

2016 retrofit TOP 50 PRODUCTS

Products are an integral part of any trade publication. As such, *retrofit* is celebrating the 50 products that received the most reader inquiries from our September-October 2015 through July-August 2016 issues.

In addition, at the prompting of our editorial advisory board, we asked the manufacturers to share case studies about how their top products solved a problem or achieved the desired result within a retrofit. Although many manufacturers' products are fairly new, a few manufacturers were able to share actual retrofit projects in which their top products were specified.

Enjoy *retrofit*'s fourth-annual Top 50 Products!



1 WALL SYSTEMS ALLOW FOR MORE GLASS USE

Sierra Pacific Windows has unveiled a new line of architectural wall systems, which offer architects more freedom to design with expanded use of glass, clean straight lines, and transparency between indoors and outdoors. With their all-wood interiors and load-bearing structural integrity, the new line, in many cases, can eliminate the need for steel beams. The walls are tested to ASTM standards for air and water infiltration, as well as structural wind-load performance. Additionally, they meet today's energy standards for heat loss and solar heat gain.

www.sierrapacificwindows.com // Circle No. 17

2 REPLACE ALMOST ANY BULB WITH LED

The SYLVANIA Contractor Series LED Portfolio from OSRAM SYLVANIA includes lighting solutions that are rated up to 11,000 hours (L70) at price points for practically any socket. SYLVANIA Contractor Series A19 LEDs replace 40- and 60-watt traditional lamps using only 6 and 8.5W, respectively. The portfolio includes 75W and 100W replacement A19 LED lamps; solutions for track lighting, such as R20 (dimmable), MR16, PAR16, PAR20, PAR30, PAR30LN and PAR38 LED lamps; and dimmable BR30 and BR40 lamps and RT5/6 LED Recessed Downlight Kits for ceiling cans. For outdoor applications, the BR30, PAR20, PAR30LN and PAR38 LED lamps are UL-listed for damp locations, and the RT5/6 kits are suitable for dry, damp and wet locations.

www.sylvania.com // Circle No. 18



3 TROFFER NOW AVAILABLE IN LED VERSION

Hubbell Lighting's Columbia Lighting business has launched an LED version of its Zero Plenum Troffer, or LZPT, which is designed for restricted plenum spaces. For installation, the patented telescoping housing requires only 3 inches above the ceiling at one end of the fixture. Once installed, a housing height of 1 1/2 inches keeps the fixture from intruding into the useable plenum. The LZPT features 60,000-hour LEDs at L80 and four LED color choices. Multiple lumen packages range from 1900 to 9100 nominal lumens, and color consistency is to a 3-step MacAdam ellipse and 82 CRI. Soft, uniform light distribution provides vertical illumination free from harsh contrast.

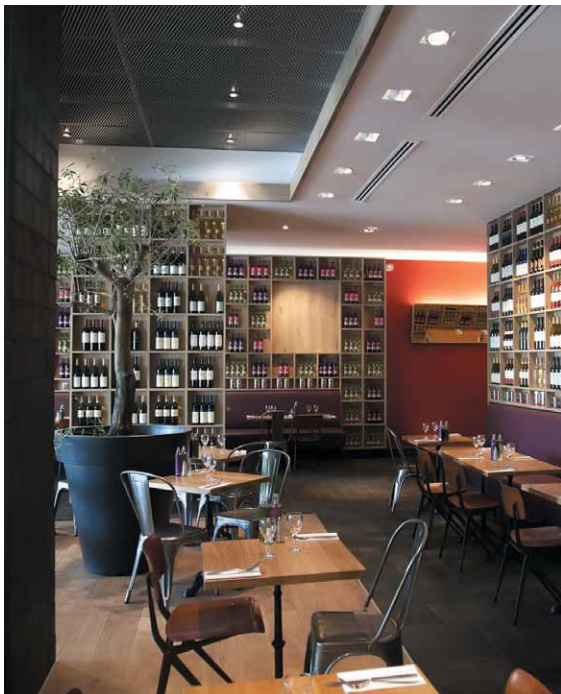
www.columbialighting.com/products/lzpt // Circle No. 19



4 TRIMLESS LIGHTING BLENDS INTO CEILINGS

Nora Lighting's MLS (Multiple Lighting System) trimless fixtures are now available in one, two or three-light linear configurations. The fixtures are available in dedicated LED or PAR 30 medium base light sources. Each lighting module can be independently adjusted on two axes for effective illumination of displays or wall treatments. LED-dedicated models have dimmable fixtures and can be specified with 40- or 15-degree beam spreads. The PAR 30 medium base line voltage model has an adjustable socket for various lamp lengths and can be factory labeled with reduced wattage to meet watts-per-square-foot requirements.

www.noralighting.com // Circle No. 21



A San Diego restaurant recently updated its dining area with Nora Lighting's MLS (Multiple Lighting System) trimless recessed downlights. The fixtures were selected because they can be independently adjusted on two axes to illuminate wall displays of fine wines while presenting a smooth flangeless appearance that blends into the ceiling. Energy-saving LED models were installed because there is no forward heat to affect the wines. One and two-light LED models were used in the renovation.

5 CHOOSE THE WINDOW FEATURES YOU WANT

Through the 1500 Vinyl Collection from Ply Gem Windows, architects and builders have more options in customizable window design. Coupled with a white interior, the bronze exterior option aligns with authentic architectural styling while allowing architects and builders to select bold palettes that complement a building's exterior.

Bronze is currently available on all 1500 Vinyl Collection operating styles, including single-hung, sliding, picture and architectural-shape windows. For multifamily projects, the collection allows customers to pay only for the upgrade options they want without getting features they don't need. The line is completely customizable with colors that align with design trends, grilles, simulated divided lites, shape options and ENERGY STAR glass packages.

www.1500vinylcollection.com // Circle No. 22



6 SEAMLESSLY ILLUMINATE CAMPUSES

Eaton has launched the Invue Arbor LED family of luminaires with patented WaveStream LED technology. These post top, bollard and wall-mounted architectural luminaires provide visual uniformity, designed to create seamless architectural transitions from site to building applications across an entire campus setting. The products offer improved efficiency and performance while reducing the distracting LED pixilation and uncomfortable brightness typically associated with other LED product solutions.



The Invue Arbor LED family is available with a range of control options, including integral 0- to 10-volt dimming drivers, integrated occupancy sensors, and wireless monitoring and communication.

www.eaton.com/lighting // Circle No. 23

7 CUSTOM DOOR HIGHLIGHTS MANUFACTURER'S CAPABILITIES

Kolbe built an oversized, pivoting entrance based on a request from an architect and now is showcasing the door to highlight its manufacturing capabilities. The custom, mahogany wood pivot door features a Rockwood GeoMetek locking pull handle in a satin-stainless finish and energy-efficient, tempered LoE2-270 reeded glass. At more than 6-feet wide by 9-feet tall, the specialized pivoting hardware is nearly invisible, creating a sleek appearance while allowing easy operation in spite of its large size. Kolbe's pivot door capabilities are a reflection of the company's drive to provide windows and doors that enhance spaces and push the boundaries of what is possible.

www.kolbe-kolbe.com // Circle No. 24



8 ARCHITECTURAL STONE VENEER OFFERS MODERN LOOK

Eldorado Stone has released its Modern Collection, which provides clean lines and a neutral color palette while manifesting Eldorado Stone's commitment to authenticity. Featuring six profiles in smooth and texturized applications, the Modern Collection offers larger, linear stones in 34 new colors with cool gray, soothing black and winter white tones. The collection, which can be used in interior and exterior applications, is hand-painted and created with a proprietary blend of natural stone and aggregate.

www.eldoradostone.com // Circle No. 26



Chalk Dust TundraBrick



9 BEAM TIE IS CONCEALED

The CBTZ concealed beam tie by Simpson Strong-Tie provides a structural, as well as invisible, connection for installations that call for hidden joinery rather than standard beam-to-post connections. The product is designed to connect beams and posts ranging from 4xs to 6xs or even larger. Contractors now can easily install a connector that delivers structural strength for pergola, patio cover or arbor projects while having the aesthetic look their customer wants. Flattened sides on the tubular CBTZ make it easier for installers to lay the part on the beam or post to mark where holes need to be drilled. Locator tabs help with proper positioning so it lines up with the layout of dowel pin holes.

strongtie.com/cbtz // Circle No. 27

10 CREATE FIRE-RATED RADIUS ASSEMBLIES

National Gypsum has made available Gold Bond brand XP Fire-Rated 5/16-inch Radius Wall for radius applications requiring fire-rated assemblies. The product is used in double-layered construction. A one-hour UL tested assembly can be achieved with two layers, and a two-hour UL tested assembly can be achieved with four layers. The abrasion-resistant PURPLE XP paper protects against mold, mildew and moisture. It scores and snaps easily with no special handling requirements. Tapered edges allow joints to be reinforced with ProForm brand Joint Tape and concealed with ProForm brand Ready Mix or ProForm brand Quick Set Setting Compounds.

nationalgypsum.com // Circle No. 28



11 PROFESSIONAL-GRADE PAINT LINE EXPANDS

Behr Paint has expanded its BEHR PRO professional-grade paint line with BEHR PREMIUM Interior/Exterior Direct-To-Metal Paint, BEHR PRO Dryfall Paint, BEHR PRO Block Filler Primer, KILZ 2 Latex Gray and BEHR PREMIUM Granite Grip Coating.

These products, along with the BehrPro paint line that launched in 2015, provide a full breadth of products for the professional. Additionally, professionals have access to enhanced service capabilities at SuperCenter distribution locations across the country that can provide product specs, color-matching, high-volume order fulfillment, and detailed account management to tackle any residential and commercial project.

www.behr.com/pro // Circle No. 29





12 ILLUMINATE SIGNS AND DISPLAYS

Super Bright LEDs has released a line of single-color LED light modules that

provide consistent illumination for channel letters, sign lighting, under-cabinet lighting, store-window lighting, display-case lighting and more. The weatherproof sign modules have multiple mounting options and are available in cool white, red, green and blue. Three enhanced Epistar 2835 SMD LEDs emit up to 89 lumens of powerful light and produce a 160-degree beam pattern, which is capable of illuminating channel letters up to 28-inches wide and as shallow as 3 inches. The dimmable LED sign modules are available in customizable quantity strands (up to 45 modules) with 3 1/2-inch spacing between each module.

www.superbrightleds.com // Circle No. 31

In early 2016, Super Bright LEDs installed LED sign modules in the window of Red Fish Blue Fish, a bar/music venue in St. Charles, Mo. Positioned in the middle of a shopping center, the bar had average traffic flow but wasn't immediately visible from the nearby highway. Color-changing RGB LED sign modules were chosen to grab the attention of passersby on foot and in their vehicles.

The install took only 30 minutes to complete. A total of 56 sign modules were mounted on the inside of the bar's window using double-sided foam tape and screws. Sign module strands were joined with wire connectors. The final strand was connected to an RGB LED controller that was connected to a 12-volt power supply. The RGB controller was used with its wireless RF remote to control dynamic color-changing modes, speed, brightness and single-color options.

The illuminated bar window now is visible from the highway. It stands out against nearby businesses, and an increase in bar traffic was reported by Red Fish Blue Fish owners after the install.



VIEW A VIDEO OF THIS PROJECT.
SEE PAGE 12 FOR DETAILS.



13 WATER AND AIR BARRIER ARE INCORPORATED IN ONE SHEATHING PRODUCT

PROSOCO Inc. has teamed with Georgia-Pacific Gypsum to release the DensElement Barrier System, a patent-pending sheathing barrier system that integrates a water-resistant and air barrier within the gypsum core through AquaKOR Technology. The system comprises three GP-approved system components: DensElement Sheathing; PROSOCO R-Guard FastFlash liquid flashing to fill and seal joints, fasteners and other penetrations; and PROSOCO PorousPrep water-based primer to prime exposed gypsum edges. As a system solution, the DensElement Barrier System eliminates the need to apply other water or air barriers that cover or coat the entire wall.

www.prosoco.com; www.buildgp.com // Circle No. 32



14 STOREFRONT DELIVERS THERMAL PERFORMANCE

CRL-U.S. Aluminum has launched its ArcticFront Series 45X Storefront, which delivers thermal performance with the installer-friendly features of a traditional storefront. The center-glazed system, which has been tested per AAMA 1503/507 and

ASTM E283, features dual polyurethane thermal-break points that act as a thermal barrier and a 2- by 4 1/2-inch thermal frame. It can produce U-factors

ranging from 0.37, using 1-inch low-E insulating glass, to as low as 0.19, using specially configured insulated glass units. Additional features include screw spline or shear block assembly, sill receptors that require no additional anchoring of the sill member, and interior or exterior glazing options.

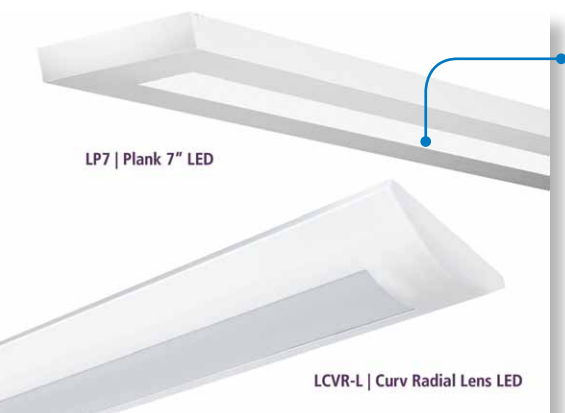
www.crl-arch.com // Circle No. 33

15 MANUFACTURERS PARTNER TO OFFER POLYISO

Fabral has partnered with Atlas Roofing Corp. to provide closed-cell foam insulation, also known as polyiso, for reducing thermal conductivity between the interior and exterior of a building. Fabral will offer three insulation products—ACFoam-III, ACFoam Nail Base and ACFoam CrossVent and fasteners—to simplify the ordering process for its customers. Suited for Fabral standing-seam metal roof systems, polyiso is manufactured using CFC-, HFC- and HCFC-free foam technology and is recognized by GREENGUARD as resistant to mold. The insulation offers high-unit R-value per inch, fire performance, no ozone depletion potential, and can be recycled or reused.

www.fabral.com // Circle No. 34





16 LINEAR LIGHTING SOLUTIONS OFFER VISUAL COMFORT

Hubbell Lighting's Alera Lighting has launched two linear lighting solutions—the Plank 7-inch LED (LP7) and the Curv Radial Lens LED. The Plank fixture, which has a rectangular form that can be used for uplight, downlight or a combination, can be used with external controls or shipped with integrated controls. The fixture is available in lumen packages ranging from 3165 to 7600 per 4-foot section and three LED CCT color choices. The Curv fixture's opal acrylic lens provides indirect-direct or direct illumination. The fixture is designed for areas where visual comfort is important, different light levels are required within the same space or where daylight harvesting is part of the building design. The Curv Radial Lens LED is available in lumen packages ranging from 4350 to 7250 and three LED CCT color choices.

www.aleralighting.com // Circle No. 36



17 FOLDING DOOR SYSTEM IS VINYL

LaCantina Doors has unveiled its Vinyl Folding Door System, which features contemporary styling with clean profiles. The door system is energy-efficient, low-maintenance and performs well in all environments. It is available in standard and custom door sizes up to 8-feet tall and 18-feet wide in a range of popular configurations. The door panels feature a narrow 2 15/16-inch stile and rail profile for more glass and light. The system's hardware package is available in stainless or bronze finish. Concealed multi-point locking provides added security, and standard low-E glass improves energy efficiency. Standard color options include white or tan.

www.lacantinadoors.com // Circle No. 37

18 CONTROL LIGHTING FROM ANY SMART DEVICE

Lutron Electronics has introduced its Vive wireless lighting control that allows facility managers and building owners to monitor and manage their system from any smart device. They can quickly adjust lighting controls to accommodate building churn, improve occupant comfort and enhance energy efficiency. Vive is ideal for commercial office spaces, K-12, and colleges and universities with options that specifically suit the unique needs of each different space type—without locking customers into more or less control than they need. Vive is also fully scalable—start with a single room and expand as the needs of the space and budgets allow.

www.lutron.com/vive // Circle No. 38



19 CEILING PANELS OFFER VARIOUS CONFIGURATIONS

Hunter Douglas has introduced four products to its Tavola beam and baffle ceiling series: Divergent, Levels, Canted and Cassettes. Tavola Divergent enables configuration of non-parallel, diverging beams and baffles in pinwheel, basket weave and chevron designs along with client-specific layouts. Tavola Levels combines beams and baffles of multiple heights and widths with various on-center spacing to create topography and rhythm across the ceiling plane. Tavola Canted supports three beam styles in three depths that can slope to create unexpected topographies. Tavola Cassettes provides linear arrays of factory-assembled aluminum beams, unitized for simple torsion spring installation. The series is available in a range of finishes, plus Woodwright wood-look powder coat, film and real wood veneer options.

www.hunterdouglasceilings.com // Circle No. 39



20 STRUCTURAL PANELS ARE NONCOMBUSTIBLE

USG Corp. has released its USG Structural Solutions, which include the USG Structural Panel Concrete Subfloor and USG Structural Panel Concrete Roof Deck. From mezzanines and mid-rises to platforms and roof decks, the panels provide the versatility of wood sheathing but are noncombustible and certified by Underwriters Laboratories Inc. The structural panels, which can significantly reduce design loads, can create one- and two-hour fire-rated assemblies. They will not buckle or warp, and they install quickly.

www.usg.com/structural // Circle No. 41

USG Structural Panel Concrete Subfloor enabled the construction of a premier movie theater as part of the development of Block 37, one of Chicago's newest entrainment and shopping complexes. The existing structure was built in late 2008 and was home to 3 stories of shopping and a fourth floor dedicated to a major tenant.

When the concept for a movie theater was in development, a number of construction materials and practices were evaluated to build the tiered platforms needed for the audience seating; however, due to occupancy and life safety requirements, some of those material options were deemed unsatisfactory because they did not meet building code requirements, like noncombustibility. The designers looked at other traditional options that would meet the noncombustibility requirement. The options initially reviewed were very heavy and re-

quired modification to the already existing structure.

The need for a lightweight, noncombustible, structural floor sheathing to build the tiered platforms in the theater pointed the designers to consider the USG Structural Panel Concrete Subfloor. In addition to meeting the noncombustible requirement, the sheet product comes cured from the factory. It fits on an elevator and is installed in three easy steps: lay, fasten and finish. The installation of this product fit within the compressed timeline for the project.

The project is more than 30,000 square feet and includes a full restaurant kitchen, bar and 12 screens with luxury recliners. Construction started in June 2015 and the theater opened its doors on Dec. 12, 2015. This project would have not been completed in such a timely manner without the use of the USG Structural Panel Concrete Subfloor.



21 LOCK, UNLOCK, OPEN AND CLOSE WINDOW WITH MINIMAL FORCE

Graham Architectural Products has introduced the GT6200 SL Single-Lever Operator Window, an outswing casement with single-lever hardware designed to operate with minimal force and limited motion requirements, like those specified by AAMA 513-12 (less than 5-pounds operational force). The GT6200 SL also can be configured to meet the NYC Falls Prevention criteria. The single-point, multi-functioning handle allows locking, unlocking, opening and closing with minimal force. It functions as a limited opening device, too. The GT6200 SL features Euro-Groove design, dual color capability and a polyamide strut thermal-break system for U-values.

www.grahamwindows.com // Circle No. 42

22 TECHNOLOGY IMPROVES EFFICIENCY OF OUTDOOR UNITS

Mitsubishi Electric US Inc. Cooling & Heating Division has released its CITY MULTI L-Generation Air Source outdoor units. The L-Generation (6 to 30 tons) has improved efficiency ratings because of its HexiCoil technology, an aluminum flat tube heat exchanger that maximizes heat-transfer capability through its fin shape. The fin design of the HexiCoil product, along with its zinc outer coating, provides water-shedding capability and corrosion resistance, prolonging the outdoor unit's lifespan. The capillary tube system ensures even fluid distribution, further contributing to heat-transfer ability.

www.mitsubishicomfort.com // Circle No. 43

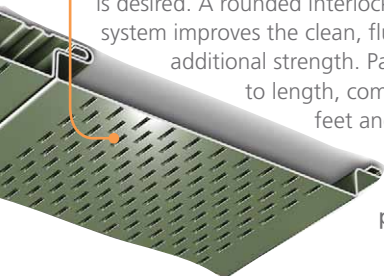


23 SOFFIT PANEL AVAILABLE WITH FULL-VENT OPTION

Petersen's Flush Soffit panel is now offered with a full-vent option, designed to increase under-eave airflow and expand aesthetic appeal. The full-vent soffit is available in PAC-CLAD 0.032 and 0.040 aluminum and is tension-leveled to ensure flatness. PAC-CLAD Flush Soffit panels are designed for soffit, wall and fascia applications where a flush or flat appearance is desired. A rounded interlock leg and concealed fastening system improves the clean, flush appearance while providing additional strength. Panels, which are factory-formed to length, come in a maximum length of 25 feet and minimum length of 4 feet.

Availability and options may vary at each Petersen facility.

pac-clad.com // Circle No. 45



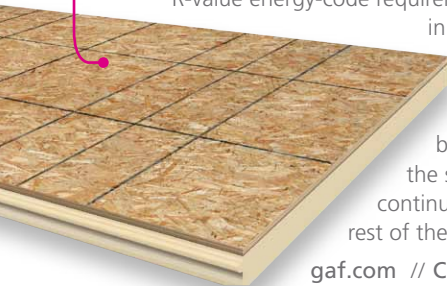
25 ADD INSULATION TO THE OUTSIDE OF EXTERIOR WALLS

GAF has released its ThermaCal Wall Insulation Panels, which are designed to add insulation value to the outside of structural exterior sidewalls and can be fastened to outside wall sheathing, metal or masonry walls. They serve as a nailable base for exterior sidewall coverings. The panels help reduce heat loss and cold drive into the space and can reduce associated energy costs and meet the increased

R-value energy-code requirements being adopted in certain climate zones.

Installing ThermaCal Wall Panels helps eliminate thermal bridging by covering the studs while adding continuous insulation to the rest of the wall.

gaf.com // Circle No. 47



24 REPLACE HID FIXTURES WITH LED CANOPY LIGHTS

RAB Lighting introduces VANLED, an energy-saving, low-maintenance and low-profile LED canopy light designed to cover the footprint of most traditional canopy fixtures. VANLED comes in six power packages—10W, 20W, 40W, 52W, 65W and 75W—and replaces 50W to 200W HID fixtures. The product offers an efficacy rating of 122 lm/W, reducing energy costs by more than 80 percent. Its low-profile design provides a clean contemporary look that makes it ideal for a wide range of applications, including those with vehicle height restrictions. VANLED is DesignLights Consortium-approved.

www.rabweb.com // Circle No. 46

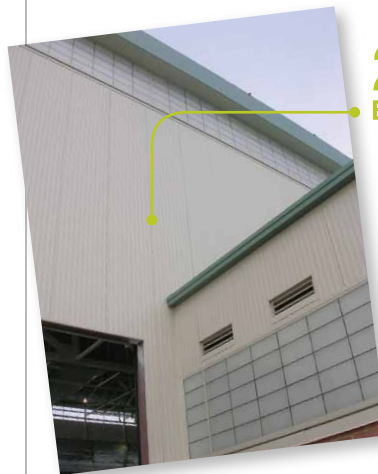


26 METAL PANELS NOW AVAILABLE WITH NON EXPOSED FASTENING

ThermalSafe panels from Metl-Span are now available with a Non Exposed Fastening (NEF) solution to offer architects, designers and building owners a flush appearance. Thermal-Safe NEF mineral wool panels are the latest development in fire-resistant wall construction technology with the aesthetic appeal of a smooth surface. The one-step, one-crew installation of the LockGuard interlocking side joint feature enhances the fire-resistant

characteristics of the panels. ThermalSafe panels are attached to the intermediate support members using concealed clips and fasteners. The end panels will still need to be attached with through-fasteners required for fire ratings but that exposed fastener head can be covered with trim.

www.metlspan.com // Circle No. 48



27 CREATE AIR AND VAPOR SEAL BETWEEN A ROOF AND BUILDING

Mule-Hide Products Co.'s F5 Air & Vapor Barrier allows contractors to quickly and easily create an air- and vapor-tight seal between a low-slope roofing system and the building below. The barrier is compatible with a wide variety of roofing systems and can be used on primed substrates, including concrete, plywood, exterior gypsum, DensDeck Prime and SECURROCK. It also can serve as a temporary roof for up to 120 days while work on the roofing system is completed. The membrane is a 40-mil-thick composite consisting of 35 mils of self-adhering rubberized asphalt laminated to a 5-mil-thick woven polypropylene film. Rolls are 39-inches wide and 75-feet long and cover approximately 244 square feet of substrate surface.

www.mulehide.com // Circle No. 49



28 CREATE SPACE BETWEEN A BUILDING AND THE ELEMENTS

WATERWAY Rainscreen Drainage and Ventilation Mats from Stuc-O-Flex International Inc. create space for moisture drainage and promote air circulation through convection. WaterWay consists of polypropylene filaments bonded to a Moisture Resistive Filter Fabric that functions like an additional layer of weather-resistant barrier. WaterWay is designed for stucco, EIFS, manufactured and natural stone, fiber cement, brick, lap and cedar sidings, and other wall-cladding systems.

www.stucoflex.com // Circle No. 51



Following extensive forensic evaluation, it was apparent the cladding on this lakeside community was in desperate need of a comprehensive retrofit and repair. Years of exposure exacerbated by inadequate flashing and transition details allowed substantial water penetration. This resulted in disintegrated weather-resistant barrier (WRB); rusted laths, fasteners, casing and cornerbeads; deteriorated sheathing; and intermittent compromise of framing members.



With an adamant homeowners' association concerned about recurrence, OAC, the Seattle-based envelope consultant, suggested the WATERWAY Rainscreen Stucco Assembly, which incorporates fluid-applied WRB, Rainscreen Drainage and Ventilation Mat, stucco, a crack suppression layer (polymer-modified cement base and fiberglass mesh) completed with Stuc-O-Flex Breathable Elastomeric Acrylic Finish. After

thorough evaluation, all agreed the configuration offered high-performance reliability with built-in redundancy, durability and extended service life.

As demolition began, source and severity of the moisture intrusion were confirmed. Sheathing, framing, and insulation of impacted areas were repaired or replaced. With installation of the Rainscreen Stucco components started, diligence was employed in development



and execution of flashing and interface details. The general contractor was Tatley-Grund Inc., Seattle, and plastering was completed by Stucco by Alex, Entiat, Wash.

Upon completion, 24 buildings, totaling more than 385,000 square feet, had been repaired. Today, the WATERWAY Rainscreen Stucco Assembly continues to provide a low-maintenance exterior that looks great and performs admirably.

29 CULTURED STONE LINE OFFERS NEW TEXTURES

Cultured Stone by Boral has expanded its Contemporary Collection with two stone textures, Contemporary Pro-Fit and Limestone, which build upon the entire line's clean, linear aesthetic. Mirroring the same panel size as its Pro-Fit cousin, the new Contemporary Pro-Fit texture features three different depths of stone with a 1/2-inch difference in depths between stones. The texture is available as individual pieces across the three new colorways: Cream, Dove Gray and Light Brown. The Limestone texture, which also is available in the same subtle hues, comes in five different sizes and is sold separately to allow for greater blending flexibility and visual interest.

www.boralamerica.com
// Circle No. 52



Contemporary Pro-Fit Modera
LedgeStone in Intaglio



30 PORCELAIN TILE RESEMBLES WOOD

Ege Seramik's Savannah Series is a porcelain tile that resembles wood and is

offered in a large format. The 6- by

36-inch tiles are available in five colors: Honey, Pearl, Sand, Silver and Wenge. The 8- by 48-inch tiles come in four colors: Honey, Pearl, Sand and Silver. The tiles can be used on interior floors and walls, as well as exterior vertical surfaces. Ege Seramik's "pressing method" manufacturing process allows for this large-format tile to be consistent in overall dimension.

www.egeseramik.com // Circle No. 53

31 LED LIGHT ENGINES CAN BE USED AS RETROFIT KITS

Terralux has released the SR308 and SR312 series of energy-efficient LED light engines. The UL-recognized LEDs are suitable for use in new fixtures by OEM lighting fixture manufacturers and to upgrade existing incandescent or ballasted CFL lighting fixtures. They can be used in sealed or unsealed fixtures, including outdoor listed and labeled wet-location fixtures. All models have a seven-year warranty, including in non-stop commercial operation. The light engines, which are ENERGY STAR certified, are available in five different lumen packages (850 - 2100 lm), four different correlated color temperatures (2700K, 3000K, 3500K and 4000K), and include universal 120 - 277V 0 - 10V dimming.

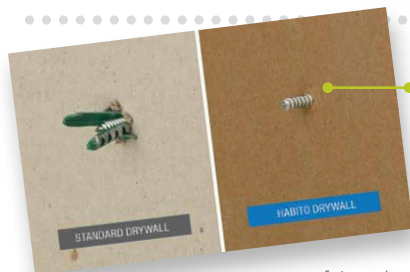
www.terralux.com // Circle No. 55



32 COMBI-BOILER IS IMPROVED

Navien has made available its next generation combi-boiler, the NCB-E. Navien's NCB series, as one unit, is capable of providing a whole-house heating system while providing the domestic hot-water output of a stand-alone tank-less water heater. The NCB-E will be a rolling replacement, now with a Grundfos pump, an integral air vent, a PRV top connection, a quieter fan and new front cover bevel design.

www.wholehousecombi.com // Circle No. 56



33 DRYWALL WITHSTANDS USE AND ABUSE

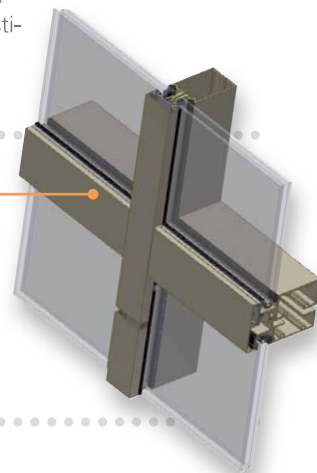
CertainTeed has introduced Habito, a 1/2-inch wallboard material that eliminates the need for threaded drywall anchors or nailing to wall studs for fixtures under 30 pounds; delivers sound insulation; is an alternative for high-traffic interiors that tend to see use and abuse, as well as areas where occupants will redecorate and mount shelves, media, décor and other fixtures. Habito combines the benefits of old-fashioned plaster and modern drywall, adding stability and substance. This allows builders to instill confidence in consumers while justifying the added expenses associated with high-performance building products.

www.certainteed.com/gypsum // Circle No. 57

34 CURTAINWALL CAN BE FABRICATED AND ASSEMBLED IN THE FACTORY

EFCO Corp.'s 5600 PG curtainwall system offers pre-glaze capability and factory fabrication/assembly options. Single- or multi-span and anti-bulking clips ease installation. The curtainwall itself has various system depths and span options, which allow it to adapt to multiple areas for individual building needs. The optional Duracast pressure plate, made of Pella's patented fiberglass pultrusion, enhances thermal performance and creates fewer installation steps. The curtainwall is capable of 6-, 7 1/2- and 10-inch systems.

EFCOcorp.com // Circle No. 58



35 RETROFIT A DESK FOR SITTING AND STANDING

Increase productivity and promote wellness with the WS1 Adjustable Height Workstation from Doug Mockett & Co. Inc. The universal platform fits any desk or workstation without compromising space or stability. The workstation features a 17-inch range of vertical motion. Transition from sitting to a standing-height desk in a matter of seconds.

www.mockett.com // Circle No. 59



LEARN HOW THIS PRODUCT WORKS VIA A SHORT VIDEO. SEE PAGE 12 FOR DETAILS.

36 EXTERIOR SHADES ARE DESIGNED FOR SKYLIGHTS



VELUX and RENSON have introduced Topfix VMS, a motor-operated sunscreen with special mounting feet engineered for fixed and movable VELUX Modular Skylights. It employs ZipShade technology, providing fabric tension and wind resistance up to 75 mph. The proprietary design integrates screen fabrics to which zippers are affixed and move within a side channel and guide system for smooth extension/retraction, consistent fabric tension and resistance to the elements. Topfix VMS is available in a variety of colors and blackout-shade options. It can be integrated into a building-management system.

www.renson.us/external-blinds-united-states.html // Circle No. 60

37 COATING COMES WITH LIST OF INGREDIENTS

Fluropon Pure is Valspar's newest addition to its Fluropon 70 percent PVDF family of coil and extrusion coatings. Formulated with material transparency in mind, Fluropon Pure does not include hexavalent chromium, lead, phthalates and PFOA, allowing the product to meet Living Building Challenge's Red List 3.0-Compliant requirement. Fluropon Pure delivers the same capabilities of Valspar's original Fluropon line, including cool roof formulations. Additionally, the coating is trusted to protect buildings against harsh outdoor elements, including humidity and corrosion, dirt, stains and chemicals.

valsparcoilextrusion.com // Circle No. 61



38 FAN COIL SOLUTION IS MINIMALLY INVASIVE

International Environmental Corp. has developed the Mini-ReStoraMOD, a minimally invasive high-rise fan coil solution that enables quick replacement for hospitality, multifamily and higher-education applications. The MiniReStoraMOD has the ability to fit into any current space by sliding into the shell of an existing unit, avoiding the need to shut down an entire riser, which can result in significant costs, downtime and revenue loss. Furthermore, because of the ability to be installed using existing materials with minimal disruption to the existing space, the replacement mini-minimizes the number of outside trades that need to be involved.

www.iec-okc.com // Circle No. 62



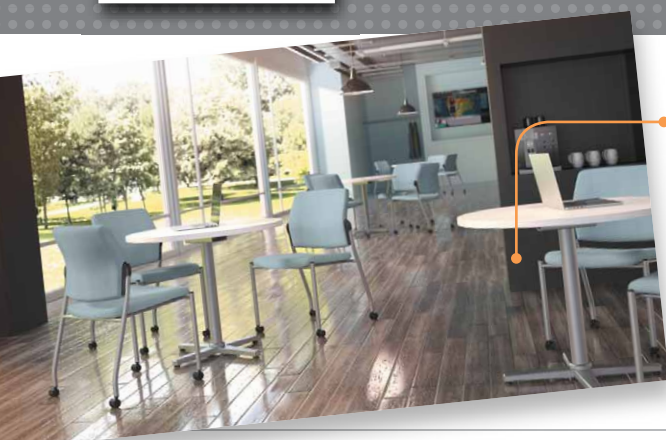
39 LVT PLANKS RESEMBLE AGED WOOD

Karndean Designflooring has expanded its Van Gogh collection with 12 wood-look planks that encapsulate the look of transforming wood over time through burning, liming and smoking. The collection includes four lightly lime-washed oak looks, reminiscent of salvaged antique flooring. Three designs are inspired by American redwood railroad ties and feature a 20-mil wear layer. Three rich brown designs incorporate fuming and smoking techniques that have been used by natural wood flooring manufacturers for years. Two plank designs feature combined liming and smoking techniques for areas in which a rustic feel is desired. Backed by lifetime residential and 15-year commercial warranties, the Karndean Van Gogh collection now features 32 wood designs.

www.karndean.com/en/floors/range-overview/van-gogh // Circle No. 63



VGW102T Charred Oak



40 TABLES AND SEATING CREATE DYNAMIC WORKPLACES

The HON Co. has made available two office solutions—Arrange Tables and Accommodate Seating—that support dynamic, active and collaborative modern office spaces. The solutions can be used separately or in tandem to create a productive and inviting environment, no matter where work takes place. Arrange Tables are available in a variety of work surface and base shapes and sizes, and they allow for quick and easy reconfiguration for maximum productivity. Accommodate Seating's lightweight chairs are easy to rearrange, encouraging people to form interactive work environments for impromptu collaboration or private meetings.

hon.com/arrange; hon.com/accommodate // Circle No. 64

When Boulder Valley's first charter school, Summit Middle School, Boulder, Colo., was undergoing a renovation, the three-time Blue Ribbon award-winning school's administrators knew they wanted to support the ways students learn by offering them a variety of settings in which to study and collaborate.

With a keen eye toward promoting academic achievement and creating a unique and vibrant setting, the school chose to take advantage of its common areas by selecting Arrange Tables by The HON Co. The collection of seated, counter and café-height tables brings a higher level of functionality to active learning spaces.

The versatility of shapes and sizes offered with Arrange Tables allowed the school to transform underutilized spaces into new areas for its students to collaborate and connect outside the classroom.

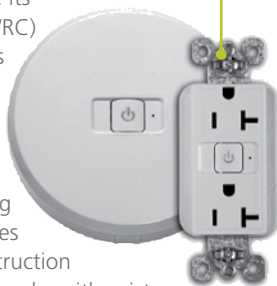
From active learning spaces like classrooms, common areas, libraries and student lounges to today's modern office space, Arrange Tables create a highly productive and inviting environment, no matter where work takes place.



41 CONTROL PLUG LOADS BY SWITCHING OFF SELECTED RECEPTACLES

WattStopper has made available its Wireless Receptacle Controls (WRC) series. The WRC line of products helps lighting-control professionals meet new ASHRAE 90.1 and California Title 24 requirements for switching off selected receptacles to control plug loads. The solution also minimizes costs for retrofits and new construction as it utilizes RF technology and works with existing line voltage wiring. The WRC line of products comes in two versions: for use with stand-alone occupancy sensors or WattStopper's Digital Lighting Management platform.

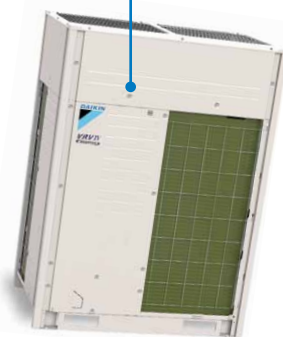
www.wattstopper.com // Circle No. 65



42 SIMULATE ENERGY USE OF HEAT-PUMP AND HEAT-RECOVERY SYSTEMS

Daikin North America LLC has released a bespoke plug-in for its Daikin VRV systems to be used with the IES-VE integrated analysis tool. The Daikin VRV Plug-in is a new specification tool enabling consultants to make energy simulation for Daikin heat-pump and heat-recovery VRV systems, including the Variable Refrigerant Temperature function, in a modeling methodology. It includes data sets for Daikin VRV III and IV, as well as all the currently available indoor unit models. The plug-in helps determine the system requirements needed to meet the energy-efficiency and building regulations.

www.daikinac.com/content/resources/software-tools/#ies-ve // Circle No. 66

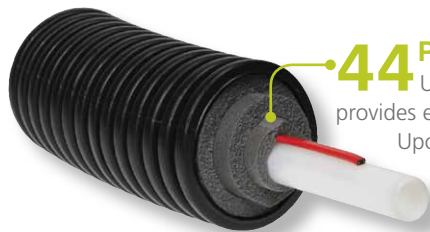


43 FLOORING SYSTEM IS AVAILABLE IN BLACK

Protect-All has added black to its Protect-All Rapid Weld System, an installation process that utilizes chemical welding that dries quickly and enables same-day installation and welding. Other color options include dark gray, light gray and brown. Protect-All flooring derives its durability and slip-resistance from a thermal-fusion process that blends remnant industrial-strength vinyl together into one monolithic piece. Protect-All and Protect-All Rapid Weld can reduce downtime and flooring seams by up to 80 percent. Fewer seams eliminate the need for regular and costly regrouting.

www.protect-allflooring.com // Circle No. 67





44 PRE-INSULATED PIPE OFFERS FREEZE PROTECTION

Uponor now offers a pre-insulated PEX pipe system for underground potable-plumbing applications that provides energy-efficient freeze protection in cold climates. The Ecoflex Potable PEX Plus pipe features 1 1/4-inch Uponor AquaPEX service pipe with a 7-Watt-per-foot heat-trace cable that runs the entire length of the pipe. The pipe is available with a full line of accessories and uses Uponor's ProPEX ASTM F1960 expansion fittings for durable connections. It is offered in 300-foot coil lengths and custom-cut lengths.

www.uponorpro.com // Circle No. 69



The Quail Hollow residential community outside of Charlotte, N.C., offers convenience for its residents who live in close proximity to a PGA-ranked golf course, shopping and other lifestyle amenities. But the 30-year-old condominium complex, consisting of 12 separate buildings, was starting to show its age.

The existing pre-insulated steel distribution piping system was far from sound or energy efficient. Groundwater had penetrated the pipe's insulation, providing higher-than-normal energy costs while corroding the connections, result-

ing in leaks. The system had been forced to shut down several times to allow for costly repairs. Tired of the problems and the added energy costs of the outdated system, the condo association decided to look for a solution.

Piedmont Natural Gas, Charlotte, was awarded the contract for the underground repipe. Upon researching possible piping products, Project Manager Brad Stroud was excited to learn about Ecoflex from Uponor, a flexible, durable pre-insulated piping system that consists of crosslinked polyethylene (PEX) service pipes surrounded

by PEX-foam insulation and covered by a corrugated HDPE jacket.

"I had worked only with steel pipes in these types of installations," Stroud says. "But Uponor provided training and installation assistance to make climbing the learning curve quick and easy."

Because the property surrounding Quail Hollow consists of mature trees, roads, parking lots and sidewalks, it was important to work around the existing design. With its flexible coils up to 1,000 feet in length, Ecoflex requires less trenching, fewer connections and less disruption to existing

landscape, as well as faster installation times.

Because of its insulation properties, durability and flexibility, Ecoflex was a perfect fit for the job, which included two central energy plants for the hot-water heating, chilled-water cooling and domestic hot water to each unit in the complex.

Now, the residents of Quail Hollow are enjoying their new, reliable, energy-efficient system. Gone are the days of worrying about costly system repairs, unreliable water temperatures and inconvenient system shutdowns.

45 HAND DRYER IS COST EFFECTIVE

When tested to guidelines established in the new, global Product Category Rules from UL Environment, Excel Dryer's ThinAir Hand Dryer recorded a dry time of 14 seconds with 3.7 Wh energy per use. Operating on 960 Watts, ThinAir is a cost-effective hand-drying solution. Its slim profile protrudes no more than 4 inches making it a retrofit solution for any facility requiring an ADA-compliant hand dryer. Additionally, because ThinAir can be surface mounted rather than recessed into a wall, it is a sound choice for difficult to modify restrooms. ThinAir has enhanced standard features including adjustable speed and sound controls; adjustable heat settings; a service LED for streamlining maintenance; and multi-voltage options, accommodating electrical needs for retrofitting buildings and new construction globally.

exceldryer.com/products_thinair.php // Circle No. 70



46 TEMPERATURE SENSOR IS INCONSPICUOUS

The LG Remote Temperature Button Sensor, Model ZRTBS01, is a Type 3, NTC temperature sensor, providing fast and accurate temperature readings. The sensor is suspended in a round enclosure that is easy to install and discreet, measuring less than 1 inch in diameter. The sensor requires a 7/16-inch hole at its mounting location and is secured to the wall with a peel-off tape strip. Only a flush 7/8-inch dot on the wall is visible. The sensor can be painted with typical interior wall paint. The Remote Temperature Button Sensor is compatible with all LG indoor units, except wall-mounted units.

www.lghvac.com // Circle No. 71



47 QUARTZ SURFACES AVAILABLE IN A VARIETY OF PRICE POINTS

VT Industries now offers premium quartz surfaces in a variety of on-trend colors and price points. VT GeoScapes Architectural Stone Surfaces make the high-end luxury of quartz available nationwide. TruQuartz surfaces come in a selection of up to 20 colors to match any style. VT VersaTop, available in six on-trend colors, provides an entry-level surface for consumers seeking quartz with a more modest price point. The design of VersaTop combines a slim deck cut with an edge build-down to create the look of a 3-centimeter slab.

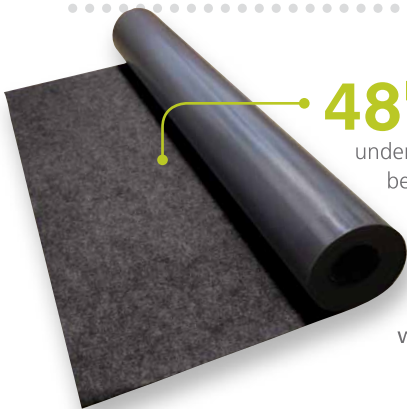
www.vtindustries.com // Circle No. 72



48 FLOORING UNDERLAYMENT CONTAINS RECYCLED PLASTIC BOTTLES

MP Global Products' LuxWalk is a high-performing acoustic and insulating underlayment engineered for use under new Luxury Vinyl Flooring. Containing 31 percent post-consumer materials (fibers from discarded plastic beverage bottles), the underlayment streamlines the installation of floating and glue-down LVF by smoothing out minor sub-floor imperfections. It also helps retard movement of the finished flooring and adds the right amount of compression-resistant cushioning to the floor assembly. It minimizes impressions and indentations that can occur in LVF from footfall or stationary furniture. The product effectively soothes impact sound and minimizes floor to ceiling noise.

www.mpglobalproducts.com // Circle No. 73



49 DOOR CLOSER FITS MOST COMMERCIAL HARDWARE AND FRAMES

DORMA has launched its U1500 Door Closer, a direct replacement closer that fits the most common grade 1 surface door closer hole pattern for quick and easy new or aftermarket installation. It's designed to work with most commercial hardware door and frame types. The product has been independently tested and certified to ANSI Grade 1 requirements.

www.dorma.com // Circle No. 74



50 SYSTEMS ALLOW STUDENTS TO SHARE THEIR WORK WITH THE CLASS

Extron Electronics has introduced TeamWork and ShareLink, systems that provide integrated collaboration solutions for a wide variety of classroom environments. The Extron TeamWork System is a simple, intuitive collaboration system that allows small groups of students to share content from digital and analog sources on a common display. Extron ShareLink is a wireless collaboration gateway that allows schools to support almost any smartphone, tablet or laptop that makes its way onto campus. Either system can be used to create a stand-alone collaboration or presentation system or be integrated

with any PoleVault, WallVault or PlenumVault system, allowing students to cooperatively share their work with the entire class.

www.extronclassroom.com // Circle No. 75

