

The Only Magazine Dedicated to the Effects of Weather and Climate on Roofing

# ROOFING ELEMENTS

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SUMMER 2023  
Vol. 3, Issue 2

## KEEPING PVC OUT OF LANDFILLS

### FOAM ROOF VS. EF-2 TORNADO

### COVER BOARDS: A CLOSER LOOK

### WHAT TO EXPECT AT FRSA 2023

### POST-SHOW REPORT: IRE 2023

**SEE US AT FRSA**



Booth# 1317



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Booth# 1501



Booth# 935



# Kirsch Building Products

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the wisdom of the world."*

*Lame Deer,  
19th century Lakota leader*

## Eagle Feather Metal Roof Honors Native American Heritage & Culture

Kirsch Building products has a product for every roofing and wall barrier project. Sharkskin Ultra SA® was chosen as the roof and wall underlayment for Montana State University's American Indian Hall, which honors Native American cultures, beliefs, and traditions.

Of special note on the Bozeman, Montana campus building, which has been in the works since 2004, is the metal roof designed as an eagle feather.

Prior to the standing seam roof and metal wall panels being installed, Sharkskin Ultra SA® provided excellent protective qualities, which included long term UV resistance and excellent high wind uplift resistance.

The beautiful eagle feather metal roof detail was designed and specified to last. The roof is comprised of 22-ga. 70% PVDF-coated Galvalume panels that transition from Silver Metallic on the left end to Slate Gray as the middle tone to Dark Bronze on the right end. The Sharkskin Ultra SA® was selected as the roof underlayment beneath the multi-colored feather-shaped metal roof and metal wall panels, as it will provide long term moisture resistance.

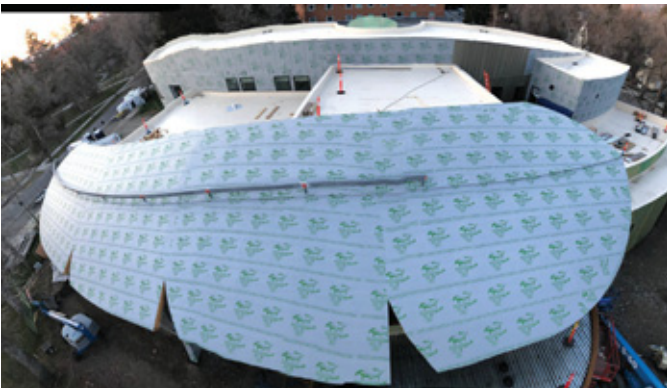
Beneath the standing seam metal roof and wall cladding, Sharkskin Ultra SA® is also providing high-temperature resistance.

In addition to benefitting the roofing system, Sharkskin Ultra SA® has benefits roofers will appreciate. Benefits include its excellent adhesion properties ... it will adhere to the roof and wall substrate, at 10° F and rising, without the need for "primer" which saves the roofer time = labor dollars.

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**Photos, top & middle: Montana State University & Chris Kamman (SkyLab Media House). Bottom: Zach Kilwein, Beartooth Metal Roofing.**

**Metal Roofing Manufacturer:**  
Sheffield Metals International, Sheffield, Ohio

**Roofing Contractor:** Zach Kilwein, Beartooth Metal Roofing, Billings, Montana

# TAKE IN A SHOW OR TWO

**A**s I write this, the FRSA Convention & Expo is only a few weeks away. The 101st event takes place July 12-14 in Kissimmee, Florida. Booth space at the Expo has been sold out for months, which I take as a sign that it's going to be an exciting and worthwhile show for roofers to take in. Beginning on page 19, you'll see a summary of what's going on at the Kissimmee event.

There's not a doubt in my mind that Florida is one of the best locations for Roofing Elements to take in a roofing trade show. It's a valuable opportunity to speak one-on-one with attendees and exhibitors about the impact of the region's extreme weather conditions on various roofing systems. The insights from this and other trade shows serve as inspiration for our editorial coverage. I look forward to bringing you a show review in the Fall edition.

As I stepped back and considered the content in this issue with the purpose of selecting a photo for the cover, I realized we hadn't yet featured a membrane roof on the cover of Roofing Elements. While asphalt and composite shingles are pleasing

to the eye, we wanted something different — something that was eye-catching but would represent this extremely important sector of the roofing industry. It's not low-slope, but I think we've succeeded in bringing you something "different." What you see on the cover is the Rogers Centre in Toronto. The PVC roof stands 282 feet high and is engineered to stand up to 120mph winds. And, when the 460,000 sq. ft. of PVC was replaced, it did not end up in a landfill.

The Chemical Fabrics and Film Association provided us with a special report on the recycling of PVC roof membranes. The report begins on page 26, and you will find the story about the Rogers Centre on page 29.

Until next time — be well.

*Karen*

*PS: If you have the chance, I'd appreciate it if you'd answer a question for me: What's your favorite trade show and why?*

## ATLAS ROOFING GIVES AWAY '82 SILVERADO

**O**n March 8, during the International Roofing Expo in Dallas, Atlas Roofing gave away a fully restored 1982 Chevy Silverado "Asphalt Life" pickup truck.

As part of the company's 40th anniversary celebration in 2022, contractors were able to earn points throughout the year that qualified them for a chance to win a fully refurbished 1982 Chevy Silverado pickup truck featuring custom black leather seats with red-embroidered Atlas logos, a roll bar with KC Lights, and a brand-new Bluetooth stereo.

Points were awarded to contractors for registering Atlas warranties, attending Atlas-sponsored events, reaching AtlasPRO+ and PRO+ Select status(es), interacting with Atlas on social media, creating homeowner testimonials, and purchasing EagleView or HailTrace reports via the AtlasPRO Portal.



Atlas selected 10 finalists who received an all-expenses-paid trip to IRE, where they played a "Price Is Right"-style game to see who would win the truck. Ultimately, Sondra and Don Davis, owners of All Things Roofing & Restoration in Colorado Springs, Colorado, won the Asphalt Life Truck Giveaway. ●



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**ON THE COVER:**  
When Toronto's Rogers Centre received a new PVC roof membrane, the old PVC was recycled.

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**Gary Reichert,  
Publisher, Shield Wall Media**

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# RICOWI REPORT

## SPRING MEETING HELD IN HOUSTON

From March 1-3, 2023, the Roofing Industry Committee on Weather Issues (RICOWI, Inc.) held its annual spring seminar in Houston, Texas, at the Marriott Marquis hotel and conference rooms.

On the evening of Wednesday, March 1, the RICOWI Foundation Board members met. The RICOWI Foundation, formed in 2019 as a 501-c(3) nonprofit organization. The purpose of the foundation is to fund projects that relate to the betterment of the roofing industry.

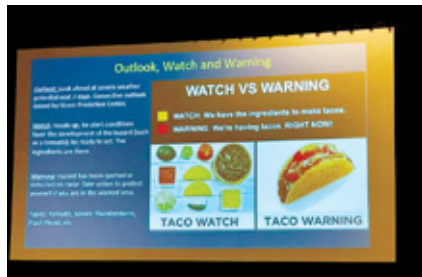
Thursday, March 2, was the educational seminar day. Presentations included; Designing Low Slope Roof Drainage for Severe Rain Events/ Climate Change by Robert Hemphill with Aquatech Consultancy, Inc., Basic Skywarn Severe Thunderstorm Hazards and Spotting by Dan Reilly with the National Oceanic and Atmospheric Administration (NOAA), Roofing Impacts of the New Tornado Load Requirements in ASCE 7-22 and the 2024 IBC by Marc Levitan with the National Institute for Standards and Technology (NIST), and RICOWI Hurricane Ian Damage Investigations by David Roodvoets, RICOWI Storm Investigation Program (SIP) Program Coordinator. Following the presentations, the RICOWI, Inc. Board of Directors met. To wrap up the day with a little fun, the RICOWI Foundation held a fund-raiser reception. Foundation Chair, Annette Sindar and Executive Director, Joan Cook put on a fun evening of games, food, raffles, and networking. An anonymous donation of rare bourbon and fine wine brought in over \$1,000 for the raffle of those items.



*Seminar attendees enjoying the educational presentations.* PHOTOS COURTESY OF RICOWI.



*Speaker Dan Reilly with NOAA.*



*An entertaining slide from Dan Reilly's presentation on thunderstorm hazards and spotting.*



*RICOWI members John Kouba, Joan Cook, Shelly Higgins and Mark Stevens enjoy themselves a game of giant connect four and giant Jenga at the RICOWI Foundation Fundraiser reception.*

Games such as giant Jenga and connect four kept the attendees laughing and perhaps, brought out the competitor of a few.

On Friday, March 3, committee meetings were held. The committees that met included Underlayment Committee, Code Committee, Strategic Planning Committee, Conference Committee, Membership, Education, and Promotion (MEP) Committee. Following the committee meetings, RICOWI Annual General Meeting and RICOWI Membership Meeting took place.

During the Annual General Meeting, elections of officers took place for Secretary/Treasurer and Director at Large. Board members, Tony Hyatt (CSSB) was elected as Secretary/

Treasurer and Larry Peters (CDA) as Director at Large.

RICOWI would like to thank the sponsors of the event. Platinum Circle Sponsors included Duro-Last, Malarkey Roofing Products, and Westlake Royal Roofing Solutions. Gold Circle Sponsor S-5!. Silver Circle Sponsors; ISANTA, NRDC, NCFI Polyurethanes. Bronze Circle Sponsor SDII Global. Event Supporter Insight Engineering. Thank you for your support!

RICOWI will hold its annual fall seminar in Rock Hill, South Carolina, from October 10-12, 2023, at the IBHS Research Center. A tour of the IBHS research center will take place. ●

# Resilient Durable Metal



Photo: horttonphoto.com

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-Michael Matula, project manager, Bignell Watkins Hasser Architects



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# TECH REPORT

## EFFECTS OF ROOF COLOR AND SOLAR REFLECTANCE ON THE ACCUMULATION OF MOISTURE IN MEMBRANE ROOF SYSTEMS

By The Asphalt Roofing Manufacturers Association (ARMA)

**Editor's Note:** *The Asphalt Roofing Manufacturers Association (ARMA) has prepared many technical reports to aid roofers in the proper installation of various asphalt roofing systems. ARMA [<https://www.asphaltroofing.org/>] has granted permission to publish this report for the benefit of roofers.*

### INTRODUCTION

Moisture content within a roofing assembly may fluctuate significantly over the life of the roof depending on a variety of factors including, but not limited to moisture in the existing roof assembly at time of installation; interior and exterior temperatures; interior and exterior humidity conditions; deck type; under-deck ventilation; amount and location of insulation; and presence of vapor retarders/air barriers in the roof assembly.

The potential for condensation and moisture buildup in a membrane roof system from interior moisture sources has always been and should continue to be an issue that must be accounted for in the roof system design. Furthermore, the color, solar reflectance, and thermal emittance of the roof surface can affect a roof system's drying potential and, therefore, the buildup of moisture in a roof system.

Moisture buildup in the roof assembly can result in deck deterioration, including rotting wood decks and corrosion of metal decks, growth of mold and other organisms, deterioration and reduction



*Moisture buildup in the roof assembly can result in deck deterioration.*

of the effectiveness of thermal insulation, premature failure and deterioration of the roof system, and re-emulsification of certain water-based adhesives.

### EFFECTS OF ROOF COLOR AND REFLECTANCE

The use of light color/reflective roofing is increasing, driven in part by requirements such as the California Building Standards Commission's Title 24, LEED, and local code requirements across the U.S.

Changing the color of a roof membrane from a dark or non-reflective surface to a light color or highly reflective surface both reduces the amount of time the

roof spends in a "drying" mode and the roof temperature when the roof is in a "drying" mode. When there is a source of interior humidity, a light colored or highly reflective roof surface can allow moisture and liquid water to build up in the roof assembly with less opportunity to evaporate or dry. Accumulation of moisture within roof systems can be exacerbated in buildings with elevated humidity or periods of excessive moisture generation and if often not addressed in the design of the building envelope. Some examples of moisture generators include:

- Apartment/condo buildings (showers, cooking, air humidifiers, etc., produce





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high levels of interior moisture)

- Swimming pools, food processing, paper mills, and foundries
- New construction with high interior construction moisture (i.e., from freshly poured concrete, space heaters, wet insulation installation, drywall installation, etc.)
- A compact ceiling assembly where there is typically drywall, batt insulation, roof deck and membrane with little or no insulation above the deck, no vapor retarder or air barrier in the system, and little or no ventilation below the deck
- Reroof conditions where moisture may be present in the existing system

### THINGS TO CONSIDER

In new construction projects, the design professional must evaluate the anticipated interior and exterior conditions and design the proper water vapor control (including considerations for transfer of water vapor via diffusion and air flow). This evaluation should include the necessary calculations to ensure there will not be a condensation problem and a determination regarding whether a vapor retarder, air barrier, or underside roof deck ventilation is necessary. If adequate water vapor control measures cannot be integrated in the design, use of light colored or highly reflective roofing may create condensation issues.

Regarding tear-off, recover, and coating applications, a roofing professional should evaluate the existing roof assembly for signs of water infiltration and/or condensation issues (water stains, wet or deteriorated insulation, deck deterioration, organic growth). The professional should also determine whether there are interior vents (such as bathroom exhaust fans) and, if present, confirm that they are all properly ducted to the outside and in good condition so they do not allow moisture to enter the roof system. A roof design professional or climate control specialist should be consulted to evaluate the existing conditions and to develop a plan to address moisture issues within the existing roof assembly.

Some things that can be done to help control moisture accumulation in the roofing assembly include:

- Remove wet areas within the existing roof system prior to recovering the system with a new assembly
- Provide insulation above the deck to shift the location of the

dew point

- Use at least two layers of insulation with staggered joints to prevent moisture migration through the joints between the insulation boards
- Use an adhered membrane system to minimize moisture migration within the roofing system
- Provide a vapor retarder and/or air barrier to the system at the proper location within the roof assembly and seal roof deck penetrations, terminations, and transitions
- Provide adequate ventilation below the deck to remove moisture before it enters the roofing system (always check with local codes to confirm below-deck venting requirements are met)

Always refer to roofing manufacturer published requirements and consider local building and energy code requirements. Consult a roofing professional when questions and decisions are to be made on condensation and refer to ASHRAE for design guides and standards. ●



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The Marxman Pro also comes standard with an automatic labeling system, which applies custom printed barcodes to each part, allowing you to move, scan, and load projects between slitter and folder with minimal downtime and reduced risk of operator error.

# COMBATING EXTREME WEATHER CONDITIONS

## THE ROOF IS THE FIRST LINE OF DEFENSE

**W**ith the frequency of extreme weather conditions on the rise — from 10+ feet of snow in sunny California to tornadoes ripping through the Midwest and hurricane events in coastal communities — builders are realizing the need to focus more on reinforcing their construction projects against the potential damage severe weather conditions can inflict on homes and businesses.

A roof is the first line of defense against the fury that nature can exhibit when the weather turns awry.

So, what do builders need to be aware of? What are the areas of concern and what can be done to combat extreme weather conditions. Let's dig in.

### DAMAGING WINDS

Wind causes “uplift” (suction) forces on a roof. Certain areas of the roof experience higher uplift forces than others. A metal roof can be tailored to withstand virtually any uplift force desired or mandated by building code authorities up to and including Category-5 hurricane forces and even tornadic wind forces.

This degree of wind resistance is not something that magically happens but is the result of careful design, engineering, testing, attachment and installation details. Unlike many other roofing materials, metal's mechanical properties don't change with age, so it will perform as designed for its decades-long service life.

Of course, the more durable the design,



**Tornado damage caused during Hurricane Wilma. Overall damages caused by Hurricane Wilma totaled \$29 billion.** PHOTO COURTESY OF ROOF HUGGER, LLC.

the more expensive the roof. So, it may not be economically prudent to request design beyond code requirements — but that is a personal/business decision and certainly an option. Engineering standards affecting wind forces have also increased in recent decades, so a roof designed in 1990 may not be compliant with today's standards. Roof durability in a windstorm may also depend upon the building's structural design. (The roof won't survive if the structure to which it is attached collapses.)

According to Monroe County Florida's staff summary post-Hurricane Irma inspections found that “metal roofs fared far better than those roofs covered by asphalt shingles,” and in recent years, county officials even proposed an ordinance to require all new or replacement roofs to be metal. That's a

true testament to the sustainability and durability of metal roofing, particularly in high-wind-prone areas.

The exceptional performance of metal roofing in high-wind conditions is due in part to its structural attachment methods, frequency and interlocking features, reducing the ability of wind to detach the panels. The most important factor is that metal (unlike membranes or asphaltic materials) is an inert material, so its mechanical properties do not diminish with age and exposure to ultraviolet and other environmental conditions. In other words, it will behave as tested throughout its life of 60 years or more.

Standing seam metal roofing has a distinct advantage over other roof types, such as membrane and hot-applied asphaltic roofs because it serves as a “structural” covering, so it can

be engineered to withstand almost any force imposed by wind. When so designed, some structural standing seam profiles can withstand extremely high wind pressure, making metal the roof of choice in high-wind regions.

By increasing the frequency of attachment, increasing the gauge thickness of the metal, decreasing the panel width or using external seam clamps like the S-5! WindClamp — or any combination of these together can measurably increase the durability of the roof in a windstorm.

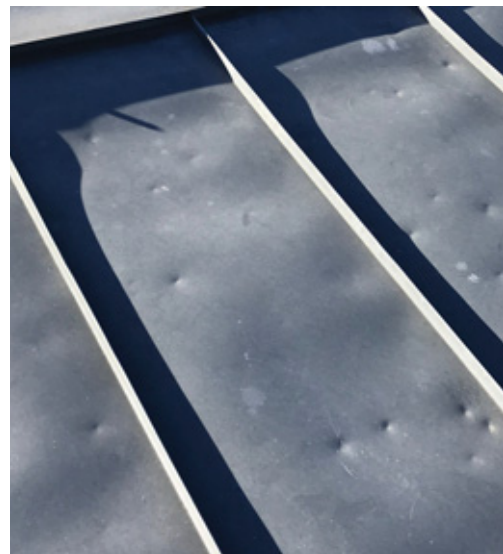
#### HAIL

Building materials absorb hail impact differently. For example, hail may cause small dings in siding, gutters or asphalt shingles, but if it is large and dense

enough — the possibility of a roof puncture becomes greater.

Metal roof material is the best defense against hail. Potential damage depends upon the size and hardness of the hailstones, the type and gauge thickness of metal and the substrate to which it is installed. Steel roofs do not dent from hail as easily as a vehicle, which uses softer grades of steel that can be easily molded into the sleek lines and curves of an automobile.

Generally speaking, up to one-inch hail will barely leave a visible trace on a 24-gauge steel roof. Copper (16 oz.) is another story because it is a softer material. Contrary to the claims of many “storm-chaser” contractors, it is extremely rare that hailstones, even of significant



*Hail damage on standing seam metal roof panels.*  
PHOTO COURTESY OF GREEN KNIGHT® METAL ROOFING.

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**Metal panel buckling caused by improper pinning of long standing seam panels.** PHOTO COURTESY OF ROOF HUGGER, LLC.

size and velocity, hinder the roof's function, or mandate its replacement. Claims to the contrary are almost always ill-founded. A recent research project by the Metal Building Manufacturers Association provides such evidence

## SNOW OR FREEZING RAIN

Snow and freezing rain pose unique challenges for any roof type. Snowpack (the buildup of snow and ice on any roof) can produce significant sliding forces and result in its sudden release, dumping tons of the fallout below the eaves in a matter of seconds. This causes hundreds of millions of dollars in property damage, personal injury and even death each year.

Re-freezing meltwater on a roof can have extremely damaging effects. The incredible force of freezing water is known to break solid steel engine blocks — and can certainly wreak havoc on a roof. When the roof warms from building heat loss, snowpack begins to melt — the meltwater runs down the roof and often refreezes on the eaves. The eaves are as cold as the ambient air temperature. So, when ambient temperature is frigid, ridges of ice (ice dams) can build up leaving ensuing meltwater no means of drainage at the roof edge. Static water pressure above the ice dam may infiltrate the roof panels, potentially causing damage to the exterior walls, insulation

attic and building interior, resulting in watermarks, rot and mold. Left unattended, this problem will perpetuate each time the same conditions exist. Ice dams as thick as 18" or more have been reported

Pitched metal roofs manufactured from material that results in a slippery surface can pose sliding snow, sudden rooftop avalanches and ice hazards in the discharge areas below the eaves. The best way to mitigate snow and ice on a metal roof and reduce liability caused by the avalanche is by installing a scientifically tested and engineered snow retention system specific to the snow loads expected on your particular roof, like the variety of snow guards offered by S-5!

## LIGHTNING & FIRE

If lightning and fire are a concern, metal is the preferred roofing material since it will not spark and ignite into flames during a wildfire or lightning strike. Because metal is non-flammable, the odds of external fire spreading to the building are also reduced.

To suppose that a metal roof "attracts" lightning seems intuitive but is a complete misconception. Lightning finds its way to earth based primarily on building height as compared to its surrounding terrain, structures or trees,

so a metal-roofed home is no more likely to be struck than any other roof.

Most damage (and fires) resulting from lightning strikes are caused by the lightning charge passing through non-conductive materials like wood, masonry or stone on its way to the ground. So, a steel-framed, metal-roofed building is the safest place to be during a lightning storm because any potential strike has an easy, conductive path to the ground. Just keep some distance from that path (stay away from the walls).

## COMBATING EXTREME WEATHER CONDITIONS WITH METAL ROOFING

Metal is considered the most environmentally friendly and sustainable roofing material available, known for its long-lasting performance and reliability. Metal roofs are 100% recyclable and are made with a minimum of 25% recycled material, depending on the type of metal. Metal is also the most durable in instances of extreme weather conditions.

A metal roof can be tailored to withstand virtually any wind uplift force and can be reinforced even post construction; it is resistant to hail damage; it can handle snow and ice with an engineered snow retention system; and because it is non-flammable, it will not spark and ignite into flames during a wildfire or lightning strike.

Manufacturers need to develop products that seek to increase a roof's resilience and address some of the most challenging conditions roofing and exteriors projects may face. S-5! has created a variety of roof mounted solutions to strengthen a metal roof and help manage the challenges presented by extreme weather. ●

**Rob Haddock**, *director of the Metal Roof Advisory Group and CEO and founder of S-5!, is a former contractor, award-winning roof-forensics expert, author, lecturer and building envelope scientist who has worked in various aspects of metal roofing for five decades.*



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# MARKET EXPANSION PASSPORT

## AN EASY WAY TO GET INTO METAL ROOFING

Imagine you own a company that is the largest provider of coil coating, a product that helps metal stand up to the elements in a way that traditional roofing material can't. And yet you see that approximately 87% of homes go with those traditional asphalt shingles anyway. What would you do? Would you think to go to the roofer and help him figure out an easier way to deal with metal roofing? That is the solution Sherwin-Williams came up with; take away the obstacles from the roofer and he will sell more metal roofs.

Bidding roofing has never been simple; first you have to climb onto the roof, measure every angle, get the pitch, go back to the office, create the layout in CAD, then specify materials, and create the estimate. Not only was it time-consuming, this kind of estimate is hard to get right for metal roofing. Everything needs to be exact for lengths and trims, and planning for ridge caps and eaves, closures, hips, and valleys.

In addition, inaccurate bids can be expensive in metal roofing, since a high bid can mean losing the job and a low bid can mean there is little or no profit at the end.

To help make this process easier, Sherwin-Williams solicited the help of other industry experts. They pooled their talents and came up with Roofing Passport. This integration tool is a platform based upon the products of three companies: EagleView, SmartBuild, and RoofingWRX. EagleView provides the data, through the aerial imagery provided by their small planes or alternatively drones. This imagery is accurate down to a fraction of an inch. The plans that RoofingWRX creates are an alternative option for providing the data needed.

SmartBuild has the rules for calculation, which it uses to create cut lists and roofing bids, something SmartBuild was already doing for professionals in the post-frame industry. The program required alterations for the variety of roofing configurations that roofers come across, unlike the simple 4:12 roof that a majority of post frame buildings have typically sported.

The result when using Roofing Passport is precision, saving roofers from inaccurate bids and giving them confidence to bid jobs they might otherwise have passed on.



*Roofing Passport Homepage.* COURTESY OF SHERWIN-WILLIAMS

This doesn't mean that contractors lose the ability to choose when they are specifying materials; they can use the standardized database of metal roofing systems or they can opt into a specific manufacturer's systems for estimates, bids, and purchases.

Roofing Passport has been in the market since 2021 and it has been picking up momentum since late 2022 with hundreds of contractors using it and the number growing into the thousands because contractors can quickly see the benefits.

"The best feature of Roofing Passport is clearly the ability to create a cut list and material list of a specified metal roofing system in minutes, with outputs that can be delivered digitally



to suppliers and crews,” according to Rob Soper, Senior Business Development Manager at EagleView.

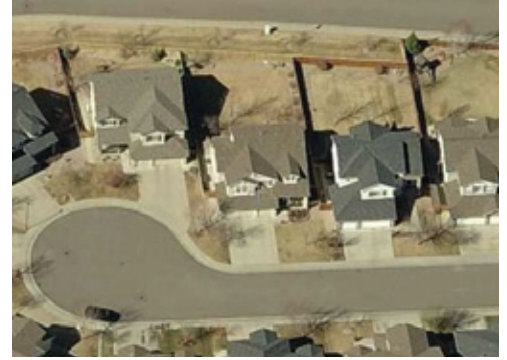
Keith Dietzen of SmartBuild chimes in, “Before, creating a bid could take all day. Now you type in an address and choose the primary panel desired. Click. The bid is created.”

Roofing Passport is Sherwin-Williams’ “Phase 1” in growing the industry, and it appears to be going very well; Dietzen has seen several regional contracting companies who were solely asphalt roofing who have now entered the world of metal roofing. Of course, Sherwin-Williams is not going to stop there.

According to Mark MacDonald of Sherwin-Williams, Phase 2 is MetalVue, a suite of programs to help roofers with sales, labor recruiting, training, and online support to assist them in growing their business, and by extension the industry.



View of the West Side

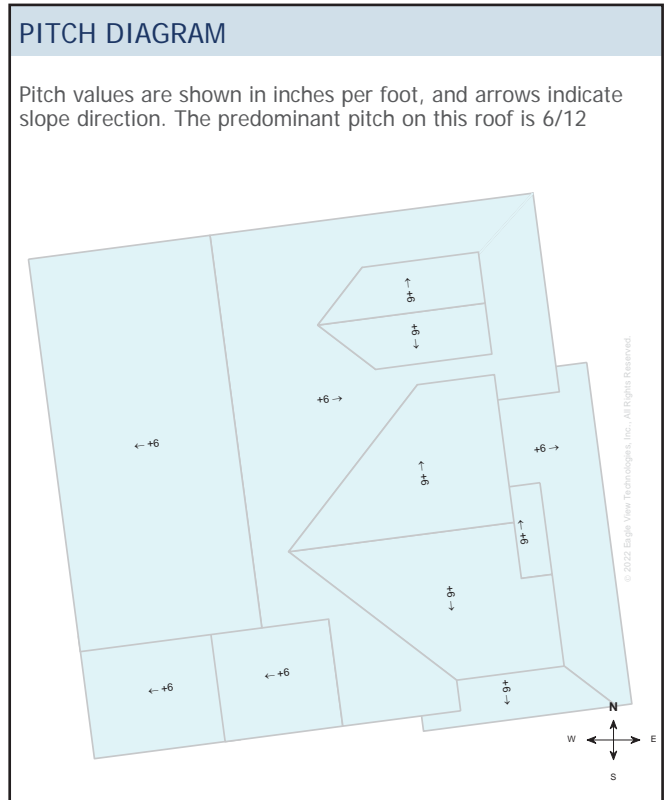
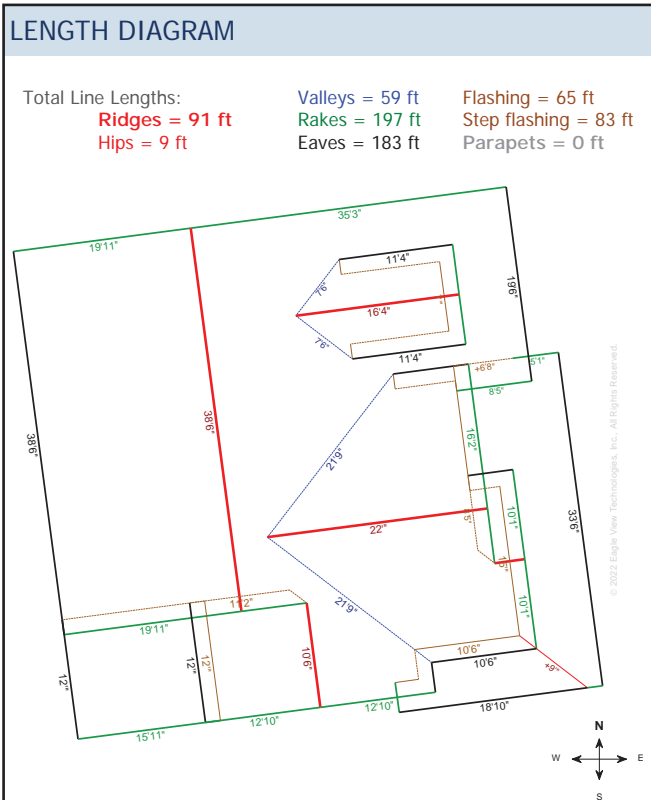


View of the East Side

Metal roofing and its benefits of longevity and recyclability are here to stay, and Roofing Passport can help roofers obtain a ticket to participate in the market. ●



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# SATELLITE IMAGING

## PORTLAND, MAINE'S ROOF DOCTORS USING TECHNOLOGY TO STAY AHEAD OF THE CURVE

Recently the home building industry has been impacted nationwide by supply chain challenges, rising materials costs, and COVID-19 health and safety requirements. In response, one Portland Maine roofing company is using technology to meet the challenge. The Roof Doctors has introduced “satellite imaging technology” to improve the timeliness and accuracy of its roofing quotes.

At the start of the COVID-19 pandemic, owner Danny Dumond and his team of roofers saw this new technology as a way to protect both its customers and team members from exposure to the virus. It had the added bonus of increasing their ability to provide quicker and more accurate quotes. Using satellite imaging technology, this innovative Portland, Maine, roofing contractor and his team of roofers collects the exact measurements of a client’s property without stepping foot on it. A satellite image is captured with 3D imaging technology that accurately shows the measurements needed for a new roof or roof replacement quote.

“It’s amazing to see the impact of this technology on our industry. Today it can be used to drill down to show exactly how many bundles of shingles are required for a job — on a home or business you haven’t yet visited in person. During the height of the pandemic, we used it to help keep everyone safe while continuing to provide homeowners with essential home repairs. Today, our clients love how quick and efficient it is,” said Dumond.

Satellite images are digital photographs taken using satellites, or even drones. These photos can be accessed on Google Earth or similar software. This roofing contractor

uses these images to quickly take precise measurements. Any style of roof can be measured this way and they can look at the roof from various angles to measure everything from the pitch to gables and ridges. They have proven that satellite imaging measurements are just as accurate as a contractor.

The measurements can be completed in a fraction of the time with no imposition for the homeowner.

Apart from COVID safety, satellite imaging also decreased the risk of injury to roofers since they weren’t having the added risk of using ladders or climbing across rooftops trying to get measurements. The satellite images enabled The Roof Doctors to safely



*Satellite imaging can make the estimating process faster and safer.*

see and measure hard to reach areas without potentially putting their workers in jeopardy.

In one review of The Roof Doctors, homeowner David H. expressed his amazement after finding these roofers when “a quote was given to me an hour after I reached out to them.”

The homeowner hired these roofing contractors and was “very pleased with The Roof Doctors.”

Another homeowner also was appreciative of the speed and accuracy of the quote on a complete roof replacement, with the roofing company providing a quote within a day and stating, “The roofing crew was professional, on site when they said they would be, and kept the property protected and clean of debris.”

Satellite imaging is just the latest tool that helps these roofers stay current and pass the savings onto their customers. ●



# CONVENTION & EXPO FOCUS ON EDUCATION

**E**ducation will be front and center during FRSA's 101<sup>st</sup> Annual Convention and the Florida Roofing and Sheet Metal Expo, taking place July 12–14 at Gaylord Palms Resort and Convention Center in Kissimmee.

FRSA's Educational Foundation has slated 31 seminars that focus on many of the topic's contractors need to run their businesses. Florida licensed contractors are mandated by the state to take specific educational hours every two years to keep their licenses active. These credits include seven hours of general (G) and one each of wind mitigation (WMM), laws and rules (L&R), workplace safety (WPS), workers' comp (WC), advanced (ADV) and business practice (BSP).

FRSA takes pride in offering industry-specific seminars that focus on the Florida Building Codes and are taught by industry professionals. These seminars include:

- 2023 Florida Building Code 8th Edition – 2 hours G credit
- FRSA-TRI 7th Edition Tile Manual – 1 hour G credit
- Designing for Performance – Single-Ply Roofing – 1 hour G credit
- FBC Requirements for Underlayment – 1 hour G credit
- Tile Hip and Ridge Installation – 1 hour G credit
- Specialty Shingles – Code and Installation Requirements – 1 hour G credit
- Lightweight Insulating Concrete Roof Decks – 1 hour G credit.

In addition to code-based seminars,



contractors will be able to apply the following seminars to their continuing education requirements:

- Contractor Licensing Issues and Construction Contacts – 1 hour L&R/1 hour BSP
- The OSHA Inspection and Citation Process – 1 hour WPS
- Fall Protection – What Employers Need to Know – 1 hour WPS
- Navigating Material Volatility – 1 hour BSP
- Estimating the Right Way – 1 hour BSP
- Workers' Compensation Coverage and the Perils of PEOs – 1 hour WC
- How to Start or Grow a True Services Department – 1 hour G
- The Impact of the Legalization of

Marijuana on the Construction Industry – 1 hour L&R

- Top 5 Employment Issues in Roofing – 1 hour L&R
- Top 5 Insurance Issues in Roofing – 1 hour L&R
- Wind Mitigation Methods, the Law! – 1 hour WMM
- Reputation Management Legal Issues – 1 hour BSP

Business seminars that aren't approved for continuing education hours but are a necessity for contractors include:

- CCN Contractor Bootcamp – KPI Managing by the Numbers – 6 hours
- KPI Managing by the Numbers – 1 hour
- Service Department Training Revelations – 1 hour



FRSA's 101st Annual Convention and the Florida Roofing and Sheet Metal Expo are taking place July 12-14 at Gaylord Palms Resort and Convention Center in Kissimmee, Florida.

- A Crash Course in Effective Digital Marketing and Lead Optimization – 1 hour

Seminars are scheduled each day prior to the Expo to ensure full participation on the trade show floor.

There are over 240 companies exhibit-

ing at the Expo, providing another great opportunity for contractor education. In addition to every type of roofing system, product and accessory, there are vendors with equipment to make any roofing job more efficient and cost effective. Service companies that provide services like

estimating, marketing, safety training, software, marketing and more. During the two-day event, contractors will have 10 hours to visit exhibitors and learn about new products and services. FRSA encourages contractors to bring their crews to see what's new and exciting in

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their industry.

Although education is a major focus, there's still plenty of time to socialize. Sports tournaments begin on Wednesday, July 12 with fishing at Sunrise Marina in Port Canaveral, golf at Falcon's Fire Golf Course and pistol and clay shooting at Tenoroc Shooting Range in Lakeland. Tournament registrations are limited and the cost increases after June 20, so be sure to book early.

National Women in Roofing meet for an insight-filled session where you'll be able to network with other NWiR members as women in the industry share their career experiences.

Join us at Wreckers Sports Bar on Wednesday evening as we officially kick off the Convention at the Welcome Reception. There will be delicious food stations and an open bar at this free event: a great time to reconnect with other industry professionals.

During the Business Lunch on Thursday, elections for FRSA's Officers and Directors will be held, Life and Honorary Memberships presented along with other industry awards and the Educational Foundation scholarship recipients honored.

On Thursday evening, the S.T.A.R. Awards Reception is held prior to the Officer Installation Dinner, where FRSA Officers for the coming year will be installed, the President's Award and FRSA's highest honor, the Campanella Award, will be presented. After dinner, attendees will head to Wreckers Sports Bar for the After Party, after-dinner drinks and desserts.

FRSA's Convention has always been a family event, so bring the spouse and kids and let them enjoy their own events. The Ladies' Program includes a Mosaics and Mimosas session and a Cake Decorating Workshop with the Gaylord Palms pastry chef.

The Kids' Program events include:

- Mad Science – Wednesday, July 12 – 5:30 pm – 9:00 pm – Kick off the evening by exploring the science behind superhero powers. Watch as a mad scientist makes Superman fly and creates a storm



indoors. Kids jump into the action by making their own ooey-goey slime and end the night with a sweat treat.

- Pool Party & Crafts – Thursday, July 13 – 9:00 am – 3:00pm – Enjoy some fun in the sun and cool off poolside at the Cypress Springs Family Fun Waterpark. This infinity swimming pool located onsite at Gaylord Palms Resort is complete with four slides, a multi-level playground and an outdoor restaurant. The group will show off their artistic abilities with a variety of crafts as they take a break from the sun.

- Extreme Video Game Night – Thursday, July 13 – 5:30 pm – 10:00 pm – The party is coming to us! Climb inside the Supreme Party Machine, a giant truck packed with large TVs, the latest game consoles and a huge variety of video games. Race friends in Mario Kart, build creative structures in Minecraft or show off your dance moves in Just Dance.

- Exploring Florida's Habitat Up Close – Friday, July 14 – 9:00am – 2:00pm – Call all explorers! The Gaylord Palms Resort is filled with adventures just waiting for you. The program will start with a presentation from reptile experts at Gatorland as they discuss some of

Florida's most unique creatures. Yes, there will be an opportunity to hold them with the guidance of Gatorland team members. Then set out on a scavenger hunt that will have you navigating the Gaylord Palms atrium and learning about plants, animals and historical landmarks.

The Foundation Auction, the annual fundraiser for FRSA's Educational and Research Foundation, begins on July 7 and ends on July 14. Generous industry members and partners donate vacation packages, sporting event tickets, gift baskets, TVs, electronics, restaurants gift cards and of course, roofing materials for this event. All proceeds from the Auction benefit scholarships, education and industry research. Anyone can donate or bid electronically on Auction items by visiting [www.floridarooft.com/items](http://www.floridarooft.com/items). The app lets you place automatic bids, notifies you when you've been outbid and allows you to view items without bids. It's a great way to support industry education while getting something for yourself!

For more information or to register for FRSA's Convention and Expo, please visit [www.floridarooft.com](http://www.floridarooft.com). Questions? Please call Zimari at 800-767-3772 ext. 100. ●

# PRICE COMPARISON

## WHAT IS THE COST DIFFERENCE BETWEEN STANDING SEAM AND EXPOSED FASTENER PANELS?

Customers routinely ask us to compare the price difference between metal panels installed with exposed versus concealed fasteners.

While that question may seem very straightforward, many different variables impact the answer. Things like the roof geometry, project location, panel gauge, panel width, and even paint system can impact cost comparisons between the two system types.

With that said, concealed fastener systems (also called standing seam) generally cost approximately 50% more than a comparable exposed fastener system.

### FACTORS IMPACTING THE COST DIFFERENCE

Numerous factors contribute to the roughly 50% cost difference between exposed and concealed fastener panels. To help broaden your understanding, let's unpack a few of the most significant factors.

- **Labor.** Concealed fastener panels



Concealed fastener panels require the construction of solid wooden crates. Packaging is more extensive than through-fastened panels, resulting in higher shipping costs.



Medallion Lok standing seam panels from McElroy Metal grace the roof of Judson University, Elgin, Illinois.

typically cover 16-18" whereas exposed fastener panels routinely cover 36". That simple difference means the panel manufacturer and the installer experience significantly reduced efficiency when working with concealed fastener panels.

- **Transportation Costs.** Exposed fastened panels can be nested and lay flat on the trailer for shipment. This approach maximizes the amount of product that fits on a load. In contrast, standing seam panels ship on their side in wooden crates to ensure they arrive undamaged. As an example of this impact, we can typically ship 40,000 pounds of exposed fastener product on



Exposed fastener panels loaded on a flatbed trailer. Panels nest for more cost-efficient shipping. PHOTOS COURTESY OF MCELROY METAL.

a load, but we might only be able to fit 10,000 pounds of standing seam panels on the same type of trailer.

- **Packaging.** As mentioned previously, packaging requirements vary greatly between the panel styles. Concealed fastener panels require the construction of solid wooden crates. Consequently, part of the 50% estimated upcharge for standing seam style panels is rooted in the additional labor and cost of supplies demanded by the enhanced packaging.

### BENEFITS OF CONCEALED FASTENER SYSTEMS

While the roughly 50% upcharge might feel substantial, standing seam systems offer numerous benefits over an exposed fastener system. Since no exposed fasteners are used to attach the panels, concealed fastener panels provide a lower opportunity for leaks caused by improper fastener installation.

Additionally, while the neoprene washers on the fasteners have greatly improved, ultraviolet rays from the sun can still cause them to shrink and crack over time (generally at least 20 years). When this occurs, water can infiltrate the building. It's important to note that this problem is easily repaired by simply removing and replacing the fasteners. Consequently, if your customer is not opposed to some light maintenance every 20-30 years, the upcharge to move to a concealed fastener panel may not be cost-effective.

Ultimately, it is up to the customer to decide if the 50% upcharge to move from exposed to concealed fastened panels makes sense. ●

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*The primary function of a cover board is to reinforce a roof before overlaying a roofing membrane.*  
PHOTOS COURTESY OF HOLCIM.

# COVER BOARDS

## A TRIED-AND-TRUE SOLUTION FOR A RELIABLE ROOFING SYSTEM

**A** reliable roof is essential for the safety and comfort of any indoor space. However, roofing systems require proper maintenance and a plan in place to ensure long-term resilience. Cover boards are an important component to commercial roofing systems that can provide a solution by helping to extend the lifetime of a roof.

### WHAT IS A COVER BOARD?

Cover boards are thin substrates

installed between the insulation and waterproofing membrane layer(s) of a roofing system. They are also the most cost-effective way to patch a leaky roof and can be installed to reinforce a roof before putting on a new membrane. By providing double-layered insulation, cover boards protect against the typical issues with flat or low-sloped roofs, such as weather damage from precipitation and moisture, or wind. Single-layered insulation often conforms to irregularities in the substrate creating

an uneven, warped surface. Double-layered insulation prevents these issues and is also preferable over metal decks which account for the majority of roof substrates in the United States. This is because, when installed with staggered points, double-layered insulation has the added benefit of increasing the energy efficiency and resiliency attributes of a roofing system. The layer reinforced by a cover board also provides an even, smooth and flat surface, which is easier for construction crews to step on while



working. This protects the roof while installations and other construction work takes place.

Cover boards are lightweight, waterproof and durable, and are built to last for the lifetime of a building. They can also provide supplemental fire resistance and can make a building more resilient in case of a disaster. In terms of material, cover boards are commonly made with gypsum or polyiso. While there are many cover board products available, including traditional gypsum board and polyisocyanurate (or polyiso) technologies, high density (HD) polyiso cover boards are specifically designed to provide a combination of impact resistance and ease of installation. These factors, when coupled with the inherent energy savings of the polyiso, contribute to long-term performance of commercial roofing systems, and make it the optimal material choice for a coverboard.

## COVER BOARDS VS. INSULATION BOARDS

It is important to consider the role of a cover board in a roofing system as it relates to other roofing elements. Cover boards are not a replacement for insulation boards as the two have different functions. The primary function of a cover board is to reinforce a roof before overlaying a roofing membrane, whereas the primary purpose of an insulation board is to insulate the roof. However, cover boards can provide some heat retention to maintain a comfortable temperature inside the building during colder months. Additionally, cover boards are thinner and denser than insulation boards, and are more widely used for commercial applications.

## HISTORY OF COVER BOARDS

Cover boards have notably evolved over the past twenty years, incorporating thoughtful changes that have positively affected the installation process as well



Cover boards contribute to long-term performance of commercial roofing systems.

as the final roofing system. Wood fiber was previously the industry standard material for cover boards. However, this material is porous and therefore susceptible to leakage and warping. By 2005, the new industry standard material had become gypsum, which is commonly used to make cover boards today. The latest technology addresses some of the previous concerns found with wood fiber. Modern cover boards are water resistant and maintain their shape over time even with water exposure. For decades, the NRCA has recommended the use of cover boards instead of plastic foam roof insulation when incorporated into bituminous roof systems.

## NEW TECHNOLOGY AND ADVANCEMENTS

In recent years, technological advancements in roofing materials have allowed for maximized efficiency in roofing installation and maintenance. A significant innovation with regard to roofing materials is polyiso, which is a continuous insulation that minimizes moisture intrusion and maximizes heat retention and fire resilience. Elevate™, formerly Firestone roofing, wall and lining systems, was the first manufacturer to use half-inch polyiso, the same material that is used in Elevate's ISOGARD HD cover board. This cover board contains polyiso and has a high density and

R-value, making it a strong and resilient option. With foam technology that is free of HFCs and has a low global warming potential (GWP), ISOGARD HD is environmentally friendly and provides low temperature R-value performance. Polyiso insulation is stable over a high-temperature range, from about -100°F to 250°F and is compatible with almost all construction adhesives.

A reliable roof that is built to last can help minimize long-term damage and is vital to extending the lifespan of a building. A cover board is a simple and cost-effective solution that contractors should consider for commercial roof maintenance and new roofs alike. ●

*Rachael DeMeio is the Product Manager, Insulation and Wall Systems at Holcim Building Envelope. Elevate is the premier roofing, wall and lining systems brand within the Holcim Building Envelope commercial portfolio.*

*Rachael comes from a consulting background with a strategic focus within the protective coatings industry. She has both a bachelor's in biology and a bachelor's in chemistry from LaRoche University, and an MBA from DeVry University.*





# AVOIDING THE LANDFILL

## THE RECYCLING OF PVC ROOF MEMBRANES

By The Chemical Fabrics and Film Association

### INTRODUCTION

For more than 50 years, durable, highly engineered, light-colored vinyl roofing membranes have cooled and protected buildings in climates around the world. Their long life cycle is a significant contributor to their excellent ratings to the American National Standard for assessing sustainability of single-ply roof membranes.<sup>i</sup> To date PVC materials are the only products to be rated gold or platinum to this standard. But it doesn't stop there. Vinyl, or PVC, is the only commercial roofing material that is being recycled at the end of decades of service life into the feedstock to make new roofing membranes.

PVC has an inherent advantage over many other roofing materials when it comes to recycling. As a thermoplastic, it can readily be heated and reprocessed without loss of key physical properties. Thus it has long been an industry best practice to reintroduce production trimmings and scrap as a raw material into vinyl roofing membrane manufacturing processes. Some roofing manufacturers even collect and process their customers' scrap as well as the general purpose scrap of other vinyl fabricators. In 2021, the member manufacturers of the

Chemical Fabrics & Film Association (CFFA) Vinyl Roofing Division recycled a combined 20.5 million pounds of pre-consumer materials.

Skyrocketing raw material costs, higher landfill tipping fees, legislation to restrict disposal of construction materials, and an architectural community that demands the lightest environmental footprint that can be achieved, have led to the mainstreaming of post-consumer recycling and a vision of the day when specifiers will routinely call for post-consumer content in a roof membrane.

According to the U.S. Environmental Protection Agency, construction and demolition waste from buildings totals an estimated 332 billion pounds annually.<sup>ii</sup> Reroofing generates tremendous quantities of material that can and should be diverted from the waste stream. The vinyl roofing industry is committed to combining existing post-consumer recycling technologies with logistical expertise to limit its contribution to these numbers. In 2021, the member manufacturers of CFFA's Vinyl Roofing Division recycled a combined 758 thousand pounds of membranes at the end of their service lives.



**More than a million pounds of PVC are being converted into new membrane and other non-roofing products annually.** PHOTOS COURTESY OF CFFA.

## POST-CONSUMER VINYL ROOF RECYCLING - WHERE IT ALL BEGAN

In Europe, vinyl roofs have been in use for more than 50 years, and roofing manufacturers there have been recycling retired roofs into other useful products since 1994. That was the year a consortium of companies funded the construction and operation of a facility in Germany to reclaim vinyl membranes at the end of their service lives and return them to the original manufacturers.

Over the years, the material taken back has been used in a variety of applications, including as feedstock in the production of new roofing membranes. Typically incorporated into the back side of the sheet where potential color variations are not a factor, the recovered material can comprise up to 5 percent by weight of the finished product. Reports from the field indicate that, at 20+ years of age, the first membranes made with recycled post-consumer material are performing the same as membranes produced of virgin raw materials.

Today, ROOFCOLLECT, a European Single Ply Waterproofing Association (ESWA) program, coordinates the recovery and processing of post-consumer vinyl roofing membranes. In conjunction with the European Commission, ESWA sets and meets annual targets for post-consumer roof recycling. In 2015, ROOFCOLLECT recycled 7 million pounds of roofing and waterproofing membranes, continuing its commitment to recycle at least 50 percent of collectable, available used roofing membranes.<sup>iii</sup>

In North America, post-consumer recycling of vinyl roof membranes in the U.S. began in 1999. Working in tandem with a vinyl membrane manufacturer, a Massachusetts recycling company produced a highway cold patching material made from old vinyl roofing membranes and other recovered plastics. As state-of-the-art grinding equipment evolved so that it could separate polyester scrim reinforcement and felt backing from the vinyl polymer, retired roofing membrane became feedstock for new products such as roofing walkway pads, commercial-

grade flooring and concrete expansion joints. While the production of walkway pads might consume a few hundred thousand pounds of product a year for any one manufacturer, now more than a million pounds are being converted into new membrane annually as production lines are designed to blend granulated vinyl material with virgin feedstock.

## RECYCLING PROJECTS SHED LIGHT ON OPPORTUNITIES AND CHALLENGES

Total net costs of post-consumer recycling depend on total roofing square footage, the distance the old roof must be shipped to be processed and avoided landfill tipping fees. Yet, the savings in disposal costs and the value of the full range of salvaged materials have generally exceeded the cost of the additional labor, shipping and grinding fees involved to remove and reuse end-of-life vinyl roofing material. Thus, it is possible to actively consider making the commitment to incorporate a recycling strategy into a roof replacement project.

An example of the recycling path being less expensive to the project occurred with Pella Regional Health Center's (Pella, Iowa) expansion for a new obstetrics unit. The project's building team included a roofing membrane manufacturer with a take-back program in which the roofing contractor participated. The used membrane was cut up into 5-foot strips onsite, then rolled and bundled with a portable bander. Full boxes of aged roofing membrane traveled by flatbed trailer to be unloaded at the contractor's facility before being returned to the manufacturer. Taking advantage of this resource, 7,200 pounds of membrane at the end of its useful life was diverted from the landfill. In addition, approximately 120,000 board-feet of expanded polystyrene insulation was removed and taken back to the original insulation manufacturer, and more than 1,000 pounds of metal fastener components were also recycled.



*During removal, PVC should be rolled for easier handling.*



*The most effective means of preparing the old membranes for transport to the recycler appears to be for them to be cut into strips of prescribed widths and lengths and tightly rolled and tack welded before leaving the job site for the recycler.*

With the University of Iowa's (Iowa City, Iowa) Carver-Hawkeye Arena reroofing project, the aged roof was rolled up and sent to a Cedar Rapids recycler to size reduce the material volume via grinding. This helped minimize the volume of material to be shipped back to the membrane manufacturer and the associated freight charges. University officials found this approach a cost-effective choice compared to tipping fees at a landfill, and more environmentally responsible.

All involved parties were also motivated to recycle as much of the complete assembly as practical, including the gravel ballast, the metal flashings and the extruded polystyrene insulation. In the end, 95 percent of the existing materials of the assembly, by weight, were recycled, and the membrane was returned to the manufacturer for use in other membrane products. The contractor estimated a savings of 25 percent versus the traditional disposal costs, even with the additional handling required.

In 2008, a Michigan contractor completed what is believed to be the biggest roof recycling project ever carried out in North America. A 250,000 square

foot automotive facility was re-roofed in Lansing, Michigan. The existing roof, which consisted of two complete roof assemblies (the roof was re-covered once), was removed to the steel deck, and a new mechanically attached vinyl membrane assembly was installed in its place. Both layers of the previous vinyl membrane installations were recycled, diverting close to half a million square feet of material from the landfill.

### **MAKING RECYCLING SUSTAINABLE**

A sustainable recycling strategy requires high quality reclamation in the tear-down, reprocessing efficiency and a ready customer base for the recycled product. The following issues illustrate the scope of elements that are brought to bear in achieving that sustainable strategy.

**Reclamation:** Any long-term approach to reclaiming old roofs will need to address the training of roofing contractors in the logistics of tearing down the roof system for recycling instead of landfill disposal. Slightly more handling is involved, as the contractor must separate

the membrane from other waste materials and prepare it for shipping off the site. Steps include:

- **Preparing and storing the membrane for transport to the recycler** – Although a variety of means are possible, the most effective appears to be for old membranes to be cut into strips of prescribed widths and lengths and tightly rolled and tack welded before leaving the job site for the recycler. As part of the planning process, roofing contractors will need to pre-order gaylord boxes and pallets based on the surface area of the roof, the membrane thickness and the existing assembly construction. Scrap membrane and trimmings from the new installation can be added to the gaylord for recycling as well.
- **Delivering a 'clean' product to the company providing size reduction and grinding services** – For best results, the processor needs to receive a membrane free of foreign materials like stone ballast, metal fasteners and other construction debris.

**Processing:** Many processors can grind reclaimed materials, but for vinyl roofs to be in a form suitable for processing, equipment that can separate such components as felt backing material and the reinforcing polyester matrix is needed.

- **Finding a recycler that can process reinforced material** – Until recently, felt-backed membranes could not be reprocessed and had to be landfilled. Newer equipment can separate the felt, allowing the sheet to be recycled with ease. This equipment can also extract the encapsulated scrim reinforcement from the polymer matrix. The felt backing and scrim can be used as fibrous filler, concrete expansion joints or other applications, and waste-to-energy.

**Identifying the market:** The success of roof recycling, as is the case with all

recycling, is dependent on the will of the participants in the process.

- **Developing a customer base and collection infrastructure** – The North American vinyl roofing manufacturers are committed to and have been developing the infrastructure to establish a viable program for a decade. With a strong desire for sustainable construction in the marketplace and efforts to divert construction waste from landfills, it appears that the time is right for the growth in roof recycling to accelerate.

## KEEPING IT GREEN

Alongside these challenges, the architectural and design communities justifiably continue to push all stakeholders to raise the bar on what can be achieved. Both the U.S. Green Building Council and the Green Building Initiative recognize roof recyclability as an important element in sustainability; each promotes recycling and the use of recycled roofing materials through the LEED and Green Globes voluntary initiatives.

Recycling is also a key element in ANSI/NSF 347, the Sustainability Assessment for Single Ply Roofing Membranes, which incentivizes manufacturers to recycle roofing materials that have been removed from existing buildings. As the first third-party consensus standard for evaluating and certifying the sustainable attributes of single-ply roofing membranes over their entire life cycle, NSF 347 is an important tool to help architects and specifiers make educated decisions about product selection.

Finally, recycling considerations are also embedded in Environmental Product Declarations conducted in accordance with ISO 14025 and validated by an independent third party, as well as cradle-to-gate or cradle-to-grave ISO 14044-conformant life cycle assessments. Both of these stringent reporting requirements provide third-party verified documentation which can be used to reinforce any position on sustainability.

Not a challenge, however, is keeping the firm commitment to evolving post-consumer recycling initiatives by the

Vinyl Roofing Division of the CFFA in an effort to do all it can to limit the environmental burden posed by construction materials. ●

i NSF/ANSI 347-2012 Sustainability Assessment for Single Ply Roofing Membranes

ii *Construction and Demolition Debris Generation in the United States, 2014*, U.S. Environmental Protection Agency, Office of Resource Conservation and Recovery, December 2016

iii *Progress Report 2016, VinylPlus®*, the voluntary sustainable development program of the European PVC industry.



## PVC ROOF KEEPS TORONTO BLUE JAYS A STRONG CONTENDER

**ROOFING CHALLENGE:** The Rogers Centre, home of Major League Baseball's Toronto Blue Jays, is renowned for its early adoption of a fully retractable motorized roof to allow game days in all kinds of weather. Over the course of 30 years, a PVC roofing membrane had competed well with Toronto's Lake Ontario winds, heavy snow buildup and temperature extremes. However, the day the steel roof deck was punctured by a massive ice chunk falling from the nearby CN Tower, the tallest freestanding structure in the Western Hemisphere, Rogers Centre owners knew a roof replacement was their only call. And they wanted to replace the PVC membrane covering 460,000 square feet of surface without depositing it in a landfill.

### PVC (VINYL) SOLUTION

With its dome a signature architectural feature of downtown Toronto's skyline, Rogers Centre needed another engineered roofing system to repeat its winning record for withstanding heavy wind loads of as much as 120 mph. At a height of 282 feet, with unique configuration complexities, slopes and panels adorning its four retractable roof sections, the Sika Sarnafil Engineered System selected could be properly detailed to guarantee precise and watertight sections despite their openings and closings. An engineered PVC roofing system is mechanically attached to the roof deck in a fastening pattern custom designed to bear extreme dynamic loads produced by wind uplift.

Sika Sarnafil administers a roof "take back" program through which roofing contractors can help the manufacturer reclaim used PVC material that will find new life in roof membranes or walkways. The program has recycled more than 80,000,000 pounds of processed material; it is also third-party verified in sustainability attributes for promoting increased use of recycled content and fostering partnerships to make take-back programs easier. Because the 30-year-old membrane was largely in excellent condition, it made an ideal candidate for recycling. In addition, some of the existing insulation was still dry and could be kept in place – even as the PVC membrane removed would ultimately protect and sustain another building. ●

# SURVIVING AN EF-2

## FOAM ROOF SYSTEM SAVES TEXAS WAREHOUSE FROM EXTENSIVE TORNADO DAMAGE

On October 20, 2019, 10 twisters touched down along the storm line of North and Central Texas, making it one of the costliest tornado events in Texas history. While, thankfully, there were zero fatalities reported, there was extensive damage to building structures. These tornadoes resulted in over \$2 billion of insurance claims. One particular building that took direct hits from the EF-2 tornado, was a wholesale depot warehouse in Garland County. This 1 million sq. ft. horseshoe-shaped depot was in the path of the tornado's 2.48 mile trek through Garland.

California-based roofing contractor, Barrier Specialty Roofing & Coatings, was enlisted by SPAN Construction to assess the extent of the damage to the warehouse roof. Blair Cunnings (CEO/President of Barrier) together with Brady Kolden (Business Development Manager for Polyglass Roofing & Waterproofing



Systems) wanted to find out how the tornado affected the million square foot depot and what repairs needed to be made.

### ROOF INSPECTION AND DAMAGE ASSESSMENT

According to Blair Cunnings, “We conducted a job site evaluation with Span Construction and Polyglass to confirm

the extent of the roof damage. We wanted to see for ourselves how much of the roof needed to be replaced or repaired, and what roofing/coating system would be the most prudent in this situation.” The team found that 700,00 square feet of the metal roof held up under the force of the tornado's strong winds, due to the existing polyurethane foam and Polyglass silicone coating system on the warehouse roof. This meant that only 300,000 square feet needed to be repaired on a one million square foot job.

Blair went on to say that “the majority of the metal roof held up under the force of the strong winds, because the foam self-adheres to the roof, adding extra compressive strength.”

Brady Kolden noted that “while the building sustained damage from flying debris, the roof's structural stability helped protect and save the majority of the building. This meant there was no need to tear all down and the owner



*The roof's structural stability helped protect and save the majority of the building.*

could rebuild and refurbish, which lead to major cost savings.”

In addition, the building owner had been able to keep operations going for two more years after the tornado hit in areas of the building where the roof had remained undamaged.

## ROOF RESTORATION AND REPAIR PROJECT DETAILS

The eight-month roof repair project began in October 2020, and was completed in May of 2021. Important to note is that the complexity of the project was heightened due to the COVID-19 pandemic (supply chain demands), time of year (weather) and working around other trades on the project.

**“The majority of the metal roof held up under the force of the strong winds, because the foam self-adheres to the roof, adding extra compressive strength.”**

*Blair Cummings, Barrier Specialty Roofing & Coatings*

“Our contractors were challenged with keeping the roof dry and coatable during the cold/wet months, while also keeping water out of the building so other trades could complete their work simultaneously.”

First, SPAN Construction began with replacing all the structural metal deck on the damaged 300,000 square feet of the warehouse. Then, Barrier Specialty added 3” of polyurethane roofing spray foam and silicone coating to the deck to match the existing undamaged areas and make the deck a roof. Finally, Barrier chose Polyglass’s PolyBrite® 95 silicone roof coating to refurbish the entire one million square feet of roof. This product was chosen because of its durability, longevity, ease of application, and the 20-year warranty given by Polyglass on the entire system.

George Goddard (President of SPAN Construction) said that “due to the complexity of the damage done by the tornado to the Garland, Texas, warehouse, repairs were extensive and required a total team effort from all the compa-

nies involved: Polyglass, Barrier Roofing, and SPAN Construction. Polyglass and Barrier listened to our concerns, addressed them, and worked with our local team daily to ensure they our customer had a quality roofing system.” ●



**Only 300,000 square feet needed to be repaired on a one million square foot job.**  
PHOTOS COURTESY OF POLYGLASS.

# LADDER SAFETY

## LADDER SAFETY MONTH IS OVER, BUT SAFE LADDER USAGE IS NOT

**T**he American Ladder Institute (ALI) spent March marking National Ladder Safety Month, spreading the word about safe ladder practices, training opportunities, and more. Because safety never takes a break, now is the time to take the lessons learned in March and carry them forward all year long. By continuing to follow ladder safety practices every day, we can reduce the number of home and workplace ladder injuries.

Here's are some safety tips to keep in mind:

### CHOOSING YOUR LADDER

Before you ever climb, select the appropriate ladder for the job based on style, material of construction, material weight, size, and duty rating. First, you have to know whether or not the work can be accessed with a self-supporting stepladder, or a leanable, non-self-supporting, single or extension ladder. To be able to safely reach the work, size must be considered. If light weight is most important, then aluminum might be best. However, if you will be working around electricity, make sure to choose a non-conductive material like fiberglass. Select a ladder with the duty rating to hold your own weight plus any work materials going up with you.

### BEFORE THE FIRST STEP: INSPECTION AND SET UP

You've chosen your ladder. Now comes the ladder inspection and gaining a thorough understanding of your

surroundings. First of all, even a new ladder can potentially be damaged or otherwise compromised. So, the user must visually inspect it to see if it's in good condition before they use it. If you've picked the right ladder for the job, then don't misuse it by standing higher than you should or by overreaching. Next, take note of the general area you're in. For example, is there potential for a forklift to come around the corner, or an unblocked door to swing open and knock you over? Is the ladder set up correctly with all feet on a firm, level surface?

### SAFETY WHILE CLIMBING

Maybe you've gone up that ladder 100 times. The 101st time is no time to get lax when it comes to personal safety. Always pay attention to what you are doing when climbing and using a ladder. Some tips are just common sense. Face the ladder and have a firm grip. Don't have hands distracted with other materials. Keep hands free by using a tool belt or some other means, such as a material lift, tag line, or rope, to raise equipment to the work area. Remember to maintain three points of contact as you climb: two hands and one foot or two feet and one hand on the ladder. And don't do unnecessary reaching. A good rule of thumb: Keep your belt buckle between the rails.

### SAFETY AT THE TOP

You're finally at the uppermost point of your ladder. This is no time for slacking off. Contact with the ladder is important not only while climbing, but also while working. To that end, the top step and

the top cap of a stepladder and the top three rungs of a single or extension ladder are not suitable standing surfaces. The few upper feet of the ladder are there for body support, so you don't have to balance on just your two feet. If you are transitioning from the ladder onto another surface, your ladder must be secured from movement.

According to the U.S. Bureau of Labor Statistics, ladder deaths accounted for 161 on-the-job fatalities in 2020, the most recent year for which statistics are available. That same year, there were 22,710 ladder-related workplace injuries, an injury stat that has remained relatively constant over the previous several years.

ALI's Ladder Safety Training site, [www.laddersafetytraining.org](http://www.laddersafetytraining.org), makes safety training easy, with an organized curriculum, video and resource library, and free registration.

### About the American Ladder Institute

Founded in 1947, the American Ladder Institute (ALI) is a not-for-profit trade association dedicated to promoting safe ladder use through ladder safety resources, safety training, and the development of ANSI ladder safety standards. ALI also represents the common business interests of its members who are comprised of the leading ladder and ladder component manufacturers in the United States, Mexico, and Canada. National Ladder Safety Month, observed each March and spearheaded by ALI, is the only program dedicated exclusively to promoting ladder safety, at home and work. <https://www.americanladderinstitute.org/>. ●



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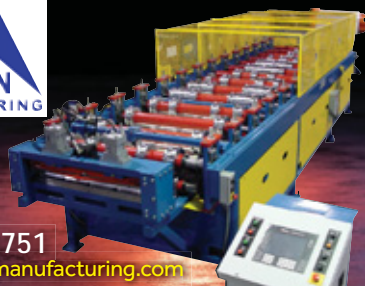


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# ROOF VENTILATION

## UNDERSTANDING THE IMPORTANCE OF PROPER AIRFLOW

A well-ventilated roof is crucial for maintaining the integrity and longevity of a building. Inadequate roof ventilation can lead to a host of expensive problems, ranging from increased energy costs to structural damage. Properly ventilating the roof in the first place is the best defense against these challenges, of course. But what if it's an existing roof with existing ventilation? Identifying the signs of poor ventilation as soon as possible can help prevent further complications.

Here are four major signs that your roof is not adequately ventilated:

**1 Excessive Heat and Moisture:** One of the most noticeable signs of inadequate roof ventilation is the accumulation of excessive heat and moisture in the attic or living spaces below the roof. Without proper ventilation, hot air becomes trapped, causing temperatures to rise, especially during the summer months. This can result in uncomfortable living conditions, increased reliance on air conditioning, and higher energy bills. Additionally, moisture buildup occurs due to condensation, leading to mold and mildew growth, which can deteriorate the structure of the roof and pose health risks to occupants. Be vigilant for damp spots, peeling paint, or visible mold growth, as they indicate poor ventilation and require immediate attention.

**2 Roofing Material Damage:** Inadequate ventilation can have a detrimental effect on roofing materials. Excessive heat and moisture can accelerate the degradation of shingles or tiles, causing them to curl, warp, or deteriorate prematurely. Over time, this

can lead to leaks, which can infiltrate the interior of the building, causing damage to ceilings, walls, and insulation. Regular inspections should be conducted to detect signs of wear and tear on roofing materials, including cracks, blistering, or discoloration. Such issues are often indicative of inadequate ventilation and should prompt further investigation and necessary repairs.

**3 Energy Inefficiency:** Poor roof ventilation can have a direct impact on a building's energy efficiency. Without proper airflow, heat becomes trapped in the attic, making it more challenging to maintain a comfortable temperature inside the structure. As a result, occupants may rely heavily on air conditioning or fans to cool down living spaces, leading to increased energy consumption and higher utility bills. By ensuring adequate ventilation, the temperature inside the attic can be regulated more effectively, reducing the strain on cooling systems and enhancing overall energy efficiency. Proper ventilation also helps prevent the transfer of heat to the living areas, enabling a more comfortable indoor environment throughout the year.

**4 Ice Dams and Condensation:** In regions with cold climates, inadequate roof ventilation can contribute to the formation of ice dams. When warm air from the living spaces rises and becomes trapped in the attic, it can cause the underside of the roof to warm. As a result, snow on the roof melts, runs down to the cooler eaves, and refreezes, forming ice dams. These ice formations can cause significant damage to the roof, gutters, and eaves, leading to leaks and water infiltration. Furthermore, condensation can

occur when warm, moist air meets colder surfaces in poorly ventilated areas, such as the attic. This can contribute to the deterioration of insulation and the growth of mold and mildew, compromising the structural integrity of the roof and potentially impacting indoor air quality.

Ventilation is one of the most important aspects of a roofing system that is often taken for granted. This is unfortunate, as inadequate roof ventilation can have serious consequences for both the structure and inhabitants of a building. The signs of poor ventilation should not be ignored. Regular inspections and maintenance, as well as consulting with roofing professionals, are vital to ensure proper airflow and prevent potential issues. By addressing inadequate ventilation promptly with proper, quality ventilation solutions, homeowners and building managers can enhance energy efficiency, prolong the lifespan of roofing materials, mitigate structural damage, and provide a healthier and more comfortable living environment for occupants.

If you have questions about proper roof ventilation, such as understanding the varying quality and performance among the different types of roof ventilation, consult a ventilation expert. It will save expensive hassles and headaches in the future. ●

**Marco Industries** [[www.marcoindustries.com](http://www.marcoindustries.com)] provides ventilation and accessories for metal and steep-slope roofs. Headquartered in Tulsa, Oklahoma, the company operates a central manufacturing plant and five distribution facilities throughout North America, serving customers through a network of vetted distributors.

## SOLATUBE FLAME-RESISTANT SKYLIGHT ACCESSORY

Solatube International Inc. has announced the launch of a new commercial and residential product innovation designed to meet the increasing Wildland-Urban Interface (WUI) zone code requirements across the United States. Featuring a multi-pane glass disk with a steel ring, the new Solatube Rooftop Fire Glazing accessory meets strict ANSI Z97.1 safety glazing requirements to deliver a flame-resistant tubular skylight.



*Solatube Brighten Up Series with fire glazing.*

Made with a fully tempered top layer and two layers of glass laminated with a layer of PVB, the new Solatube Rooftop Fire Glazing accessory prevents the skylight glass from dropping to the floor and igniting a fire inside the building. When used in conjunction with the flame-resistant Solatube Dome Edge Protection Band, the Solatube Rooftop Fire Glazing accessory meets the prescriptive building code requirements for areas located in high fire areas and Wildland Urban Interface (WUI) zones.

The Solatube Rooftop Fire Glazing is available for the residential 160 DS and 290 DS models and the commercial SolaMaster Series 300 DS, 330 DS and 750 DS models.

[www.solatube.com](http://www.solatube.com)

## METAL ROOF RESTORATION SYSTEM

Inland Coatings has released the spray-grade Pro Metal Series, a complete spray-applied restoration system for metal roofs. The Pro Metal Series is an optimized solution for coating metal roofs that pairs RC 2250SG Premium Rubber Seam Compound (Spray Grade) with RC 2016 One Pass Rubber Roof Coating. The single-pass system allows skilled commercial roofing companies to repair and restore metal roofs at a significantly lower cost and a better profit margin than a complete roof replacement.

The first step of the system is the seam and penetration compound, RC 2250SG. The newly reformulated compound can be applied using the same spray rig as other aspects of the project. Ideal for sealing curbs, penetrations, fasteners and seams, RC 2250SG also reduces the need for three-coursing, in turn, reducing application time and the amount of materials needed.

The seam compound is followed by RC 2016 One Pass, a spray-applied field coat. This coating covers the entire roof to provide waterproofing and UV resistance.

[inlandcoatings.com](http://inlandcoatings.com)

## GACO™ GACOFLEX A48 HIGH-BUILD ACRYLIC ELASTOMERIC ROOF COATING

Gaco™, part of the Holcim Building Envelope portfolio of brands, has introduced the GacoFlex A48 acrylic roof coating. GacoFlex A48 is the first and only single-component, high-build acrylic roof coating that can be applied up to 80 wet mils (5 gal/SQ) in a single pass application<sup>1</sup>. A fast-cure acrylic elastomeric roof coating, the product offers a long roof life, upgraded visual appeal, strong adhesion, high tensile strength and excellent reflectivity.



GacoFlex A48 can be applied as a roof maintenance coating over many existing roof substrates, including single-ply, metal, sprayed-in-place polyurethane foam, and asphalt membranes. It provides early rain resistance in as little as 30 minutes, with complete cure-through in about eight hours<sup>2</sup>. In addition to its easy application, the product can be sprayed from a standard acrylic spray system and does not require more expensive plural component equipment.

[www.gaco.com](http://www.gaco.com)

<sup>1</sup>As of March 30, 2023, GacoFlex A48 is the only product in the single-component acrylic roof coating segment with application rates up to 80 wet mils in one pass.

<sup>2</sup>Exact cure-through time will vary based on ambient temperature, humidity and mil thickness.

## EVEREST SYSTEMS ECO-LEVEL

Everest Systems recently launched ECO-LEVEL, a fast cure and extremely durable self-leveling repair compound for the elimination of ponding areas on aged flat roofs. The compound was designed in response to common building and roof complications caused by long durations of ponding water and costly measures for mitigating the problem areas. ECO-LEVEL can be applied on multiple locations on a roof including areas around drains, skylight curbs, vents and HVAC curbs on a variety of substrates.



*A lab prototype that mimics a ponded area on a roof. Scientists filled in the area with ECO-LEVEL compound to test its properties.*

Due to its unique formula, ECO-LEVEL is easy to use, dries quickly, has a self-leveling effect and can even repair existing roof blisters and defects. It prevents water buildup behind air conditioners and vents on sloped metal roofs and can be used on its own on recessed problem areas or in conjunction with EVERTHIX, a fibrous bulking agent from Everest used for additional reinforcement.

[everestsystemsco.com](http://everestsystemsco.com) ●

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BY LINDA SCHMID



**D**id you ever think, “We have too much inventory lying around; we should open a store?” Sock Woodruff did. He was taking over a contracting business from his father who had been buying supplies in bulk. Lots of supplies. Woodruff decided to sell the excess to contractors.

That was 1991 and Gutter Supply was begun. In 2001, Sock’s best friend, Mike Milliman joined as a partner/owner. Milliman had previous experience with the internet and ecommerce, and immediately saw the potential of an ecommerce Gutter Supply Store. At the time, gutter components online were few and far between. Guttersupply.com launched in 2004.

## GROWING INTO THEIR NICHE

“Gutters can be tricky to ship,” Milliman said, “especially customized gutter orders that are cut to size and can be shipped in lengths up to 20 feet. We felt it was important for the customer to be able to purchase a full customized order online and be able to checkout without having to call or email us to get a final cost (with freight and crating). We created an algorithm that allows the site to crate and ship our products and provide a landed cost so our customers know exactly what the total order will be before they purchase.”

Milliman admits that trying to build a customer base was challenging at first; shopping on the world wide web was comparatively new at that time, especially for building supplies, a market that is known to be traditional. And of course, they have many well established competitors, from big box stores to local hardware stores.

However, little by little, the word got out that ordering online with Gutter Supply was safe and convenient; a contractor could get everything they needed and the components were competitively priced.

Another piece of the service that helped the website grow is that customers can pay with a credit card or their established contractor credit account. If they do not have an account, they can apply for one on the website. After credit approval, they are good to go with a line of credit and they will enjoy specialized contractor pricing.

The website did so well that the company ended up going fully e-commerce, with the exception of a facility that provides supplies for local contractors in Mundelein, Illinois.

## DEVELOPING A PRODUCT LINE

The mission is to have everything a contractor needs for their gutter business. They carry eight different metal gutter systems with all of the accessories to match. One of their most popular product lines is their gutter roll-forming machines. That is not the end of the story, though, as they are always researching products, picking up new or improved products, and dropping lower performing products.

Offerings are constantly expanding, and the company just moved into a new facility with three-to-four times the stock capabilities they had before. “Our goal is to have everything in stock, all the time,” Milliman said.

## FOCUSING ON THE CUSTOMER

Milliman believes that the attribute that makes them stand out in their field is that they are very customer service oriented, something that he says is unusual in an online company.

“Have you ever tried to call one of the big online retailers? It’s hard enough just to find the phone number, let alone be connected to someone that has experience in what you do. Our entire sales team has previously worked in the field and understands the contractor’s needs,” he said.

## TRAVERSING TROUBLED TIMES

Like pretty much everyone, management was pretty worried at the outset of the COVID-19 pandemic, projecting losses of 30-80%. There were so many unknowns; were they going to have to send people home? Could they work remotely? Would they be able to service their customers?

Most of their employees wanted to come in to work, Milliman

said, a testament to their work ethic and customer care. The company had to be flexible and make adjustments in order to accommodate city rules (they are located near Chicago), but from the industry standpoint, some good things came out of the situation.

“People were at home, looking around at their environments and many decided to fix up their homes. Lots of communities were shut down for a period of time, so being an ecommerce business was a big advantage,” Milliman said.

People visited the website and business boomed.

Supply chain issues were more difficult to compensate for. However, the management team took the stance that the best way to deal with it was to stay in constant communication with customers. “Customer service, customer service, customer service,” they stressed to their people.

“During that time, a 10-week lead time was not unusual on certain products,” Milliman said. “Everyone was in the same boat, so the best thing to do was keep our customers up to date on what was happening.”



*Gutter Supply is an online-only component source.*

## FORECASTING THE FUTURE

Customer service, competitive pricing, and quality products is the foundation the company is built upon. Milliman believes that continually increasing value to their contractor customers is key to continued growth.

The company is continually looking for ways to use technology to make customers' jobs easier. Recently they added a Quick Shop function that displays all of the products for a particular job (5" K Style Almond Aluminum for example) on one page. Allowing the customer to see all of the components needed and just enter in the quantities needed for each part and add it all to the cart with just one click. “Basically, we create the specific material list for our customers. It makes ordering faster and prevents missing any critical parts for the job.”

Constantly striving for an improved site, process, product line, and service is Gutter Supply's blueprint for future success. ●

## 5 Rookie Mistakes to Avoid When Installing Rain Gutters

By Mike Milliman, Gutter Supply

In the home construction industry, a company's reputation is everything. Offering quality work and craftsmanship leads to happier and more satisfied customers. With each and every job there is an opportunity to turn a first-time customer into a lifetime client. When things go wrong or the installation isn't up to par, we put both our success and reputation at risk. For this reason, it is important to always provide the best in both workmanship and service with each rain gutter installation you complete. Here are the five most common rookie mistakes made when installing rain gutters and how you can avoid them:

### Mistake #1: Using the Wrong Gutter Size

How much rain your gutter is able to handle is critical to its ability to be effective in draining it away from the home. Too small of a gutter and the system can be overloaded with rain water and unable to keep up with heavy downfalls. This improper sizing leads to not only inefficient drainage but also gutter damage and even foundational issues around the area. Both the average rainfall within the region and the structure's roof size and pitch should be taken into consideration when choosing the size of the rain gutters installed.

### Mistake #2: Gutter Hangers Spaced Too Far Apart

Gutter hangers serve an important function in the overall system. They are what mount the gutters themselves to the home. Unfortunately many installers place these hangers too far apart. When hangers are improperly spaced, rain gutters begin to sag which can lead to pooling water in these sections. This additional load can cause the gutters to eventually separate from the home. Gutter hangers should always be placed at least every 3' for proper support (2' in Northern climates where snow and ice can add additional weight on the gutters).

### Mistake #3: Improper Pitch

The pitch or angle at which the rain gutters are hung is what allows the water to flow smoothly away from the home. Problems occur when the pitch is either too steep or not steep enough. When the pitch is overly sharp, water moves too quickly through the system causing overflow. When the gutters aren't angled enough, the water sits in the system rather than flowing out. Both can lead to gutter damage and other exterior problems around the home. A good rule is to allow for a 1/4" slope towards the downspouts for every 10' of gutter. This will ensure proper drainage of the system.

### Mistake #4: Having Too Many Seams

The seams of the rain gutter system are the weakest points and the area most vulnerable to damage. To avoid many common gutter problems such as leaks, it's important to install a system with the fewest number of seams as possible. Seamless gutters are the best option for avoiding this common installation pitfall.

### Mistake #5: Poor Downspout Placement

Where you place the downspouts can be a critical factor in how well the gutter system performs. Similarly how many downspouts you use is also important. When we fail to install enough of them in the correct locations, the rain gutters can experience many issues including overflows during heavy rains as well as standing water. Improper downspout placement can also lead to erosion around the area, insect infestations inside the gutters, and foundation or siding damage all which can be costly to repair. ●

# UPBEAT AT IRE 2023

## NEW PRODUCTS INTRODUCED AT EXPO IN DALLAS

BY ROOFING ELEMENTS STAFF



Raytec Manufacturing exhibited an antique bench used for making ferrules. Tag Saunders looks on as Jordan Fox operates the machine.



### EXHIBITOR REPORTS

Direct Metals Inc. sells its products through a distributor network and used IRE Dallas to promote its products and point contractors to a stocking distributor from whom they can buy. DMI's David Quehl reports: "Attendee optimism and enthusiasm were on display at the IRE. Large crowds filled the exhibit hall all three days and the after-effects of the COVID pandemic were in the rear-view mirror. While not every market is setting records, the message from the majority of attendees at the DMI booth is that there is still strength in the roofing market and many expected another strong year. Supply chains have improved, but there are still shortages in some industries. DMI is fully prepared for a strong year with an excellent supply of both DEKZIP and PANCLIP"

Jeff Regan reports that Hicks Lightning Protection and Harger Lightning &

Grounding were the only two lightning protection companies represented at the show. "Lightning protection, when applied goes hand in hand with roofing materials and installation. It is always good to know what new types of new roofing materials are in the future as well as new challenges, such as solar roofs that are incorporated into the roofing material for a better aesthetic look and energy output. These are certainly things to come and new challenges for installers of both roofing contractors and lightning protection installers.

"The IRE Show and Expo lets us get to these roofing manufacturers to work together and come up with solutions for both companies to better benefit the property owner," Regan continues. "We certainly learn a lot from attending this show and are able to educate the contractors and the roofing contractors as well."

Westlake Royal Roofing reports:

The International Roofing Expo returned to Dallas for its 2023 event. Held from March 7-9, show producer Informa Markets reports the show featured nearly 600 exhibitors that filled more than 175,000 square feet in the Expo Hall.

More than 14,000 roofing professionals attended over the course of the event. In addition to visiting exhibitors, they were able to take advantage of 45 educational and break-out sessions.

Attendees came from more than 47 countries, including Canada, Mexico, New Zealand, China, the United Kingdom, Brazil, and Germany.





Author Mollie Elkman signed complimentary copies of “The House That She Built,” a children’s book “inspired by a team of real women who came together from around the country to build a one-of-a-kind home.”

Mark Strait, Kirsch Building Products (maker of Sharkskin underlayments), reports he met with new and potential customers as well as current customers. “It’s always nice to get to meet customers who genuinely support the products we bring to market,” he says.

He, too, has noticed a growing trend in the roofing industry: “Long-term roofing products (ROI), along with energy savings materials and systems that provide a GREEN, LEEDS and RECYCLABLE, advantage continue to gain ground.”

### WHAT’S NEW

One of the most exciting benefits of attending a trade show is experiencing newly introduced products first-hand. Here are a few of the products introduced at the March 2023 event:



Atlas Pinnacle Impact shingles have a UL 2218 Class 4 impact rating.

PHOTO COURTESY OF ATLAS ROOFING CORPORATION

#### Atlas Pinnacle Impact Shingles

Atlas Roofing Corporation announced the addition of Pinnacle® Impact shingles. Pinnacle® Impact features 3M™ Smog-reducing granule technology, 3M™ Scotchgard™ Protector, HP42® technology, and a Class 4 impact rating.

Pinnacle® Impact shingles are manufactured with special polymers that give them a UL 2218 Class 4 impact rating — the highest rating for impact resistance in asphalt shingles. The unique polymer blend allows for reduced energy usage and emissions during the manufacturing process, as well as gives the shingle greater resilience against the damaging impact of hail.



CertainTeed Solstice Shingle.

PHOTO COURTESY OF CERTAINTEED.

#### CertainTeed Solar Shingles

CertainTeed debuted its Solstice Shingle at the Dallas event. The shingles, which carry a 25-year warranty, feature high efficiency solar shingles that integrate with any asphalt shingle. The company reports Solstice Shingles produce about as much energy as a conventional, rack-mounted system, offering clean energy without the bulky look.

The 70”-wide panels create a watertight system and are designed for roofing crews to install.



DaVinci Inspire Classic Slate in Graphite.

PHOTO COURTESY OF DAVINCI ROOFSCAPES.

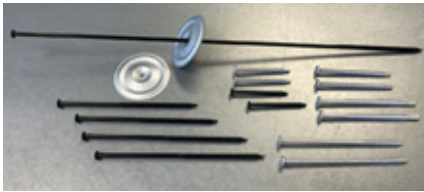
#### DaVinci Inspire® Classic Slate

For the first time, DaVinci, a Westlake company, had on display its Inspire® Classic Slate, a polypropylene base of product recently acquired by the company. Different than all other DaVinci products (which are injection molded and 5/8” thick), Inspire Slate solid tiles are compression-molded replicating natural slate, with a thin, quarter-inch profile, giving the appearance of a weather-worn slate.

Lightweight yet durable, it is Class 4 impact rated and 110 mph wind uplift rated and is backed by a 50-year Limited Lifetime Warranty.

“This year’s IRE in Dallas was a huge success for us at Westlake Royal Roofing Solutions™. This show always offers a great opportunity to make connections with both contractors and builders – and this year was no different.”

When asked about their impressions of the roofing industry (trends/market demands, interest, vitality, innovations, etc.), they responded: “With an increasing focus on weather and storm resiliency, the industry is looking for code compliance relative to regional climate conditions as well as insurance criteria surrounding product performance. These currently vary from market-to-market. Additionally, the construction industry is still facing a significant labor shortage and residual supply chain issues, which in turn affects the roofing sector. There is great concern about the state of the economy with current inflation and rising interest rates. Many consumers are being priced out of the for-sale housing market, while others are simply holding onto their homes for a longer period of time. We plan to keep a close eye on how these changes continue to affect the building industry.”



**DEKZIP fasteners by Direct Metals, Inc.**  
PHOTO COURTESY OF DIRECT METALS, INC.

**DEKZIP by Direct Metals, Inc.**

Direct Metals, Inc. introduced the new DEKZIP commercial roofing screws, plates and termination bar for low-slope single ply and built-up roof systems. Quehl explains, “The DEKZIP is a DMI exclusive designed and manufactured to meet today’s exacting standards for quality and performance. Drill point quality, thread design and corrosion resistance are key features. The DEKZIP will complement the popular PANCLIP Pancake & Wafer head fastener line used with panel clips in standing seam metal roof applications. The same exacting details go into the design and manufacture of the PANCLIP as the DEKZIP. Product depth is extensive and many parts have passed rigorous Dade County, Florida requirements for use in that state.”



PHOTO COURTESY OF ELEVATE.

**Elevate Jet Bond PVC Spray Adhesive**

Elevate announced that Jet Bond PVC spray adhesive is launching for PVC commercial roofing. Jet Bond Spray Adhesive is an LVOC bonding adhesive packaged in portable, pressurized canisters and formulated for two-sided spray application directly from the canister. Each canister may cover up to 750 sq. ft. (7.5 completed squares).

The low VOC formulation is compliant

across the U.S., including South Coast Air Quality Management Districts, and all Canadian Provinces.

FM Very Severe Hail (VSH) ratings may be achieved (with approved assemblies) when using Jet Bond PVC in combination with Elevate PVC (.080) membrane and DensDeck® StormX™ cover board.



PHOTO COURTESY OF GAF.

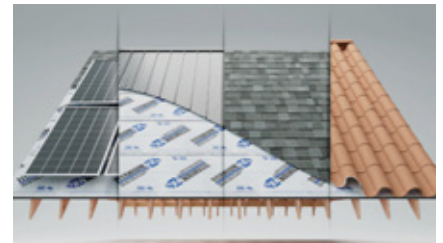
**GAF Timberline® UHDZ™ Shingles**

GAF Timberline® UHDZ shingles were on display for a national audience for the first time at the 2023 International Roofing Expo. In addition to GAF’s patent-pending Dual Shadow Line, which creates sunset shadows all day long, all Timberline UHDZ shingles now include features like LayerLock™ technology and the StrikeZone® nailing area, making them easier and faster to install.

This new premium laminate shingle feature:

- A thicker, and about 20% heavier, design compared to Timberline® HDZ™ shingles
- 10% more Time-Release Algae-Fighting technology
- A new 30-Year StainGuard Plus PRO™ Algae Protection Limited Warranty against blue-green algae discoloration
- A variety of color options to enhance the aesthetics of any home including Charcoal, Weathered Wood, Pewter Gray, Barkwood, Slate, and Shakewood.

Timberline UHDZ shingles are eligible for the WindProven™ Limited Wind Warranty when installed with the required combination of four qualifying GAF accessories.



**Owens Corning debuted its Titanium FR Fire Resistant Self-Adhered Roofing Underlayment at IRE 2023.** PHOTO COURTESY OF OWENS CORNING.

**Titanium Fire-rated Underlayment by Owens Corning**

Titanium® FR High Temp and Fire Resistant Self-Adhered Underlayment is designed to provide the Class A fire resistance typically required for roofing assemblies installed in wildland urban interface (WUI) areas.

As the highest classification for fire resistance in roofs per ASTM E108 or UL 790 fire testing, Class A indicates the material as “effective against severe fire exposure.” In WUI areas and other environments presenting a high risk for fire, a Class A roof is required by codes to help prevent the spread of external structure fires. Wildfires have remained a persistent hazard in many regions of the U.S. in recent years.

Proprietary technology in Titanium® FR is designed to mitigate the risk of fire spread to the roof deck under metal, tile, or asphalt roof coverings. The classification is particularly important for metal roof systems as most metal roof products cannot meet Class A fire resistance without either a special fire-retardant underlayment or installation of gypsum panels over the roof sheathing.

This new underlayment offering also supports fire safety in energy generating roof assemblies. As roof-mounted solar panels are often located in WUI areas and are subject to harsh conditions, Titanium® FR provides a Class A fire resistant underlayment that delivers fire resistance and is designed for leak protection under BAPV solar panels.

Roof assemblies equipped with mounted photovoltaic (PV) panels are evaluated to assess the ability of the entire assembly to protect a structure's interior from fire. Unfortunately, most roof-mounted solar panels only meet the requirements for Class C, designating "effective against light fire exposure." Titanium® FR High Temp and Fire Resistant Self-Adhered Underlayment achieves Class A fire resistance for roof assemblies that include solar panels, even if the panels alone are Class C.

### RFID Microchip Tags in Malarkey Shingles

Malarkey Roofing Products®, member of Holcim Building Envelope, announced the addition of Radio Frequency Identification (RFID) tags to their shingle lines.

Nancy Teague, Vice President of Engineering, explains, "RFID tracking on our products has many obvious benefits for the logistics and production at Malarkey Roofing Products. They will help us continue to streamline our operations and support customers in the near term. Looking further, the ability to track the lifecycle of our products not only validates our superior quality and performance value proposition, but also greatly advances our efforts in circular roofing."

RFID tags are small microchips commonly used in modern hotel room keys or anti-theft devices at clothing stores. RFID tags can be read by a device even if it is covered by the object or not visible. Additionally, the tags can be read while inside of a container, quickly providing information in bulk, rather than one at a time.

Only shingles and shingle bundles from Malarkey's Oklahoma City plant are rolling out with RFID currently, with Portland and South Gate facilities soon to follow.



Malco Products' new line of Metal Benders.  
PHOTO COURTESY OF MALCO PRODUCTS, SBC

### Metal Benders by Malco Products, SBC

Malco Products, SBC, introduced its new professional-grade metal benders at IRE. Metal Benders by Malco have the ability to form 0°-100° bends on straight or curved panels of any length right on the jobsite.

Narrow bearing stance models follow curved panels easily or form straight bends when needed, and wide bearing stance models provide more control for straighter bends. Both variations may be paired with a connector for a modular experience, allowing trade pros to "free-style" their set-up, in a one or two station configuration.

Additionally, the metal benders allow for easy configuration and flexibility on the jobsite by allowing the user to adjust the rollers for different thicknesses and materials, and they can also be customized by replacing the angled roller with an optional 2mm radius roller to allow for "softer" bends for materials like copper, zinc, and aluminum, which can have problems with tighter bends.

### S-5! SnoBracket™

S-5! introduced its SnoBracket™ attachment for mounting snow retention systems to insulated metal panel (IMP) roofs.

The new SnoBracket is specially designed to provide the strength required for snow retention applications but with "sheet-only" attachments. Created



IRE 2023 was the first trade show appearance for the SnoBracket.  
PHOTO COURTESY OF S-5!

specifically for trapezoidal-ribbed IMPs, it comes in two sizes: SnoBracket™ TB and SnoBracket™ RB fitting to popular rib profile dimensioning.

Designed to protect an IMP's moisture barrier, without the compromise of thermal bridging the SnoBracket features a factory-applied, premium, closed-cell EPDM rubber gasket, creating a positive seal against water intrusion and attaches in-shear using eight self-piercing fasteners (four on each side), resulting in the holding capacity of more than 2,000 pounds in 26 ga coated steel.

### CONCLUSION

"The International Roofing Expo is the destination for roofing contractors, suppliers and industry professionals to gather to drive the industry forward," says Rich Russo, Show Director, International Roofing Expo. "This year's expo solidified the importance of face-to-face connection with highly engaged and at capacity networking and education events, reflecting the need for hands-on learning. IRE continues to provide resources for roofing professionals nationally and internationally with nearly 50 countries represented. We look forward to continuing to see the growth of the industry and innovation and providing the most up to date information and trainings to the roofing community throughout the year, online at our ConstructionNext platform and at our 2024 event." ●



PHOTO © 2023 OWENS CORNING

## OWENS CORNING EXPANDS ALGAE RESISTANCE WARRANTY COVERAGE

Owens Corning is investing in the longevity of a roof's curb appeal as it transitions shingle lines and all hip and ridge shingles to a 25-year Algae Resistance Limited Warranty (up from 10 years). Covering most Owens Corning laminate shingles, the warranty uses a system approach that pairs proprietary shingle technology with hip and ridge components to help protect homes' roofs against stains and streaks caused by blue-green algae for up to 25 years. To get the most protection (and this enhanced warranty), approved Owens Corning hip and ridge shingles will need to be installed alongside a new algae resistant laminate shingle roof.

The long-term protection against blue-green algae is achieved by changes Owens Corning made to its advanced granule formulation. Paired with hip and ridge components, laminate shingles with StreakGuard™ Algae Resistance Protection are formulated to help protect against blue-green algae staining and discoloration for 25 years, contributing to a home's long-term curb appeal. The combination of laminate shingles

with hip and ridge components works to deliver protection against algae that covers the entire slope of a home's roof.

Algae is a particular challenge for roofs in warm, humid environments, especially in Southern regions. Caused by microorganisms from the family *Gloeocapsa*, blue-green algae tolerate drought and heat and can survive in a dormant state even during winter's cold temperatures. Ink-like streaks on rooftops are accumulations of blue-green algae. As these microorganisms can be carried by the wind, blue-green algae can "spread" from house to house.

## ARMA RELEASES NEW VIDEO, SHINGLE MANUAL

The Asphalt Roofing Manufacturers Association (ARMA) offers a new resource in the roofing professional's toolbox, having produced a short, educational video designed to help contractors explain the fundamental components of an asphalt roof system to prospective customers.

For many homeowners, "What roof system is best for my home?" is a crucial question that presents an excellent opportunity for roofing contractors to offer expertise, discuss solutions, and establish rapport to attract new clientele.

Homeowners turn to their roofing contractors for guidance on the ins and outs of their roofs to ensure they possess the information needed to make an informed decision on roofing materials.

ARMA's new video, "The Right Roof System for Your Home," can be a valuable sales and informational tool for roofing professionals. The latest resource examines the technological developments that make asphalt roofing beautiful, affordable, and reliable.

The video highlights the six components ARMA recommends for a residential property with a steep-slope roof: an ice and water barrier product, underlayment, a shingle starter product, asphalt shingles, hip and ridge shingles, and ventilation,

both for intake and exhaust.

Each element serves a primary function, and using the proper system components can help increase the performance of an asphalt roof and provide homeowners with peace of mind.

"A roof safeguards our most valuable assets—our loved ones and home," stated Reed Hitchcock, ARMA Executive Vice President. "ARMA's latest video illustrates each constituent and explains how a whole-system approach can provide long-term reliability and durability to a home."

ARMA offers a broad range of technical and educational resources for residential asphalt roofing systems. Before installing a new asphalt shingle roof, ARMA encourages homeowners to consult with their roofing contractor or the roofing system manufacturer.

"The Right Roof System for Your Home" is now available on ARMA's website [asphaltroofing.org] and YouTube page.

## New Shingle Manual

ARMA has also released a digital version of the *Residential Asphalt Roofing Manual – Design and Application Methods*. This new format enables roofing professionals to access the publication directly on their mobile devices.

The manual will continue to serve as an essential guide to the proper design and application of residential asphalt roofing systems. By converting the resource into a digital download, ARMA aims to offer tools that further support contractors on-site, allowing easier access to reliable reference material.

"ARMA is thrilled to provide our tried-and-true industry 'go-to' *Residential Asphalt Roofing Manual* to professionals out in the field," said Hitchcock. "While we will continue to offer a hard copy of the manual that contractors can mark up on the job, the digital manual makes it simple to reference key information regarding residential asphalt roofs anytime, anywhere—from the seat of your

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truck to the peak of the roof.”

The digital edition provides readers with the same comprehensive information and key topics found in the printed version but with the benefit of online accessibility through embedded links and bookmarks. The *Manual* includes industry-leading content on proper ventilation, moisture control, shingle application, and more. It is available for \$30 per download on ARMA’s website. Upon purchase, users will receive an email confirmation containing a link to download the full digital-format edition to their iOS or Android devices.



Accepting the 2023 EODA Small Manufacturer Excellence Award is (left to right) David Delcoma, MFM Operations Manager, Paul Bratton, MFM Fulfillment Manager, and Tiffany Swigert, Coshocton Port Authority.

PHOTO COURTESY OF MFM BUILDING PRODUCTS

## MFM WINS MANUFACTURER EXCELLENCE AWARD

MFM Building Products, a manufacturer of a full envelope of waterproofing and weather barrier products for the building industry, was selected as the 2023 Eastern Ohio Development Alliance (EODA) Small Manufacturer Excellence Award at the EODA Annual Meeting on April 28, 2023.

EODA was formed in 1990 and is a nonpartisan organization that promotes economic development in a 16-county region in Ohio. Part of the award was the

recognition of MFM’s growth through the company’s Expansion Project, numerous industry accolades, and the company’s community involvement. Earlier this year, the company also won the Coshocton Chamber of Commerce 2023 Community Improvement award.

MFM Building Products, founded in 1961, is an employee-owned stock option (ESOP) company where the employees take great pride in the quality of their work and are involved in a wide variety of community organizations.

## MULE-HIDE PRODUCTS UNVEILS TRAINING CENTER

Five new training centers from roofing systems and products manufacturer Mule-Hide Products Co. Inc. will give the company’s contractors, distributor partners and associates easy, nationwide access to the ongoing, hands-on education they need.

The Mule-Hide Training Centers are part of an expansion and enhancement of the company’s training program. Now called the RISE Program (an acronym for “Roofing Installation and Systems Education”), it encompasses in-depth, customizable training on all the commercial roofing products and systems the company offers.

The company’s training facility on the ABC Supply headquarters campus in Beloit, Wisconsin has reopened as a Mule-Hide Training Center following a top-to-bottom renovation. A new center also recently opened at an ABC Supply branch in Orlando. A location at an ABC Supply branch in Avenel, New Jersey will open during the first half of 2023. Centers in Texas and Arizona will round out the network.

The enhanced training opportunities will meet the needs of professionals in all areas of commercial roofing and at all career stages.

“Training isn’t just for people who are new to the industry,” said National Training Manager Kyle Stavish.



“Commercial roofing is constantly changing, with new products, technology and regulations being introduced. To keep up, everyone involved needs continuing, hands-on education. That includes contractors, distributors and our own associates, whether they’re just getting started in roofing or have decades of experience.”

The centers are designed to facilitate programs customized to meet the needs, interests and schedules of each group using it. Each facility has a classroom equipped to comfortably host video presentations, discussions and team meetings.

The majority of each center is devoted to thoughtfully designed, user-friendly areas where participants can get essential hands-on experience. Each facility includes:

- A 16’ x 32’ mock multi-height parapet roof on which the correct way to complete any detail can be demonstrated or practiced.
- Ergonomic 4’ x 8’ standing training tables where participants can practice completing details, such as corners, drains, pipes and scuppers, without bending and stooping.
- Custom-designed roll racks that neatly dispense roof membrane for use in training.
- A layout that follows lean manufacturing principles to keep the space clean and organized. In keeping with the 5S System, tools, equipment and other materials all have designated homes, marked by tape or signs, to help keep everything in its proper place.



**David Weiser, Marketing Specialist, Everest Systems.** PHOTO COURTESY OF EVEREST SYSTEMS.

## EVEREST SYSTEMS HIRES NEW MARKETING SPECIALIST

Everest Systems has announced David Weiser is now the company's new Marketing Specialist. David is a graduate from the University of Houston with six years of marketing experience in the financial services and RV industries. As Marketing Specialist, David will be responsible for print and digital media, press releases, trade shows and conferences.

In his spare time, David enjoys watching films and writing about them on his film critique blog, Film Assessment. David also sings as a baritone with the Houston Symphony Chorus, Bay Area Chorus, and his church's choir and praise team.

Amidst rapid growth, Everest recognized a need for dedicated marketing personnel and introduced the marketing specialist role to reinforce the company's marketing efforts and contribute to brand recognition.

Everest is privately held and headquartered in Houston, Texas, with 45 employees and a network of hundreds of certified applicators nationwide.

## ATLAS ANNOUNCES NEW SHINGLE FACILITY IN IOWA

Atlas Roofing Corporation has announced its new \$200 million asphalt

shingle manufacturing facility will be built in Clinton, Iowa. Atlas plans to leverage a growing team of industry leaders to design and build a facility that focuses on safety, quality, and innovation.

Design and construction of Atlas' new shingle manufacturing facility will bring together the skills and talents of Atlas employees from throughout the organization, along with the talented people of Clinton, to make this one of the most efficient and productive shingle manufacturing plants in the industry.

"Atlas is committed to bolstering our capacity to support our customer base across the country and this investment in Clinton meets that commitment head on," said Stanley Bastek, vice president of sales and marketing for the Atlas Shingles and Underlayment Division. "This new manufacturing facility will result in service-level improvements that increase access to Atlas shingles and system components across the country."

This investment will enable Atlas to address the growing demand for higher quality, reliable roofing materials. The company will continue to manufacture its premium architectural shingles. In addition to expanding its roofing capacity, the company will manufacture new and innovative products including roofing underlayment products and Atlas' proprietary roof system components.

This announcement comes on the heels of Atlas celebrating 40 years in the asphalt roofing industry.

## HOLCIM ACQUIRES DURO-LAST ROOFING SYSTEMS

Holcim completed the acquisition of Duro-Last, a US leader in commercial roofing systems, with pro forma net sales of USD 540 million. Duro-Last's systems will complement and strengthen Holcim's integrated roofing offerings.

Jan Jenisch, CEO, says: "I am excited to welcome all 840 Duro-Last employees to the Holcim family. Duro-Last is a perfect strategic fit for our roofing business. Its

proprietary technologies and leading brands complement our offering in the fast-growing North American market. Its energy-efficient systems and excellence in recycling will further advance our leadership in sustainability. This is another exciting step in the expansion of Solutions & Products, advancing our 'Strategy 2025 - Accelerating Green Growth' to become the global leader in innovative and sustainable building solutions."

Duro-Last is recognized for its leadership in innovation and sustainability. Its leading Research & Development organization is continuously expanding its range of proprietary technologies and custom-made solutions for superior performance. At the forefront of sustainability, Duro-Last's systems range from cool roofs, enhancing buildings' energy efficiency, to its award-winning "Recycle Your Roof" program, driving circularity in roofing.

## SRS DISTRIBUTION ACQUIRES MARSH BUILDING PRODUCTS

SRS Distribution Inc. ("SRS") has announced its acquisition of Marsh Building Products, Inc., a leading distributor of residential and commercial building products. Terms of the agreement were not disclosed.

Headquartered in Fort Thomas, Kentucky, Marsh was founded in 1989 by brothers Ken and Mike Middleton and is run today by Patrick McNickle (President). The company operates out of eight facilities across Ohio and Kentucky and currently employs a team of about 130 people. Patrick McNickle will continue to lead the company's team under the Marsh banner, ensuring continuity and consistency for customers, suppliers, and employees.

Founded in 2008 and headquartered in McKinney, Texas, SRS Distribution has grown to become one of the largest and fastest growing building products distributors in the United States. ●

# Get Free Business Exposure Here!

We publish a Project of the Month in each edition of our magazines to promote best design and construction practices. We have received feedback from readers that it's one of their favorite features in our magazines.

If you're a roofer or contractor, you can receive **FREE NATIONAL EXPOSURE** for your business (free PR!) by sending roof details, a component list, and a brief description. The component list should identify manufacturers and models so we can give them proper credit, too!

The general description can include details about what the customer wanted, special elements, any other features that make the project noteworthy.

**These editorial placements are absolutely free!**

## WHAT WE NEED:

- Component List
- Brief Description
- Three to five attractive high resolution images (at least one must be the entire roof).



COURTESY OF BECKERS GROUP

Submission is not a guarantee of publication. We reserve the right to edit content.

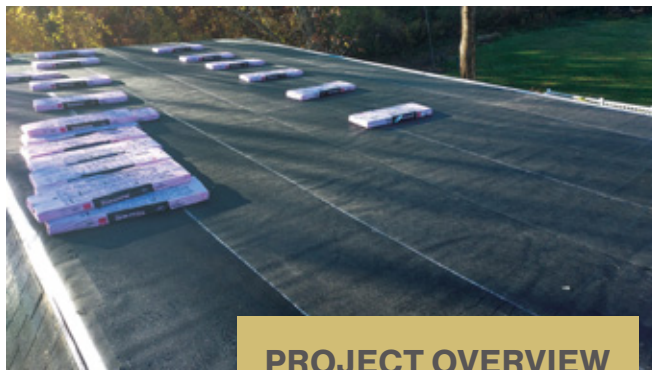
**If you have any questions about the Project of the Month, contact:**

Karen Knapstein • [karen@shieldwallmedia.com](mailto:karen@shieldwallmedia.com) • 715-513-6767



## NEW ROOF - NO LEAKS

SHINGLES READY TO STAND UP TO WIND-DRIVEN RAIN



**T**he residential roof was leaking from wind-driven rains off the lake. It's a very flat roof with a 4/12 pitch, which was allowing wind to lift the shingles and drive in rain. The old underlayment was only 4 feet of ice shield and felt. The felt was wet and eight sheets of plywood were ruined. We replaced the ruined plywood with new OSB and used ice shield on the entire roof for better protection. We use Owens-Corning Durations for their ability to seal and I love the nylon nailing

flange; they almost never blow off and have a high wind rating.

"We crawled into the attic to check the insulation and airflow because of an article in one of the Shield Wall Media magazines. The insulation and airflow were good," says Isaac Keim, Keim Konstruktion.

The customer wanted a non-leaking shingle roof; they didn't have a preferred shingle in mind and left that up to us. "I would always recommend Owens Corning Durations," he says. ●

### PROJECT OVERVIEW

**BUILDING TYPE:** Residence  
**PROJECT LOCATION:** Chautauqua County, New York  
**CONTRACTOR:** Keim Konstruktion  
**INSTALLER:** Keim Konstruktion  
**ROOF SIZE:** 8 squares  
**SHINGLES:** Owens Corning Duration Shingles, Estate Gray  
**FASTENERS:** Top Shield Nails, 1 1/4"  
**VENTILATION:** Snow Country Cobra Vent, 4'  
**UNDERLAYMENT:** Top Shield Ice & Water Guard  
**OTHER:** Georgia Pacific OSB

# GET MORE INFORMATION ABOUT PRODUCTS & SERVICES SEEN IN THIS ISSUE. HERE'S HOW:



***If you are looking for more information from companies featured in this issue, fill out this form.***

*Mail the completed form to us, and we will have those companies get in touch with you. There's no need to fill out multiple forms; we'll do the legwork for you.*

Name (please print) \_\_\_\_\_

Signature (required) \_\_\_\_\_

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Address \_\_\_\_\_

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Telephone ( \_\_\_\_\_ ) \_\_\_\_\_

E-mail \_\_\_\_\_ Date \_\_\_\_\_

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- General Manager
- Sales Manager/Rep
- Engineer/Architect
- Vice President
- Foreman
- Installer
- Other \_\_\_\_\_

**PLEASE CHECK THE PRIMARY CATEGORY THAT DESCRIBES YOUR BUSINESS:**

- Builder, Dealer, Remodeler or Installer
- Roofing Contractor
- Metal Roofing Contractor
- Building Material Dealer/Distributor
- General Contractor/Remodeler
- Manufacturer/Rep of Manufacturer
- Architect/Specifier
- Construction Consultant/Engineer
- Building Owner/Developer
- Other (Please Specify) \_\_\_\_\_

**ENGAGED IN THE FOLLOWING APPLICATIONS:**

- Gutters/Accessories
- Institutional
- Residential
- Agricultural
- Commercial
- Industrial

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RE SUMMER 2023



# ROOFING INDUSTRY OUTLOOK

Shield Wall Media, with help from METALCON and the MCA, has completed the mid-year State of the Industry Survey. The purpose of the mid-year survey is to measure changes in market sentiment from the previous survey. Rather than focus on an entire year this survey focused on year to date and predictions for Q3 and Q4 2023.

With a few exceptions the general expectation is still positive, but slightly less so than in the October 2022 survey.

Roofing and Metal Roofing’s sales and profitability metrics did match their view of the broader picture. And there appears to be little change in outlook from the previous year .

One interesting anomaly is in the sales metrics for gutters. The prediction of units sold and gross sales both decreased significantly. But, predictions of increased profitability raised by 4%. For roofing the market for the remainder of the year appears stable. All categories (Roofing, Metal Roofing and Gutters) have approximately 75% of survey respondents saying sales metrics (gross sales, units sold and profitability) will stay the same or increase. ●

*If you like the CSI columns or find the information useful, help us help you. Shield Wall media sends a State of the Industry Survey in fall and a mid-year State of the Industry Survey in Spring.*

*When the new survey is launched, please complete it and share it with your colleagues. A larger survey sample generates more reliable information.*

 For more titles, check out Shield Wall Media online: [www.shieldwallmedia.com](http://www.shieldwallmedia.com)

Percentage of respondents predicting future increased gross sales	October 2022 Survey	May 2023 Survey
All respondents	52%	45%
Roofing	45%	35%
Metal Roofing	45%	44%
Gutters	45%	30%
Residential Single Family	49%	57%
Residential Multi-Family	67%	51%
Commercial	51%	53%
Industrial	38%	54%
Roofing Elements Subscribers	45%	42%

Percentage of respondents predicting future increased units sold	October 2022 Survey	May 2023 Survey
All respondents	45%	41%
Roofing	43%	30%
Metal Roofing	40%	34%
Gutters	37%	30%
Residential Single Family	42%	49%
Residential Multi-Family	52%	49%
Agricultural	50%	52%
Commercial	40%	49%
Industrial	38%	54%
Roofing Elements Subscribers	36%	34%

Percentage of respondents predicting future increased profitability	October 2022 Survey	May 2023 Survey
All respondents	43%	39%
Roofing	45%	37%
Metal Roofing	37%	35%
Gutters	36%	40%
Residential Single Family	42%	45%
Residential Multi-Family	66%	48%
Agricultural	47%	47%
Commercial	41%	44%
Industrial	38%	48%
Roofing Elements Subscribers	48%	32%

Percentage who believe the general business climate in the US will improve	October 2022 Survey	May 2023 Survey
All respondents	24%	16%
Roofing	32%	30%
Metal Roofing	26%	26%
Gutters	28%	30%
Residential Single Family	26%	31%
Residential Multi-Family	50%	48%
Agricultural	16%	27%
Commercial	23%	28%
Industrial	38%	33%
Roofing Elements Subscribers	33%	38%

# SHOWTIME

Punch Your TicketS to our next EVENTS!

FROM THE PUBLISHER OF ROLLFORMING MAGAZINE



**2023**  
**Rollforming** Construction Show

**SEPTEMBER 27-28, 2023**  
Duke Energy Center, Cincinnati, OH  
[constructionrollformingshow.com](http://constructionrollformingshow.com)

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**2024**  
GARAGE • SHED • CARPORT  
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**JANUARY 24-25, 2024**  
Knoxville Convention Center, Knoxville, TN  
[garageshedcarportshow.com](http://garageshedcarportshow.com)

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**2024**  
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**JUNE 19-20, 2024**  
Branson Convention Center, Branson, MO  
[postframebuildershow.com](http://postframebuildershow.com)

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