offering the choice of .8 or 1.6 gallons per flush. It includes the Rêve Quiet-Close thermostet plastic toilet seat with metal hinge. www.us.kohler.com



[SPECIFICATIONS]

Colors	Comes in four neutral colors
Half Flush	0.8 gpf
Full Flush	1.6 gpf
Meets EPA's WaterSense program	Yes
Qualifies as an HET (High-Efficiency Toilet)	Yes
Also: Consumer rebates are available in certain municipalities.	

[NOTABLE FEATURE]

> At the high-efficiency .8-gpf flush setting, this unit can save as much as 6,000 gallons of water annually over a traditional 1.6-gallon toilet.

FAUCETS, FIXTURES AND PLUMBING



KWC "AVA" CoolFix

The new KWC AVA single-lever basin faucet with CoolFix technology offers a simple way to save energy. With most such faucets, lifting the lever in the standard "six o'clock" position brings a mix of hot and

cold water—even if the user doesn't want warm water. With CoolFix technology, however, the middle faucet position has been designed "full cold," so that no hot water is delivered. This collection also encompasses an assortment of other products, components and complementary accessories. www.kwcamerica.com

[SPECIFICATIONS]

Water Savings
Neoperl CACHÉ aerator reduces water flow to 1.5 gallons per minute (gpm), a 40% savings over 2.5 gpm faucets.

Finishes
Available in chrome and the company's proprietary "splendure" stainless steel finish.

[NOTABLE FEATURE]

Water savings is the key with this product. The CoolFix technology keeps users from wasting warm water while they wait for cold water.

APPLIANCES

Bosch "800 Plus" Dishwasher

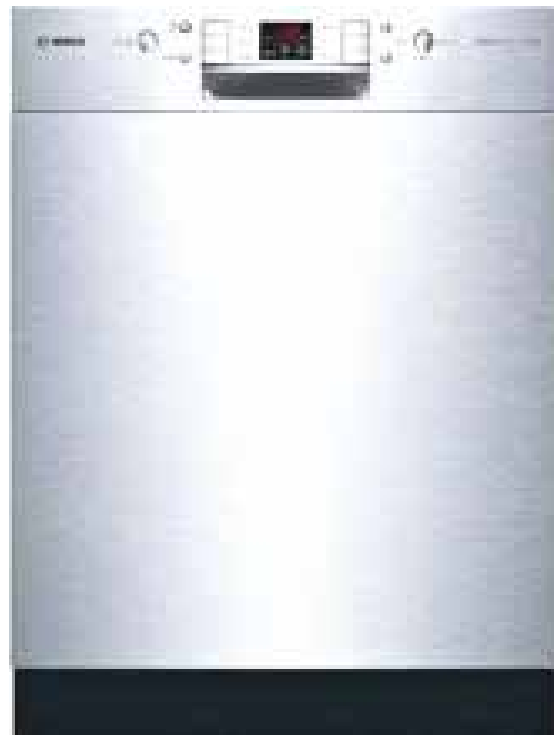
Using less than two gallons of water per load and 180 kWh/y of energy, the Evolution 800 Plus claims to have reset the bar "limbo low" with this dishwasher. A precision-made piece of machinery, it includes advanced load sensors that save water, and a brushless DC (direct current) drain pump that reduces "snorkeling" noises and energy consumption. Stainless steel panels and adjustable racks encourage full loads and better cleaning. www.bosch-home.com/us

[SPECIFICATIONS]

Noise Reduction	39 dB
Additional Loading Capacity	Added third rack
Load Size Sensor	Automates wash temperature
Energy Star-qualified	(200 kWh/year energy use)
Efficiency	Half load option

[NOTABLE FEATURE]

The Bosch 800 Plus reduces energy use by up to 20% and, according to the manufacturer, this appliance saves up to 436 gallons of water each year, compared with other dishwashers in its class.



Elmira "Fireview" Dual-Fuel Cookstove

Featuring high efficiency and low emissions, the Fireview features a 60,000 BTU firebox, with a 3.0 cubic ft. oven and viewing window. The wood-fired oven easily accommodates large pans, and the warmers keep food hot. Fireview's viewing window allows owners to fine-tune the flame for perfect cooking. It's available with optional gas side burners, a second warming oven and water jacket. www.elmirastoveworks.com

[SPECIFICATIONS]

Dimensions	6" flue opening, 6" clearance to back wall from pipe with double wall pipe and heat shield
Output	30,000-60,000 BTU (heats approx. 800-1800 sq. ft.)
Burn Time	8 hours (up to 10+ hours reported)
Firebox Depth	22"

[NOTABLE FEATURE]

This stove operates on both wood and gas, a feature that may appeal to many homeowners.

Zephyr "Verona" Range Hood

The Zephyr Verona range hood is a two for one. The hood ventilates cooking fumes from the kitchen and the glass canopy sports highly-efficient LED lighting. Select the Cloud blue, Deep blue or Amber color settings to best match the kitchen's décor, or select the demo mode, which shows all three in 10-second intervals. A Next Generation Europa model, Verona includes Zephyr's DCBL Suppression System. DCBL lessens noise by 77% and increases performance by 30% (more CFM and energy efficiency). Zephyr's DCBL Suppression hoods use 80% less energy than typical range hoods on the market. www.zephyronline.com

[SPECIFICATIONS]

Internal, Min.-Max. Blower	CFM 250-715
Internal, Min.-Max. Sones	0.8 - 5.8
Speed Levels	5+ burst
Lighting Bloom LED	3 W x 3



[NOTABLE FEATURE]

The Zephyr Verona range hood combines high-style, LED lighting, increased performance and deep energy savings.

APPLIANCES

GE "Profile" Induction Range

Induction technology is the latest in fast, responsive, easy-to-clean stove-top cooking. The GE Profile Free-Standing Induction Range boils water quickly. Burners under the glass cooktop stay cool; only the pot gets hot. NextStep knobless controls light up to easily control temperature settings for consistent results. The PreciseAir convection system circulates hot air for evenly browned and baked foods.
www.geappliances.com



[SPECIFICATIONS]

Size	30" width
Finish	Stainless steel
Convection Oven	Yes
Warming Drawer	Yes
Warming Cooktop Burner	Yes

[NOTABLE FEATURE]

➤ Cooking faster on cool induction burners and a convection oven saves time and energy.

CABINETRY

Armstrong "Origins" Cabinets

Armstrong's Origins Series combines the durability and value of the company's Genuine Allwood construction with the environmental benefits of sustainable, low-emitting materials. This construction is available on most cabinet styles. Using Origins Series cabinets can contribute to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) standards, for LEED NC EQ Credit 4.4, Low-Emitting Materials: Composite Wood. Additionally, an Origins Series cabinet and any of the solid wood center panel doors styles can satisfy the emissions standards of the California Air Resources Board (CARB) Phase 2 regulations.
www.armstrong.com



[SPECIFICATIONS]

Environmental Benefits	
The sustainable, low emitting materials have high durability and strength thanks to sturdy plywood box construction.	
Moisture-Resistant	Yes
Easy Installation and Maintenance	Yes

[NOTABLE FEATURE]

➤ Origins cabinets are constructed of PureBond, using a urea-formaldehyde-free, soy-based adhesive.



MasterBrand Capital Cabinets

MasterBrand has earned Environmental Stewardship Program (ESP) certification (see Notable Feature). The company offers a variety of high-quality cabinet brands, including Capital Cabinet. These affordable cabinets are manufactured in the United States, which reduces the pollution associated with transportation. Capital Cabinet is large enough to produce at a high volume, yet flexible enough to meet the individual design needs of buyers.
www.masterbrand.com

[NOTABLE FEATURE]

➤ The Environmental Stewardship Program (ESP) is administered by the Kitchen Cabinet Manufacturer's Association (KCMA) and aligned with the NAHB's Green Home Building Guidelines. This voluntary program recognizes companies that use environmentally responsible materials in cabinet products.

[SPECIFICATIONS]

Style Options	Cabinets come in 11 styles, five finishes, and three glazes
Variety of Systems	A complete line of organization systems means all necessary kitchen equipment can fit in homes with smaller footprints.
Construction Methods	The cabinets can be ordered in standard, select, and ply select construction methods.

LIGHTING

Creative Systems Lighting (CSL) "Eco-Downlight"

The Eco-Downlight replaces most recessed light cans, efficiently illuminating the home without sacrificing light quality and output. The LED adjustable version allows light to be focused or positioned perfectly in any setting, to create just the right mood or highlight. The dimmable Eco-Downlight is equal to a 50-watt lamp but uses only 16 watts. Cool operation reduces HVAC expenses and long life (an estimated 50,000 hours compared to an MR16's 2,000 hours) and reduces maintenance costs.
www.csllighting.com



[SPECIFICATIONS]

Energy Star	Yes
UL Listed	Yes
LED Driver Efficiency	90%
16 W LED Equals	50 W MR16
Lifespan Claim	50,000 hours

[NOTABLE FEATURE]

➤ The Eco-Downlight is an LED recessed-light fixture that reduces power consumption and overheating potential without sacrificing light quality or performance.

LIGHTING

Troy Lighting "Raleigh"

Troy Lighting's Raleigh pendant lamp is a dimmable fixture that looks and lights like an incandescent lamp, but has the long-lasting and energy-saving features of LED lights. The fixture comes in fluorescent and incandescent versions. The incandescent version uses one 100 W bulb, the fluorescent version uses one 26 W bulb and the LED version uses eight 1.2 W dimmable LEDs (11 W total consumption, roughly 90% less than incandescent, and half the energy use of fluorescent). www.troy-lighting.com



[NOTABLE FEATURE]

➤ This hanging dimmable pendant lamp has an industrial vibe but features an LED light. It generates much less heat than an incandescent light, lasts longer and saves energy without sacrificing style or light quality.

[SPECIFICATIONS]

Finish	Old Silver
Size	10" diameter, 17" high
Height	Up to 66"
Power Consumption	11 W LED
Wet Location Rated	Yes

WAC Lighting "EcoChandelier"

WAC Lighting's SOL Organic LED Chandelier is art. The design sculpturally represents ancient symbols for the sun. Each eco-friendly chandelier is hand-signed and numbered. ORBEOS OLEDs from OSRAM Opto Semiconductors panels distribute the lighting. A total of seven of these thin (2.1 mm) panels produce 420 lumens, ensuring that light in the room is free of undesirable shadows or glare. Each reversible OLED panel is completely cool to the touch. www.waclighting.com/USA/



[NOTABLE FEATURE]

➤ Each hand-signed and numbered SOL Organic LED Chandelier's panels rotate for indirect lighting, or tilt down to illuminate the surface below.

[SPECIFICATIONS]

Material	Aluminum
Diameter	18.5"
Height Range	12.25" to 40"
Color Rendering	White CRI 80
Color Temperature	3900 K (Kelvin)
UL Certified	Yes

WALLS, WALL COVERINGS AND FLOORING

DuChateau Floors "Riverstone Collection" with Wax Finish



The Riverstone Collection offers five types of hardwood flooring, all made from FSC-certified wood that has been naturally distressed. One of the first companies to bring hard wax oil to the U.S. market, DuChateau asserts that these eco-friendly finishes penetrate deeply into wood fibers, protecting from within, at the same time offering excellent durability. This zero-VOC finish maximizes the natural character and beauty of the floors, and they gain a rich patina as they age. www.duchateaufloors.com

[NOTABLE FEATURE]

➤ Penetrating hard wax oil finish and FSC-certified wood result in floors that look vintage and will stand the further test of time.

[SPECIFICATIONS]

Material	FSC-certified wood
Finish	hard wax oil
Available Thickness	3/8" engineered, 5/8" engineered, 3/4" duo-floor
Width	7-7/16"
Length	72"

Fireclay "Crush Glass" Recycled Wall Tile

Crush Glass wall tile from Fireclay is a handmade, American-crafted glass tile created from 100% recycled glass. The tile comes in 40 colors, 2 finishes and 17 different size formats. The name "Crush" stems from the fact that Fireclay sources the raw waste glass from within 20 miles, and crushes and processes the glass in its local San Jose, Calif., manufacturing facility. Fireclay uses state-of-the-art kiln firing, resulting in unique recycled tiles that embody less than one-fourth the energy of traditional cast-glass tile. www.fireclaytile.com



[SPECIFICATIONS]

Recycled Glass	Yes
Locally Sourced	Yes
Finish	Gloss or matte
Size	1" x 1" to 3" x 6"
Green Code Points Eligible	Yes

[NOTABLE FEATURE]

➤ Locally sourced from recycled glass and sustainably produced in a proprietary glass fusing process, Crush tiles come in 40 colors and 17 different sizes.

SURFACES AND PAINTS

LG Hausys America "Viatera" Quartz

LG Hausys America recently added 16 colors to its popular collection of Viatera quartz, which is 93% natural quartz combined with advanced polymers. The non-porous countertop is stain-resistant and hygienic, durable enough for both kitchens and baths. Unlike other stone products, Viatera requires no regular sealing. The product is heat-resistant and will not burn or scorch under normal cooking temperatures.

www.lghausys.com



[SPECIFICATIONS]

Warranty	15-year transferable
Colors	Available in 22 colors
Sizes	3/4" and 1-1/4" thicknesses

[NOTABLE FEATURE]

➤ This durable product withstands most everyday stains, and is scratch- and crack-resistant. It is also non-porous, easy to clean, and will not promote the growth of bacteria.



Interstyle "Grit" Tiles

Created in the rich tradition of ceramic tile with one unique twist, Grit tiles are made from "earthenglass," using a blend of recycled glass and clay. The tile is available in 15 rich earth tones, which combine five colors in three shades to encourage blending of this natural palette.

www.interstyle.com

[SPECIFICATIONS]

Sizes	3" x 12", 6" x 12", 12" x 12", 6" x 24", 12" x 24"
Dimensions	Flat to within 2% of length
Absorption	Less than 1% moisture

[NOTABLE FEATURE]

➤ Grit is composed of 50% clay and 50% post consumer recycled glass sourced in Washington State.



"EcoTop" Counters from KlipTech

EcoTop is an FSC-certified product, comprised of a 50/50 fiber blend of 100% post-consumer recycled fiber and rapidly renewable bamboo fiber, which is bound with a clear 100% water-based system. Available in four colors, EcoTop is a repairable/renewable surface with water absorption of less than 1%, making it extremely stain resistant. It's also highly scratch-resistant product, and heat resistant up to 360°F. www.kliptech.com

[SPECIFICATIONS]

Colors	Comes in four standard colors from Snow White to Jet Black. All are UV stable.
Warranty	15-year limited
Bacteria/Mold Resistance	Yes

[NOTABLE FEATURE]

➤ This product is made using a completely water-based resin formula. Jet Black is shown.

Unearthed Paints Clay Paints

Unearthed paints are crafted with minimally processed natural ingredients such as white porcelain clay, chalk, lime and reclaimed Italian marble. The colors are formulated with earth and mineral pigments from France, Cyprus and Italy. All six types of paints are biodegradable, vegan and 100% VOC-free. They include lime paint, casein (milk) paint, clay paint and distemper paints. Powdered paints come pre-measured to be mixed with water on site.

www.unearthedpaints.com

[SPECIFICATIONS]

Material	dry powder
Long-Lasting	Yes
Breathable	Yes
Preservatives	No

[NOTABLE FEATURE]

➤ Long-lasting, breathable, natural pigment paints come in six varieties and in colors from muted to vibrant, or with pigments to create custom colors.



ON-SITE ENERGY

“SunSnap” Solar Panels with Enphase Microinverter

Designed to expand and simplify installation of photovoltaic (PV) systems, SunSnap panels from Sharp are designed as a home appliance. Black-on-black, the panels are sold in modules for easy roof installation and expansion over time. Each module includes a high-efficiency microinverter from Enphase Energy, along with a mounting assembly from Zep Solar. Homeowners can begin with a “starter kit” featuring just one solar appliance for about \$1,000, and easily add modules later. www.sharpusa.com



[SPECIFICATIONS]

Power Generation	Details not yet available
Grid-tied	Yes
Mounting/Grounding Included in Module	Yes

[NOTABLE FEATURE]

➤ Off-the-shelf and ready-to-go, SunSnap provides consumers with complete and attractive PV modules that are plug-and-play, and can be expanded later.

Hanwha “SolarOne” Module with Enphase Energized AC

Another company on the leading edge of PV technology is Hanwha. Its Enphase Energized AC Module is a combination of Hanwha SolarOne high-performance solar modules and Enphase’s highly efficient third-generation microinverters, allowing installers to sell the most advanced solar solutions to customers. This manufacturer, experienced in both commercial and residential PV, has designed its modules so that Enphase microinverters easily attach to the frame of a Hanwha SolarOne 60-cell module, which means each module can generate grid-compliant alternating current (AC) power. www.hanwha-solarone.com



[SPECIFICATIONS]

The ACM is guaranteed by a 25-year limited warranty for both the microinverter and module.

[NOTABLE FEATURE]

➤ Hanwha donated a large PV package for use in the Southern California Institute of Architecture (SCI-Arc) and California Institute of Technology (Caltech) Solar Decathlon entry in 2011 (above).

OTHER

InoviaPods Prefabricated Bathrooms

InoviaPod manufactures quality prefabricated bathroom pods, built off-site and delivered directly to the construction site ready to install. InoviaPods are “plug-and-play,” requiring only a quick plumbing and electrical connection to be completely ready for use. The company works in collaboration with project managers, architects, engineers and bathroom designers for a variety of project budgets. The custom pods can be installed seamlessly into a variety of development projects. www.inoviapods.com



[SPECIFICATIONS]

Framing	Light gauge steel
Recycled Steel	17% pre-consumer 37% post-consumer
Sheathing	Magnesium oxide board
Green Code Points Eligible	Yes

[NOTABLE FEATURE]

➤ Plug-and-play prefabricated bathroom pods fit any budget and come fully built, ready for quick connection. They can even be disconnected and reused when owners remodel.

Kirei “Windfall” Reclaimed Wood Engineered Panels

Windfall’s motto is: “Demolish another building. It just gives us more to work with.” Windfall reclaims what used to be wood building debris—Douglas-fir, hemlock and pine—material that would have gone to landfills. The wood is harvested from demolition sites in the Pacific Northwest and given new life as decorative paneling. Available in unfinished, clear-finished and in four colors, Windfall panels contain low-emission adhesives and help reduce forest clear-cutting, air pollution and landfill use. www.kireiusa.com/new/windfall.html



[SPECIFICATIONS]

Thickness	3/4"
Size/Weight	27" x 96" / 39 lbs. & 48" x 96" / 74 lbs.
Sheet Quality	A/B
Reclaimed Marks	Yes
FSC-Certified	Yes
Green Code Points Eligible	Yes

[NOTABLE FEATURE]

➤ Nail holes and other signs of distress give Windfall panels character. Made from reclaimed wood, they also earn points under LEED and other green building programs.

OTHER



“SafePlug” Smart Energy Receptacles

SafePlug Smart Energy receptacles can cut home electricity bills by up to 30%. The outlets measure energy consumption for each plugged-in appliance, and turn them off when not needed. Each unit has a built-in RFID tag reader. If lamps and other devices are not recent enough to carry their own RFID tags, one can be slipped on to the device plug. RFID tags identify and categorize each device. The receptacle monitors instantaneous power, line voltage and load current. It turns off outlets if they exceed time used or power-load limits. A few outlets can be controlled via Bluetooth; larger systems require a Gateway Box.

www.safeplug.com

[SPECIFICATIONS]

On/Off Remote Control	Yes
Energy Monitoring by Appliance	Yes
Overload, Blackout and Surge Protection	Yes
Bluetooth Compatible	Yes
Gateway Box Capability	50/Outlets/100 Receptacles, iPhone, iPad, computer and cell phone system, monitoring via Zigbee
UL Listed	Yes
RFID Tags	Yes

[NOTABLE FEATURE]

➤ Each SmartPlug Smart Energy receptacle monitors and controls appliances and lamps at that location.



NewWood Composite Construction Material

NewWood's composite construction material, a hybrid mixture of 100% wood and plastic waste, is a sustainable option for builders looking for durable, waterproof and insect-resistant utility boards. NewWood is a durable underlayment for floors or counters that is easy to install. The product is also appropriate for exterior fencing boards that are resilient in any climate. Its recycled content (and recyclability) can contribute points in green building certification programs. www.newwood.com

[SPECIFICATIONS]

Panel Size(s)
7/16" x 4' x 8' (nominal) panel. Custom sizes up to 7/16" x 8' x 16' panels are available. Thickness is limited to 7/16".

[NOTABLE FEATURE]

➤ This product is made of 100% wood and plastic waste.



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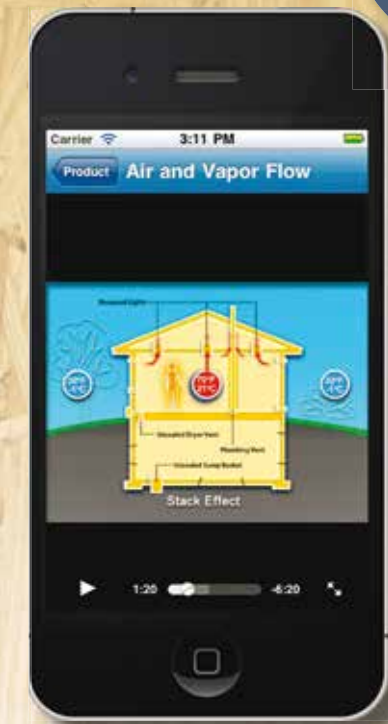


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Rising several stories above the flat roofs of New Orleans' Warehouse District, this historic brick tower abuts converted condo units. It has a new Vermont slate roof, super-efficient windows and an elevator, yet retains— and even improves on—its classic facade.

The Clock Tower

One man's dream—to breathe life into a 19th Century Clock Tower—became reality, but only because of his relentless drive and willingness to start over.

BY MATT POWER PHOTOGRAPHY BY JAMES WILSON

**GREEN
PRODUCT
HIGHLIGHTS**

> Baths/Showers/Kitchen Sink:
Kohler

> Appliances:
Bosch (laundry)
Wolf, Sub-Zero (kitchen)

> Outdoor Cabinetry:
Danver (stainless)

> HVAC: Unico

> Paints:
Benjamin Moore (low-VOC)

> Roofing:
Vermont Slate



Some things are worth preserving. Books. Symphonies. Great Buildings. In times like these, when civil discourse is rare, when reality television portrays us at our worst, things of beauty

from our past can sometimes provide a little rationale for the continuance of the human species.

That may sound a bit high-minded, but it's as good an explanation as any for why this brick tower in New Orleans has been brought back to life.

When Bill Batherson and his wife moved into a converted condo in the old warehouse attached to the Tower, he felt himself drawn to its ghostly interior. Long-neglected, it seemed to speak to him.

"I loved it the first time I saw it," recalls Batherson. "It just had a sense of safety and serenity. Spaces affect your mood, your sense of well being. There's a certain energy you can't really explain."

Without that emotional bond, it's likely the Clock Tower would never have been restored. Instead, six years of sandblasting,

hand-carving, engineering, design and redesign went into this reborn building.

"The whole concept was to save all of the old stuff," Batherson explains. "To reuse everything we could—to marry the old form with contemporary."

FICKLE FATE

"I owned the condo on the other side of the building," notes Batherson, "but not the Tower. The building owners offered to lease it to me for 100 years—then they lost their tax abatement on it, and decided to sell it to me outright."

After acquiring the property, he recalls, one of the first steps was to button up the exterior. No small task, it meant replacing the original 130-year-old slate on the roof, seven stories up, and creating suitable custom replicas to fill ancient window openings.

But his timing for the exterior work could have been better.

"We actually had the scaffolding up when Katrina hit," he recalls. "It stayed in place, but the seals failed on all of the new windows, and we had to replace them all."

That was just one of many setbacks.

To keep the ceiling of this kitchen space as high as possible, Batherson and Ron Jones created a framework of 4" steel tubes, then ran in Unico small-diameter piping for the air conditioning. See those horizontal vents overhead, just below the loft railing? Those are the silent A/C outlets. Each of those massive windows (right) had to be completely rebuilt or replaced.



One of two stainless steel spiral staircases, this one ascends directly into the Tower. It's surrounded by custom woodwork made by a Ukrainian master carpenter. He used locally salvaged and recycled lumber throughout the project.



Repairing the Tower had to stay with strict historic standards. The previous owner of the building (the condo building owner) signed off on the Tower's historic facade in exchange for big tax credits.

But repairing the exterior probably was just a taste of what the interior makeover would entail.

"At times, I wanted to lean more toward the contemporary side," Batherson says. "But I feel now that we struck the right balance. It's not too contemporary. Instead, we managed to marry the old and the new."

THE DRAWING BOARD

Early in the renovation, the project stalled. The design didn't seem to be working. At that point, Ron Jones, our own Green Builder Media president, happened to be in New Orleans. He learned about the project from the remodeling contractor, Tony Wendell, and met with Batherson and his wife to look over their plans.

"They had a good engineer, but the architectural drawings were lousy," recalls Jones. "The sequence was all out of order. For example, they carved out a big area for plumbing on one level, and had done some

ridiculous preliminary work, strung some band joists around, and put in some I-joists for the floor so that the ceiling above was too low. It felt like a teepee."

Jones, an experienced designer and custom home builder, drew them some new sketches. He also suggested that they try to acquire the adjacent condo, if possible. To everyone's good fortune, that opportunity arrived. The adjacent space became available, including the hallway.

"He was able to buy the other unit," Jones recalls, "and even though that meant starting over with the design, it added 600 square feet for us to work with, so I encouraged Bill to grab it."

"Once we acquired that other condo," Batherson adds, "we were able to lay out a catwalk that tied the loft of that new unit to the second floor of the Clock Tower. So everything now integrated much better."

Together, Jones and Batherson came up with innovative solutions to the restrictive dimensions of the Clock Tower space—sometimes by necessity, often by design.

"We originally tried to have one spiral go all the way to the top of the Tower," Batherson recalls, "but because of the pitch

The lower-level entry doors, below the Clock Tower (right), were one of the last major woodworking projects. Batherson says he met with resistance from the condo association, but they eventually let him add this grand entryway of recycled cypress. Almost all of the glass, he notes, is original.

of roof we had to reconfigure so it goes only from the third to the fourth floor."

Rather than give up on the stainless steel spiral staircase theme, however, they added another section of the metal stair to the newly acquired condo unit, where it became a key design element that links the condo spaces to the Tower psychologically.

MASTER CRAFTSMANSHIP

Another key to the outstanding fit and finish of this product was Batherson's decision to hire a master carpenter from Ukraine. Ivan Voloshyn spent three years away from his home and family, personally overseeing this job.

Batherson recalls, "He was here for 33 months. I remember walking down the street and looking up and seeing him hanging out the window of the top floor of the Tower. He had tied a rope around his waist and was peeling off the slate, all while he was hanging upside down. There isn't anything he wouldn't do."

The custom woodwork became a key to integrating modern elements with the historic look. For example, a wood bar made of curved cypress surrounds the spiral staircase, where it serves both as the safety handrail and a functional bar.

"He even hand-carved the rosettes on the A/C system," Batherson recalls. "We got him some reclaimed pine, and he made

This view up through the Tower's glass doors shows how the triple-laminated, walkable glass opens up the space with ample daylight. The elevator (from Winter Elevators) has customized stainless steel and wood detailing, to make it fit with the Tower architecture.



every single rosette."

Another artist involved in the project was interior designer Patricia Gaylor, who helped design the most flattering mix of lighting for the space, at the same time keeping energy efficiency in mind.

HIDDEN TECHNOLOGY

"The condos come with 16 feet of headroom," Jones says, "enough space that we could create a loft space—but only if we could keep the floor thickness to a minimum. You can imagine what this structure must have been like in the summer with no plumbing, no air conditioning, no electricity."

"We were determined not to build chases to run mechanicals in," he continues, "so we did some innovative things."

Batherson describes one of those concepts: "In the first floor of the Clock Tower the joists were about 12 inches wide, and taking up too much headroom. So we ripped those out and put in four-inch steel tubing. Then we boxed them in with faux beams.

"The structural engineer wasn't sure it would work, until he came out and checked it out himself," he adds. "We staggered boards above it and then butted the two-inch tongue-in-groove finish flooring. That made it very solid. There's no bounce."



The exposed beams in the top floor of the Tower (now a bedroom), required many hours of intense restoration work, including sanding, scraping, epoxy and steel reinforcement. But they're all original.

Those metal structural tubes provide plenty of run space for wiring, along with a Unico air conditioning system. It's a high-speed, small-diameter air delivery system with special sound baffling.

"That Unico system was outstanding," Jones says, "The pipes are only like an inch in diameter, so it was just what was called for in this tight space."

By carefully managing cabinetry details, Voloshyn was able to hide all electrical runs. And the only part of the plumbing that's visible are three sprinklers, required by code.

TRANSPARENT BEAUTY

Other challenges also called for unorthodox solutions. For example, some parts of the Tower had few (if any) windows for natural daylighting.

"We decided to create glass floor panels on two of the Tower floors," Batherson recalls. "Not only do they open up the space—you can look up all the way to



the peak—but they also turned out to be essential as access panels when it came time to move furniture to the upper floors. It's three layers of glass laminated together—the same technology used in the glass walkway at the Grand Canyon.

"We certainly chose glass floors in part for their wow factor," he adds. "We really wanted to be able to see through to the different levels, all the way to the peak."

Another feature that could have seemed out of place—an elevator—fits in nicely by mimicking elements such as the glass floors, spiral stairs and custom cabinetry.

In lieu of a clock, the Tower now has custom round windows with heavy cypress muntins. The custom curved bar does double duty as a safety rail for the spiral staircases.

"We were originally just going to build a normal hoist," Batherson recalls, "but by customizing it with stainless and glass, it just matched better. That way you're seeing the exposed brick on one wall, glass on the other, and the back wall is built out of cypress panels."

LIVING PLACE

Like many warehouses in this part of New Orleans, the condo complex attached to the Clock Tower has a huge, largely underutilized flat roof. Many units have extended decks and patios onto the roof—and

Batherson hasn't missed his chance.

"We put down two-foot Dominican shellstone pavers as our flooring for the patio area," Batherson says. "It's somewhat fragile, so we have five hard plastic decking pedestals supporting each piece. We've had 60 people on it with no problem."

Along with that raised floor, he says, he made the patio more livable by adding a misting system and outdoor shelves and cooking gear. The plan is to eventually add plants and possibly a retractable sail system for shade, but there's no rush.

After five years of on-again-off-again

labor and expense in this project, the owner has seen his vision not just achieved, but exceeded. But he also knows it was a once-in-a-lifetime project.

"It's taken so long, and cost so much," he sighs. "The constant mess...yet in the end, everything just flows together. We kept the character of the original building, and now I'm just enjoying living in it. I'd like to keep it in the family." **GB**

YEARS IN THE (RE)MAKING

Don't think for a minute that renovating this ancient building was easy. Storms, historic standards and old toxins stood in the way.



Replacing the slate roof required a full scaffolding, but the exterior work was only about half done when Katrina hit. As a result, many brand new window glazings had to be replaced. Fortunately, the scaffolding stayed in place, and workers were able to finish the job.



To clean the original brick, the team tried several methods, eventually settling on a wire brush tool from Germany. The bricks then had to be coated with a sealer to encapsulate any remaining lead. The floors are made from the original longleaf pine, re-planed and finished to bring out their natural color.



What can you say about this view of downtown New Orleans? Priceless. This outdoor patio includes weather-durable Danvers cabinetry. The floor consists of shellstone pavers that "float" on plastic pedestals.



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What Makes a Green Brand?

Some companies have mastered the art of promoting their eco-credentials to green professionals. Others continue to miss the mark. Our recent reader survey provides a glimpse at how green professionals perceive the universe of building products.

Our latest reader survey isn't meant to be the final word on which brands have the "greenest" product offerings. Branding is about perception, and it's not always a rational response, even among architects, builders, energy auditors and engineers. But that's what makes this key area of sustainable building so interesting. Clearly, big companies have an advantage when entering the green product arena. Like mainstream consumers, green professionals appear to trust established brands. Of course, big companies also have structural advantages. They have great distribution, R&D laboratories, marketing divisions and so on. But every so often, smaller firms "break out," as you'll see from the results that follow. And along with the raw results, we've thrown in some of our own observations and questions to ponder for both manufacturers and end users.



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2012 READERS' CHOICE SURVEY RESULTS

Staying on Top. Despite the slow, steady rise of brands such as Icynene, insulation giant Owens Corning has stayed on top by carefully adjusting its message and its offerings.

Which company offers the greenest INSULATION products?

	Response Percent
Owens Corning	27.5%
Knauf	2.4%
Johns Manville	15.0%
Fiegel	0.0%
BASF	11.4%
Icynene	16.2%
Bio-Based	6.8%
CertainTeed	5.4%
Demilec	3.8%
GreenFiber	12.0%

Message, not Materials. Note that each of the leading brands specializes in a different type of roof covering. This suggests that a roofing brand's strength is not about asphalt versus clay versus concrete.

Which company offers the greenest ROOFING products?

	Response Percent
Boral Roofing	14.6%
DaVinci	3.9%
LuDowici	4.5%
GAF	11.0%
EcoStar	21.4%
Decra	3.2%
CertainTeed	32.5%
Custom-Bilt Metals	8.4%

Wood Wins. Note that (some) wood systems and SIPs stand far above ICFs in green brand reputation. How might ICF companies better promote their perks?

Which company offers the greenest STRUCTURAL SYSTEM products?

	Response Percent
Boise Cascade (CWP)	23.2%
iLevel "Timberstrand" (EWP)	18.7%
Ainsworth (EWP)	2.6%
LP (EWP)	3.9%
GP (EWP)	4.5%
Norbord (EWP)	3.9%
ARXX (ICF)	1.9%
Reward Wall Systems (ICF)	5.2%
Logix (ICF)	4.5%
Nudura (ICF)	2.6%
Owens Corning "PinkFormXtra" (ICF)	7.1%
R-Control (SIPs)	6.5%
Premiere Building Systems (SIPs)	15.5%

2012 READERS' CHOICE SURVEY RESULTS

Sudden Impact. Fiber cement's top position is no surprise, but "EcoClad" siding just hit the market in 2009. How did they build such brand awareness so quickly?

Which company offers the greenest SIDING products?

	Percent
Sto (EIFS)	1.9%
BASF (EIFS)	8.2%
Omega Stucco	3.1%
James Hardie (fiber cement)	35.8%
Nichiha (fiber cement)	1.9%
Eldorado Stone (manufactured stone)	2.5%
Boral (brick and manufactured stone)	6.3%
CertainTeed "Cedarboards" (pvc)	10.1%
LP "SmartSide"	13.8%
KlipTech "EcoClad"	10.7%
Calstar	3.1%
K2 Stone	2.5%

Luxury Lag? What's behind Viking's weaker positioning in the mental green space? Does it have to do with a lack of environmental concern/awareness among their clientele?

Which company offers the greenest APPLIANCE products?

	Response Percent
Whirlpool	21.0%
GE	25.3%
Gaggenau	2.5%
Kenmore	8.0%
Bosch	25.3%
Thermador	3.1%
Viking	0.8%
KitchenAid	7.4%
Miele	6.8%
Other	0.5%

Class Act. Cosentino has pulled out all the stops, hosting sustainability conferences and heavily marketing their green lines—putting them head and shoulders above the field.

Which company offers the greenest COUNTERTOP products?

	Response Percent
Eco by Cosentino	22.3%
DeNova	9.5%
PaperStone	10.8%
IceStone	8.8%
CeasarStone	10.8%
Zodiaq	6.8%
Cambria	16.2%
L.G. Hausys	9.5%
Samsung	5.4%

2012 READERS' CHOICE SURVEY RESULTS

Crossover. Trane's lead in this category demonstrates that among green professionals, a well-respected commercial brand can translate well to the residential side.

Which company offers the greenest HEATING, VENTILATION and AIR CONDITIONING products?

	Response Percent
Trane	23.1%
Carrier	14.7%
Rheem	11.5%
Lennox	15.4%
Wei-McLain	2.6%
Daikin	4.5%
York	4.5%
Bosch	3.8%
Venmar (HRVs)	0.6%
Panasonic (fans and ERVs)	13.5%
Uponor	5.8%

On Demand. Note that the three top brands offer "tankless" systems. Clearly, this technology has become stable enough to win significant brand loyalty from pros.

Which company offers the greenest HOT WATER SYSTEM?

	Response Percent
A.O. Smith	7.0%
Marathon (storage tanks)	6.1%
Velux (solar)	9.1%
Rheem (tankless)	18.2%
Stiebel Eltron (tankless)	0.0%
Rinnai (tankless)	22.4%
Noritz	1.8%
Navien	3.0%
Bosch (geo-thermal; tankless)	15.2%
Heliodyne (solar)	7.9%
GE (hybrid)	8.5%

No Compromises. Long years of sticking to their green principles, to the point that they're now using 95% recycled content in their decking, have clearly paid off for Trex.

Which company offers the greenest DECKING products?

	Response Percent
TimberTech	24.8%
Trex	52.3%
ChoiceDek	9.2%
Fiberon	9.2%
Kleer	4.8%

2012 READERS' CHOICE SURVEY RESULTS

Brute Brand Force. Although a latecomer to the low-VOC paint market, (unlike Glidden, for example, which pioneered less toxic paints) Sherwin-Williams has now leveraged its clout to promote more eco-friendly products.

Which company offers the greenest PAINT and COATING products?

	Response Percent
YOLO Colorhouse	3.0%
Sherwin-Williams	40.9%
Benjamin Moore	30.5%
Glidden	5.2%
Mythic	7.1%
PPG	12.3%

Contender. Perhaps the most interesting data shown on this chart is the rise of Jeld-Wen. Their messaging appears to be reaching green professionals so well that they're nipping at Andersen's heels.

Which company offers the greenest WINDOW and/or DOOR products?

	Response Percent
Migard	4.8%
Marvin	8.4%
Andersen	22.2%
Pella	13.2%
SeriousWindows	11.4%
Kolbe	7.8%
Ply Gem	3.6%
Mi Windows	0.0%
Jeld-Wen	16.8%
PGT	1.2%
Integrity	1.2%
Therma-Tru	7.2%
Masonite	0.6%
Simonton	1.8%

Sunrise, Sunset. As we enter the age of affordable solar, brand preferences may change rapidly and drastically. It will take smarts to hold on to customer loyalty.

Which company offers the greenest PHOTOVOLTAIC SYSTEM products?

	Response Percent
Uni-Solar	18.2%
SunPower	29.7%
CertainTeed	4.7%
Bosch Thermotechnology	13.5%
EchoFirst	3.4%
Sharp	11.5%
Namaste	0.7%
SunLogics	13.5%
Hanwha	4.7%

2012 READERS' CHOICE SURVEY RESULTS

Pro Active. The Kohler company has smoothly integrated water-saving into their branding. Moen, another global company, is gaining market share with aggressive mixed media initiatives.

Which company offers the greenest PLUMBING FIXTURE products?

	Response Percent
Kohler	35.4%
Delta	9.1%
Moen	21.3%
Grohe	4.3%
Hansgrohe	1.8%
American Standard	8.5%
Gerberit	1.2%
Toto	14.6%
Caroma	3.7%

Megaphone. DuPont is listed by Forbes as one of the ten companies that spend the most on advertising worldwide. Clearly, their green message is being heard loud and clear.

Which company offers the greenest BUILDING WRAP products?

	Response Percent	Response Count
Tyvek "HomeWrap"	55.3%	88
Tygar "HouseWrap"	13.2%	21
Dow "Weathermate"	15.7%	25
Owens Corning Pink WRAP	15.7%	25

Mystery Marketing. What's behind Armstrong's green brand leadership—sheer size? They don't even mention sustainability on their Web site. Are their distributors telling a great green story?

Which company offers the greenest FLOORING products?

	Response Percent	Response Count
Mohawk	18.8%	29
Shaw	18.8%	29
Crossville Tile	7.8%	12
Interface	8.4%	13
IKEA	31.2%	48
Bazzèo	7.8%	12
Tiles of Italy	7.1%	11

2012 READERS' CHOICE SURVEY RESULTS

News to Us. Interesting. We had no idea that pros had developed such brand awareness about the sustainability of work wear.

Which company offers the greenest **JOBSITE WORK WEAR**?

	Response Percent
Koon	7.0%
Orvis	7.3%
Carhartt	50.3%
Eddie Bauer	7.9%
Patagonia	26.5%

Opportunity? In our view, no cabinet maker has yet created the powerful message (and truly eco-friendly products) that will catapult their brand to the forefront in the minds of green professionals. Will someone take the initiative?

Which company offers the greenest **CABINETS and SHELVING PRODUCTS**?

	Response Percent
Merillat	17.9%
Armstrong	15.9%
Evergreen	11.0%
KraftMaid	19.3%
IKEA	12.4%
Bazzeo	0.0%
MasterBrand	3.4%
Executive Cabinetry	4.1%
Wellborn	7.6%
Timberlake	8.3%

2012 READERS' CHOICE SURVEY RESULTS

Image Matters. Note that the type of products made by these companies are often less important than their overall reputation as a green company. In other words, a company can earn respect for green practices and products whether it makes concrete additives or Energy Star appliances.

Pick the one brand that you associate most strongly with sustainable products and environmental stewardship.

	Response Percent
Whirlpool	7.2%
Kohler	6.0%
GE	11.4%
Owens Corning	7.2%
Weyerhaeuser	10.8%
Boise Cascade	10.8%
Uponor	2.4%
CertainTeed	4.2%
Trane	2.4%
DuPont	3.8%
Typar	0.0%
Boral	1.8%
Panasonic	3.0%
Schlage	0.8%
Armstrong	0.8%
BASF	6.0%
Other	22%

Please rate your familiarity with the following green technologies and terms. (1=Very Familiar; 2=Heard of It; 3=Unknown)

	1	2	3
Induction cooktops	45.6% (73)	40.6% (65)	13.8% (22)
Finger-jointed studs	53.1% (85)	30.6% (49)	16.3% (26)
Heat recovery ventilators	49.4% (79)	41.9% (67)	8.8% (14)
Whole-house ventilation systems	63.5% (101)	31.4% (50)	5.0% (8)
Fiberglass window frames	56.3% (90)	31.9% (51)	11.9% (19)
Air source heat pumps	51.9% (83)	36.9% (59)	11.3% (18)
Ground-source heat pumps	49.1% (78)	40.3% (64)	10.7% (17)
FSC certification	48.8% (74)	27.8% (44)	25.3% (40)
SFI certification	27.0% (43)	36.5% (58)	36.5% (58)
KCMA certification	13.9% (22)	35.4% (56)	50.6% (80)
Greenguard certification	39.9% (63)	35.4% (56)	24.7% (39)
BPI certification	34.8% (55)	32.3% (51)	32.9% (52)
Water Sense certification	40.1% (63)	29.9% (47)	29.9% (47)
Thermography	48.1% (76)	31.6% (50)	20.3% (32)
PassivHaus	27.7% (44)	33.3% (53)	39.0% (62)
Net Zero	56.7% (89)	34.4% (54)	8.9% (14)
APA	40.1% (63)	31.2% (49)	28.7% (45)
Energy Star	86.0% (139)	11.3% (18)	1.9% (3)

2012 READERS' CHOICE SURVEY RESULTS

Rate how easy it is to identify sustainable products in each product category. (1=Most Green Options; 2=Some Green Options; 3=Fewest Green Options)

	1	2	3
Roofing	27.9% (43)	61.0% (84)	11.0% (17)
Structure	35.3% (54)	55.6% (85)	9.2% (14)
Siding	33.8% (52)	59.1% (91)	7.1% (11)
Insulation	65.6% (101)	30.5% (47)	3.9% (6)
HVAC	51.0% (78)	42.6% (66)	6.5% (10)
Windows	59.5% (91)	37.9% (58)	2.6% (4)
Appliances	53.9% (83)	42.2% (65)	3.9% (6)
Faucets	38.8% (59)	52.0% (79)	9.2% (14)
Fixtures	35.3% (54)	53.6% (82)	11.1% (17)
Countertops	26.8% (41)	60.8% (93)	12.4% (19)
Cabinets	21.1% (32)	63.2% (96)	15.8% (24)
Paints and Adhesives	44.2% (68)	49.4% (76)	6.5% (10)
Lighting	59.1% (88)	36.2% (54)	4.7% (7)

Choose whether you agree or disagree with the following statements.

	Agree	Disagree
It's getting easier to tell sustainable brands from ones that are simply "greenwashing."	41.4% (67)	56.0% (85)
The quality of eco-friendly products is generally improving from year to year.	91.3% (147)	8.7% (14)
Brand is more important than price when it comes to choosing between two similar green products.	48.8% (78)	51.3% (82)
I tend to assume a green product will be of higher quality if I know and trust the brand.	76.1% (121)	23.9% (38)
When specifying green products and materials, I typically start with a known brand and go from there.	80.7% (130)	19.3% (31)

2012 READERS' CHOICE SURVEY RESULTS

Choose whether you agree or disagree with the following statements.

	Agree	Disagree
I try new green brands all the time. That's the only way to see if they work.	42.4% (67)	57.6% (91)
My experience with newer green brands has been good. They usually live up to their product literature.	64.1% (100)	35.9% (56)
We need more innovation and experimentation from the manufacturer side, when it comes to green building science.	90.5% (143)	9.5% (15)
We have enough brands. It's more important to improve the technologies we have.	61.6% (98)	38.4% (61)

Choose whether you agree or disagree with the following statements.

	Agree	Disagree
I try new green brands all the time. That's the only way to see if they work.	42.4% (67)	57.6% (91)
My experience with newer green brands has been good. They usually live up to their product literature.	64.1% (100)	35.9% (56)
We need more innovation and experimentation from the manufacturer side, when it comes to green building science.	90.5% (143)	9.5% (15)
We have enough brands. It's more important to improve the technologies we have.	61.6% (98)	38.4% (61)

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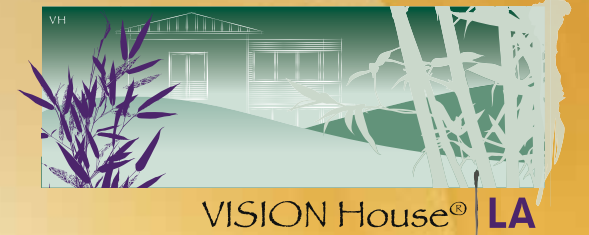
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FROM THE TAILGATE

Sage advice from the trenches

By Ron Jones

Busted! (Yes, I Like Old Homes, Too)

OK, I'll happily admit that I'm a real soft touch for old dogs, old trucks (you can easily tell how comfortable I am leaning against this cherry '51 Chevy!), and old buildings, like the one housing the Clock Tower featured in this issue.

These days, I don't have much time for close involvement with projects other than those in our VISION House® series, and that means I have little direct participation with homeowners compared to a few years ago. So, even though I'm regularly contacted by people requesting my involvement in various projects, I'm rarely able to make an exception—just due to time limitations.

But when a remodeler acquaintance asked me to look at an historic structure in New Orleans' Warehouse District, I couldn't resist the invitation. She and the property owners were struggling with design solutions, in hopes of producing results that would do justice to an opportunity as unique and memorable as this. They offered me a chance to be involved, and after one visit there was no way I could refuse.

My reward was that I got to know the creative and stubbornly determined owners, learn the fascinating story of their project, and offer a little input along the way—at the same time helping to make connections with some of the manufacturers of the essential products and systems that were needed to help assure maximum (and sustainable) results for this extraordinary residence.

I've long maintained that most existing buildings inherently have a "green" head start, by virtue of the simple fact that they are already in place. The environmental costs for the land, materials and other resources required to construct them have already been paid—and there's no going back—so why not reuse rather than replace whenever possible? Still, they come with their own set of special concerns as well, including structural uncertainty, outdated and obsolete systems and fixtures, logistical dif-

ficulties and code and safety challenges, to name a few.

It is no small task to incorporate code-compliant plumbing, electrical components, fire protection, controls and appliances (not to mention modern air conditioning and ventilation, sound attenuation, insulation, modern glazing, air and moisture barriers) into a traditional masonry-and-heavy-timber structure. Few surfaces are plumb or level, square corners are almost nonexistent, and the utilities are perhaps a century old—but, in this case, the result was more than worth the effort!

I hope you enjoy reading about the Clock Tower as much I enjoyed being involved. **GB**



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