

May/June 2020

Vol. 11 No.3

Roofing

THE INDUSTRY'S VOICE

Uplifting Design

Shirley Ryan AbilityLab

More Health
Care Projects

→ BUSINESS SENSE

Effects of the New Joint
Employer Standard

→ CONSTRUCTION LAW

How Employers Should
Respond to COVID-19

→ SKYLIGHTS & DAYLIGHTING

Skylights, Sloped Glazing and
Building Codes

SPRAY FOAM DISPENSING SYSTEM
VARIABLE SPEED AND PRESSURE
CUSTOM OEM GRACO REACTOR
HOLDS 15 GALLON DRUMS
FAST APPLICATION



ULTIMATE CAV CARTS
FOLDING TRAY EXTENDER
CARRY UP TO 4 TANKS
SMALL STORAGE BOX
SPRAY WAND HOLDER



PANTHER EAST BLACK CAT FASTENERS

PHILADELPHIA ERIE MANASSAS

☎ 215-335-6797

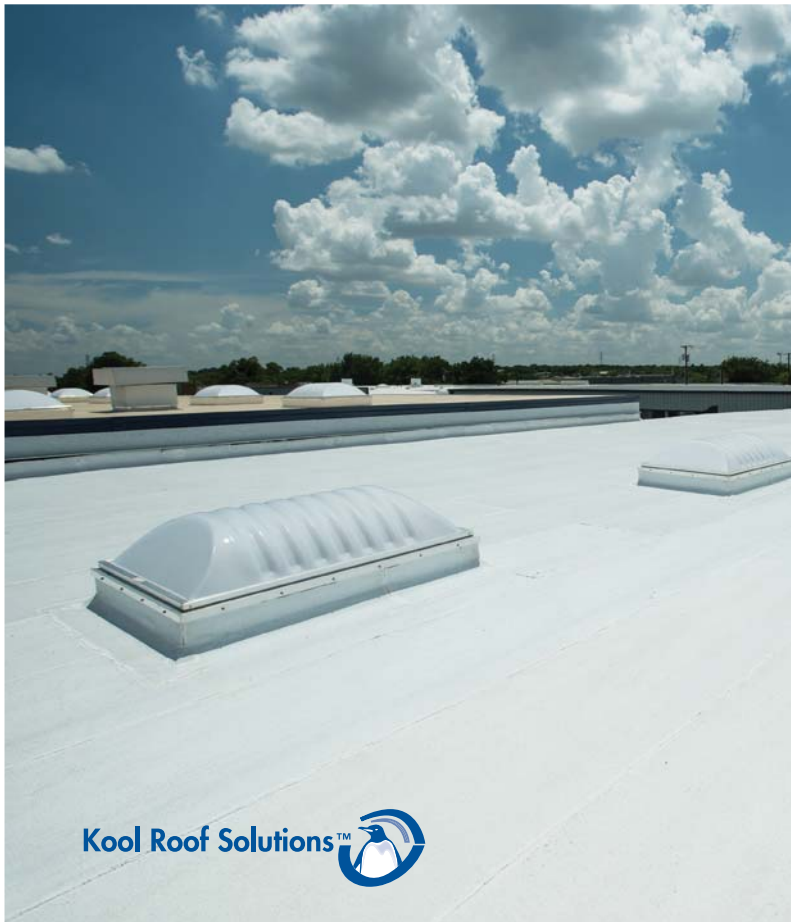
✉ Info@panthereast.com

🌐 PantherEast.com

Roofing Equipment • Adhesives & Sealants • Landscaping • Power Tools • Jobsite Storage • Safety Supplies • Generators • Fall Protection
Caulking Supplies • Waterproofing • Arborist Equipment • Fasteners • Safety Rail • Protective Gloves • Personal Protection • Hoisting • & More

CIRCLE NO. 1 / RoofingMagazine.com

evolving through INNOVATION



ROOFING AND WATERPROOFING SYSTEMS

POLYGLASS / Q

MAPEI
GROUP

Tomorrow's Ideas in Your Hands Today

Protect your roof with Polyglass' sustainable & energy-saving Kool Roof Solutions. Polyfresko®, our line of self-adhered highly reflective white cap sheets, or our line of highly reflective elastomeric white roof coatings.

Imagine what's next! polyglass.us/highlyreflective

polyglass.us



CIRCLE NO. 2 / RoofingMagazine.com

Memorable Metal



"The metal roof really makes this house unforgettable. If it didn't have the metal roof, the design wouldn't have the same impact. The roof is one of the elements that catches people's eyes. The metal roof makes this house very memorable."

-Brandon Ingram, Architect, C. Brandon Ingram Design

Tallahassee Residence Installing contractor: Tallahassee Roofing Architect: C. Brandon Ingram Design
General contractor: Barton Construction Material distributor: ABC Supply Photo: jeffherrphoto.com

Snap-Clad
Metal Roofing System
Mill finish

CASE STUDY @ [PAC-CLAD.COM/TALLAHASSEE-RES](https://www.pac-clad.com/tallahassee-res)



IL: 800 PAC CLAD MD: 800 344 1400 TX: 800 441 8661 GA: 800 272 4482 MN: 877 571 2025 AZ: 833 750 1935

[PAC-CLAD.COM](https://www.pac-clad.com) | [INFO@PAC-CLAD.COM](mailto:info@pac-clad.com)

CIRCLE NO. 3 / [RoofingMagazine.com](https://www.RoofingMagazine.com)

IT'S NOT AN ELEPHANT, IT'S A MAMMOTH.



What is the elephant in **your** room? Mold hidden in the walls? Water leaking from the ceiling? Water infiltrating the foundation? SOPREMA delivers the power of the mammoth, providing full building envelope solutions to keep those elephants out of any building—schools, hospitals, manufacturing and beyond.

SOPREMA DELIVERS THE POWER OF THE MAMMOTH, A FULL BUILDING ENVELOPE OF PROTECTION UNMATCHED IN THE INDUSTRY.

PUT THE MAMMOTH TO WORK FOR YOU.

INTRODUCING ECO₃ GRANULE SURFACED MEMBRANES



Improving Our Climate

3M™ Smog-reducing Granules



SPECIALIZED COATING ABSORBS NO_x GASES IN THE ATMOSPHERE THAT ARE WASHED AWAY BY RAIN, DECREASING THE GREENHOUSE EFFECT

For more information on how to create healthier communities, visit <http://info.soprema.us/eco3granules>



MAKE UP FOR LOST TIME

- Improve Production By 25%*
- Decrease Cleanup Time By Up To 80%**
- Close 1-2 More Jobs Each Month

The Equipter RB4000 is your ultimate employee. Never calls out sick, always arrives on time, works all day every day. It's time to pick up the pace and raise the roof on customer satisfaction.

Visit www.equipter.com/rb4000 to see the RB4000 in action.

Call | **717-661-3591**

Email | sales@equipter.com



*Average production rate increase. Many owners see higher percentages when more crew members can get on the roof.

**Based on customer testimony.

contents

MAY / JUNE 2020 | VOL. 11 NO. 3

FEATURES

58 | HEALTH CARE PROJECTS

58 | A LITTLE TLC

New roof helps create a homelike environment at Flatrock Manor.

64 | PERMANENT SOLUTION

Carefully engineered metal roof system now tops Cancer Center.

66 | SKYLIGHTS & DAYLIGHTING

66 | GLASS TAKE THE SPOTLIGHT

Exploring design criteria for skylights and sloped glazing.

70 | RESIDENTIAL RETROFIT

Installing tubular skylights on cement and clay tile roofs.

72 | LET THERE BE LIGHT

Soft, diffused natural light transforms Eagles Nest Outfitters' office.

74 | INVITING OUTDOOR SPACE

Innovative solution serves up perfect blend of color and strength for restaurant.

76 | RESIDENTIAL

Re-roofing a Frank Lloyd Wright home in Racine, Wisconsin.



COVER STORY

UPLIFTING DESIGN

Shirley Ryan AbilityLab in Burr Ridge, Illinois, features a striking standing seam metal roof.



ONLINE EXCLUSIVE

HEALTH CARE

Durable roof and wall systems help protect health care facility in Northern Saskatchewan.

www.RoofingMagazine.com

Roofing

RoofingMagazine.com

VOL. 11, NO. 3 Is published bimonthly by HRT Publishing LLC, 4711 Hope Valley Road, Box 202, Durham, NC 27707. Telephone (919) 593-5318. POSTMASTER: Send address changes to *Roofing*, 4711 Hope Valley Road, Box 202, Durham, NC 27707. *Roofing* is published six times per year: January/February, March/April, May/June, July/August, September/October and November/December. The magazine is written for the building professional concerned with the design, specification and application of roofing. Issues with bonus distribution at national, regional, state and local roofing and construction conventions and trade shows occur regularly throughout the year.



contents

MAY / JUNE 2020 | VOL. 11 NO. 3

COLUMNS

10 | RAISE THE ROOF

Roofing industry reacts to an unpredictable environment.

30 | BUSINESS SENSE

The new joint employer standard could be good news for business.

34 | CONSTRUCTION LAW

How employers should respond to COVID-19.

42 | TECH POINT

New restrictions may affect products contractors stock and install.

50 | SPECIAL REPORT: COVID-19

Contractors offer tips to keep business flowing during pandemic

56 | SPOTLIGHT

Roofing manufacturer quickly retools to help hospitals in crisis.



80 | SAFETY

Skylight safety and fall protection options.

DEPARTMENTS

12 | CONTRIBUTORS

14 | NEW & NOTABLE

16 | NEWS FROM THE NRCA

18 | TECH TOOLS

20 | MATERIALS & GADGETS

26 | ROOFERS' CHOICE

82 | AD DIRECTORY

ON THE COVER

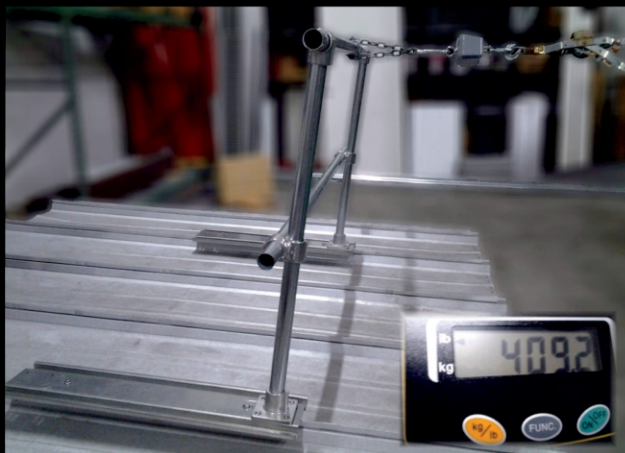
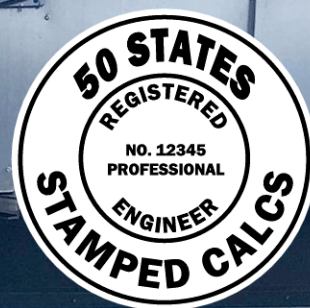
The Shirley Ryan AbilityLab's new outpatient facility in Burr Ridge, Illinois, features an uplifting roof design incorporating standing seam metal and EPDM roof systems.



Photo: ajbrownimaging.com

FALL PROTECTION!

WALKWAY
GUARDRAIL
CSI 07-7246



METALWALK® & SAFETY HANDRAIL

- OSHA/IBC Tested & Rated Safety Handrail System
- Specified in CSI Division 07-7246 by Architects and Engineers
- S-51® Clamps used exclusively on METALWALK® Rooftop Walkway System
- PE Stamped Drawings available for all 50 States upon request

PH: 800-868-9910 / www.metalwalk.com / sales@designcomponents.com

CIRCLE NO. 6 / RoofingMagazine.com

MAGAZINE STAFF

PUBLISHER
BARRETT HAHN
Barrett@RoofingMagazine.com

EDITOR IN CHIEF
CHRIS KING
Chris@RoofingMagazine.com

WEBSITE EDITOR
STEPHANIE CYCCONE

VP OF BUSINESS DEVELOPMENT
JOHN RIESTER
John@RoofingMagazine.com

MEDIA SALES
DAN BURKE
Dan@BurkeMediaGroup.com

ADVISORY BOARD

ANDY BAKER
BAKER ROOFING CO.

CHUCK HOWARD, P.E.
METAL ROOF CONSULTANTS

THOMAS W. HUTCHINSON,
AIA, FRCI, RRC, CSI, RRP
HUTCHINSON DESIGN GROUP LTD.

MIKE TENOEVER
CENTURY SLATE



Roofing welcomes letters to the editor. Letters must be signed and include a return address/email and telephone number. *Roofing* reserves the right to edit letters for clarity and length. Send letters to Chris@RoofingMagazine.com.

If you enjoyed reading this issue, please consider submitting something for the next one. Let's talk about ideas! Call Chris King at (248) 376-5115; email him at chris@roofingmagazine.com; post a comment on our website; and/or Facebook and tweet us. This magazine—and your peers—are counting on you!

Interesting Times



tay safe.”
“Take care.”

“Hope you are healthy and safe.”

Work correspondence has taken on a different tone in the last couple of months as events have been overshadowed by the coronavirus pandemic. It's touching. People have been so kind in their responses. It puts me in mind of the gruff but friendly desk sergeant in the 1980s TV series “Hill Street Blues,” who would end every pre-shift meeting – no matter how chaotic – with this reminder: “Let's be careful out there.”

When I emailed safety expert Richard Hawk to thank him for his column in our last issue, he responded, “There is a centuries old Asian saying that is both a blessing and a curse: ‘May you live in interesting times.’ It fits now, huh?”

It does. The business landscape and most work environments are changing rapidly. In this issue you'll see case studies and technical columns, as well as several articles geared specifically to coping with the coronavirus pandemic as the roofing industry continues to fulfill its indispensable role in maintaining our infrastructure.

This issue contains advice for employers coping with the fallout of COVID-19 from Benjamin Briggs and Elliot Haney at Cotney Construction Law. You'll find tips from contractors like Ken Kelly of Kelly Roofing and Steve Little of KPost Roofing & Waterproofing, who had to come up with creative solutions to meet new jobsite regulations and keep business flowing. You'll also see the story of a roofing manufacturer that found a way to help meet critical shortages of medical personal protective equipment.

Duro-Last CEO Tom Saeli told me how a team of employees at Duro-Last came up with the idea to use the company's materials and equipment to make medical gowns and masks for area hospitals. He also assured me his company was doing all it could to ensure employees manufactured the equipment safely – including maintaining social distancing, cleaning and disinfecting the plant and equipment, providing masks and face shields, and taking everyone's temperature.

At *Roofing*, we are committed to maintaining our role as “the industry's voice” through our glossy print issue and digital edition, as well as our website and e-newsletter. Tom Saeli noted Duro-Last was sharing its story in the hopes that it would inspire others to help. If you have a story you'd like to share, please let us know.

And hey – let's be careful out there. **R**



Sometimes a roof isn't just a roof



GAF HydroStop®
PremiumCoat Roof System



© 2020 GAF 4/20

It's your kid's classroom

GAF Master Select® Contractors and Coating Systems Contractors are your neighbors. Every roof they install protects someone they might run into at the grocery, or even parent-teacher night. So when the Alamogordo High School Fighting Tigers needed a cost-effective, non-disruptive roof restoration, RoofCARE went with the GAF HydroStop® PremiumCoat® Roof System. The protection you want, without the disruption.

To learn more visit gaf.com/fightingtigers

CONTRIBUTORS



Keith A. Boyette is an attorney with Anderson Jones, PLLC. In "Business Sense," page 30, he explores the ramifications of the Department of Labor's revised regulations for determining joint employer status under the Fair Labor Standards Act.



Benjamin Briggs is a partner at Cotney Construction Law. **Elliot Haney** is an attorney at Cotney Construction Law. In "Construction Law," page 34, they offer advice for employers regarding new laws, regulations, and government mandates during the coronavirus pandemic.



Justin Koscher is the president of the Polyisocyanurate Insulation Manufacturers Association (PIMA). **Stephen Wieroniey** is the director at the American Chemistry Council's Center for the Polyurethanes Industry. In "Tech Point," page 42, they examine the effects of new climate regulations on some roofing products.



Karen L. Edwards is the director of the Roofing Technology Think Tank (RT3), editor at RoofersCoffeeShop, and a freelance writer and marketing consultant for the roofing industry. In "Special Report," page 50, she shares how contractor members of RT3 are adapting to meet COVID-19 safety requirements.



Clayton Daniels is a Territory Manager for The Garland Company, Inc. In "Health Care," page 64, he offers a case study focusing on the metal roof system installed at the Cancer Center at CHI St. Joseph Health in Bryan, Texas.



Glenn Ferris is the Fenestration and Glass Industry Alliance's (FGIA's) Fenestration Standards Specialist. In "Skylights & Daylighting," page 66, he examines design criteria for skylights and sloped glazing and offers best practices for implementing them in daylighting applications.



David M. Brown has been writing books and articles for newspapers, magazines, ezines, websites and businesses for many years. In "Skylights & Daylighting," page 70, he provides a case study detailing the installation of tubular skylights on cement and clay tile roofs.



David Ivey is the Product Engineering Manager for Malta Dynamics, where he oversees the engineering of all mobile fall protection and custom fall protection systems. In "Safety," page 80, he explores options for protecting workers from fall hazards associated with skylights.



PREMIER BUTYL SEALANT TAPES

A LASTING DEFENSE

FOR OVER 30 YEARS, MANUFACTURERS AROUND THE WORLD HAVE ENTRUSTED THEIR BUILDINGS' MOISTURE DEFENSE TO THE MOST RELIABLE BUTYL SEALANT ON THE MARKET, MB10A BUTYL TAPE.



800.288.9489

GSSISEALANTS.COM

2 GREAT OPTIONS TO STOP SNOW AVALANCHES



1
HEAVY DUTY EXTREME
2



**SPEEDY
INSTALLS**

**REDUCE INSTALL TIME &
GET YOUR TEAM OFF THE
ROOF FASTER!**

pre-assembled • slide-in color
single-tool install • non-
penetrating clamps

**ACE
CLAMP®**

Innovative Roofing Solutions™

Learn more at AceClamp.com



GAF Shares Resources to Help Contractors Serve Customers While Social Distancing

TO HELP contractors navigate business during these unprecedented times, GAF has created a dedicated hub of information and resources for contractors on its website. As part of its larger COVID-19 response page on www.GAF.com, contractors can access a number of digital tools and resources as they continue to serve homeowners while maintaining the required social distancing protocols.

“Roofing is an essential business and during these trying times the last thing a homeowner wants to worry about is struggling to have repairs made while adhering to necessary social distancing guidelines,” said Bobby Fischer, Vice President of Contractor Programs at GAF. “This information hub provides contractors everything they need to continue to do business and allows them to pass on a little peace of mind to the homeowner.”

With this digital toolkit, each step of the roofing process – from the initial consultation to installation – can be done while respecting the social distancing practices that protect crews and customers.

Through this new page, contractors can access a number of different digital tools to assist in each step of the process, including aerial roofing measurement software using GAF Quick Measure; downloadable brochures and proposal folders that can be shared digitally with homeowners; a list of recommended apps; tips for effective video presentations; and best practices for virtual conferencing. Payment and financing solutions are also available.

Additionally, the GAF CARE team has expanded its virtual training platform with more online training and educational webinars to help contractors and their teams keep skills sharp during this time. The calendar of events is updated regularly and classes are available in English and Spanish.

For more information, visit www.GAF.com.

Trent Cotney and John Kenney Launch Cotney Consulting Group

Trent Cotney and John Kenney of Cotney Construction Law announced the launch of Cotney Consulting Group. Focused on the operational review of roofing companies, with the goal of increasing revenues and profitability, Cotney Consulting Group will work with roofing contractors to find success. The Cotney Consulting team offers expertise in roofing company operations, strategy, sales and marketing, accounting and human resources.

For more information, visit www.cotneyconsulting.com.

UNSURPASSED ONSITE ROLL FORMING COMES TO YOU

Advanced design means more time forming panels, not adjusting the machine.
Backed by a company in business since 1936, dedicated to quality and service.

Discover for yourself why Zimmerman is the best.



Zimmerman Metals Inc.

1-800-247-4202 | zimmerman-metals.com

NEWSFROMNRCA

The Rosemont, Ill.-based National Roofing Contractors Association represents all segments of the roofing industry, including contractors; manufacturers; distributors; architects; consultants; engineers; building owners; and city, state and government agencies. NRCA's mission is to inform and assist the roofing industry, act as its principal advocate and help members in serving their customers. For information about NRCA and its services and offerings, visit www.NRCA.net.



NRCA Reschedules National Roofing Week for August 23-29

The NRCA has announced National Roofing Week is postponed due to the ongoing COVID-19 crisis. National Roofing Week now will be celebrated August 23-29.

Organized by NRCA, National Roofing Week traditionally takes place each June to increase awareness across the United States about the significance of roofs to every home and business and share the good deeds of the industry. National Roofing Week also promotes the importance of hiring a professional roofing contractor and making informed decisions about maintaining or replacing any roof system.

Additional information about ways members can participate in National Roofing Week will be shared at a later date. Highlights from previous events can be viewed at nrca.net/news-events/national-roofing-week.

NRCA Releases 2020 Roofing Manual Set

The NRCA has made available The NRCA Roofing Manual, a set that contains four volumes: The NRCA Roofing Manual: Metal Panel and SPF Roof Systems—2020; The NRCA Roofing Manual: Membrane Roof Systems—2019; The NRCA Roofing Manual: Architectural Metal Flashing and Condensation and Air Leakage Control—2018; and The NRCA Roofing Manual: Steep-slope Roof Systems—2017. For copies, visit nrca.net/shop and nrca.net/manuals.

Roofing Alliance to Celebrate the Adoption of 165 Ronald McDonald House Roofs on the 165th Day of the Year

THE ROOFING ALLIANCE, the foundation of the NRCA, proudly celebrates roofing industry partners who have donated their time and expertise to work with Ronald McDonald House programs across the United States. The foundation will be collecting stories of giving in recognition of the 165 roofs that have been adopted through the partnership between the Roofing Alliance and Ronald McDonald House Charities (RMHC), and will share them on June 13, 2020, the 165th day of 2020.

At the Fall 2018 member meeting, then Roofing Alliance Vice President Rod Petrick, President of Ridgeworth Roofing in Frankfort, Illinois, issued a challenge to all Roofing Alliance and NRCA members to adopt the remaining 53 roofs of the 165 stand-alone Ronald McDonald House programs throughout the country. The initiative to adopt all 165 Ronald McDonald House roofs started in April of 2017. The goal of adopting all 165 roofs was reached by June of 2019.

The Roofing Alliance will be gathering stories to share through traditional

and social media. These stories will add to the rich history of this initiative of how the Roofing Alliance began working with Ronald McDonald House Charities (RMHC) by supporting their efforts to help families with critically ill children stay together and near the hospitals providing them medical care.

Charles Antis, CEO and founder of Antis Roofing and Waterproofing in Irvine, California, who is both a Roofing Alliance and NRCA member, initially brought the RMHC initiative to the Roofing Alliance's attention. "Together we envisioned that roofing contractors across the country would help keep Ronald McDonald House roofs safe and dry for families with sick children," Antis stated. "We are thrilled to help celebrate by sharing our stories and encouraging others to also share the amazing impact this initiative has had on their company and employees."

To share your RMHC roofing story, contact Bennett Judson, the Roofing Alliance's executive director, via email at bjudson@roofingalliance.net.



Superior Quality Superior Value Class A Fire Rated

**Proven performance—preferred by
contractors for over 30 years.**

THE ORIGINAL CUSTOM RIDGE VENT

**Cut to fit Standing Seam and Screw-Down Panels in over
50 Profiles for Commercial, Agricultural,
and Residential Metal Roofs.**

- 40-year limited warranty
- Glue spots prevent slipping during installation
- Fits under any ridge cap
- Class A Fire Rating—WILL NOT BURN
- One person roll-out installation
- Over one million installed—zero call backs
- Miami-Dade approved Noa No.: 17-0821.09



**Also Available in
3' Hi Rib Stick ¾" and
R Panel Sticks
2" or 3" wide.**

ProfileVent®
THE RIDGE VENT CUT TO FIT

**Please check out our new website: www.profilevent.com
Toll Free 833-300-9515 • customerservice@ventcoinc.com**

©2020 ProfileVent® • Manufactured in the USA by Ventco Inc.

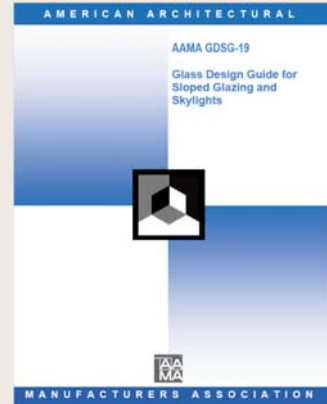
Dynamic Fastener Releases New Tool and Fastener Hand Guide

Dynamic Fastener has released a new version of its popular Tool and Fastener Hand Guide. This 140-page, full-color Guide provides concise answers to questions pertaining to fastener applications, engineering data, availability of types, size ranges and fastener materials specific to the Metal Building Industry. In addition to discussing screws and anchors, the Guide provides prices and other useful information relating to flashings, sealants, insulation tapes, safety equipment, hand tools, power tools and more. The 2020 publication includes details on the Dyna-Guard snow retention system for metal roofs and information about the company's new rivet initiative that resulted in a stock level of 100 million rivets. To obtain a free copy call (800) 821-5448 or visit www.dynamicfastener.com.



FGIA Updates Design Guide for Sloped Glazing and Skylights

The Fenestration and Glazing Industry Alliance (FGIA) has updated a crucial guide outlining the considerations necessary for choosing proper glass for non-residential skylight and sloped glazing applications based on the best industry practices and technology. It also describes the minimum requirements for sloped glazing as specified in the International Building Code (IBC). AAMA GDSG-1, "Design Guide for Sloped Glazing and Skylights," an FGIA standard, was last updated in 1987, when it was first created. The guide may be purchased from the online store (<https://pubstore.aamanet.org/pubstore/>). For more information, visit <https://fgiaonline.org>.



ADVANCED ARCHITECTURAL

SHEET METAL & SUPPLY

We service your needs with consistent quality, workmanship and knowledge

It's part of the reason customers come back to us time after time.

Maximize your profits by decreasing your inventory.
Reduce man hours - let us fabricate, you install.

98% of our American-made products are made-to-order and are manufactured inhouse. Our products are made from domestic metal and custom crafted to your specifications.

Contact us today to see how we can streamline your process and maximize your profits!

(231) 861-0050 | info@advarchsm.com | www.advarchsm.com





Please Go to
Our Website
to See Our USA
Made Products
In Action!



LIMITED TIME

Need Some Metal Plus Relief?

Get \$100.00 off each Metal Roofing Bracket and
\$25.00 Off each **Universal Safety Anchor**!*

*Use Promo Code MPR100 for the Bracket
and MPR25 for the Anchor!*

\$100 OFF

EACH
BRACKET!

PROMO CODE MPR100

\$25 OFF

EACH ANCHOR
POINT!

PROMO CODE MPR25

\$100 OFF

EACH BRACKET
IN THE PACKAGE
STARTER KIT

Watch Customer
Testimonial Videos at
METALPLUSLLC.COM



Our whole bracket line and
the Universal Safety Anchor
are made in the USA!

860-379-1327

METALPLUSLLC.COM

*Offer ends July 1, 2020

MATERIALS & GADGETS



Large Diameter Screw Now Available

Dynamic Fastener has added a large diameter screw for attaching sheet to sheet, up to .048-inch thick steel or sheet metal to wood. The 17-10 x 1-1/2-inch, 3/8-inch Hex Washer Head includes a Type 17 point. According to the company, this fastener is the perfect solution to plug a hole that was previously occupied by a #14 diameter screw. Screw is available with a 5/8-inch outside diameter washer or without. It also comes standard with the company's patented Dyna-Coat 1,000 hour salt spray premium coating.

www.DynamicFastener.com

Circle No. 14



Elastomeric Acrylic Coating Dries Quickly

GAF RoofShield I.S. Fast-Dry Elastomeric Acrylic Coating is an acrylic polymer dispersion system that is designed to rapidly form a film that resists rainwater wash-off. It can be applied in a single coat (up to 60 wet mils) for fast, efficient installations and maintenance coats. According to the manufacturer, RoofShield I.S. provides a fast dry-to-touch time with a one-coat application that saves time on the job versus traditional acrylic coatings. It also has a highly-reflective white surface which can be beneficial to those looking for cool roofing solutions.

www.GAF.com/instantset

Circle No. 15



New Synthetic Roofing Underlayment

System Components Corporation introduces QuickSilver synthetic roofing underlayment for tile, metal, and other durable roof systems currently available in the market. According to the manufacturer, QuickSilver's patented design offers cutting-edge performance features including innovative gasketing technology that helps prevent water penetration around fasteners. The product also features low shrink construction, which mitigates shrink and lift at slope transitions or open around fasteners. The elastomer bottom surface is designed to grip high-slope decks, improve fastener seal and help provide a safer walking surface.

www.SystemComponents.net

Circle No. 16



Non-Fleece PVC Spray Adhesive

Duro-Last introduces Duro-Last Solvent-Grip Spray Adhesive, a non-fleece PVC spray adhesive designed to improve rooftop productivity through efficient adhesion of Duro-Last and Duro-Tuff membranes to a variety of substrates on both horizontal and vertical surfaces. When paired with the custom-fabricated Duro-Last Roofing System, contractors can significantly increase labor savings and finished aesthetics. When properly prepared following Duro-Last specifications, this low-VOC solvent-based adhesive can be applied using a self-contained spray system to structural concrete, wood, polyisocyanurate rigid insulation board, and Duro-Guard Cover Boards.

www.Duro-Last.com

Circle No. 17

Rosie Says...

You know if it's metal, **DYNAMIC FASTENER** is there. Whether your challenge is a leaky metal roof (DROP-STOP®), snow retention (DYNA-GUARD®), roof penetrations (DYNA-FLASH®), or fastening to all gauges of steel (**D•F**® screws), **DYNAMIC FASTENER** is your hassle free partner on the job site and on your project manager's desk. This includes our recently expanded line of D•F rivets!



Give us a call... you can ask for Rosie, I'm your rivet expert!

We want to be your rivet supplier!
What size do you need? Got it!
What material do you need? Got it!
What color do you need? Got it!
What quantity do you need? Got it!
Do you want your rivets in handy bags of 250? Got it! Our stock level is over 75 *million* rivets with over a *hundred* different stocked colors for same day shipping.



NEW 12V Rivet Tool with **FREE** Extra Battery



D•F Rivets are now available in the most requested color . . . *INVISIBLE*

The above photo illustrates our actual stock of JUST the size 43 all stainless rivet. We stock the 43 ALL S/S rivet in plain and these 66 different colors pictured above, in convenient bags of 250 pieces – all for the same day shipping.

DYNAMIC FASTENER 800-821-5448

MATERIALS & GADGETS



Retooled Universal Base Attachment

Green Link Engineering's retooled KnuckleHead universal base now offers an improved attachment feature for more secure installations. The universal base, which accepts a range of head designs, now features four holes, which allows for the doubling of mechanical fasteners. In laboratory tests, the four-fastener base installation increased support strength by 40 percent tested on a 12-inch strut Knucklehead configuration. No change has been made to the basic design of the base. The holes are still positioned in the center, and the base can also be further secured and sealed using specially formulated Green Link Adhesive/Sealant.

www.GreenLinkEngineering.com
Circle No. 19



Refillable System for Commercial Adhesives

ICP Building Solutions Group's latest low-slope commercial roofing solution is a refillable system and is intended to pair with the company's Polyset CR-20 and Board-Max adhesives. The new refillable cylinder options provide the same quality adhesives and a lower applied cost per square foot, with the same Handi-Gun dispensing unit and ColorWise Temperature Warning Nozzles. According to the manufacturer, the system offers a higher coverage rate than disposable tanks, and low cost to entry makes this system ideal for high-volume and high-efficiency roofing contractors.

www.ICPgroup.com
Circle No. 20



Multipurpose Roof Tape

IKO introduces GoldSeam, a multipurpose roof tape. This product can be used in a variety of deck-protection applications, including as a seam tape for the roof deck; a sealant for critical roof joints, such as small gaps around the eave and fascia; as well as around roof structures, such as skylights, chimneys, plumbing vents or ventilation caps. Designed to prevent ice and water infiltration as well as rodent and insect infestation, IKO GoldSeam is ideally suited to seal the joints of OSB or plywood roof deck panels when used in conjunction with an IKO underlayment, according to the manufacturer.

www.IKO.com
Circle No. 21



Metal Panel Recreates Look of Reclaimed Metal

Reclaimed Metal Rust is a new pre-painted metal roofing and siding panel from Western States Metal Roofing that recreates the look of reclaimed metal. The panel features white and silver coloring with orange and reddish rust streaks throughout its design to mimic the look of old, faded galvanized that is rusting. The panel is available in Kynar 500 paint system and comes in 10 different profile finishes. According to the company, this specialty paint print is available in coil, flats, metal roofing, siding, and wall panels.

www.PaintedRustedRoofing.com
Circle No. 22

50+ years
of Excellent
Customer Service!

THE
Marathon
COMPANIES
DRAINS • VENTS • ACCESSORIES • EQUIPMENT • PEDESTAL SUPPORTS

800.828.8424

Two Great Companies Under One Roof, Providing Versatile & Unique Products



**When it rains,
Marathon
shines!**



**Drains • Vents
Drain Replacement Parts
Accessories • Equipment**

marathondrains.com

MRP

SUPPORTS

**From ordinary to
extraordinary!**



**Adjustable & Fixed
Pedestal Supports
Self-Leveling Technology**

mrpsupports.com

MATERIALS & GADGETS



Roof Windows Provide Fresh Air, Natural Light

VELUX offers roof windows for in-reach applications in both top- and side-hinged options for attic and bonus room renovations. With easy maneuverability, roof windows also provide a point of egress, which can help structures comply with building codes requiring two points of escape in case of fire. With convenient side or bottom handles for easy operation and a variety of blind options, homeowners can increase the amount of natural light and fresh air ventilation in their spaces, all while enjoying panoramic views.

www.VELUX.USA.com
Circle No. 24



Adhesive Carts Offer Options for Bead Spacing

OMG Roofing Products announces that OMG BeadPro Carts, which apply canister based OlyBond500 Insulation Adhesive, now offer roofing contractors a choice of 6- or 12-inch on center bead application. The carts offer a stable platform for holding adhesive canisters and allows contractors to apply four adhesive beads spaced perfectly at 6- or 12-inches on center. Contractors simply load the cart with the canisters, secure the hoses, and apply straight line beads of OlyBond500 Insulation Adhesives.

www.OMGBeadPro.com
Circle No. 25



Underlayment Features Slip-Resistant Film

Carlisle WIP Products' WIP GRIP Premium Shingle Underlayment features a slip-resistant top film that improves roofers' safety on wet and dry installations. WIP GRIP Premium Shingle Underlayment is a flexible, 55-mil-thick, rubberized asphalt, fiberglass-reinforced membrane. It can be used on critical roof areas such as eaves, ridges, valleys, dormers, and skylights; it may also be used as covering for the entire roof to prevent moisture or water entry. According to the manufacturer, once installed it protects the roof structure and interior spaces from water seepage caused by ice dams and wind-driven rain.

www.CarlisleWIPproducts.com
Circle No. 26

Gauge Tool Set for Metal Clamps and Brackets

The **LMCurbs** gauge tool set was designed to help customers save time and money by quickly determining the type of clamp or bracket that is needed for a metal roofing application. There are two styles, one for the S-5! Utility Clamps and one for the five different profiles of the S-5! RibBrackets. These gauges will greatly reduce the need for shipping out samples to test fit. Customized laser etching is available, allowing companies to hand them out to their customers with their contact information.

www.LMCurbs.com
Circle No. 27





WHEN IT COMES TO GETTING THE JOB DONE

M-1[®]

IS SECOND TO NONE.

M-1 UNIVERSAL ADHESIVE & SEALANT IS THE CHOICE OF CONTRACTORS EVERYWHERE

M-1 is a solvent-free, moisture cure polyether adhesive & sealant designed to deliver the highest levels of performance in strength, adhesion and flexibility. M-1 forms a tough, elastic waterproof seal to cover the entire building envelope from roofing, concrete, masonry, wood, glass, aluminum, foam and more.

Visit www.chemlink.com and find out why M-1[®] should be on your next jobsite!

NOW MIAMI-DADE APPROVED!

CHEM LINK[®]
POLYMER INNOVATION
www.chemlink.com • 1.800.826.1681



New Bath and Dryer Vent Designed for Shingle Roofs

Lifetime Tool & Building Products LLC introduces the Lifetime Bath-Dryer Vent for shingle and metal roofs. This vent is pleasing to the eye, complements any quality installation, and offers a 50-year product warranty. The proprietary design enables the housing structure to mount to the plate without rivets, fasteners and sealants – common leak points in existing vents. The vent assembly is crimped into the seamless deep-drawn plate with an EPDM gasket, which is designed to guarantee a forever water-tight seal.

The shingle vent plate is 24-gauge galvanized Kynar with 4 inches of flashing on the sides, 6 inches at the top and 3.5 inches at the bottom. According to the manufacturer, most

existing vents have less than half of these needed requirements, which exponentially increases the likelihood of edge leaking. In independent laboratory testing, the Lifetime Bath-Dryer Vent exceeded 110 mph in the ASTM T166-18 - Wind Driven Rain Test.

The product features a 24-gauge galvanized Kynar cap that is clad onto a high-temperature polymer with a heat deflection above 212 degrees Fahrenheit. According to the company, this carefully tested premium polymer ensures that the Bath-Dryer Vent retains its mechanical properties for decades of use.

Additionally, the cap assembly is attached with two black oxide stainless fasteners that are easily removed with a screwdriver and 316L stainless clips for easy removal of the cap for periodic

maintenance, perfect for multi-family roofs. A gold anodized aluminum damper, preventing white corrosion, and its passivated stainless-steel axle is mounted on the angled structure to ensure condensation drainage and provides protection from wind and rain penetration. Its built-in weep holes, wind walls and recessed EPDM noise bumpers help eliminate clatter. The EPDM bumpers also permit a small amount of warm air to pass between the structure and damper to reduce the chance of condensate freezing. A snap-in high-quality polymer frame has a stainless steel screen included for use in bath venting only.

Finishing the assembly is a proprietary 6-inch-high, 4-inch round, 26-gauge G90 galvanized drop with a unique button punch/window snap connection assembly. A 4-inch/3-inch reducer is also included.

"I am passionate about creating true solutions for roofing components, and I believe that the Lifetime Bath-Dryer Vent is a game changer," said Roger Cline, Managing Partner and Chief Engineer at Lifetime Tool & Building Products LLC. **R**



The "Roofers' Choice" selection is determined by the product that receives the most reader inquiries from the "Materials & Gadgets" section in a previous issue. This product received the most inquiries from our January/February 2020 issue.

➔ **LEARN MORE**

Visit: www.lifetimetool.com

Call: (877) 904-1002

Circle No. 29



Budget Smart:

Lower-cost options can aid with cash flow.



Smaller Crews:

Limits the amount of traffic and activity on the roof.



Faster Installation:

Ability to complete a project quickly with less interruption than a re-roof.

Is a Roof Coating Restoration Right for You?

A roof coating restoration is a non-invasive, low-cost option that can add years to your roof's service life – or even just fix problem areas – with minimal labor. Coating restoration can extend the life of your roof for 10, 15, or even 20 years, and can also be used to make repairs and prevent leaks.

For more information, please contact your local sales representative.



Sustainable. Seamless. Solutions.

100 Enterprise Drive • Cartersville, GA 30120 • 844.922.2355
www.CarlisleRFC.com



The Advantage of All Weather Insulated Panels



**Brian Ng is the
Technical Director for
All Weather Insulated
Panels.**

In this role, Brian drives the company's strategy in product development, technical services, digital design, sustainability, and research and engineering since joining AWIP in 2010 and was instrumental in the development of the revolutionary OneDek® product.

"OneDek® comes at a critical time for the roofing industry; building and environmental codes are becoming much stricter across the US particularly regarding R values. Our insulated roof decks offer higher R values per inch than traditional roofing systems while the composite material used reduces materials and waste on site which makes for a more sustainable build.

However, the crucial advantage of OneDek® to roofing contractors and installers are the savings on construction time. OneDek® requires fewer components and fasteners than traditional systems which equates to reduced installation times and therefore significant savings in associated labor costs. These time savings are beneficial when it comes to phased construction; installers can lay down all the panels and have the building dry which allows the crew and other traders to come and perform work on other parts of the building.

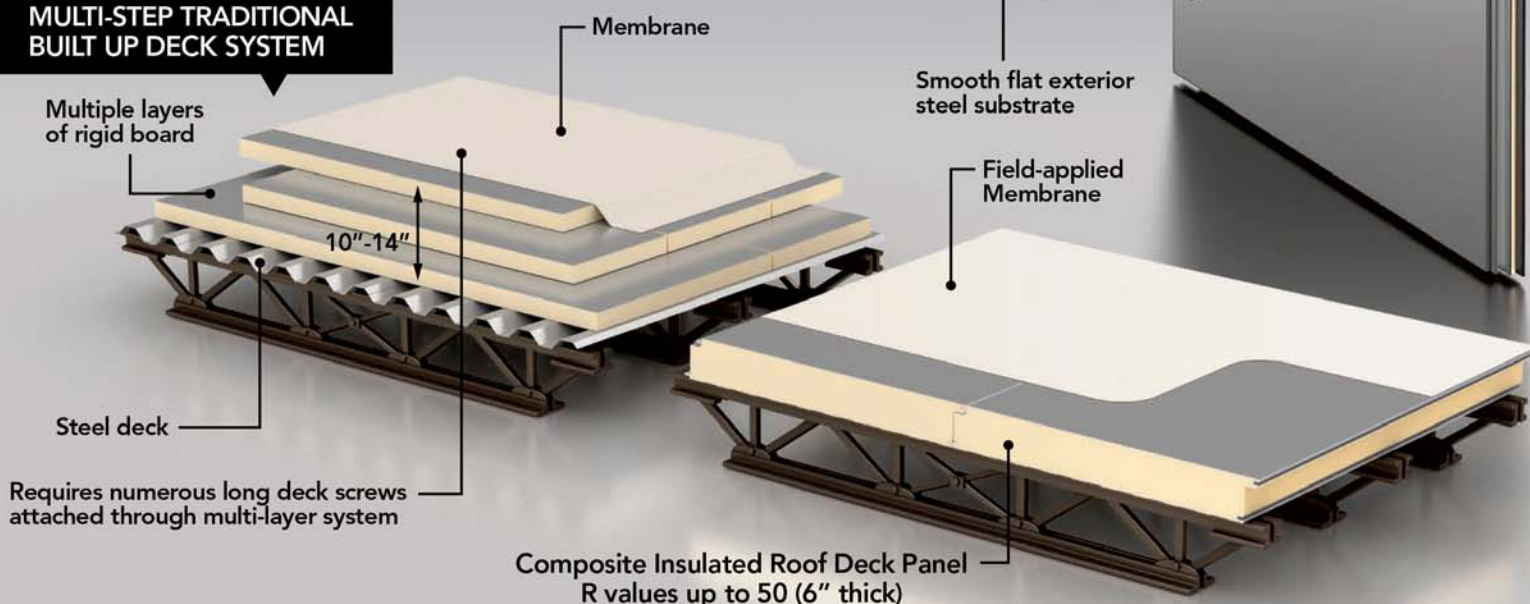
By offering a 20-year warranty, we at All Weather Insulated Panels guarantee the OneDek® system will meet the performance needs of the design professional while also providing the installation community with an efficient, safe and durable commercial roofing system that will last multiple roof generations."

THE FUTURE OF ROOF DECK CONSTRUCTION

ONEDEK™

OneDek™ from All Weather Insulated Panels is a superior alternative to traditional roof deck systems. Requiring fewer steps to install, OneDek™ saves construction time in providing exceptional energy efficiency for your low-slope roofing project, and an industry exclusive 20-year top-to-bottom "System Warranty" is available.

MULTI-STEP TRADITIONAL BUILT UP DECK SYSTEM



Commercial / Industrial / Cold Storage

THE ONEDEK™ ROOFING SOLUTION

OneDek™ is the revolutionary insulated roof deck with insulation and substrate formed at the factory so it arrives on the job site more secure and stronger than components of traditional built-up roof applications.

- Incredibly fast installation, no on-site application of rigid foam insulation
- Steel substrate provides exceptional damage & fire resistance
- Tested for diaphragm shear resistance and wind uplift
- TPO or PVC membranes easily fastened mechanically or fully adhered
- Interior factory white painted steel in clean washable finish reduces lighting needs
- "System Warranty" covers membrane through to structural steel, including insulation and fastening applications

OneDek™

- Step 1: Composite Insulated Deck
- Step 2: Waterproofing

Other Multi-Layer System

- Step 1: Steel Deck
- Step 2: Multi Layer Rigid Insulation
- Step 3: Waterproofing



**ALL WEATHER
INSULATED PANELS**

www.awipanel.com
Contact: Sales@awipanel.com
888-970-AWIP (2947)



Good News For Businesses: The New Joint Employer Standard

FOR THE FIRST time in more than 60 years, the U.S. Department of Labor (DOL) updated and revised its regulations for determining joint employer status under the Fair Labor Standards Act (FLSA), which governs federal minimum wage, overtime, hours worked, and recordkeeping obligations.

Over time, federal circuit courts have developed a number of different approaches for determining joint employer status, resulting in uncertainty for employers and workers, as well as increased compliance and litigation costs. The final rule issued by the DOL is intended to reduce uncertainty over joint employer status, promote greater uniformity among court decisions, reduce litigation, and encourage innovation in the economy.

THE DOL'S JOINT EMPLOYER RULE

The new rule, which took effect on March 16, 2020, limits the situations under

which employers, such as contractors and subcontractors, are considered to jointly employ a group of workers under the FLSA. Under the FLSA, entities or individuals may be considered a "joint employer," and therefore jointly and severally liable for the FLSA obligations, if it exercises sufficient control over the terms and conditions of another's employer's workers. But what exactly does that mean?

The DOL's final rule sets forth a four-factor balancing test, replacing the previously applicable "not completely dissociated" standard, to assist employers with determining whether it will share liability for FLSA violations. To determine whether a second individual or entity is a joint employer of a worker, the DOL will examine whether the putative joint employer:

- Hires or fires the employee;
- Supervises and controls the employee's work schedule or conditions of employment to a

substantial degree;

- Determines the employee's rate and method of payment; and
- Maintains the employee's employment records.

The new rule makes clear that no single factor is dispositive in determining joint employer status, and the weight of each of the factors may vary based on the facts of each case.

Most notably, the new rule rejects the degree of "economic dependence" between the two putative joint employers and identifies additional factors which, standing alone, are insufficient to establish joint employer status:

- Operating as a franchisor.
- Maintenance of an employee's employment records.
- Unexercised ability to control an employee's conditions of employment.
- Contractual agreements related to compliance with legal obligations or standards.
- Contractual requirements related to quality control standards.
- Provision of a sample employee handbook.
- Allowing an employer to operate a business on its premises.
- Offering an association health plan or association retirement plan.

According to the DOL, "[t]o make joint-employer status more or less likely, the potential joint employer would have to not only provide such resources but would also have to somehow exercise control over the employees in relation to those resources." In other words, a second employer must go beyond simply making resources available and must, instead, actually exercise control — directly or indirectly — over the various aspects of employment. For purposes of this rule, an employer exercises indirect control over an employee through mandatory directions to another employer that directly controls the employee. Merely reserving the right to control the employee's working conditions or acting in a way that incidentally impacts the employee, however, does not indicate joint employer status.



LiveRoof[®]

BRAND

Hybrid Green Roof System

Check out our complete line of "proven" green roof systems and accessories at LiveRoof.com, or call us at (800) 875-1392.



*The Proof is
in the Roof!*

The final rule provides a number of examples illustrating the application of the four-factor test to these and other business-to-business scenarios, intended to provide more practical guidance to employers with potential joint employment concerns.

Joint employers under the new DOL rule may be held jointly and severally liable for FLSA wage and hour obligations, including minimum wage or overtime. Joint employers may also be liable for violations of the Family and Medical Leave Act (FMLA), the Americans with Disabilities Act (ADA), Title VII and other employment discrimination laws, and workers compensation laws.

THE NLRB'S JOINT EMPLOYER RULE

The new rule above applies only to the DOL's interpretation of the FLSA. As such, it does not address "joint employer" status under other federal employment laws, such as the National Labor Relations Act (NLRA).

Like the DOL, the National Labor Relations Board (NLRB) issued its final rule interpreting joint-employer status under the NLRA, which went into effect on April 27, 2020.

Under the final rule, a business will be deemed a joint employer only if it "shares and codetermines" one or more of the essential terms and conditions of employment of another employer's employees. The essential terms subject to NLRB scrutiny include wages, benefits, work hours, hiring, discharge, supervision, and direction. In other words, an employer shares and codetermines such essential terms if it possesses and exercises substantial control over the employer's employees such that the putative employer "meaningfully affects matters relating to the employment relationship with those employees."

Importantly, evidence of indirect or contractually reserved control over essential employment terms and conditions may be a consideration for finding joint employer status, but is not, by itself, sufficient without further evidence of direct or immediate control over the

The final rule issued by the DOL is intended to reduce uncertainty over joint employer status, promote greater uniformity among court decisions, reduce litigation, and encourage innovation in the economy.

employees in questions. The NLRB's rule distinguishes between exercising indirect control and exerting control or influence over setting contractual objectives, expectations, or ground rules. The determination of whether an employer exercises indirect control over essential work terms or exerts control over conditions or expectations as to how a contract is to be performed "is an issue of fact to be determined on a case-by-case basis."

Practically speaking, the NLRB's joint-employer standard is significant to businesses because it determines whether a business: (1) has an obligation to bargain with labor unions representing workers employed by another entity; (2) is subject to union picketing or other labor dispute-related activities involving another entity's employees; and (3) is jointly and severally liable for any unfair labor practices committed by another entity against its employees.

SHIFTING THE BURDEN OF JOINT EMPLOYMENT LIABILITY

While contract provisions regarding joint employment will not be determinative under either the DOL or NLRB rules, careful drafting can shift the costs of a joint employment determination. Construction companies acquiring labor from a third party, particularly staffing companies, should include contractual protections such as indemnification provisions, duty to defend clauses, and hold harmless clauses.

When drafted properly, these contract provisions would require the actual employer to defend the prospective joint employer against an adverse ruling on joint employment status and reimburse its costs in the event of a joint employment determination.

Employers assessing their potential status as a joint employer should consult with counsel to ensure compliance with all applicable standards.

SUMMARY

The final rules issued by the DOL and the NLRB effectively narrows the definition of "joint employer," providing employers with much-needed clarity and encouraging greater uniformity in application.

It should be noted, however, that the new rules are not binding authority on the federal courts, nor do the new rules modify interpretations of joint employer status under state wage and hour laws.

For employers, particularly in those situations where an employee performs work for an employer and that work simultaneously benefits another employer, the new rules make it easier to comply with and understand the various obligations under the FLSA and the NLRA. Close adherence to the new rules, and making a conscious effort to mitigate potential liability, will certainly reduce compliance and litigation costs and give employers greater certainty in structuring their business relationships. [R](#)

ABOUT THE AUTHOR: Keith A. Boyette is an attorney with Anderson Jones, PLLC. His practice areas include general civil litigation, commercial and construction litigation, lien and bond claims, and real property litigation. Questions about this article can be directed to him at KBoyette@andersonandjones.com.

→ AUTHOR'S NOTE

This article is intended only for informational purposes and should not be construed as legal advice.

IT'S PERFECTLY NATURAL TO LOVE THE LOOK OF SLATE AND SHAKE.

It's entirely unnecessary to deal with all the problems.



The look of natural slate and shake is undeniably gorgeous. DaVinci composite roofing delivers everything you love about slate and shake with performance attributes natural materials can't match: easier installation, less waste, no cracking and a Lifetime Warranty. DaVinci lets you love the look without enduring the issues. With DaVinci, what's behind the beauty is genius.

Nature has met its match.



DaVinci roofing tiles are proudly
manufactured in Lenexa, Kansas.

DAVINCI ROOFSCAPES

13890 West 101st Street | Lenexa, Kansas 66215 | 800-328-4624

DAVINCIROOFSCAPES.COM

CIRCLE NO. 33 / RoofingMagazine.com

©2018 DaVinci Roofscapes



How Employers Should Respond to COVID-19

AS COVID-19 (coronavirus disease) continues to affect our daily lives, it is crucial for employers to be aware of the measures the government is taking to reduce infection, how those measures affect your business, and the protocols your business needs to implement to ensure you are complying with what is required. Because the national response is changing daily, it is important to remain up-to-date on new laws, regulations, and government mandates as they rapidly begin taking effect.

EMPLOYER SCREENING AND EXAMINATIONS

In response to the COVID-19 pandemic, the Equal Employment Opportunity Commission (EEOC) referred employers to an advisory opinion the EEOC published in 2009 amidst the H1N1 (“swine flu”) outbreak. In its 2009 advisory opinion, the EEOC implemented a temporary waiver of certain provisions of the Americans with Disabilities Act (ADA), taking the position that illnesses related to global pandemics are dissimilar to the disabilities that the ADA

was designed to protect, and calling for more flexibility in allowing employers to conduct medical examinations and screenings in the workplace provided the employer reasonably believes such action is necessary to address a direct threat to the health or safety of the workplace.

The EEOC subsequently announced that the spread of COVID-19 qualifies as a “direct threat” allowing employers to conduct employee examinations and screenings to ensure the health and safety of others in the workplace. During these examinations, an employer may ask an employee if he or she is experiencing any COVID-19 related symptoms or has been in contact with anyone who has been diagnosed with COVID-19 or is experiencing COVID-19 related symptoms. The employer may also inquire about the employee’s recent travel history or the reason for any recent work absence. The EEOC has also authorized employers to take employee’s temperatures to determine if their employee has a fever, which is a symptom of COVID-19.

Ultimately, any medical information employers receive from an employee during one of these screenings, examinations, or otherwise, must remain confidential. If an employee is confirmed to have COVID-19, employers should inform other employees about their potential exposure to the virus, but the identity of the infected employee must remain confidential to the extent possible.

With that being said, employers must be careful not to violate any state, federal, or local laws when implementing new protocols designed to prevent the spread of COVID-19. For instance, employers should implement all such protocols uniformly amongst all employees to avoid violating anti-discrimination laws (e.g., if an employer chooses to send an employee home for exhibiting COVID-19 symptoms, it should also send home all other employees exhibiting such symptoms). Further, any questions asked during employee screenings must be related solely to the possibility of workplace exposure to COVID-19, and must avoid inquiries into unrelated health conditions or disabilities.

WORKPLACE SAFETY STANDARDS

The General Duty Clause of the Occupational Safety and Health Act (OSHA) requires employers to keep their workplaces free from recognized hazards that are causing, or are likely to cause, death or serious physical harm. While it remains to be seen whether OSHA considers COVID-19 to be a “recognized hazard,” employers would do well to treat COVID-19 as such, and take reasonable steps to mitigate or eliminate the hazard. Accordingly, employers must be cognizant of potential health risks posed by certain employees and implement protocols for employees to remain safe during a potential outbreak. Additionally, COVID-19 may be considered a recordable illness pursuant to 29 C.F.R. 1904 – Subpart C. For example, an outbreak of an infectious disease or similar illness occurring at a medical facility may be considered a recordable illness, under the Code of

Flex™ PVC and Elvaloy KEE Roofing Systems



The Roofing Systems that stand the test of time



COMMERCIAL



INDUSTRIAL



HOSPITALITY



RESIDENTIAL

For over a quarter of a century Flex has been the first choice for building owners, architects, contractors and specifiers who won't settle for anything but the highest quality PVC and Elvaloy KEE roofing systems.

Why? Because it's all we do.

With more than 300 million square feet installed, Flex customers trust us again and again for everything they need, start to finish, with long term warranty coverage.



See us at:
WSRCA - Las Vegas, NV
June 8-9, 2020
Booth #650

FRSA - Kissimmee, FL
July 16-17, 2020
Booth #220

Flex™
*Thermoplastic Single Ply and Multi-Ply
Roofing & Waterproofing Systems*

Thanks for helping Flex celebrate 30 years in business!

CIRCLE NO. 34 / RoofingMagazine.com

800-969-0108
FlexRoofingSystems.com

Federal Regulations, if such an outbreak is an illness resulting from events or exposures occurring in the work environment. Please note, however, that the Bloodborne Pathogens standard found in 29 C.F.R. 1910.1030, which requires employers take certain measures during the outbreak of a bloodborne pathogen, does not apply in the response to COVID-19.

Employers may visit OSHA's website (<https://www.osha.gov/SLTC/covid-19/standards.html>), which provides an employer's guide to COVID-19 for more general guidelines and tips for maintaining a safe workforce during this outbreak.

Additionally, the Center for Disease Control (CDC) has issued guidance to employers regarding when to send

employees home and/or prohibit them from returning to work for COVID-19 related reasons. While the CDC guidelines are discretionary for many employers, they represent valuable resources and standards for employers to utilize amidst this unprecedented pandemic.

EMPLOYEE PAY AND BENEFITS

The recently enacted Families First Coronavirus Response Act (FFCRA) includes two significant laws of which employers should be aware: the Emergency Paid Sick Leave Act and the Emergency Family Medical Leave Expansion Act.

Under the Emergency Paid Sick Leave Act, private sector employers with fewer than 500 employees are generally required to provide employees paid sick leave if the employee is unable to work because the employee is:

1. Subject to a government quarantine or isolation order;
2. Following the advice of a healthcare professional to self-quarantine;
3. Experiencing symptoms related to COVID-19 and is seeking a medical diagnosis;
4. Caring for an individual subject to a government order set forth in (1) above, or who has been advised by a healthcare professional to self-quarantine as set forth in (2) above;
5. Caring for a child whose school or childcare is closed due to COVID-19 precautions; or
6. Is experiencing "any other substantially similar condition specified by the secretary of Health and Human Services in consultation with the secretary of the treasury and the secretary of labor." (While the Secretary of Health and Human Services has not yet specified conditions it considers "substantially similar," the FFCRA empowers the Secretary to do so in the near future.)

The amount of emergency paid sick leave you must pay an employee depends on the employee's reason for leave. If the employee is entitled to leave under reasons 1 through 3 above, the employee must receive his or her

Take Efficiency Through the Roof

It's all in the Curves

Patented Damper



The Code Compliant Choice

Until now, there was no way to use an out-of-the-box roof cap for venting dryers. Code disallows screens and requires a damper. Even when modified, the old vents are too airflow restrictive.

Zero Airflow Restriction

The DryerJack is the only choice specifically designed to meet the demanding needs of clothes dryers. Visit DryerJack.com now to learn how the industry-exclusive curved damper delivers superior efficiency and helps minimize a very serious fire risk.



DryerJack.com



Family Owned.



Committed to Quality.



Committed to You.

30 Years of Quality Manufacturing

2020 marks 30 years of manufacturing quality roofing and waterproofing products. As a family-owned company, we pride ourselves on our personalized service, product performance and ability to be nimble in an ever-changing market. Our foundation was built on our Asphalt Saturated Organic Felts, but our growth is due to our extensive offering of the following products:

- SBS Self-Adhered Base and Cap Sheets
- Self-Adhered Roof Underlayments for Shingle, Tile and Metal Roofs
- G2 Base Sheet
- Saturate Felts
- Building Paper Products
- Housewrap



G.A.P. Roofing, Inc. | www.gaproofing.us



20 YEAR WARRANTY
ROOF CURBS

Roof accessories to advance a growing industry.

20+ YEARS S-S! PARTNER

LMCurb's

ROOF CURBS
SNOW RETENTION
UTILITY CLAMPS
SKYLIGHTS
SMOKE VENTS
SOLAR MOUNTS

ROOF WALK
LOUVERS
HATCHES
FANS
ACCESS EQUIPMENT
LADDERS

Phone: 800.284.1412 Website: www.lmcurbs.com Email: sales@lmcurbs.com

CIRCLE NO. 37 / RoofingMagazine.com

Doesn't your Metal Roof deserve the best?

Providing CLIPS & ACCESSORIES for Metal Roof Systems



LSI GROUP INC.
METAL BUILDING COMPONENTS
Logan Stampings - Roof Hugger - BPD

866-766-3254

Use our Online CLIP FINDER at WeGotClips.com

CIRCLE NO. 38 / RoofingMagazine.com

regular pay rate, capped at \$511 per day (and \$5,110 in the aggregate). On the other hand, if the employee is entitled to leave under reasons 4 through 6 above, you are only required to pay the employee two-thirds of his or her regular rate of pay, capped at \$200 per day (or \$2,000 in the aggregate).

Full-time employees are entitled to up to 80 hours of emergency paid sick leave, while part-time employees are entitled to the equivalent of the average hours they work during a two-week period.

Employers may not require an employee use any accrued sick leave or paid time off in lieu of, or before, using the paid sick leave to which an employee is entitled under the Emergency Paid Sick Leave Act. Employers must also post in a "conspicuous" workplace location a notice containing information regarding the requirements of the Emergency Paid Sick Leave Act. Copies of the notice are available on the DOL's website.

The Emergency Family Medical Leave Expansion Act (EFMLEA) amends the pre-existing Family Medical Leave Act (FMLA) to add one new qualifying reason for job-protected leave: when employees are unable to work (or telework) because they must care for their child whose school or childcare is closed due to COVID-19 precautions. Generally, this new basis for family leave applies to all private employers with fewer than 500 employees and to any employee who has worked for the employer for at least 30 days.

An employee receiving emergency family leave under this new law is entitled to up to 12 weeks of job-protected leave with continuing group health insurance coverage. The first two weeks of emergency family leave is unpaid, after which the employer must pay the employee two-thirds of the employee's regular pay rate, capped at \$200 per day (or \$10,000 in the aggregate), for any additional emergency family leave the employee takes. The employee's emergency family leave will end when the employee's need for leave ends or when the employee has exhausted his or her 12 weeks of leave. When the employee's emergency family leave ends,

SINGLE PLY OFFERING



For over 20 years, NB Handy has sold and represented Carlisle Single Ply roofing systems. In addition to competitive pricing and product knowledge, we bring a high level of expertise to any commercial low slope roofing project from assessment to system recommendation. NB Handy offers Carlisle in **VA, MD, NC, and SC**.

NB Handy distributes the full line of GAF Commercial Roofing Systems in **Georgia**. This includes single-ply TPO and PVC roofing products as well as asphalt built-up roofing and polymer-modified bituminous roofing products.



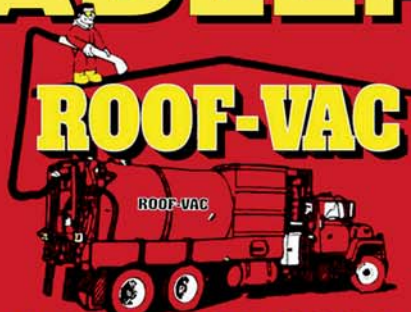
NB Handy offers Versico roofing products at our **NC and SC** branch locations. Versico's product offerings include VersiGard® EPDM, VersiWeld® TPO, VersiFlex® PVC, VersiFleece® TPO and PVC, roof garden systems and a complete line of insulation and accessory products. Each of these systems comes with warranty options ranging from five to thirty years. Whatever your needs, Versico provides a comprehensive offering of products and services, which is why Versico is your single source for single-ply roofing.

Sika manufactures thermoplastic (PVC), single-ply, commercial roofing and waterproofing membranes. Sika roofing and waterproofing systems, products and services are designed to precisely fit your specific projects needs. With more than 40 years of roofing and waterproofing experience in locations all over the world, on buildings of all types and in many diverse climates, Sika roofing and waterproofing is the worldwide market leader in thermoplastic membrane technology. NB Handy carries Sika/Sarnafil in **GA and FL**.



NB Handy offers Johns Manville roofing products at our **Norfolk, Richmond, and Roanoke branches**. Johns Manville provides a complete product offering. Johns Manville roofing products are designed to perform at a superior level to give you the industry's best, which protect your roofing systems today, to ensure they will last into the future.

ADLER



1-866-766-3822
www.roofvac.com

THE "BIG GUYS"

Next Day Service | Osha Certified | High Powered Vac Trucks | Dust Free Environment



- TYPES OF STONE -

Pea Stone • Slag • River Rock (up to 4") • Spar • Irma

- Quote Jobs On Line at www.roofvac.com -

- Servicing the entire East Coast Region -
- Family Owned and Operated for over 36 years -
- Buildings Up to 40 Stories High -

ADLER ROOF VAC
www.roofvac.com

the employer generally must reinstate the employee to either his or her same position or an equivalent position.

SMALL BUSINESS EXEMPTION

Companies with fewer than 50 employees may be exempt from the requirement to provide paid leave to employees who seek leave to care for a child whose school or childcare is closed due to COVID-19 precautions. While this represents a limited exemption to the Emergency Paid Sick Leave Act (small businesses must still provide paid sick leave for the remaining five qualifying reasons), it represents a complete exemption to the Emergency Family Medical Leave Expansion Act. To qualify for the small business exemption, an authorized officer of the company must determine that one of the following is true about the employee's leave request: (1) payment of leave will cause the business' expenses/liabilities to exceed available revenues; (2) the employee requesting leave has specialized skills, knowledge, or responsibilities, such that their absence would entail substantial risk to business operations; or (3) there are insufficient workers available to perform the work of the employee requesting leave and the work is essential to operations.

MASS LAYOFFS

If your business is covered by the Worker Adjustment and Retraining Notification (WARN) Act, you are generally required to provide affected employees at least 60 days' notice before a mass layoff or plant closure as defined by the Act. However, the normal 60 days' notice may not apply if the mass layoff or closure is due to the effects of COVID-19 if that reason meets the "unforeseeable business circumstances" exception to the WARN Act. However, even where the unforeseeable business circumstances exception applies, a covered business is still required to give its employees as much notice as is reasonably practicable. Employers should also be mindful of potential state laws similar to the Federal WARN Act, and ensure that any mass layoff or closure complies with any such analogous state law. **R**

ABOUT THE AUTHORS: Benjamin Briggs is a Partner at Cotney Construction Law who represents clients in all aspects of labor and employment law. Elliot Haney is an Attorney at Cotney Construction Law who practices in all areas of construction law. Cotney Construction Law is an advocate for the roofing industry and serves as General Counsel for NRCA, FRSA, RT3, NWIR, TARC, WSRCA and several other roofing associations. For more information, visit www.cotneycl.com.

→ AUTHOR'S NOTE

The information contained in this article is for general educational information only. This information does not constitute legal advice, is not intended to constitute legal advice, nor should it be relied upon as legal advice for your specific factual pattern or situation.

“All things being equal, the simplest solution tends to be the best one.” – William of Occam

**PEEL
& SEAL®**
SELF-STICK ROLL ROOFING



We couldn't agree more.

Peel & Seal® is the best and simplest solution for low-slope roof and flashing repairs. Just peel off the release liner, press into place, and roll smooth to seal the leak. That's all it takes. Leave exposed for years of worry-free protection.

mfm
BUILDING PRODUCTS CORP.

Learn more at www.mfmbp.com or by calling 800-882-7663.



State Climate Regulations Set to Change Certain Roofing Products



New Restrictions May Affect Products Contractors Commonly Stock and Install

THE ROOFING industry is familiar with changes brought on decades ago by international treaties that limited and then banned the use of products containing substances with measurable ozone depletion potential (ODP) — a relative measure of a substance's contribution to the degradation of the ozone layer. The global effort to reduce emissions of ODP substances required manufacturers in the United States and Canada to phase out the use of CFCs and HCFCs in various products (example: polyisocyanurate insulation) and replace them with non-ODP alternatives. In certain instances, ODP substances were replaced by alternatives that had measurably high

contributions to global warming, measured as global warming potential (GWP).

Today, under renewed efforts to combat the climate change impacts associated with the manufacture and use of products from insulation to refrigeration, U.S. state governments as well as the Government of Canada have implemented restrictions on the use of products containing certain high-GWP substances. For the roofing industry, familiar products that can contain high-GWP substances include foam adhesives, spray polyurethane foam (SPF), and extruded polystyrene (XPS) foam. In jurisdictions that restrict the use of high-GWP substances,

contractors should be aware of the potential impacts that these new restrictions may have on products they commonly stock and install.

U.S. AND CANADA: DEVELOPMENT OF HFC POLICIES

The effort to restrict the use of HFCs in formulations used by building material manufacturers (as well as other sectors) started in the mid-2010s as the U.S. Environmental Protection Agency (EPA) developed regulations under the Clean Air Act's Significant New Alternatives Policy (SNAP) program. EPA banned the use of HFCs in the affected roofing products, as well



TRUFAST[®]

MANUFACTURED AND TESTED TO PERFORM

FAILURE IS NOT AN OPTION



IT'S CRITICAL THAT YOUR COMMERCIAL ROOF PERFORMS.

When selecting fastening systems for your commercial projects, trust TRUFAST as your source for innovative and quality fastening solutions. Our products will perform for you.

SOLUTIONS FOR EVERY SURFACE.

TRUSTED CONNECTIONS FOR THE BUILDING ENVELOPE.
MANUFACTURED AND TESTED TO PERFORM.



TRUFAST is backed by the engineering expertise and financial strength of ALTENLOH, BRINCK & CO., a global leader in fastening solutions.



trufast.com

The FIRST STEP in Metal Roof Retrofit!

Retrofit Sub-Frame Systems

Our systems allow added insulation values up to R50
Minimal prep time- No tear off of existing roof
Increase energy savings- let us show you how

ROOF HUGGER®

sales@roofhugger.com

800-771-1711

See Roof Huggers in Action at www.roofhugger.com

LSI GROUP INC.
METAL BUILDING COMPONENTS
Logan Stampings - Roof Hugger - BPD

CIRCLE NO. 43 / RoofingMagazine.com

U.S. state governments as well as the Government of Canada have implemented restrictions on the use of products containing certain high-GWP substances.

as other common end uses, by issuing SNAP Rule 20 in 2015 and Rule 21 in 2016. However, both rules were challenged and partially vacated by the U.S. Court of Appeals – D.C. Circuit.

As a result of the Court's decision on SNAP Rules 20 and 21, there is no federal requirement for manufacturers to transition away from HFC-based formulations for roofing products. Instead, states are leading the transition to the use of low-GWP blowing agent substitutes to formulate roofing products. The states have organized the U.S. Climate Alliance to coordinate on a broad set of climate related issues – including restricting the use of HFCs. (Information on the U.S. Climate Alliance is available at <http://www.usclimatealliance.org/>.) The Alliance has developed a model rule to guide the development of HFC restrictions at the state level. This model rule has helped states move quickly to adopt rules to restrict HFC uses.

For example, California, New Jersey, Vermont, and Washington have enacted legislation similar to what the EPA originally promulgated prohibiting the use of HFC substances in roofing products, such as foam insulation and foam adhesives and sealants. As of mid-March, at least 10 other states are considering legislation or regulations to restrict the use of HFCs.

For the Canadian roofing market, Environment and Climate Change Canada have enacted nation-wide restrictions on the use of HFC substances. As of January 1, 2021, no plastic or rigid foam product can use an HFC substance or HFC blend with a GWP



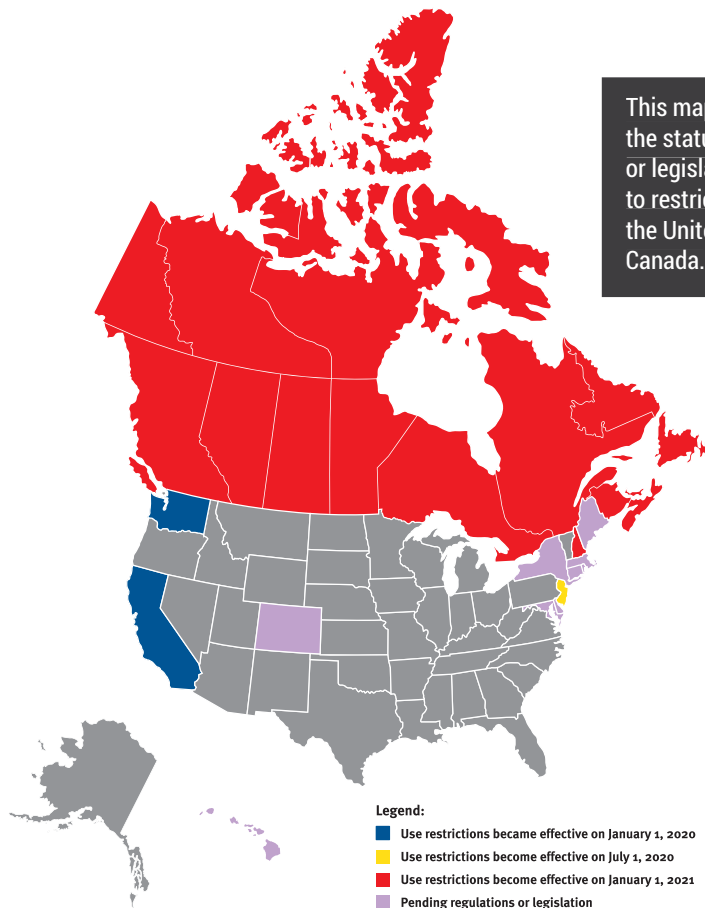
21c Museum Hotel | Oklahoma City OK
architects: Deborah Berke Partners &
Hornbeek Blatt Architects
original architect: Albert Kahn
photographer: Mike Schwartz

Rooftops redefined.

bisonip.com | 800.333.4234
denver | colorado



CIRCLE NO. 44 / RoofingMagazine.com



greater than 150. The effect of these restrictions is that manufacturers using common HFCs will need to reformulate with new technologies or blends.

WHICH PRODUCTS ARE IMPACTED?

Certain roofing products like foam adhesives, one-component foam sealants, and insulation are formulated using blowing agent technologies. Blowing agents provide the final product with specific physical properties such as thermal performance or are necessary to facilitate the application process for the product. A good example of the benefits that blowing agent technologies provide is closed-cell foam insulation. In closed-cell insulation products, the blowing agents are retained within the cell structure to provide increased and long-term thermal performance.

However, different products use various technologies and not all products will be impacted by the restrictions



ColorGard®

Tested. Trusted. Engineered.

- Fully engineered systems, Registered PE stamp available in all 50 states
- 26 years of proven performance
- Limited Lifetime Performance Warranty* available
- Easy-to-use online calculator
- Load tested for holding strength on 500 different roof profiles, materials, gauges



The Metal Roof Experts

Contact your S-5! distributor to learn more about ColorGard.

*Visit our website for warranty details

www.S-5.com

described above. For example, polyisocyanurate insulation is manufactured with pentane (or pentane blends) as its blowing agent. Pentane is a non-ODP, low-GWP substance. Therefore, polyisocyanurate insulation is not impacted by the restrictions and roofing contractors should

not expect to see changes in these products as a result of any HFC regulations. (More information on polyisocyanurate insulation products is available at <https://www.polyiso.org/page/Low-GWPBlowingAgentSolution>.)

Spray polyurethane foam (SPF) roofing insulation is typically manufactured

Roofing contractors should closely track HFC restrictions in neighboring states.

with HFC blends. Most SPF manufacturers have introduced new, low-GWP formulations using HFO technologies in the past several years. Roofing contractors working in states that prohibit the use of HFC-based products will need to be familiar with the available HFO-based SPF products. Similarly, low-rise foam adhesives and other foam products and sealants will be subject to the same restrictions as HFCs. (More information on spray polyurethane foam products is available at <https://www.whysprayfoam.org/>.)

Another common building insulation product impacted by the HFC regulations is XPS insulation, which is traditionally manufactured with HFCs. Projects that specify XPS insulation and are located within a jurisdiction that prohibits the use of HFC-based foam products will need to consult with product manufacturers to discuss the availability of low-GWP options.

HOW SHOULD ROOFING CONTRACTORS PREPARE?

The HFC regulations generally ban the use, sale, and installation of products that do not comply with the HFC restrictions as well as the ability to place such products into commerce. These restrictions essentially require manufacturers and product distributors to sell low-GWP formulations and require roofing contractors to ensure they are using and installing compliant products. In certain circumstances, the regulations have required some manufacturers to reformulate HFC-based products to low-GWP technology.

Roofing contractors should learn to identify products that utilize low-GWP technologies in order to ensure they are stocking and installing compliant roofing products in states with active restrictions. This will require roofing



Ask Us
How do I get a superior roof edge detail?

You would never choose cover tape over a hot-air weld in the field, so why choose it for the perimeter? We provide premium, fully-welded, colored face, skirted TPO or PVC edge-metal details that withstand weathering. **What's in your bid?**

mulehide.com | 800-786-1492

Single-Ply • Mod Bit • Coatings • Accessories

CIRCLE NO. 46 / RoofingMagazine.com



White reflective roofs get dirty during installation.

Don't get stuck pressure washing a brand new roof!



SCAN HERE TO
LEARN MORE
ABOUT APEEL

APEEL Protective Film keeps your roof clean during installation!

TPO is often selected because of its reflective, energy-savings properties, but it can get dirty and stained during installation. Versico's revolutionary APEEL Protective Film keeps VersiWeld TPO clean during the installation process and eliminates the need for cleaning and pressure-washing. The patented APEEL Protective Film technology improves aesthetics, increases customer satisfaction, and saves time and labor. **New for this year: APEEL 6" Cover Tape is now available!**




VERSICO
ROOFING SYSTEMS

BUILDING VALUE

800.992.7663 | www.versico.com



contractors to determine the answers to questions including: Where is the product being installed, and does the jurisdiction have HFC restrictions? Does the product contain HFCs? And, if yes, when was the product manufactured?

1. Install Low-GWP Products.

Compliant roofing products are already available. These products include

polyisocyanurate insulation as well as SPF roofing and insulation that is formulated with low-GWP technologies like HFOs. Other product manufacturers are still transitioning their product portfolios to low-GWP formulations. For the next several years, there may be SPF or foam adhesive and sealant products available in the marketplace that contain HFCs. For these products,

roofing contractors should determine how to differentiate between low-GWP and HFC formulations. Product may be branded as “low-GWP” and some products will carry labels stating the product is compliant with state HFC restrictions.

2. Check Date of Manufacture. Thus far, each state with effective restrictions has included sell-through provisions that allow product manufactured prior to the restriction date to remain in commerce until they are used. Roofing contractors may still have products that use an HFC-based formulation in their supply chain. Roofing contractors that are planning to install these products in states with active restrictions should determine when the products were manufactured to ensure they can be used and installed.

3. Do Not “Import” Non-Compliant Product. Roofing contractors should closely track HFC restrictions in neighboring states. Roofing contractors that conduct business in multiple states should ensure they do not “import” non-compliant products that contain HFCs into states where their import and use is restricted.

The regulatory landscape is changing quickly. Currently, 10 states have pending legislation or regulation. The most practical recommendation for roofing contractors is to engage with their product suppliers to ensure they are aware of restrictions in the areas they conduct business. **R**

ABOUT THE AUTHORS: Justin Koscher is the president of the Polyisocyanurate Insulation Manufacturers Association (PIMA), a trade association that serves as the voice of the rigid polyisocyanurate insulation industry and a proactive advocate for safe, cost-effective, sustainable and energy-efficient construction. Stephen Wieroniey is the director at the American Chemistry Council’s Center for the Polyurethanes Industry. In his role at CPI, he also serves as the director of the Spray Foam Coalition.

WE BRING LANDMARK TESTING TO EVERY PROJECT

The most thorough, accurate and professional testing in the United States of America. That’s why we’ve been selected for prestigious projects like the Statue of Liberty since 1984.

Roof Moisture Surveys
ELD Fusion® Leak Detection
Electronic Leak Detection Systems
TruGround™ Conductive Primer

IR ANALYZERS
Vector Mapping

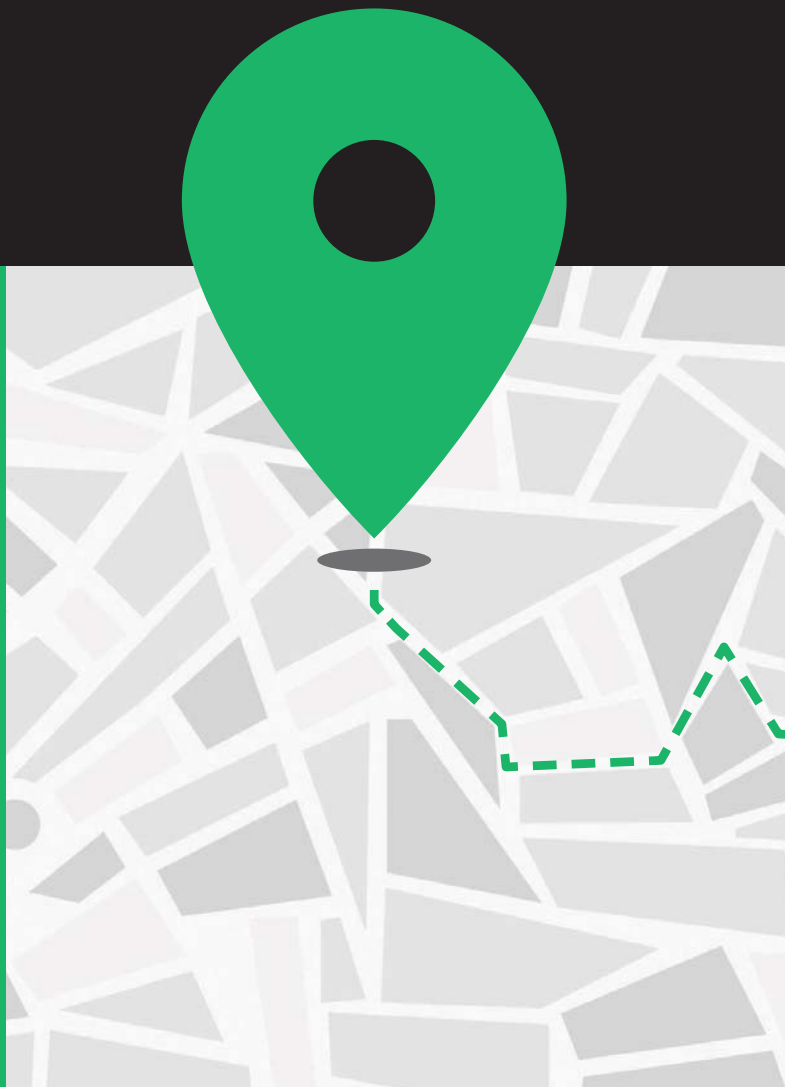
Smarter Testing. Faster Response.™
800-879-1964 • info@iranalizers.com



Vehicle tracking that works for you

- Validate staff hours
- Improve driving style
- Reduce miles driven

From
\$14.90/mth
on a 1 year contract



No auto-renewal | Free mobile app | 1st class customer service

Visit quartix.com or call **1-855-913-6663** to schedule a free demo

Coping With a Pandemic

Tips From RT3 Contractor Members to Keep Business Flowing



IT WAS MID-MARCH when we had the first inkling that the coronavirus pandemic was going to leave a serious impact on business as we know it. Members of the Roofing Technology Think Tank (RT3) board began talking on Friday, March 13, 2020 about what no one else was: the state of the roofing industry and how we can run our roofing businesses safely in the midst of this pandemic.

We decided to quickly organize a webinar for the roofing industry to share information, tools and resources that would help roofing business owners with their everyday operations. We had no idea what the response would be when we announced on Monday, March 16, that we were hosting this special webinar two days later. More than 500 people registered to attend and nearly 400 were on the webinar live. Since posting the first recording on the RT3 YouTube channel, it's been viewed 500 times. Our organization subsequently

held two additional webinars that were also very well received.

LEADING CALMLY AND CONFIDENTLY

In the first webinar, Ken Kelly of Naples, Florida-based Kelly Roofing said as a leader in your company, communication is key now. "If you're communicating with your team early and often, everyone is going to be on the same page," says Kelly. "Right now, there is a lot of uncertainty so there is a lot of fear. I don't think we should let fear enter into our decision making, and you certainly don't want to let fear be driving or pre-occupying your employees."

Dallas, Texas-based KPost Roofing & Waterproofing Company's President and Head Coach Steve Little echoed Kelly's thoughts. "Be calm. We have to make good decisions, not hasty decisions. We have to make decisions based on long-term and what is best for our company, our employees, our

customers and our families."

"So goes the leader, so goes the company," says Kelly. He reminds us that it's important to look at how you are acting around the office. Ask yourself if you are portraying someone who is knowledgeable and educating themselves on the issues. Are you being seen in the office? If your company is working from home, you can still be seen by your team, notes Kelly. There are many great virtual meeting tools from a variety of providers, some of which are free.

Little believes that companies should try to have employees continue to participate in the normal cycle of business. "If you have sales meetings on Monday and project management meetings on Wednesday and your operations meeting on a Friday, do your best to maintain a routine," he says. "Your employees are looking to you to try to maintain some kind of continuity in what they are doing."

PROUDLY REPRESENTING THE ROOFING INDUSTRY

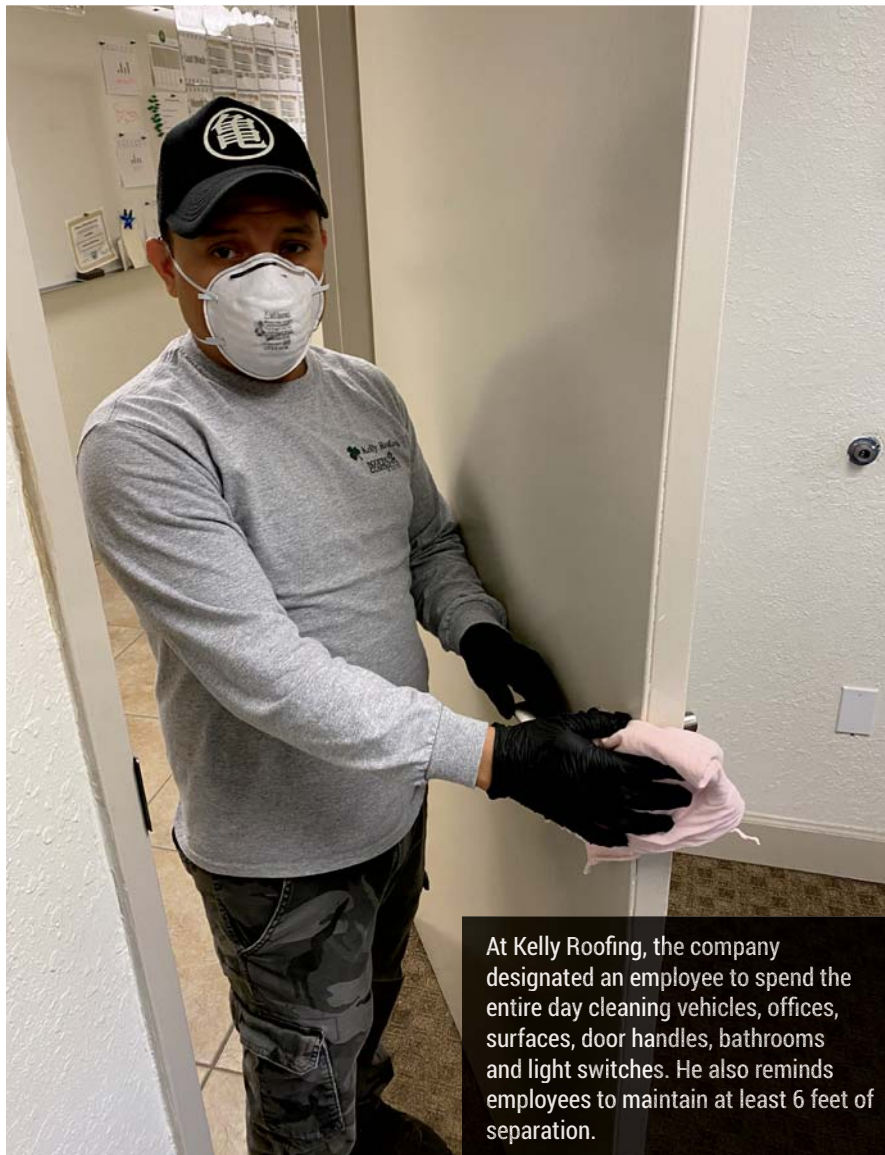


COTNEYCL.COM // (888) 973-9286



MAIN OFFICE: TAMPA

CIRCLE NO. 50 / RoofingMagazine.com



At Kelly Roofing, the company designated an employee to spend the entire day cleaning vehicles, offices, surfaces, door handles, bathrooms and light switches. He also reminds employees to maintain at least 6 feet of separation.

POLICIES AND PLANS

Kelly likened some of the actions his company is implementing to those taken when his area is expecting a hurricane – the reason that he has taken his entire business into the cloud. He also recommends some simple things that you can implement, including making sure adequate supplies are on hand. “Things like if the gas tank in your vehicle gets anywhere near half, just go ahead and fill it up because you don’t know when society is going to decide to put something crazy on social media about gas and then everyone is going to make a run on gas stations.”

Little believes that a crisis plan and policies are must haves for your roofing business. “I’ve had the great fortune of

collaborating with some really great people in the industry and sharing information,” he says. “I challenge you to do the same thing. Create a peer group that you can collaborate with and share best practices.”

He recommends turning to your industry associations for support and information as well. These groups have been working hard to assist contractors and are making sure that roofing is included in the essential business category everywhere they can.

GETTING CREATIVE TO MEET REQUIREMENTS

Kelly notes that he repurposed an employee whose role was to organize inventory in the shop and made him a

full-time cleaner. “He spends the entire day cleaning vehicles, offices, surfaces, door handles, bathrooms and light switches. He is also our distance police, reminding anyone with less than 6 feet of separation to move apart.”

Little’s team has had to come up with some creative solutions as well after their jurisdiction mandated that handwashing stations be available on every jobsite. The company tried to order some but found that not only were they expensive – coming in at close to \$1,000 each – but most places were out of inventory. So, his team got creative, ordering new 55-gallon plastic barrels and attaching spigots to dispense the water. Little shared that each station cost the company just under \$100 each to make, including labor.

CASH FLOW AND NO-CONTACT SELLING

Cash is important during this time as well. Kelly says that now is the time to look at your payables and receivables. Prioritize them to maximize your cash flow. “We have two things to focus on right now,” explains Kelly. “Number one is let’s make sure we stay safe and that everyone understands our mission. Number two is we are going to make sure we are collecting cash on any job that we do have open. While we can work, let’s get them finished and into receivables.”

Little points out that you also need to change your sales strategy. “Business as we know it is no longer going to be that way and not just from this crisis. But I think what is going to happen is that the transition between the baby boomers and the next generation – this is going to accelerate that. People are going to see that we can conduct commerce without having to be in front of people,” says Little. “We can conduct business virtually. As you know business today, how commerce is done, it will change. And if you don’t change with it, it will leave you in the dust.”

Kelly shares that one of questions he is asked the most by other contractors is how to take your phones into

Keep it cool

with HVLS INDUSTRIAL FANS from Blo Blades!

- ★ Keep your factory, shop & warehouse cool
- ★ Cut energy costs by up to 30%
- ★ Increase employee production by creating a comfortable, safe work environment.

1-833-BLO-FANS

info@BloBlades.com
www.BloBlades.com



TCM

TRIAD CORRUGATED METAL, INC.

208 LUCK ROAD
ASHEBORO, NC 27205
1.866.625.9727
WWW.TRIADMETALROOF.COM



Shop Online
& Save at
triadmatalroof.com

SNAP LOC

NAILSTRIP

MECHANICAL

TS-324

MS-216/218

AG PANEL

R PANEL

5V PANEL

- △ Custom Cut Metal for your Project
- △ Fasteners and Accessories
- △ Custom Trim up to 20' Long
- △ Estimating Service, just send us your plans
- △ Top-Notch Technical Assistance
- △ Speedy Turnaround on Orders
- △ Metal Roofing is Energy Efficient & 100% Recyclable



WWW.TRIADMETALROOF.COM



After their jurisdiction mandated the use of hand washing stations on the jobsite, KPost Roofing & Waterproofing could not find a retailer with any in stock. The company manufactured their own units by adding spigots to brand-new 55-gallon plastic barrels.

the cloud using voice over Internet protocol (VOIP). “You can fire up any of these voice services – we happen to use Microsoft Teams – and you can then forward your main number through your phone company into the cloud account. You can either do it round-robin style where it rings one person, and if they don’t answer it will ring the next and so on. Or you could set it up that it rings everyone at once,” explains Kelly.

EMPLOYEE AND CLIENT COMMUNICATIONS

Your employees and your customers are spending a lot more time on social media, using streaming services, looking up information on the Internet and staying connected with friends and family. Reach your customers and your employees where they are right now by ensuring that you are active on your social media with the right messaging.

“Now is the time to be on social media,” says Little. “Not just for your clients but it’s time to get on social media to bring peace and solitude to your employees and their families.”

It’s more critical than ever to communicate with your customers that you

are open, that you are following The Centers for Disease Control recommendations and OSHA guidelines for operating safely and maintaining social distancing on jobsites. It is important that they know roofing is an essential business in just about all areas of the country and that you can repair or replace a roof with no contact during transactions.

ACCESSING SHARED RESOURCES

For more information from Ken Kelly, Steve Little, and other members of RT3, visit the RT3 YouTube channel, where you can watch all three of the special webinars and benefit from the wealth of information that was shared, including sales and marketing and legal implications. A link to the resource documents shared by the participants is available in the video description. **R**

ABOUT THE AUTHOR: *Karen L. Edwards is the director of the Roofing Technology Think Tank (RT3), editor at RoofersCoffeeShop, and a freelance writer and marketing consultant for the roofing industry.*

PHOTO: KPOST ROOFING & WATERPROOFING



DELIVER CONSISTENT PERFORMANCE

With the **SNAPTABLE PRO®**, you can count on delivering uniformly cut standing seam metal panels on all of your metal roof projects. Gain a competitive edge by **reducing your metal preparation time by half** and by **reducing your overhead costs by 35%**.



- ◆ Provides consistent notches, cuts and hems at your eaves, hips and valleys
- ◆ Allows operator to create tab to close 1" rib of metal panel
- ◆ Does not require electricity
- ◆ Transportable
- ◆ Tax-deductible

CONTACT US TODAY TO ORDER YOUR SNAPTABLE PRO!



sales@swensonshear.com



(877) 588-8748



www.swensonshear.com



Helping in the Fight Against COVID-19

Duro-Last Quickly Retools to Manufacture Medical Supplies During Pandemic

AS THE CORONAVIRUS pandemic took hold, hospitals all over the world found themselves facing critical shortages of personal protective equipment (PPE). The state of Michigan was hit hard by the virus, and as news of critical supply shortages hit the media, team members at Saginaw, Michigan-based Duro-Last, Inc., came together determined to figure out a way to help.

According to Duro-Last CEO Tom Saeli, the group quickly developed a plan to manufacture medical PPE. "The genesis was that a small group of employees got together — people from engineering, sales, manufacturing, and R & D — and they were well aware of the crisis and the dire need for medical personal protective equipment at the hospitals. They got together on their own accord and came up with the idea to try to make medical gowns and non-surgical masks using our materials, processes and equipment."

The meeting happened on Friday, March 20, and the group continued to work on it the next day. "On Saturday,

they called me and said, 'We're making these because we know there's a need,'" Saeli recalls. "I can't take credit for any of this."

Saeli, a member of the board of trustees at Beaumont Health, was in the perfect position to connect the team with the hospital. "We are well aware that Beaumont was the epicenter of the crisis in southeast Michigan for COVID-19 patients," says Saeli. "I called them on Saturday, told them what we were doing, and the rest happened very quickly."

Initial designs for masks and gowns were based on photos and schematics in the public domain. "Our people went up and down I-75 with gown and mask designs over the next few days, and they really nailed down a design that worked for Beaumont. By the following Friday, we were manufacturing product."

MEETING A NEED

The company, well known for manufacturing flexible PVC roofing membranes,

converted equipment normally used to make roofing products for another use. "We have some very creative, clever people," Saeli says. "Because we do so much custom fabrication, we were able to retool some of our equipment to manufacture this design for gowns and masks."

The membrane itself was reformulated. The hospital gowns are made from flexible, transparent PVC that is 6 mils thick. The gowns are water- and fluid-repellant, and they can be sanitized and reused. The masks, made from polyester and PVC, can be washed and reused. Feedback from the hospital has been overwhelmingly positive. "There's a big demand," Saeli says. "We're getting calls from all over the country for gowns and masks. There is also a trend for wearing masks in everyday life, including at jobsites, so the demand is just going to continue to increase. We are manufacturing 24 hours a day right now at our Saginaw plant, and it's keeping more than 60 people employed."



Duro-Last reformulated its flexible PVC membranes and retooled equipment to manufacture medical gowns and masks to help hospitals facing equipment shortages.



Duro-Last is looking to expand the capability to its seven plants across the country, but profit is not a motivator in this case. “We didn’t enter this for financial gain,” Saeli says. “We aren’t making a profit on this. We just did it because we saw a need that had to be served. It does help to employ some people, which is great as well. But the profit we are getting is an emotional profit, if you will. We’re doing this because it’s the right thing to be doing right now.”

The tight time frame to get the designs approved and equipment ready was probably the biggest challenge, according to Saeli. “It was the fastest product development I’ve ever seen,” he says. “The team just powered through any issues that came up. The mindset

of our employees is to be very entrepreneurial, which goes back to our founder, John R. Burt. We are unique in our industry. We are the only ones who do custom fabrication. We’ve got a very entrepreneurial spirit that we encourage all the time. The DNA of our business is to take on challenges and come up with new ideas.”

As the products are being made, the company is taking precautions to ensure they are being manufactured safely. “For the last five weeks, we’ve been practicing social distancing,” Saeli notes. “We’ve been taking everyone’s temperature with a thermal forehead scanner when they come in and throughout the day. We clean and sanitize all of our equipment. We had our plant professionally disinfected. We are

trying to do everything in our power to protect our employees.”

Duro-Last is encouraging other companies join the fight. “We had a call with SPRI, which includes many manufacturers in the industry, including our competitors, and we spoke with 25 people from around the county to tell others what we did, share our design with them, and encourage other companies to get involved any way they could in their local markets.”

The company is sharing the news with the media for the same reason. “We wanted to demonstrate to others that if a roofing manufacturer could do something, everyone else should look at it as well,” Saeli says. “We are sharing our story to encourage others to jump in and help any way they can.” **R**

A Little TLC

Creating a Homelike Environment at Flatrock Manor

Flatrock Manor owner and chief executive officer Nicholas Burnett saw tremendous potential in the shuttered building. It was the right size. It was designed for providing health care, serving first as a hospital and later as a hospice. It was situated on 10 acres of scenic property complete with a nature trail, a gazebo and a pond that is home to swans, geese, ducks and painted turtles. Its exterior included beautiful Mid-century modern details.

Burnett had long been seeking an opportunity in Goodrich, Michigan, to open a new location for Flatrock Manor, a group of foster care centers in Mid-Michigan for adults with special developmental and behavioral needs. The empty building would fit the bill. But first, it would need some TLC and a more homelike atmosphere.

Tri-County Roofing of Flushing, Michigan, and Sedgewick + Ferweda Architects of Flint, Michigan, helped make that happen. A new TPO

roofing system was installed to fix long-standing leaks and provide durable, low-maintenance performance. The additions of a mansard roof and gabled accents gave the building's exterior a more residential aesthetic while retaining its distinctive architectural details.

The new facility opened in December 2019 and is now home to 30 residents.

PRESERVING THE LOOK

The building is a fixture in Goodrich, a 1,900-resident suburb of Flint. Built in the early 1960s, the facility was originally a 53-bed, full-service hospital. In 1997 it became a hospice. That facility closed in 2013 and the building remained vacant until Flatrock Manor purchased it.

The exterior of the original 18,000-square-foot building embraced the Mid-century modern style popular in the era. Subsequent additions that brought the facility to 23,000 square feet followed suit for a cohesive look.



The existing roofing system was quintessential Mid-century modern. The built-up roof was surrounded by a slim, 1-foot-high parapet wall with an aluminum cap. A gabled front canopy shielded patients and visitors from the elements while arriving at or leaving the hospital.

While the exterior's design perfectly suited a hospital, it was too institutional for a facility that would be its residents' long-term home.

Happily, the task of adapting the



building for its new purpose fell to Sedgewick + Ferweda Architects, the same firm that designed the original hospital nearly 60 years earlier. The team embraced the challenge of striking the right balance between preserving architecturally significant features and meeting regulatory guidelines governing the design of long-term care communities.

"Initially we tried to glorify the Mid-century style of the building," says Michael Murphy, project manager with

Flatrock Manor's main roof features a mechanically fastened TPO system from Mule-Hide Products Co.

Sedgewick + Ferweda Architects. "We completed several elevation studies to incorporate some modern ways of dealing with the parapet. Ultimately, we had to go back to the drawing board to achieve a more residential look."

The gabled roof above the canopy at the main entrance was the starting point from which other design elements

took their cue. A mansard roof was incorporated around the building. To balance the main entrance, a gabled canopy was added at a second entryway on the building's front. Twenty accent gables were spaced out along the building's entire exterior and gables were added above rear and side entrances.

"We played with the value of scale when incorporating the mansard roof with the horizontal façade of the building," Murphy says. "We made it more substantial, so it doesn't look like a short little mansard roof that has been pushed onto the building."

Owens Corning TrueDefinition Duration Designer shingles in Merlot were chosen for the mansard roof and gables, bringing added warmth to the façade. They were complemented by fascia and soffits from Quality Aluminum Products in Cranberry. Cultured stone in a sandy shade was added on the gable walls and around the windows to accent the original terra cotta-toned brick walls.

A ROOF TO PERFORM FOR THE LONG HAUL

The building's existing roofing system – ballasted EPDM on top of a built-up roof with fiberglass insulation – was leaking and the EPDM membrane was "in horrible shape," according to Tim McKnight, president of Tri-County Roofing. "We found nothing but saturated insulation," he adds. "The only reason that more water hadn't gotten into the building's interior was because the asphalt on the BUR roofing system kept it out."

Both the EPDM and BUR systems would need to be torn off.

The steel 22-gauge B deck remained in good condition and original plans called for it to be retained, but requirements for the new HVAC system and ductwork meant that it, too, needed to be removed and replaced. Mother Nature chose to not make the process easy. Facing a month of frequent rain,



the Tri-County Roofing crew worked as quickly as possible and did their best to keep the building's interior dry; for example, tearing off the existing roof bit by bit around the edges to make space for the carpenters to frame in the new mansard roof before beginning work on the rest of the roof.

In selecting the new roofing system, longevity and hassle-free performance were the top considerations.

"The client wanted something that would last 20 years with no issues," McKnight says, noting that such performance would require withstanding the broad spectrum of Mid-Michigan's weather, which ranges from warm, sunny summers to cold, snowy winters.

The client's original preference was to install a new EPDM system, but McKnight recommended a mechanically fastened TPO system for its durability, easy maintenance and cost effectiveness. A system featuring a white, 60-mil membrane from Mule-Hide Products Co. was specified.

ENSURING POSITIVE DRAINAGE

A new 22-gauge steel B deck was installed. It was dead level to accommodate the building's plumbing system, which made getting the insulation right essential. Tapered expanded polystyrene (EPS) insulation is designed specifically for such applications, making it

The building, shown here before renovation work began, was originally a full-service hospital. It was purchased by Flatrock Manor to serve as a foster care center for adults with special developmental and behavioral needs.

the ideal choice for this project.

The building's existing drainage system — in which water flows from the roof to storm drains in the basement — did not change in the renovations. The Tapered Solutions team at ABC Supply Co. worked from drawings to design a take-off that would provide positive drainage. Even the best drawings are not 100 percent reflective of the reality on the roof, however, so the Tri-County Roofing installation crew inevitably encountered instances where the insulation was slightly off-center from the sump or the real-life walls were not quite where they were shown on the plans. In those cases, the crew fabricated pieces of EPS or polyiso insulation on the jobsite to achieve the proper drainage.

COMPLETING THE INSTALLATION

The TPO membrane was mechanically attached for a fast, cost-effective installation. "We were able to achieve the 20-year warranty the client wanted without the added labor and

materials costs of a fully adhered system," McKnight explains.

New roof hatches also were installed, providing safer, easier access to the roof — both during the reroofing project and for ongoing maintenance of the roof and rooftop equipment.

For the teams at both Tri-County Roofing and Sedgewick + Ferweda Architects, the most rewarding part of the project was learning about the residents who will live at Flatrock Manor and helping provide them with a comfortable home.

"It was cool to learn about what Flatrock Manor does for people with special needs and see how they're helping families and meeting needs that you forget are out there," McKnight says. **R**

FLATROCK MANOR GOODRICH, MICHIGAN

TEAM

ROOFING CONTRACTOR: Tri-County Roofing, Flushing, Michigan, www.tricountyroofingofmidmichigan.com

ARCHITECT: Sedgewick + Ferweda Architects, Flint, Michigan, www.architectsinmichigan.com

ROOFING INSULATION TAKE-OFF: Tapered Solutions (ABC Supply Co.), www.abcsupply.com/services/tapered-solutions

ROOFING MATERIALS DISTRIBUTOR: ABC Supply Co. Inc., www.abcsupply.com

MATERIALS

ROOF MEMBRANE: 60-mil white TPO, Mule-Hide Products Co., www.mulehide.com

SHINGLES: TrueDefinition Duration Designer shingles, Owens Corning, www.owenscorning.com/roofing

SOFFITS AND FASCIA: Quality Aluminum Products, www.qualityaluminum.com

K&M SHEET METAL

Redefining Sheet Metal.



Gutters

Gutter Hangers

Downspouts

Elbows & Straps

Cleanouts & Rain Chains

Metal Roofing

Chimney Caps

Louvered Dormers

Metal Cornice

Conductor Heads

Finials

Tools & More

1310 E. Cornwallis Rd.
Durham, NC 27713
(888) 567-7778
info@kmSheetMetal.com
www.kmSheetMetal.com



Uplifting Design

Shirley Ryan AbilityLab Features a Striking Standing Seam Metal Roof

The Shirley Ryan AbilityLab provides rehabilitation services to help patients recovering from severe conditions including traumatic brain injury, spinal cord injury, strokes, and cancer. The organization's new 25,000-square-foot outpatient facility in Burr Ridge, Illinois, features a unique, uplifting roof design incorporating angled, V-shaped sections of standing seam metal roofing.

The low points in the center of each section and other low-slope areas are covered with an EPDM roof system. At the building's perimeter, the roof and walls frame clerestory windows that allow natural light to flood the interior.

It took a talented team of construction professionals to execute the design conceived by architects in HDR Inc.'s Chicago branch. Willie Hedrick, Division Manager of All American Exterior Solutions, Lake Zurich, Illinois, notes that he and his team worked closely with the architect and the general contractor, Krusinski Construction of Oak Brook, Illinois, at each phase of the roof installation process.

"Initially the architect had specified a very nice but very expensive Terne-coated stainless steel panel," notes Hedrick. "The project had budget issues, so we offered the Petersen prefinished steel panel as a value engineering

option. The mechanically seamed Tite-Loc panel could handle the low-slope application and also came in a variety of colors. We also offered a 20-year watertight and finish warranty. For approval, we built a mockup for the architect and owner to review and also provided several references for completed projects around the Chicagoland area that they could visit to see finished examples of the proposed panel and color."

Three different sections of the facility sport the Petersen's V-shaped PAC-CLAD metal roof, with the wedges on each side sloping down to a valley in the center. Within the valley, the Carlisle

SynTec EPDM roof system was installed over tapered insulation to ensure water would flow properly to the roof drains.

"The EPDM was an appropriate selection on the balance of the roof," Hedrick says. "The workability of EPDM with tight, intricate details worked well throughout the project but especially within the gutter troughs between metal panel wedges."

After the building's metal deck was topped with half-inch DensDeck Prime and a self-adhered vapor barrier, crews from All American Exterior Solutions installed tapered polyisocyanurate insulation and 5/8-inch DensDeck Prime cover board. They then fully adhered 8,600 square feet of 60-mil EPDM.

All American then installed 21,500 square feet of 24-gauge steel PAC-CLAD Tite-Loc standing seam panels. The metal panels were installed over Carlisle WIP 300 HT underlayment, which topped 5/8-inch fire-rated plywood and 7 inches of polyisocyanurate insulation. Finishing touches included 3,800 square feet of Petersen .032 aluminum PAC 750 soffit panels and PAC 2000 prefinished Kynar column covers.

INSTALLATION CHALLENGES

The weather was a concern, as the roof installation began in November and typical Midwest winter weather was looming. "The metal roof would be a time-consuming installation, so initially we focused on getting the building watertight for the GC by installing

the EPDM roof and the metal roof underlayment, including insulation and plywood," Hedrick explains. "The WIP 300HT allows for a 180-day exposure time to UV, so it gave us ample time to install the metal roof while ensuring watertightness in the space being finished below."

Communication between all of the trades involved on the project helped ensure everything went smoothly. "There were trade coordination meetings with both the carpenter and the plumber," Hedrick explains. "With the carpenter, we had to coordinate blocking heights to accommodate the tapered insulation. Also, due to the limited height to work within the gutter troughs and because the deck came down to a true V in the valley, we did an in-place mockup with the plumber to see how low the drain bowl could physically be set. Based on that elevation, we ordered custom EPS tapered edge panels to offset the V shape and provide a flat base to begin our tapered insulation system."

Other details needed to be refined, including roof-to-wall transitions. "We worked with the GC and other trades to modify the detail for superior performance," notes Hedrick.

Safety was always top of mind on the project. "Fall protection was the biggest safety concern," Hedrick says. "We set up warning lines 6 feet from the edge creating a controlled access zone. Any work outside of the warning lines

required workers to have 100 percent fall protection. All of the fascia and rake trim pieces were installed from an aerial lift."

The installation was a complicated one, but All-American Exterior Solutions was up to the challenge. "We take pride in our ability to offer a range of products with a quality installation," Hedrick says. "Our experience with multiple systems and manufacturers gives us the knowledge to be able to advise the design team on an appropriate product based on performance expectations balanced with budget."

"Personally, I enjoyed the complexity and challenge that came with this project," Hedrick concludes. "By no means is it a typical application; it required some critical and 'outside the box' thinking. I also enjoyed the collaborative nature a project like this requires. It was really a team approach between All American Exterior Solutions, the architects, the general contractor, and the other trades. The final product really shows that." **R**

SHIRLEY RYAN ABILITYLAB BURR RIDGE, ILLINOIS

TEAM

ARCHITECT: HDR Inc., Chicago, Illinois, www.hdrinc.com

GENERAL CONTRACTOR: Krusinski Construction Company, Oak Brook, Illinois, www.krusinski.com

ROOFING CONTRACTOR: All American Exterior Solutions, Lake Zurich, Illinois, www.aaexs.com

MATERIALS

METAL ROOF: PAC-CLAD Tite-Loc Plus Panels, Petersen, www.pac-clad.com

EPDM ROOF: 60-mil EPDM, Carlisle SynTec, www.carlisesyntec.com

UNDERLAYMENT: CCW WIP 300, Carlisle WIP Products, www.carlislewipproducts.com

COVER BOARD: DensDeck Prime, Georgia-Pacific, www.buildgip.com

The roof of Shirley Ryan AbilityLab incorporates striking V-shaped sections of standing seam metal panels and a tapered EPDM system.



Permanent Solution

Carefully Engineered Metal Roof System Now Protects Cancer Center

The original standing seam metal roof over the Cancer Center at CHI St. Joseph Health in Bryan, Texas, was peppered with white repair material at the seams, in the valleys, at transitions and around penetrations. At flashings or other complex details, sealants and single-ply membranes had been used to stop water intrusion. But the repairs, which appeared to have been done numerous times over the years, didn't work. The roof continued to leak into the cancer treatment

center, making it all the more critical to find a permanent solution.

Physicians Realty Trust, a real estate investment trust company, purchased the facility in 2016, and part of the purchase agreement required the real estate company to fix various issues within two years. The roof was given the highest priority. The building was constructed in 1996 and it had been added onto at one point, with the original roof tied into the new roof – creating additional waterproofing challenges. At the time of purchase,

the original standing seam roof was only 20 years old, well under its expected service life.

A building envelope expert conducted a thorough inspection of the roof and deemed it beyond repair due to its faulty design and poor installation that had led to years of water intrusion. The roof was removed down to the wooden deck, revealing even more issues of rotted wood and wet insulation. Problem areas were cut out and replaced to provide a solid foundation for the new roof.

The design of the new roof system was carefully and meticulously





Garland's R-Mer Loc standing seam metal roof system provides the health center with proven watertight performance. The panels lock into one another, allowing for quick and easy installation.

engineered to ensure complete watertight protection of the more than 25,000-square-foot facility. The roof system as installed by TeamCraft Roofing, located in Garner, North Carolina. With the roof's numerous slopes, hips, and valleys, it was critical that even the smallest details be given the utmost attention. As an indication of the complexity of this building, there were 292 different Garland R-Mer Loc metal panel sizes manufactured for the roof – each one

designed to fit seamlessly next to the other to create a watertight seal.

In addition to its strength and proven performance, R-Mer Loc panels, as the name suggests, lock into one another, allowing for quick and easy installation. The integral standing seam design of R-Mer Loc provides excellent spanning capability as well as architectural appeal. The heavy-duty, 18-gauge one-piece concealed clip design accommodates thermal movement and its internal gutter/anti-siphon feature

helps protect against the elements.

Prior to the installation of the metal panels, an ice and water shield underlayment was applied to the deck to provide an additional layer of watertight protection. The panels, once sorted and organized, were lifted to the roof by a crane. The facility remained operational throughout the installation, which took about three months to complete.

Garland is a full-service manufacturer, meaning in addition to the materials provided for the project, its local representative assisted with budgets, writing specifications, contractor selection, scheduling and project oversight. These services proved beneficial to Physicians Realty Trust, as its project manager was based in Colorado and relied heavily on Garland to manage the project.

"Projects like these are extremely complex when they involve a practicing clinic with typical weekday office hours," says Ryan Yetzer, LEED GA and Capital Projects Manager with Physicians Realty Trust. "Thankfully, the Garland team and our highly-skilled onsite contractor closely monitored the project from start to finish. As a result, the installation ran very smoothly and our healthcare providers are pleased with the results." **R**

ABOUT THE AUTHOR: Clayton Daniels is a Territory Manager for The Garland Company, Inc.

CHI ST. JOSEPH HEALTH CANCER CENTER BRYAN, TEXAS

TEAM

ROOFING CONTRACTOR: TeamCraft Roofing, Garner, North Carolina, <https://tcrfg.com>

MATERIALS

METAL ROOF SYSTEM: R-Mer Loc, The Garland Company, Inc., www.garlandco.com

Skylight Design Lets Glass Take the Spotlight



S skylights continue to gain recognition as energy-efficient daylight harvesting devices. When properly specified, proportioned, located and installed, skylights can meet the latest editions of national model energy conservation and green building codes and rating systems. Beyond the concerns of daylighting and thermal performance, skylights also must serve as a viable element of the building envelope.

Consequently, given the growing use of large, complex sloped glazing systems, design criteria for skylights and sloped glazing are undergoing rapid creative evolution, as are the codes – primarily the International Building Code (IBC) – governing their application. In some cases, best practice can be to consider requirements in excess of those in the codes. Sloped glazing is defined in building codes as those where glass is inclined 15 degrees or more from vertical.

POTENTIAL BREAKAGE IS KEY

Proper glass selection and system design is intended to meet specified design load(s), with the primary goal of reducing the probability of glass breakage, which can pose risks to people and property.

Breakage may occur due to several factors, either alone or in combination, some of which are noted below:

- Loads in excess of the specified design loads
- Large thermal stresses
- Damage to the glass during handling or installation
- Forces exerted by the framing system
- Vandalism
- Wind-borne gravel or other debris
- Large hailstones
- Impurities in the glass causing spontaneous fracture

The differences in design considerations between vertical and sloped glazing must be considered. For



Proper glass selection and system design must meet specified design load(s), with the primary goal of reducing the probability of glass breakage, which can pose risks to people and property.

example, sloped glass is more susceptible to impact from falling objects than vertical glass. Sloped glazing is also more likely to fall from its opening when it breaks than vertical glass.

Typically, the preferred practice for glass selection in skylights and sloped glazing is to provide firm support for all edges of the glass for both inward (positive) and outward (negative) loads. This is mandatory for insulating glass units. The support may be by conventional channel glazing or by structural retention with a silicone sealant.

DESIGN CONSIDERATIONS

Glazed systems require special glass design considerations. Designers and architects must orchestrate the use of such industry and regulatory standards and guidelines, as ASTM E1300-16, “Standard Practice for Determining Load Resistance of Glass in Buildings,” ASCE/SEI 7, “Minimum Design Loads for Buildings and Other Structures,” and others, as well as the IBC and International Residential Code (IRC).

Once the 2021 edition of the IBC is adopted, new code language in IBC

Section 2405.1, 2405.3 will clarify that screens are not required below skylights and sloped glazing when 30-mil interlayer laminated glass is used. The use of 30 mil-laminated glass in skylights improves daylighting, aesthetics, and helps protect building occupants, along with eliminating the need for screens.

Other design considerations are outlined below.

STRENGTH

At base, the selection of glass for skylights and sloped glazing begins with the use of ASTM E1300, which uses a failure prediction model with the glass strength based on weathered glass. This takes into account a rational reduction in glass strength from initial production to in-service use. The procedure determines if the proposed glass type (annealed, heat-strengthened, fully tempered or laminated) will meet the specified load, allowing it to be determined whether to consider either a thinner or thicker glass.

ASTM E1300 supplies load resistance charts for a glass probability of



breakage of eight per 1000, as this is considered practical and reasonable for most glass applications. The designer should aim for a low probability of breakage, but if breakage does occur, the consequences must be acceptable.

ASCE/SEI 7 lists formulas for calculating the equivalent combined pressure due to a combination of dead, wind, snow and other loads, as does Chapter 24 of the IBC. For common shapes of buildings, background guidance on design wind velocities may be found in ASCE/SEI 7 – with a caveat: buildings of unusual shape or geometry may render that standard inadequate for defining loads on sloped glazing and skylights.

LOAD DURATION

The strength of glass is a function of load duration. Long duration loads, or any load lasting approximately 30 days, such as snow loads, must be treated differently than short duration loads, defined as any load lasting three seconds or less, such as wind loads.

SURFACE DAMAGE

Mechanical damage to the surface of glass, as opposed to weathering, can cause a significant reduction in glass strength.

Flat glass surfaces inherently have numerous, randomly occurring, microscopic flaws, resulting in widely varying strengths among otherwise identical lites. (A lite is a pane of glass or an insulating glass unit used in a window, door, tubular daylighting device, roof window, secondary storm product or unit skylight.)

So, the strength of glass exposed to transient and static loads must be analyzed on a statistical basis. This may be expressed in various ways, one of which is the coefficient of variation, a measure of the distribution of the glass strength for a large number of lites. It is influenced by the degree of heat treatment of the glass, being highest (0.25) for annealed and lowest for fully tempered glass (0.10) due to surface compression of the latter. This minimizes the tendency of surface flaws to

propagate under load and cause glass breakage.

IMPACT FROM WIND-BORNE ITEMS

The ability of fenestration of all types to resist such impacts is especially important in areas where high wind events, such as hurricanes, regularly occur. Building codes or other regulations in these areas frequently require that fenestration products either be rated as impact-resistant or be protected by impact-resistant devices. Resistance to hail impact – especially applicable to skylights – is a special case of impact resistance. Here, FM 4431, “Approval Standard for Skylights,” is often the governing standard.

THERMAL STRESS

Differential thermal expansion between framing and glazing, as well as between exposed and shaded areas of a given lite, must be accommodated through appropriate glass bite



Proper glass selection and system design must meet specified design loads. Good skylight design and project integration can mean a product not only provides light and possible ventilation — it also can make a statement as a strong aesthetic component.



dimensions and selection of proper sealant, as well as glass type. For most orientations, the temperature that sloped glass may reach is usually higher than for vertical glazing due to the sun's radiation being oriented more directly to the glass surface. Consequently, thermal stresses created in the glass most often require heat treated glass (heat-strengthened or fully tempered).

EDGE STRENGTH

The quality of the glass cutting and the edge finish are critical variables. For example, good quality, clean cut glass edges have an average strength of about 4650 psi (32 MPa) and a predicted failure of 1 percent at about 2,400 psi (16 MPa). For very poorly cut, nipped or damaged edges, the average strength may be in the range of 1,200–1,500 psi (8–10 MPa).

FRAME DEFLECTION LIMITS

A supported glass edge should have an edge deflection limited by the framing

member to no greater than $L/175$ where “L” is the length of the glass edge and the deflection is determined by the displacement of the framing member along the edge.

WATER DRAINAGE

It is imperative in all glazing systems that water infiltration and condensation be drained or weeped away from the edges of the glass. This is to prevent detrimental freezing of the water or deleterious effects of moisture on edge seals of insulating glass, or possible debonding of interlayer material in laminated glass. The framing system must always drain the water from the lowest point of the glazing channel and the lowest point of the framing system.

All these design considerations and more, as well as guidance in applying them, are detailed in AAMA GDSG-1, *Glass Design Guide for Sloped Glazing and Skylights*, published by the Fenestration and Glass Industry Alliance (FGIA). Other published FGIA

resources include the following.

- AAMA SDGS-1-89, “Structural Design Guidelines for Aluminum Framed Skylights”
- AAMA TIR-A7-11, “Sloped Glazing Guidelines”
- AAMA TIR-A11-15, “Maximum Allowable Deflection of Framing Systems for Building Cladding Components at Design Wind Loads”
- IGMA TB-3001, “Guidelines for Sloped Glazing”

All are available at aamanet.org/store. **R**

ABOUT THE AUTHOR: *Glenn Ferris is the Fenestration and Glass Industry Alliance's (FGIA's) Fenestration Standards Specialist. He began his career with the association in 2018. He has extensive experience in the fenestration industry dating back to 1992. Ferris is a liaison for many councils, committees and study/work/task groups guiding them in the completion of the scope of each group.*

SKYLIGHTS & DAYLIGHTING

WRITTEN BY DAVID M. BROWN



Elite Solar Systems installed six tubular skylights and solar-powered attic fans, incorporating them into the existing tile roof of this 3,900-square-foot home.

Installing Tubular Skylights on Cement and Clay Tile Roofs

Installing tubular skylights, or solar tubes, can add a profit niche for any roofing company and provide a lifestyle enhancement for existing and new clients.

"Tubular skylights allow natural light in to brighten rooms and offices during the day without the need for an electrical light source," explains Jovane Estrada, general manager for Elite Solar Lighting & Fans, based in Chandler, Arizona, southeast of Phoenix. "They can be retrofitted into any existing roof system and placed where windows or traditional skylights are not options."

In the desert Southwest, cement or clay tiles on pitched rooftops are a popular choice by owners of upscale homes. Recently, Estrada's team installed six tubular skylights and solar-powered attic fans on a 3,900-square-foot two-story home built in 2009 with cement tiles in Gilbert, Arizona.

In 2001, the company began offering high-quality residential and commercial tubular skylights, solar-powered attic fans and garage exhaust fans. The parent manufacturing company, Southwest Metal Spinning, was founded 26 years ago by Estrada's father,

Saul, and brother, Juan. The components for the Elite product are made in the same location.

Typical tubular skylight components include a high-impact acrylic dome, which locks into a ring on the 1100-O aluminum flashing; this seals to a flat or pitched rooftop, protecting against rain and cracking. Beneath this, an acrylic diffusing lens connects to highly reflective anodized tubing leading to the ceiling, where it fits into a three-glazed polycarbonate diffuser.

For the Gilbert home, Elite installed a 10-inch-diameter tubular skylight with a bathroom exhaust fan kit and light kit; a 10-inch-diameter tubular skylight through the garage into a downstairs bathroom where the skylight was installed on a wall; four 13-inch-diameter tubular skylights with synchronized dimmers, which open and close the solar lights at the same time and position; two solar-powered attic fans; and a solar-powered garage exhaust fan.

"Experienced professionals can install a tubular skylight with any roof penetration," Estrada says. "If they can cut and seal roof flashing on the tile

roof, they should know or learn how to install the tubular skylight fairly easily, and your clients can enjoy new light and the peace of mind knowing the job has been done right."

CEMENT TILE CHALLENGES

The tools required for a cement or clay tile installation are minimal: safety goggles; gloves; stud finder; measuring tape; pencil; drill gun; ladder; reciprocating saw to cut wood deck; grinder to cut roof tiles; caulk gun for sealant; drywall saw; tin snips; utility knife; and plumb bob/laser.

Of course, installing tubular skylights through cement tiles requires following the basic steps for any roof breach.

To avoid damage to clay tiles, unless a roofer has a great deal of experience walking on them, Estrada recommends that the tiles be removed from walk areas on the roof up to where the tubular skylight will be installed.

"Make sure the install is possible – and sometimes it isn't, at least exactly where the client wants it – and have the appropriate tools and materials available," Estrada says.

Next, mark where the tubular skylight is to be placed and check in the attic or crawl space for plumbing pipes and vents, wires, trusses, HVAC heat pumps and ductwork, water pipes and roof valleys that might be obstructive. "If there is an obstacle, the challenge is determining if using tubular skylight adjustable elbows will allow the install to be completed," he says.

With the attic inspection and cuts done, an aluminum tile skirt and pitched flashing must be installed properly to the deck. "Most roofers do not use a tile skirt for tile roofs, and later a leak can damage the paper underneath the tiles," Estrada says. He recommends applying a premium flexible sealant (supplied) to the flashing.

In this home, the central challenge was installing the tubular skylight on the roof through and into the first-floor bathroom, without disturbing the second floor just above it. "We knew we had to go through the side wall of the bathroom, but we had to make sure we had the room in the attic and inside the

adjacent garage to install the tube on the sidewall,” he explains.

To do this, the 90-degree adjustable elbows were needed to be able to make the turn from having the tube travel straight down into the inside of the garage and then shift direction into the bathroom, Estrada says.

“This kind of installation requires more effort and time,” Estrada says, “but the result is that a lower level, even a basement, can be enhanced with more natural light.”

ALL UPS, NO DOWNS, FOR ROOFERS, CLIENTS

For the roofer and the homeowner, the best time to install a tubular skylight (other than at construction) is during a roof replacement or repair. The attic space and roof are open and accessible and can be sealed along with the new roof or repair. But as this case study shows, most retrofits can be easily

completed, too.

“It’s an extra income stream and an incentive for customers to choose your company,” Estrada says. For example, one of Elite’s roofer clients offers a free 10-inch tubular skylight with each signed re-roofing contract.

With these, home- and business-owners light up their homes, garages, offices, hallways, bathrooms and warehouses. And, tubular skylights also offer lifestyle benefits for pets, plants and people, Estrada says. “They’ve been reported to improve a person’s mood, and the owner of this home in Gilbert told us they’ve simply changed his life.” **R**

ABOUT THE AUTHOR: David M. Brown has been writing books and articles for newspapers, magazines, ezines, websites and businesses for many years. A graduate of LaSalle University and Temple University in native Philadelphia,

Pennsylvania, he is the father of two grown children, Shaun and Sheena, who live near him in the Phoenix area.

ARIZONA RESIDENCE GILBERT, ARIZONA

TEAM

TUBULAR SKYLIGHT INSTALLER: Elite Solar Systems, Chandler, Arizona, www.elitesolarsystems.com

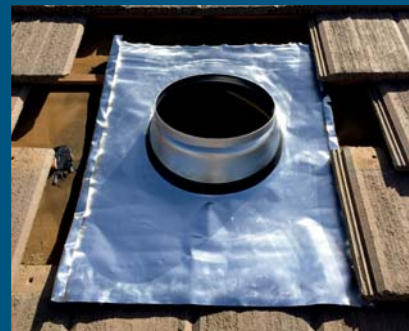
MATERIALS

TUBULAR SKYLIGHTS: 10-inch Elite Tubular Skylight, 13-inch Elite Tubular Skylight, Elite Solar Systems

ATTIC FANS: 20-Watt Elite Solar Attic Fan

Tips for Tubular Skylights

- 1 Follow the step-by-step instruction manual, supplied with the tubular skylight. Call the manufacturer and ask questions, if necessary.
- 2 Use all of the parts included with the tubular skylight kit. “Typically, when a part is left out, it is because the installer or roofer does not know its function,” Estrada says. “Leaving out a part can cause condensation issues, dust or bugs to enter the unit, a rainbow (distracting prism) effect on the interior of the home or other issues down the line.”
- 3 Quality and safety are paramount: Tested and certified products ensure your clients that the units will last through the harshest weather. Check products for certification by the International Code Council (ICC). Secondly, quality products offer UV-protection plastic, which inhibits fading of interiors. And, for installers, find out if the tubular skylights adhere to OSHA fall-protection standards.
- 4 For condensation control, the skylight must breathe, so don’t place sealant between the dome assembly and the roof flashing. This will cause condensation buildup.
- 5 For condensation, dust and bug issues, seal any gaps between the ceiling kit and the light tube as well as the light tube and the flashing with tape or spray-foam insulation, following the manufacturer’s recommendations.
- 6 Offer no-leak guarantees to fully back your work for your customers. As a respected roofing company, you offer warrantied materials and installation. Look for that, too, in the tubular skylights you install.



Once the vertical pitched flashing is sealed and fastened properly on the roof deck, place the aluminum tile flashing over the pitched flashing, with the EPDM rubber facing down toward flashing. Fold the sides of the aluminum tile flashing and make sure flashing goes over the bottom tiles.



The roof install is complete, with the tiles back in place. Notice that you can see the aluminum tile flashing toward the bottom of the tiles. Both the flashing and the aluminum tile flashing can be painted to blend in with roof.

Let There Be Light

Soft, Diffused Natural Light Transforms Eagles Nest Outfitters' Office



VMS Northlights bathe the design and sales work areas in diffused natural light.

For years the staff of Eagles Nest Outfitters (ENO) worked in cramped, dark offices in downtown Asheville, North Carolina. Their second office didn't even have any windows, which isn't ideal for an outdoor equipment company specializing in portable hammocks and camp chairs. So, when it came time to move

from downtown to a location that could accommodate both the office and a warehouse, the company's leaders challenged architects to connect the new space to the outside.

"We're an outdoor company, and we'd all rather be outdoors each and every day," says Lane Nakaji, general manager with ENO. "No one wants to work in darkness."

CHALLENGE: OPENING UP A 1970S BUILDING

The new building was at first not very promising. Located in a business park with views of the Blue Ridge Mountains, it dated back to the 1970s with a red brick exterior and a cedar shake mansard roof.

"It was a rabbit warren of an office," says Charles Krekelberg, the project



manager on the ENO project for Samsel Architects. “They had perimeter windows behind arbor vitae trees, so it was oppressively dark.”

“They wanted to radically transform the space,” Krekelberg adds. “They wanted open spaces for people to collaborate, planters and natural light.”

The building was gutted down to the exterior walls and a new roof constructed. Inside, the maze of hallways and offices became open space. And to solve the lighting problem, architects turned to two VELUX products: VELUX Modular Skylights (VMS) – Northlight Configuration and Fixed Curb Mounted skylights.

The VELUX Modular Skylight system eliminates the need for on-site glazing and can be installed quickly in varying weather conditions, which for this project included freezing rain and snow.

Ridgelights 25-40° have the classic A-frame look: two rows of self-supporting skylights mounted on standard steel profiles. The skylight installer, JP Ross & Co., installed 320 Ridgelight modules on the Burkert building configured into four rows over the center of the manufacturing space.

“We only turn the lights on when it’s raining or very cloudy,” says Allison Ettinger, ENO’s credit manager. “Natural light is generally more relaxing. It’s definitely softer than turning on the electric lights.”

The skylight units are all fixed with dimensions of 39.4 inches in width by 47.2 inches in height and high-efficiency

glazing. The LowE3, argon-filled dual paned glazing assembly consists of a high-strength outer tempered pane and an inner laminated pane. The system is equipped with electrically controlled shades, which employees say are only drawn on weekends to optimize the building’s energy efficiency.

The office also has nine VELUX Fixed Curb Mount skylights (FCM 2246) with LowE3, laminated glazing and solar-powered remote controlled shades installed over offices, hallways and conference rooms. The building is topped by a 24-gauge standing seam metal roof system manufactured by Englert Inc., which was installed by DLV Roofing.

QUICK INSTALLATION

Like other VMS configurations, the Northlight system arrives on the job-site palletized for easy staging. Its plug-and-play installation method takes less time than custom, site-glazed skylights. It took the crew from JP Ross & Co. one week to complete the installation.

“We focus only on skylight design, sales and installation and have over 20 years of experience,” notes Jason Peterson, project manager with JP Ross & Co. “The only difference with the Northlight was that the panels were installed vertically.”

A vapor barrier wraps around the skylight modules and lines the interior roof rough opening for an airtight seal between the skylight modules and the

building, creating a very energy-efficient building envelope.

Natural light bathes the sales department and product development area throughout the day, and employees are happy to have it. “When we don’t have that glare from artificial lights, it creates a calm,” says Julia Schell, manager of e-commerce at ENO. “Things get hectic round here. Sometimes when we come in after the weekend and the blinds have been closed, we forget and turn the lights on and it’s like ‘What’s wrong?’”

The Northlights also give the building’s exterior a unique look. “The owner wanted the skylights to be as much of an exterior expression of the design as an interior lighting device,” Krekelberg says. “They truly liked the look of the skylights and wanted them on the roof.” **R**

EAGLES NEST OUTFITTERS ASHEVILLE, NORTH CAROLINA

TEAM

ARCHITECTURE/DESIGN: Samsel Architects, Asheville, North Carolina, <https://samselarchitects.com>

GENERAL CONTRACTOR: Heritage Restoration & Construction, Asheville, North Carolina, www.heritage-restoration.com

ROOFING CONTRACTOR: DLV Roofing, Asheville, North Carolina, www.dlvroofing.com

SKYLIGHT INSTALLER: JP Ross & Co., Charlotte, North Carolina, www.jprossskylights.com

MATERIALS

SKYLIGHTS: VELUX Modular Skylight system – Northlight Configuration and Fixed Curb Mounted skylights, VELUX, www.veluxusa.com

METAL ROOF: 24-gauge mechanically fastened standing seam roof system in Charcoal Gray, Englert Inc., www.englertinc.com



Inviting Outdoor Space

Innovative Solution Serves Up Perfect Blend of Color and Strength for Restaurant

Located in Oklahoma City's Plaza District, Mexican Radio specializes in two things: tacos and cold drinks. The newly opened concept restaurant conceived by A Good Egg Dining Group occupies a lively, fun space.

The property's major restoration includes a covered outdoor dining area.

There, a translucent vaulted canopy crowns the space in a swirl of bright colors. Inspired by a colorful fine art glass installation, the owners and architect collaborated to find the right solution.

The canopy adds more than just a bright accent for diners: It creates an additional dining space that protects diners from the elements and makes the space useful nearly year round.

During the renovation, the outdoor dining area was demolished down to the existing steel tube structure. Kingspan Light + Air manufactured a fully engineered, customized and pre-fabricated vaulted canopy to fit the existing steel structure. Kingspan provided a clear anodized aluminum structure, and six unique glazing colors designed to bring the owner's vision to life.



A barrel-vaulted canopy made up of Pentaglas panels in a rainbow of hues lends a festive flavor to the outdoor dining area at Mexican Radio Restaurant.



STYLE AND SUBSTANCE, ON BUDGET

"We knew colored glass wouldn't work on this budget," says Zack Woods, AIA, with Gardner Architects. "But with the Kingspan product, we could get the bright tones of color the customer wanted, and we could cover more square footage, spanning a full patio instead of a very small area."

Mindful of the project budget, Kingspan provided a variety of color panels with no high setup costs. Non-standard "off the rack" hues lend a lush, custom-job look. "The tones of colors used give this a unique feel and kept

the budget on track," Zack says.

The canopy provides a durable, inviting and comfortable venue for diners. Because one end of the canopy is open to the street and the other is connected to the building, the space is largely sheltered from the elements. Ceiling and attic fans circulate air and pull heat out in the warm summer months; patio heaters create a cozy space in the winter.

Providing more than just a comfortable environment, the Kingspan Light + Air Pentaglas canopy system is built to last. The system has undergone rigorous 10-year testing to ensure both

MEXICAN RADIO RESTAURANT OKLAHOMA CITY, OKLAHOMA

TEAM

ARCHITECT: Gardner Architects, Oklahoma City, Oklahoma, <https://gardner.studio>

CONTRACTOR: J&R Windows, Goldsby, Oklahoma, <http://www.jandrwindows.com>

MATERIALS

BARREL CANOPY: 12mm Pentaglas in six colors, glazing, purlins and rafters, Kingspan Light + Air, www.kingspanlightandair.us

color stability and impact durability over time. Should the need arise, the unique KLA system allows spot replacement of single panels, so the entire canopy does not have to be replaced. **R**

Re-Roofing a Frank Lloyd Wright Home

Single-Width Shake from DaVinci Roofscapes in the natural Aged Cedar color was chosen to restore the original appearance to the home's exterior.

Frank Lloyd Wright. Just the name brings to mind images of beautiful homes. So, when the team at Allrite Home & Remodeling had the opportunity to work on one of Wright's creations, they jumped at the chance. A year later, the newly-added DaVinci Single-Width Shake roof brought the team industry recognition along with praise from Frank Lloyd Wright enthusiasts.

The home, on the shore of Lake Michigan, is located in Racine, Wisconsin. It was designed and built in 1905 by Frank Lloyd Wright for attorney Thomas P. Hardy. The stucco finished front, intricately detailed windows and breathtaking water-front views make this a home like no other in the neighborhood.

Listed on the National Register of Historic Places in Wisconsin, the Thomas P. Hardy House has changed hands seven times. In 2012, the then-homeowner began working to restore the home to its former beauty.

The exterior was repainted to the original terracotta color. The foundation was jacked up and rotting beams were replaced. And, original light fixtures and pocket doors were all restored. As the restoration progressed, Allrite Home & Remodeling was brought in by the home's newest owner to tackle the roof.

SELECTING THE RIGHT SHAKE ROOF

"The homeowner had three very important priorities for this historic renovation project," says Randy Miller, owner of Allrite Home & Remodeling. "First, they wanted cedar shake, just as Frank Lloyd Wright had intended for the roof. However, they wanted to take advantage of modern advances in materials. Second, they wanted to be environmentally responsible. And third, they wanted the roof selection to please Frank Lloyd Wright loyalists."

Many years prior, previous owners

had asphalt roofing installed on the home, which was not consistent with Frank Lloyd Wright's style. After reviewing a variety of products, the current owners decided on a composite shingle that simulates a cedar shake roof.

"The DaVinci product has the right quality, texture, color and warranty

that the owners wanted," says Miller. "The Single-Width Shake in the natural Aged Cedar coloring brought back the original appearance to the home exterior. As an added bonus, the composite shake shingle has a longer lifespan and will require far less maintenance."

Soon after the team started removing the old roof, they noticed significant

FIX ROOF LEAKS

THE **ONLY** LIQUID EPDM RUBBER IN THE WORLD!

Not Sold In Stores




WHY LIQUID EPDM?

- Waterproofs immediately upon application and will take ponding water 365 days a year
- Liquid EPDM Rubber forms a 100% seamless membrane
- Withstands temperatures from 40° to 300°F
- One coat application. **SAVE PRODUCT AND LABOR COSTS!**

ALSO CHOOSE FROM OUR

- Aromatic EnergyMax
- Butyl Rubber
- Bonding Primers
- Rust Inhibitors



A SOLUTION FOR ALL ROOF NEEDS.

DON'T RE-ROOF RE-COAT AND **SAVE THOUSANDS!**



EPDM

coatings



CALL FOR VOLUME PRICING | 855-281-0940



fire damage to the rafters above the kitchen area. Apparently a fire in the early 1960s extensively damaged the inner structure of the roof.

"The current owners had no idea so much harm had occurred," says Miller. "We proceeded to replace the damaged wood. That was important so the

home will be structurally sound and able to support the new roof."

According to Miller, safety was also a concern. The home is located on a steep bluff overlooking Lake Michigan. High winds were a challenge as the team worked to keep materials, tools and technicians secure.

Another challenge was the location of the home on a busy road. There was also a walled-in yard. This meant there was not a good staging location for materials or a dumpster. They were able to squeeze a dumpster onto the property, but neither the placement nor the access was ideal.

FINISHING TOUCHES

After the installation of the composite shake roofing came the finishing touch: copper accents. The area around the chimney had previously been plain brown flashing. It was decided to update it with copper flashing that will continue to add character to the home as it ages and patinas.

"Installing the copper without it rippling required our expert technicians to be extremely precise as they worked," says Miller. "Then there was the added pressure of knowing that every step of this project was being scrutinized."

"There are Frank Lloyd Wright fans and enthusiasts both online and in our

**Personalized Solutions,
Personalized Service.**

As the leading manufacturer of high-performance building envelope solutions, Garland has been providing innovative solutions for more than 120 years.



High-Performance Solutions:

- Low-Slope Roofs
- Metal Roofs & Walls
- Roof Restoration & Reflective Coatings
- Vegetative & Sustainable Options
- Plaza Deck & Floor Coatings
- Adhesives & Accessories

High-Quality Services:

- Trained Local Representatives
- Manufacturer & Engineering Support
- Roof & Building Exterior Inspections
- Budget Assistance
- Comprehensive Building Asset Management
- On-Demand Maintenance & Repair Tracking

www.garlandco.com

CIRCLE NO. 56 / RoofingMagazine.com

35 YEAR MASTER FLASH®
THE ONLY ICC FLASHING OF ITS KIND,
Listed with the Florida & California Building Codes.
Sealing pipes, cables, conduit, wire, solar, refrigeration lines, venting, etc.,.



**14 Sizes available
Black EPDM
Pipe Range: 1/8" to 28-1/2"
Base Range: 2-1/4" to 34"**

 **PH: (858) - 513-4350 FAX: (858) - 513-4305**
www.aztecwasher.com • info@aztecwasher.com

CIRCLE NO. 57 / RoofingMagazine.com



Copper accents were added, including copper flashing around the chimney.

community who watched our progress closely,” Miller continues. “They wanted to make sure every step of the way that we honored the original design of the home.”

For their successful efforts, the team at Allrite Home & Remodeling won an award in the 2019 National

Association of the Remodeling Industry (NARI) Milwaukee Remodeler of the Year Awards competition. The home received a Silver Award in the category of “Residential Historical Renovation/Restoration.”

“Our company has installed many DaVinci composite roofs during the

past 15 years,” says Miller. “We’re proud of all of them. However, this project was a true labor of love. We’ve now added our mark to a beloved historical home in our community. Our entire team takes great satisfaction in knowing we were able to help bring a longer life to this Frank Lloyd Wright home.” **R**

THOMAS P. HARDY HOUSE RACINE, WISCONSIN

TEAM

ROOFING CONTRACTOR: Allrite Home & Remodeling, Milwaukee, Wisconsin, <https://allriteremodeling.com>

MATERIALS

COMPOSITE SHINGLES: Single-Width Shake, DaVinci Roofscapes, www.davinciroofscapes.com

Is it time to
REVIVE & RECLAD
your building exterior?



Before



After



R2™ (Revive & Reclad) is a customized inclusive engineering services package designed to help building owners, architects, or any other decision maker choose the proper re-cladding solution for their specific building based on existing conditions.

IMETCO
INNOVATIVE METALS COMPANY, INC.

Learn more at
imetco.com/r2/

© 2020 Innovative Metals Company, Inc.

We have cash available.

Time-tested roofing and sheet metal company has cash to purchase profitable roofing and sheet metal business with sales over \$5 million. Purchase will be tailored to suit seller. Responses will be kept confidential.

E-mail: acquisition.pr@gmail.com

Reference ad #2020B.

Skylight Safety and Fall Protection



THE IMPORTANCE of fall protection for employees working at heights needs little introduction: falls remain one of the leading causes of workplace injuries and fatalities in general industry and construction. One fall hazard in particular can be especially dangerous to construction workers on roofing jobsites: skylights.

Skylights are a popular feature in modern architecture, which tends to emphasize natural light and an unobstructed view of the sky. Skylights are increasingly becoming a part of the rooftop designs of homes and commercial buildings of all kinds, particularly in high-end construction.

Because of their prevalence, skylight hazards for construction workers have earned special attention from regulators and advocacy groups. A recent National Institute for Occupational Safety and Health (NIOSH) alert from the Centers for Disease Control cites hundreds of lost-time injuries and

dozens of fatalities caused by workers falling through skylights, existing roof openings, and existing floor openings. Most of these injuries occurred in the construction industry, according to the Bureau of Labor Statistics.

The report highlights the dangers of skylight-related falls during snow removal, when the skylights may be covered with snow and their positions can become difficult to judge. The report also cited several cases of falls related to skylights that were unguarded or unsecured during construction or repairs on a roof.

The Occupational Safety and Health Administration (OSHA) has developed standards intended to safeguard workers—particularly in construction and general industry—who operate near skylights and roof and floor openings. OSHA 29 CFR 1926.501(b)(4) states: “Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more

than 6 feet (1.8 m) above lower levels, by personal fall arrest systems, covers, or guardrail systems erected around such holes.”

Thankfully there are many options for protecting workers from the fall hazards associated with skylights. Let’s consider each of the types of solutions that OSHA recommends.

PERSONAL FALL ARREST SYSTEMS

A personal fall arrest system should include a full body harness; connectors such as a self-retracting lifeline (SRL), shock-absorbing lanyard, or vertical lifeline assembly; and an appropriate anchor point on the roof. There are permanent and temporary options when it comes to roof anchors. Which you choose will depend on whether you intend to install the anchor fixture permanently – if you own the building, for example – or simply need an anchor temporarily for a short-term job. Permanent anchors can be installed in wood, steel, and concrete surfaces, whereas reusable anchors can be installed with screws or nails and then removed with minimal damage to the roof.

There are several good temporary options for fall protection anchors in rooftop applications that do not puncture the roof’s surface, including roof carts and mobile fall protection units. A roof cart can be pulled around the roof’s surface to provide anchorage to workers where it is needed; these typically use friction or puncture the roof in order to arrest a fall. Mobile fall protection units include road-towable, free-standing systems that can provide overhead tie-off for multiple workers up to 34 feet in the air without damaging the roof’s surface even in the event of a fall.

COVERS

Covers must meet the criteria set out in OSHA Standard 1926.502(i)(2): “covers shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.” This means that a cover



Options for protecting workers from the fall hazards associated with skylights include guardrails and skylight covers.



Temporary fall protection options include towable free-standing systems that can provide overhead tie-off for multiple workers

Having adequate personal fall arrest equipment, covers, and guardrails — or a combination of these — in place whenever a worker ascends to the roof to complete construction or maintenance work will go a long way in keeping your team safe.

must be able to support the weight of all workers who may be using the cover, plus all their gear and tools, times two. Covers need to be clearly marked either by color coding or with a word such as “HOLE” or “COVER.” A cover also must be secured in such a way that wind, equipment, or the employees are not able to move it.

GUARDRAILS

Guardrails are a great way to partition off areas where skylights present a fall risk, especially for rooftops where snow cover may obscure a worker’s view of the hazardous area. Guardrails are classified as hazard barriers, acting as a physical barrier between the worker and the fall hazard. Portable,

free-standing, and non-penetrating safety rail systems can be used as flat-roof fall protection along skylights and roof perimeters. These systems are easy to install and allow work crews the versatility to work around the existing infrastructure.

In addition to preparing the jobsite with appropriate covers or guardrails and outfitting workers with the necessary personal fall arrest systems, there are several general steps employers can take to identify and mitigate the risk of falls through skylights or roof and floor openings:

- Assign a Competent Person to inspect the worksite before work begins to identify fall hazards and provide recommendations on what fall prevention system(s) workers should use for the job.
- Conduct periodic inspections to ensure workers are using their fall protection equipment consistently and correctly, and that fall prevention systems such as covers and guardrails are being properly used and maintained.
- Train each worker who may be asked to work on a rooftop to enable them to recognize fall hazards and become familiar with the procedures and equipment needed to minimize their risks.

Having adequate personal fall arrest equipment, covers, and guardrails — or a combination of these — in place whenever a worker ascends to the roof to complete construction or maintenance work will go a long way in keeping your team safe. You can go further by training your team and making sure the equipment and processes that are provided are being used consistently and correctly. A little extra effort will help to save lives and prevent injuries. **R**

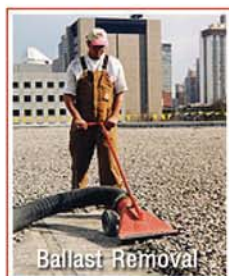
ABOUT THE AUTHOR: *David Ivey is the Product Engineering Manager for Malta Dynamics, where he oversees the engineering of all mobile fall protection and custom fall protection systems. For more information or if you have specific questions about OSHA compliance of fall protection systems, contact divey@maltdynamics.com.*

COMPANY	PHONE NUMBER	WEB ADDRESS	CIRCLE NO.	PAGE
Ace Clamp	(860) 479-0876	www.PMCInd.com	9	14
Adler Vac	(866) 766-3822	www.AdlerVac.com	40	40
Advanced Architectural Sheet Metal	(231) 861-0050	www.AdvArchSM.com	12	18
All Weather Insulated Panels	(707) 685-5774	www.AWIPanels.com	31	28-29
Aztec Washer	(800) 388-6134	www.AztecWasher.com	57	78
Bison Innovative Products	(800) 333-4234	www.BisonIP.com	44	44
BloBlades HVLS Fans	(833) Blo-Fans	www.BloBlades.com	51	53
Building Products Development	(866) 766-3254	www.BPDusa.com	38	38
Carlisle CRFC & URB	(800) 479-6832	www.CarlisleSyntec.com	30	27
Chem Link	(800) 826-1681	www.Chemlink.com	28	25
Cotney Construction Law	(813) 579-3278	www.CotneyCL.com	50	51
DaVinci Roofscapes	(800) 328-4624	www.DaVinciRoofscapes.com	33	33
Design Components	(800) 868-9910	www.DesignComponents.com	6	9
Dryer Jack	(561) 743-8696	www.DryerJack.com	35	36
Dynamic Fastener	(800) 821-5448	www.DynamicFastener.com	18/61	21/84
EPDM Coatings	(610) 298-1989	www.EPDMCoatings.com	55	77
Equipter	(717) 661-3591	www.Equipter.com	5	6
Flex Roofing Systems	(800) 969-0108	www.FlexRoofingSystems.com	34	35
GAF	(973) 628-3000	www.GAF.com	7	11
Garland Industries	(800) 321-9336	www.GarlandCo.com	56	78
G.A.P. Roofing	(800) 880-9808	www.GAPRoofing.us	36	37
GSSI	(800) 288-9489	www.GSSISealants.com	8	13
IMETCO	(800) 646-3826	www.IMETCO.com	58	79
IR Analyzers	(800) 879-1964	www.IRAnalyzers.com	48	48
K & M Sheet Metal	(919) 544-8887	www.KMSheetMetal.com	54	61
LiveRoof	(800) 875-1392	www.LiveRoof.com	32	31
LMCurbs	(800) 284-1412	www.LMCurbs.com	37	38
Marathon Drains	(800) 824-8424	www.MarathonDrains.com	23	23
Metal Plus LLC	(860) 379-1327	www.MetalPlusLLC.com	13	19
MFM Building Products	(740) 622-2645	www.MFMBP.com	41	41
Mule-Hide Products Co. Inc.	(800) 786-1492	www.MuleHide.com	46	46
NB Handy	(434) 847-2498	www.NBHandy.com	39	39
Panther East	(800) 620-7928	www.PantherEast.com	1	2
Petersen	(888) 942-2636	www.PAC-CLAD.com	3	4
Polyglass USA, Inc.	(954) 233-1239	www.Polyglass.us	2	3
Quartix	(855) 913-6663	www.Quartix.com	49	49
RK Hydrovac	(800) 762-8361	www.RKHydrovac.com	60	83
Roof Hugger	(800) 771-1711	www.RoofHugger.com	43	44
S-5!	(888) 825-3432	www.S-5.com	45	45
Soprema	(330) 331-3062	www.Soprema.us	4	5
Swenson Shear	(877) 588-8748	www.SwensonShear.com	53	55
Triad Corrugated Metal	(866) 625-9727	www.TriadMetalRoof.com	52	54
TruFast	(800) 443-9602	www.Trufast.com	42	43
Ventco	(833) 300-9515	www.Profilevent.com	11	17
Versico	(800) 992-7663	www.Versico.com	47	47
Zimmerman Metals	(303) 294-0180	www.ZimmermanMetals.com	10	15

Setting the Standard in Roof Preparation Services



Serving the Roofing Industry for over 33 years!



Dedicated to the Roofing Industry with a full line of Roof Vacuuming Services:

- ◆ Ballast Removal
- ◆ One Pass Dry Vacuum
- ◆ Wet Vacuum
- ◆ Pneumatic Ballasting

We provide the most reliable roof preparation in the business. RK's experience, technology, and timeliness permit us to handle numerous projects at a time and we are available 364 days a year. RK is setting the standard in roof vacuuming services.



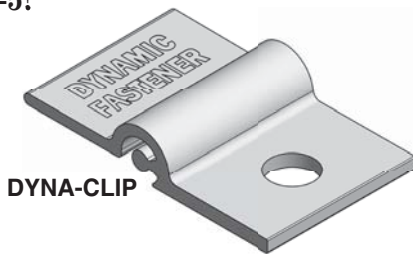
1-888-493-7682
www.rkhydrovac.com

DYNA-GUARD®

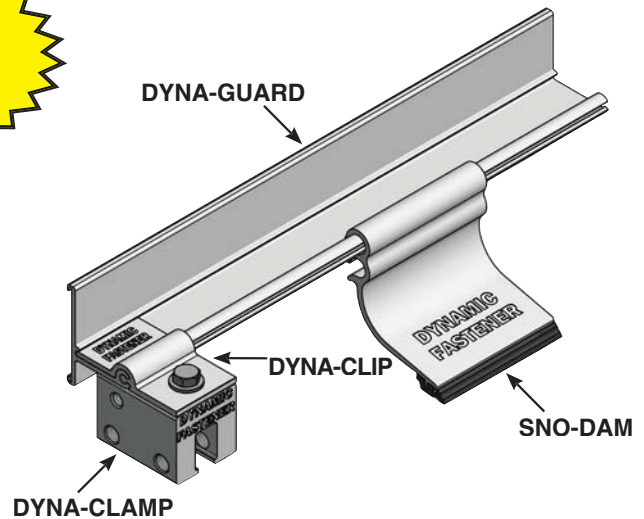
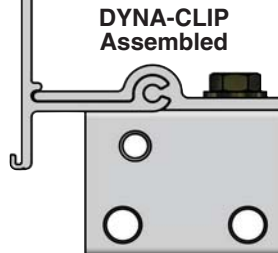


IT IS TIME FOR A CHANGING OF THE GUARD

DYNA-GUARD® is a snow retention system designed to be installed on metal roofs. We are discontinuing the line of **S-5!®** and related products. Please call for our below cost prices on S-5!®



DYNA-GUARD® Snow Retention System installed on a metal roof.



DYNA-CLIPS®

Dyna-Clip is a new component for Dyna-Guard snow retention system

Attention architects / specifiers:

ARCAT® For a CSI 3 part specification and CAD details on DYNA-GUARD products see our page on Arcat

<https://www.arcat.com/arcatcos/cos50/arc50660.html>

<https://www.arcat.com/company/dynamic-fastener-50660/spec>

<https://www.arcat.com/company/dynamic-fastener-50660/cad>



Scan this code with your smart device to visit our ARCAT page.

DYNAMIC FASTENER • 800-821-5448

S-5! is a registered trademark of Metal Roof Innovations Ltd. DYNA-GUARD, DYNA-CLAMP, DYNA-CLIP and SNO-DAM are registered trademarks of Dynamic Fastener Service Inc. DYNA-CORR & DYNA-MOUNTS are trademarks of Dynamic Fastener Service Inc.