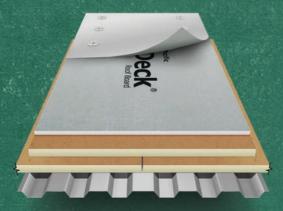




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You're the one that I want

Customer satisfaction is down, but there are ways to make customers happy

by Ambika Puniani Reid



ccording to the American Customer Satisfaction Index, customer satisfaction has been on a downward trajectory and is at its lowest level in nearly two decades.

Authors Tomas Hult and Forrest Morgeson analyzed customer satisfaction data and provide tips in *Harvard Business Review* about how businesses can increase customer satisfaction, which they say is a combination of customer expectations, product quality and value, and complaint handling. They say optimizing these aspects of the customer experience can pay big dividends.

ACSI data shows customers' expectations of companies have remained fairly steady during the past 12 years. But the authors warn that attempting to always exceed expectations is not sustainable because it is impossible to achieve. Rather, they say: "Companies can and should delight

the customer with an amazing experience but with realistic aims."

The ACSI study also found product quality is more important than both price and value as a driver of overall satisfaction.

But what if customers are unhappy with any or all of these? Hult and Morgeson say: "Complaint handling has to be almost perfect for customers to come back and be at least as satisfied as before they complained" and "customers who experience a problem and complain but receive successful complaint management end up with stronger than average loyalty."

The authors also say: "Managers tend to overestimate customers' expectations, perceived value, satisfaction and loyalty while underestimating customers' complaints."

The key, they say, is learning how to hit the right notes with customers while paying close attention to complaints. You can learn more about their findings in their book *The Reign of the Customer: Customer-Centric Approaches to Improving Customer Satisfaction*.

Ambika

AMBIKA PUNIANI REID is editor of *Professional Roofing* and NRCA's vice president of communications.





he Metal Roofing Alliance selected a new home construction in Kennewick, Wash., as the winner of its Best Residential Metal Roofing Project competition for the third quarter of 2022.

The project featured a mechanically seamed metal roof system in dark gray on a 7,000-square-foot house. Manufactured by Nu-Ray Metals, Auburn, Wash., the 22-gauge metal panels were installed by C&C Roofing, Hermiston, Ore.

To submit a photo to Close-up, email professionalroofing @professionalroofing.net. Submittals should include a photo, as well as a description of the photo.

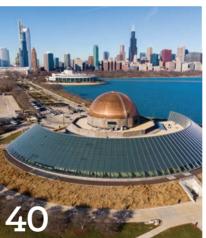


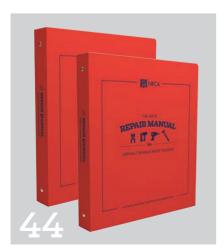
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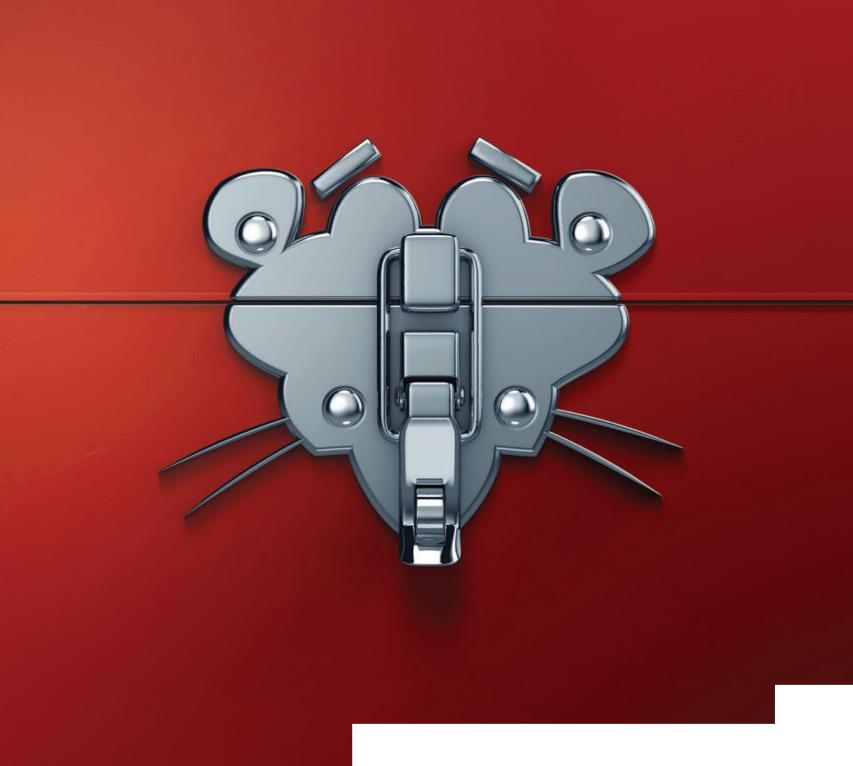


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#COMMERCIAL ROOFING

The demand for new residential and commercial buildings is increasing. According to a study by research firm IBISWorld, 78% of roofing professionals expect the growth of commercial roofing sales to continue. Check out what's happening on the #commercialroofing side of the industry across social media!





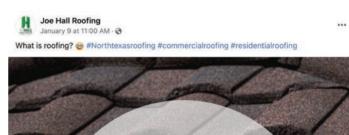




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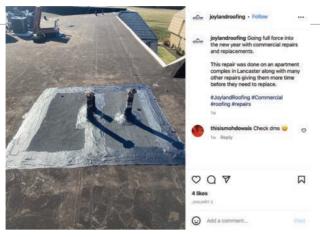


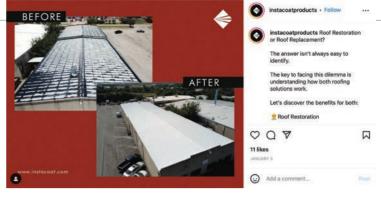




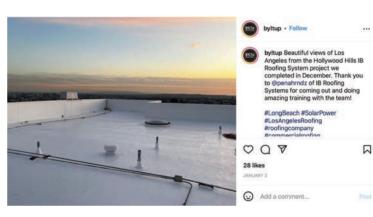
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Industry analysts and contractors say the construction industry will continue to experience rising material prices during the next couple of years. Read more here: bit.ly/3X8gjg8 #construction #commercialroofing #roofing



NEW IDEAS

milwaukeetool.com

Accessory cases are customizable

Milwaukee® Tool has introduced customizable accessory cases for drilling and driving sets designed for use in PACKOUTTM storage solutions. The cases reportedly are optimized to fit inside all PACKOUT organizers and feature fully adjustable rows. A user can customize a case by adding and removing individual rows. The cases are available in six designs: small, small compact, medium, medium compact, large and large deep. Cases and accessory rows are sold separately to help contractors meet various on-the-job needs. Accessory rows also can be removed from a case and attached to $M12^{TM}$ and $M18^{TM}$ Drills and Impacts for on-tool storage. The cases are constructed with heavy-duty materials to withstand harsh job-site environments and include reinforced latches for durability and secure closing.





Shingle color is nontraditional

BP Building Products of Canada has added Morning Mist to the available colors for its Mystique asphalt shingles line. Designed as an alternative to traditional solid gray shingles, Morning Mist is a multitoned pale gray shingle consisting of a mix of gray, white and brown. The new color reflects consumers' reported preference for more saturated, earthy shingle tones that are less uniform than monochromatic color schemes. Mystique double-layer laminate shingles are designed with oversized tabs and feature 3D shadow bands for a sharp look.

bpcan.com

Exposed panel looks like standing-seam panels

McElroy Metal has introduced Modern-Rib, an exposed fastener panel said to simulate the aesthetic of standing-seam panels. The fastener panel adds sophisticated styling to residential roof systems and post-frame structures with a ¾-inch rib. Modern-Rib is available in silicone modified polyester, as well as PVDF/Kynar 500® coatings. The 36-inch striated panel comes in 29-gauge Galvalume,® 26-gauge Galvalume, 29-gauge G-90 bare and G-100 painted in lengths up to 48 feet. **mcelroymetal.com**

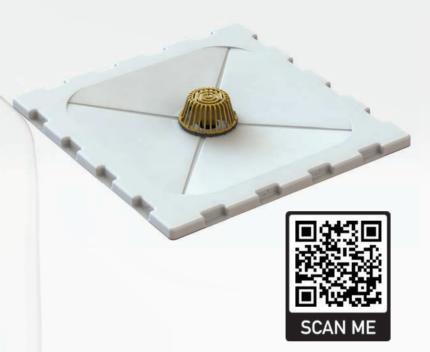




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EXPO VISIT US AT BOOTH #1912

Jig saw blades have bidirection teeth

Diablo Tools has introduced a range of jig saw blades to fit barrel-grip and top-handle corded and cordless jig saws. Designed with ultrahard cutting edges said to provide a longer life than standard blades, the jig saw blades cut through wood, metals and plastics and can be used for specialty applications. The jig saw blades feature bidirection teeth and bimetal blades for ultrafine top and bottom finishes and an optimized body design for precise straight, angled and curved cuts. The blades also feature a plunge tip design that reportedly enables faster and easier plunging. Diablo Tools' carbide teeth jig saw blades are durable and feature Perma-SHIELD® nonstick coating to reduce heat and pitch buildup. The blades' aggressive tooth geometry reportedly delivers fast cuts and features an enhanced carbide tip for extreme impact resistance.



diablotools.com



Miter saw delivers more power

DEWALT® has made available its 60V MAX Brushless 12-inch Double Bevel Sliding Miter Saw (DCS781) designed to provide 20% more power. The miter saw's Regenerative Braking Technology is said to extend runtime by redirecting lost energy back into the saw's battery while the bevel-drive transmission reduces power losses that may occur with belt-driven designs. Using a DEWALT FLEXVOLT® DCB609 battery, the saw can make up to 255 cuts in pressure-treated 4- by 4-inch timber. The saw also can capture up to 94% of dust. The miter saw's CUTLINE™ LED blade-positioning system reportedly provides accurate cut line indication while the controls make miter, bevel and trench cuts easy. The saw is available as an individual unit or kitted.

dewalt.com

Lap tape for cold weather applications

CertainTeed® has introduced Arctic Edge™ Flintlastic® SA Cold Lap Tape. The use-as-needed auxiliary tape is designed to enhance Flintlastic SA adhesion in temperatures between 35 and 49 F. Intended for use with low-slope residential and commercial applications, Arctic Edge is installed during normal roofing applications to increase adhesion at critical interfaces, including perimeter details, sidelaps and base/interply endlaps. Arctic Edge reportedly replaces metal primers, eliminating labor delays associated with longer cold weather cure times. The tape can be installed using a hand-held applicator or a standup applicator for longer stretches of side lap application and can be stored and saved for up to one year.

certainteed.com





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A pinkie promise

Paying attention to the "little guy" will ultimately prove beneficial

by McKay Daniels

hen Apple released its touch ID feature for the iPhone years ago, there was a mini moment of gossip about whether someone could chop off your finger and gain access to your phone. Perhaps these conversations only happened in my Las Vegas social circles after watching "Casino" for the fourth time.

At some point, we've all been presented with some sort of hypothetical "would you rather ..." scenario where we'd have to choose from two or more interesting, undesirable or, sometimes, horrific situations.

It makes for great dinner party conversation.

"Would you rather have universal respect or unlimited power?"

"Would you rather be royalty 1,000 years ago or an average person today?" $\,$

"Would you rather wear the same socks for a month or the same underwear for a week?" (This is an experiment I swear my 10-year-old seems to keep testing on his own.)

When the cold snap hit Texas and the South in 2021, we played a real-life version of it. Some lost power. Some lost water.

Would you rather lose hot water for a week or electricity? (The internet!?)



Going back to the iPhone scenario, one question that has been asked is if you had to lose a finger, which would it be?

When asked this question, I often answer: "My pinkie." It's tiny. It's on the end ... out of sight, out of mind. Pointers get a lot of attention and use. Chicago drivers would be lost without their middle fingers. Maybe we could lose the ring finger, but that would create a whole wedding issue. We know we need thumbs to grip stuff.

But the pinkie? Sure, take the pinkie, who cares?

I gave that digit so little thought I couldn't even spell it correctly. (In writing this column, I spelled it "pinky" until

I was nearly done and reading other articles and saw it as "pinkie.") I went to the dictionary and double checked the spelling. Who knew? I double checked "thumb" at that point, too, for good measure and paranoia.

My perspective on the littlest digit changed when it was pointed out (verbally, not with a finger) that a massive amount of hand strength resides in the pinkie. Evidently, you need something to oppose that opposable thumb and that duty falls to the opposite side of the hand: the little, lowly pinkie. Easily 50% of your hand strength resides with that little digit. Go figure!

Worse yet, because it's so small and on the end of the hand it's more prone to injury.

Lots riding on that little finger, and we don't even help it out!

on your team may be providing incredible value, and you'd find your company, division or crew far worse off if that person were gone.

Well, we all have metaphorical pinkies in our lives and businesses, such as people or items we may not necessarily pay attention to that provide incredible support to what's going on.

Maybe this is the front-line crew member who silently but effectively welds details. Maybe it's the shop assistant who keeps 800 tools secure and materials inventoried and organized.

I recently visited Advanced Roofing in Fort Lauderdale, Fla., an operation with sprawling warehouses. During the shop tour, the company's founder, Rob Kornahrens, introduced me to Herbie Allen, who Kornahrens described as "the one who knows where everything is and keeps us running." Allen has been working for Advanced Roofing for decades in the yard and warehouses and is part of the organizational family. The smiles and body language by both gentlemen conveyed their history and respect for each other.

The thing is, not all employees in many companies are treated like that. If someone is not the whiz kid estimator or the salesperson who breaks quotas every month, he or she may not get any public attention or even be on the radar at all. But they need to be. Because like your pinkie, your world gets jammed up in a hurry without them.

Consider a manufacturer's line worker who is solid, reliable and hardworking. In the current environment, that quiet "pinkie" worker is more important than ever. But if he or she

doesn't feel valued or appreciated, it's far more likely the company will lose him or her to a competitor or another industry.

The most overlooked person on your team may be providing incredible value, and you'd find your company, division or crew far worse off if that person were gone.

These overlooked employees will answer another version of the "would you rather ..." question and choose to work elsewhere.

Ultimately, would you rather work for just a paycheck or would you rather be involved in a company, cause and purpose where you feel valued, appreciated and fulfilled? These are real questions in people's minds every day.

We need to protect, praise and value the "pinkies" in our lives. It's a quiet role we may be underappreciating.

How can you help prevent employee burnout?



After dealing with the COVID-19 pandemic and its challenges—including increased workloads—for several years, more organizations are seeing unprecedented levels of stress, anxiety and burnout, according to forbes.com.

Research from global staffing firm Robert Half, Menlo Park, Calif., shows 91% of employees feel at least somewhat burned

out, which is defined as mentally and physically exhausted from work. A Gallup survey reports employees who are burnt out are 63% more likely to take sick time and 2.6 times as likely to leave their current employer.

Leaders must understand constantly demanding more work in less time will lead to employee frustration, anger, anxiety and burnout. Following are ways to help prevent employee burnout.

- 1. Balance workloads. Workloads must be well-balanced among team members so individuals do not become overwhelmed. Before reallocating work and assigning tasks, take time to think critically about who is swamped, employee motivations, priorities and who needs an opportunity to develop. Work diligently to ensure no one person constantly is overloaded.
- 2. **Rotate people.** If possible, leaders should consider having a schedule to rotate people out of high-load, high-stress jobs into lower-stress ones. Everyone needs a break, and rotating jobs can prevent burnout and be an opportunity for people to work in areas where they may not normally be assigned.
- 3. **Closely monitor progress.** Check in frequently with team members about how they are doing as a group and individually. Team members can share challenges and work together to find solutions. Examples of questions to ask during check-ins include: Do you feel you can complete the project by the deadline without having to work unreasonable hours? Is there anyone else on the team who could help so you could meet the deadline? Is there any part of this project that might be delayed? Do you need additional training or resources to be successful? What have you learned that we might do differently next time we face a task like this?
- 4. **Help people prioritize.** Employees often are left to figure out how to prioritize their work, and that can accelerate burnout. A quick prioritization discussion with a supervisor can help. For example, each morning, supervisors can ask employees what tasks they have that day and help them organize and prioritize the tasks.

CPWR launches program to protect workers from struck-by accidents

CPWR—The Center for Construction Research and Training reports from 2018 to 2020 transportation incidents were the second leading cause of death in construction and contact with objects or equipment was the fourth, according to constructiondive.com. The deaths happened despite the known dangers of struck-by hazards, which the Occupational

Safety and Health Administration describes as an injury or death produced by forcible contact between a person and an object, such as a moving car or falling piece of equipment.

CPWR has developed a toolkit to help contractors identify risks, plan for a job and then develop "nudges," or reminders, which could be ongoing training or incentives.

CPWR surveyed employers—commercial contractors made up 80% of the respondents—and found working around heavy equipment vehicles and falling or flying objects at heights and/or the same

Why Have A Plan To Prevent Struck-by Incidents?

By planning shead of the project - starting at the bidding stage - you can eliminate struck-by hazards at the source by making user the site is et so correctly and egiting the appropriate equipment, controls, and PPE in place before each shift and before engaging in tash that present struck by hazards - you can keep all employees engaged and source of hazards, solutions, and work place safety projects.

Section 1: Identify the Risks

Learn more about
CPWR's struck-by
hazards research at
professionalroofing.net.

level as workers posed the greatest risk of a struck-by incident. CPWR is encouraging contractors to plan around those hazards first. When contractors know which types of tasks will introduce more hazards, they can ensure workers have the proper safety knowledge.

About 25% of respondents said lack of understanding about how to address hazards and scheduling pressure are the biggest barriers for employers to engage in the safest practices. Thirty percent said the biggest barrier for workers was the lack of pre-task planning.

Nearly 80% of respondents said worker training regarding how to identify and prevent struck-by hazards would help their employees prevent struck-by incidents.

Along with planning and education, CPWR emphasizes actively reinforcing the training; using job-site posters to remind workers to wear personal protective equipment; and implementing reminders such as text messages, emails or stickers to help keep rules and practices at the forefront, as well as incentives or rewards for engaging in daily planning.

Although identifying hazards and planning is the first step, CPWR recommends reinforcing the practices with consistent nudges to help keep workers safe.



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John Altmeyer named GAF's CEO

Standard Industries has appointed John Altmeyer GAF's CEO effective immediately. After 28 successful years at GAF, Jim Schnepper, who was appointed president in 2017 and became CEO in 2021, has stepped down and is joining the standard advisory board.



Altmeyer

"We are grateful to Jim Schnepper for his dedication to

GAF over his many years with the company and wish him success in his next chapter," says David Winter, co-CEO of Standard Industries. "As one of the industry's most respected executives, John is the right person to step in as CEO of GAF. He will build on the momentum he helped create in GAF's commercial business and continue to strengthen and expand GAF's broader leadership in the industry."

Altmeyer joined GAF in 2021 as executive chairman, commercial roofing. Under his leadership, GAF commercial sales have more than doubled. Altmeyer previously served for 21 years as president of Carlisle Construction Materials.

"John Altmeyer is a renowned industry leader who will draw upon his deep experience, relationships and track record to drive GAF's next stage of growth," says David Millstone, co-CEO of Standard Industries. "Over the past few years, John set GAF up to be as successful in commercial as it is in the residential market. We now look forward to working with him as he leads the entire company into the future."

IRS releases 2023 standard mileage rates

The Internal Revenue Service has announced the 2023 optional standard mileage rates for calculating deductible costs associated with using an automobile for business, charitable, medical or moving purposes.



As of Jan. 1, the standard mileage rate

for the use of a car, van, pickup or panel truck is 65.5 cents per mile for business miles driven. The standard mileage rate is 22 cents per mile driven for medical or moving purposes and 14 cents per mile driven in service to a charitable organization.

During the second half of 2022, the business mileage rate was 62.5 cents per mile and the medical and moving rate was 22 cents per mile. The charitable rate is set by statute and remains unchanged.

It is important to note under the Tax Cuts and Jobs Act, taxpayers cannot claim a miscellaneous itemized deduction for unreimbursed employee travel expenses. With the exception of members of the Armed Forces on active duty moving under orders to a permanent change of station, taxpayers also cannot claim a deduction for moving expenses.

Additional information is available at irs.gov/pub/irs-drop/n-23-03.pdf.



Fatal work injuries recorded in the U.S. increased 8.9% in 2021

The Department of Labor's Assistant Secretary for Occupational Safety and Health Doug Parker issued a statement Dec. 16, 2022, regarding the release of the Bureau of Labor Statistics' 2021 Census of Fatal Occupational Injuries. The report shows fatal work injuries recorded in the U.S. in 2021 increased 8.9% from 2020.

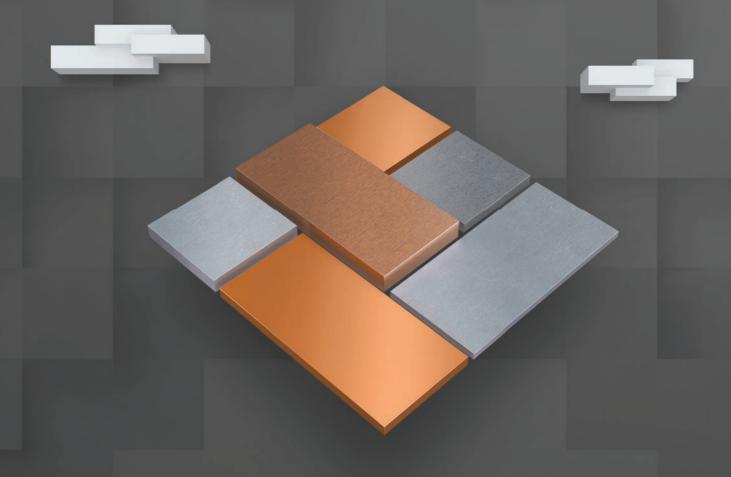
"Today's announcement by BLS of a one-year increase of nearly 9% in fatal work injuries serves as a call to action for OSHA, employers and other stakeholders to redouble our collective efforts to make our nation's workplaces safe," Parker said.

Parker addressed the numbers and emphasized the effects of the fatalities on workers' families and communities.

"In 2021, 5,190 workers suffered fatal work injuries, equating to one worker death in the U.S. every 101 minutes, including 653 Black workers, whose fatality rate hit an all-time high. Black and Latino workers also had fatality rates disproportionately higher than their co-workers in 2021," Parker said. "These are deeply troubling facts.

"Each of these deaths cruelly impacts these workers' families, friends, co-workers and communities," Parker continued. "They are clear reminders of the important work that must be done. OSHA and its thousands of professionals across the nation are determined to enforce the law while working with employers, workers, labor unions, trade associations and other stakeholders to ensure that every worker in the U.S. ends their workday safely."

The BLS report is available at bls.gov/news .release/pdf/cfoi.pdf.



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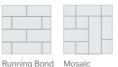
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RESEARCH+TECH



Better understanding of adhesion

Recent research shows vapor retarder adhesion to new concrete roof decks varies

by Mark S. Graham

n "An evolution of knowledge," February 2022 issue, I discussed NRCA's research examining roofing-related problems with moisture in concrete roof decks. One area where NRCA considered additional research to be necessary was addressing the adequacy of vapor retarder adhesion to newly placed concrete roof decks.

NRCA has since undertaken this research, which provides designers with some guidance for proper vapor retarder selection.

Adhesion research

NRCA contracted with SRI Consultants Inc., Waunakee, Wis., to oversee test specimen preparation and conduct vapor retarder adhesion testing.

Ten 6-inch-thick concrete roof deck specimen sets were poured using normal-weight structural concrete. The top surfaces of the concrete specimens were float-finished.

After 28 days of curing at standard laboratory conditions, a two-ply built-up membrane was applied to two of the concrete roof deck specimens and four different manufacturers' self-adhering vapor retarder products were applied to the remaining concrete roof deck specimens in two specimens sets. For each of the self-adhering vapor retarder types, the manufacturer's recommended primer was used, and installations



were done in accordance with manufacturers' installation instructions by an experienced roofing contractor.

One set of each of the concrete roof deck and vapor retarder specimens were conditioned at standard laboratory conditions for 60 days. For the remaining concrete deck and vapor retarder sets, insulated enclosures were constructed on the bottoms of the specimens and heat was applied, resulting in a 30-degree Fahrenheit temperature differential across the bottom to the top of the specimens. This temperature differential created a net vapor pressure drive

from the bottoms to the tops of the specimens. This same net vapor pressure assessment concept also was used in NRCA's earlier research.

After 60 days of conditioning, the vapor retarder specimens were cut to size, a load frame was applied and a calibrated pull tester was used to test the adhesion of the vapor retarders to the concrete roof deck specimens. Five specimens of each vapor retarder type and condition were tested. The average of the five specimens' results are shown in the figure.

The testing shows adhesion of vapor retarders to concrete decks varies widely. For four of the five vapor retarders, the results of the temperature differential-conditioned samples were lower than the laboratory-conditioned samples. For sample manufacturer 3-SA membrane, the temperature differential-conditioned test specimens

tested higher than the specimens that had been laboratoryconditioned.

I consider the two-ply built-up roof membrane samples to be somewhat baseline control samples. Historically, the U.S. roofing industry has successfully used two-ply BUR membranes as adhered vapor retarders over concrete roof decks. In the laboratoryconditioned testing, the two-ply BUR membrane sample exhibited greater adhesion than the self-adhering vapor retarder samples.

Only sample manufacturer 3-SA membrane exhibited greater adhesion than the two-ply BUR membrane samples after temperature differential conditioning.

It should be noted all samples exhibited adhesion well in excess of what is necessary to achieve Class 90 (FM 1-90) uplift.

Recommendations

Because adhesion of vapor retarders to concrete decks varies, designers should specify vapor retarders after considering vapor retarder adhesion at the time of application and while in service.

Also, manufacturers should incorporate some form of vapor drive conditioning assessment in their product developments and assessments and make that information available to specifiers. The vapor drive conditioning used in this testing is one possible assessment method.

NRCA continues to recommend roof system designers use caution when specifying the installation of membrane roof systems over newly poured normal-weight and

	Tested pull resistance		Difference	
Sample	60-day laboratory conditioning (average)	60-day laboratory conditioning with temperature diffference (average)	Differential	Percent differential
Two-ply built- up membrane	1,421 psf	833 psf	-588 psf	-41%
Manufacturer 1-SA membrane	768 psf	645 psf	-123 psf	-16%
Manufacturer 2-SA membrane	331 psf	318 psf	-13 psf	-4%
Manufacturer 3-SA membrane	1,139 psf	1,311 psf	+172 psf	+15%
Manufacturer 4-SA membrane	1,415 psf	707 psf	-708 psf	-50%

Results of pull resistance testing after 60 days of laboratory conditioning and 60 days of conditioning with a temperature differential

lightweight structural concrete roof decks. When adequate dryness of concrete roof decks cannot be reasonably ensured, NRCA recommends a well-adhered, low-perm-rated vapor retarder be specified for installation directly over the concrete roof deck. Then, an adhered or loosely laid ballasted roof system can be specified over the vapor retarder, preferably installed the same day or within several days of vapor retarder installation.

Roof system types that involve mechanical fasteners that would penetrate the vapor retarder should be avoided to ensure vapor retarder performance. The purpose of the vapor retarder is to isolate a concrete deck's free water within the concrete and minimize the potential for moisture vapor transport into the roof system.

NRCA also maintains its long-standing recommendation that the use of curing and finishing compounds be avoided when placing and finishing structural concrete roof decks as these compounds are known to retard moisture release and can affect adhesion of roofing materials.

RESEARCH+TECH

In addition, NRCA suggests roof system designers minimize the use of materials and products with organic content over concrete roof decks to decrease the potential for microbial growth in the event moisture from a concrete roof deck infiltrates the roof system. Examples of roofing products with organic content include fiberglass-reinforced, cellulosic mat-faced polyisocyanurate; perlite board; and wood fiberboard. Coated, fiberglass mat-faced polyisocyanurate insulation is preferred over fiberglass-reinforced, cellulosic mat-faced polyisocyanurate in concrete roof deck applications.

For reroofing situations over existing concrete roof decks where there is evidence of concrete deck-related moisture problems, NRCA suggests roof system designs similar to those recommended for newly placed concrete roof decks.

Additional information about moisture migration in roof assemblies is provided in the Condensation and Air Leakage Control section of The NRCA Roofing Manual: Architectural Metal Flashing and Condensation and Air Leakage Control. Additional information about concrete roof decks and vapor retarders is provided in Chapter 2—Roof Decks and Chapter 3—Air and Vapor Retarders, respectively, of The NRCA Roofing Manual: Membrane Roof Systems.

NRCA members can download both manuals free from shop.nrca .net. Hard copies also are available to purchase.

MARK S. GRAHAM is NRCA's vice president of technical services.

✓ @MarkGrahamNRCA

New U.S. solar installations decreased in 2022

In December 2022, the Solar Energy Industries Association and research firm Wood Mackenzie, Edinburgh, U.K., forecasted new U.S. solar installations were on track to fall by 23% to 18.6 gigawatts by the end of 2022, according to reuters.com. Solar panel imports have stalled because of a ban on goods from China's Xinjiang region because of forced labor concerns.

The news comes as solar companies look to take advantage of subsidies in the Inflation Reduction Act, a new law that encourages clean energy technologies to address climate change.

The report predicted utility-scale project installations would contract by 40% in 2022 compared with 2021 to 10.3 GW. Big projects for utilities and other large customers make up the largest portion of the U.S. solar market. Commercial and community installations also were expected to decline, but the residential market was expected to increase 37%.

The report also forecasts supply issues are expected to last until the second half of 2023 and delay the effects of the Inflation Reduction Act.

The report predicts the market will return to growth in 2023, with average annual increases of 21% between 2023 and 2027.

ERA recommends revised approach to mitigate urban heat island effect

Based on the findings of two recent studies, the EPDM Roofing Association recommends federal, state and local governments as well as regulatory bodies pause the development and implementation of reflective roofing and "cool" roofing mandates. The studies attempted to measure the efficacy of reflective or cool roofing as a mitigation strategy against the urban heat island effect. The findings revealed complex and inconsistent temperature assessment protocols are being used in virtually all urban heat island effect evaluations, making comparisons of efficacy problematic.

For the initial study, ERA contracted with ICF, a Reston, Va.-based independent consulting firm with experience in climate change and building science. ICF analyzed existing data and previous studies about the urban heat island effect with specific focus on the measurable effects of the roof albedo of low-slope roofing. ICF's analysis of temperature data for cities with cool roof mandates found no discernible correlation between the imposition of cool roof mandates and a reduction in the urban heat island effect.

To further inform the findings of the initial study, ERA commissioned a companion literature review, working with the Department of Construction Science and Management at Clemson University, Clemson, S.C.

According to Clemson University researchers, the literature review exposed the reasons there is no clear answer about the relationship of the urban heat island effect and energy efficiency. First, the results of these studies varied because the effect of cool roofs is influenced by a range of factors such as roof type, climate and location. The studies also varied data capture and analysis, reliance on simulation-based studies and minimal data capture duration. Other factors potentially influencing varying outcomes included consideration of a "heat penalty" during the winter season and the interaction of different building heights. Additionally, there was no consistent comparison of the effect of urban tree canopy, roofs, hardscape, asphalt surfaces and insulation thickness.

According to Dhaval Gajjar, Ph.D., assistant professor and undergraduate program director at Clemson University and a primary researcher on the project: "In many instances, more recent studies based their conclusions and recommendations on widely

distributed prior studies, which now must be considered dated or incomplete information given more updated research."

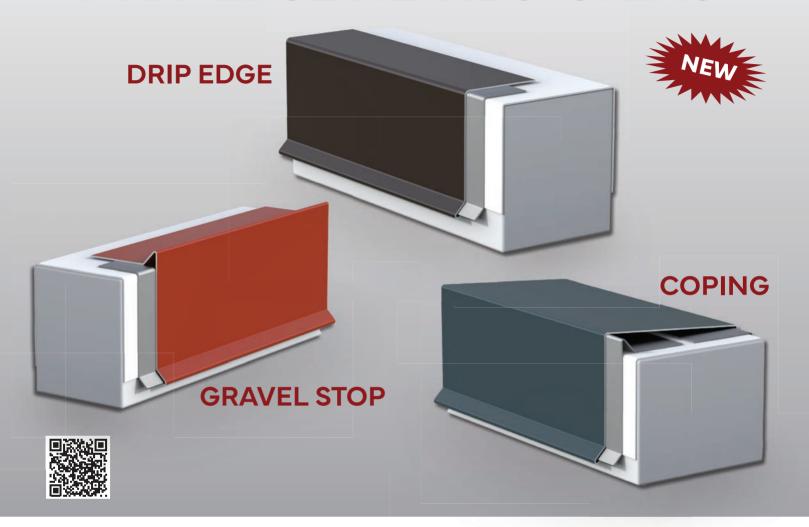


To read overviews of the two ERA research studies, go to professional roofing.net.

"Both of the ERA studies exposed inconsistencies in measuring the impact of reflective roofing on the severity of the urban heat island effect, as well as on the amount of energy being used," says Jason Wilen, forensic architect at Klein & Hoffman, Chicago, and technical consultant with ERA. "Our focus, as we consider policies that are designed to lead us to a future where the urban heat island effect can be managed and even diminished, must be based on science, not supposition."



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Cause for concern

NLRB's proposed rulemaking for determining joint-employer status could negatively affect the roofing industry

by Duane L. Musser

uring autumn 2022, the National Labor Relations Board issued a Notice of Proposed Rulemaking addressing the standard for determining joint-employer status under the National Labor Relations Act. NRCA has serious concerns the proposed rule would negatively affect the roofing industry and filed comments on behalf of members urging NLRB to withdraw or substantially modify the proposal.

The standard

The joint-employer standard is used to determine when two or more entities are jointly responsible for the terms and conditions of employment for the same group of employees. These terms and conditions include but are not limited to having the ability to hire, fire, discipline, supervise and/or direct employees. Joint employers are responsible for bargaining with any union representing joint employees and mutually liable for NLRA violations for which either entity is responsible. Thus, joint-employer status results in significant changes to an employer's liabilities and responsibilities under the law.

Under the current standard, entities only can be joint employers if



they exercise direct and immediate control over the essential terms and conditions of employment. The standard provides clarity for businesses and protects them from unnecessary involvement in labor negotiations and disputes involving workplaces where they do not have any control. This is vital in the current complex and competitive markets in which businesses have contractual relationships with dozens or even hundreds of franchisees, vendors and contractors.

NLRB's proposed rulemaking seeks to greatly expand the standard for determining jointemployer status under the National

Labor Relations Act. It would do so by expanding the definition of joint employer to include any employer that "possesses the authority to control (whether directly, indirectly or both), or exercises the power of control (whether directly, indirectly or both), one or more of the employees' essential terms and conditions of employment." According to NLRB, the modification is designed to explicitly ground the standard in established agency principles and provide relevant guidance to entities covered by the National Labor Relations Act.

Potential problems

NRCA is concerned the proposed change will significantly adversely affect roofing industry employers if implemented. A much broader standard that establishes joint employers through evidence of any potential indirect control, even if unexercised, of the terms of employment will inject a high degree of uncertainty into this area of the law. Moreover, the proposed rulemaking contains numerous ambiguous definitions of the terms of the new standard, further increasing the level of uncertainty for employers, with small businesses likely to be affected most acutely.

In comments submitted to NLRB, NRCA highlighted two sections of the proposed rulemaking of greatest concern to the roofing industry. First, the proposed rulemaking fails to clearly specify the "essential terms and conditions of employment" that could possibly be used to constitute joint-employer status. The terminology is ambiguous and does not delineate the additional terms and conditions of employment regulated entities would need to consult to interpret and comply with the regulation.

Second, the proposed rulemaking would broaden the definition to such an extent that any evidence of potential control of employees by employers will be deemed sufficient to establish joint-employer status rather than the current threshold of substantial evidence. In fact, the proposed rulemaking appears to violate the Administrative Procedure Act, which holds that any agency regulatory action cannot be lawful if it is "unsupported by substantial evidence in a case."

The changes in the joint-employer standard brought about by these two components of the proposed rulemaking would make it difficult to properly delineate employees from independent contractors or subcontractors in many instances. This would be particularly problematic regarding multi-employer worksites in the roofing and construction industries that often involve relationships among many different entities working on a large project.

NLRB states the proposed rulemaking applies to five categories of employer relationships, including contractors/subcontractors, that are most likely to incur compliance costs under the new standard.

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NLRB readily admits it "does not have the means to identify precisely how many businesses are impacted by contracting and subcontracting within the U.S. or how many contractors and subcontractors would be small businesses as defined by the Small Business Administration." However, the agency is apparently undeterred, stating these relationships are "potentially subject to application" of the broader standard despite not knowing the scope and effect on small businesses.

Looking out for you

NRCA believes NLRB is overstepping its authority in its interpretation of the law with the proposed rulemaking. NRCA's comments urge the agency to withdraw or dramatically modify the proposed rulemaking to address NRCA member concerns. Final changes to the standard likely would not take effect until the end of the year or early 2024. NRCA will keep you informed of any updates and continue working to protect the roofing industry from problematic and overreaching regulations.

DUANE L. MUSSER is NRCA's vice president of government relations in Washington, D.C.

Ohio contractors face fines for exposing workers to fall hazards

In June 2022, federal safety inspectors observed C.R.H. Roofing LLC, Middlefield, Ohio, exposing workers to deadly fall hazards at two job sites in Tallmadge, Ohio, and Columbia Station, Ohio, according to osha.gov. The company is not an NRCA member.

Following its investigations, the Occupational Safety and Health Administration proposed \$363,890 in penalties for C.R.H. Roofing



after the agency identified four willful and two repeat violations during inspections June 3 and June 9, 2022. At both worksites, inspectors observed roofing workers at heights greater than 6 feet without fall protection and lacking eye protection while using pneumatic nail guns. The company also allowed ladders to be used improperly.

After three previous inspections in 2019 and 2021, C.R.H. Roofing faced more than \$51,000 in penalties, which remain unpaid. With the additional penalties, the company now owes more than \$414,000 in OSHA fines. OSHA has placed the company in its Severe Violator Enforcement Program.

In a separate case, for the eighth time since 2016, federal safety inspectors found the owner of Altogether Roofing LLC, Martin, Ohio, exposing roofing workers to fall hazards by failing to provide fall-protection equipment and hazard training.

The company and its owner, Mike Krueger, now face \$300,144 in penalties after an OSHA inspector observed eight employees working at heights up to 20 feet without fall protection while atop a Maumee, Ohio, residence June 22, 2022. The company is not an NRCA member.

Following the inspection, OSHA cited the contractor for three willful, one repeat and one serious violation for exposing workers to fall hazards, failing to use ladders correctly, lacking an accident-prevention program, failing to provide training on ladder usage and fall hazards, and failing to provide eye protection.

"Altogether Roofing shows a callous disregard for the safety and well-being of its workers and continues to expose them to the risks of serious, debilitating and potentially fatal fall injuries," says OSHA Area Director Todd Jensen in Toledo, Ohio. "This employer and others who continually put people in jeopardy can face our full legal powers to hold them accountable."

To view additional information regarding the temporary final rule, go to professional roofing.net.

The companies each had 15 business days from receipt of the citations to comply, request an informal conference with OSHA's area director, or contest the findings before the independent Occupational Safety and Health Review Commission.

OSHA's stop falls website, osha.gov/stop-falls, offers safety information and video presentations in English and Spanish to teach workers about fall hazards and proper safety procedures. NRCA also offers products, education and training programs that help you implement and maintain a safety program that achieves results. Visit nrca .net/safety to learn more.



Temporary final rule is issued to provide additional visas

On Dec. 12, 2022, the Department of Homeland Security and Department of Labor issued a temporary final rule allowing eligible employers to apply for 64,716 visas for the H-2B Temporary Non-Agricultural Worker program for fiscal year 2023. The fiscal year is from Oct. 1, 2022-Sept. 30, 2023.

Previously announced in October 2022, the additional H-2B visas will supplement the 66,000 visas authorized annually by law. The supplemental visa allocation of about 44,700 visas is available to returning workers who received an H-2B visa or were otherwise granted H-2B status during one of the previous three fiscal years. The remaining 20,000 visas are reserved for nationals from El Salvador, Guatemala, Haiti and Honduras, regardless of whether they are returning workers.

NRCA had urged the federal agencies to

issue these additional visas and is pleased with the administration's action to release them earlier than previous years, which will help employers meet their peak workforce needs. NRCA will continue to

urge Congress to increase the number of H-2B visas on an annual or permanent basis to help roofing contractors meet their seasonal workforce needs.

The temporary final rule was published in the *Federal Register* Dec. 15, 2022.



ABCS of DEI

Diversity, equity and inclusion initiatives can only help your company

by Mandy McIntyre



t was a hot, humid summer day in Cleveland when I began my new job as a project coordinator with a roofing contractor 10 years ago. Driving to my new place of employment, I had the air conditioning on full blast to cool me down and calm my nerves. I knew full well what I was about to walk into: a male-dominated work environment. And though I had been around the trades most of my life because my parents owned a small general contracting business, I was nervous.

I had been around roofing workers before and heard the crude remarks, caught the wandering eyes and felt the intimidation. I had more than a case of new-job jitters; it was a looming self-doubt I would be belittled. Thoughts raced through my head whether I would be taken seriously by the men I would lead and the project teams I would manage. As I walked through the door, I remember thinking "act as if." Act as if I belonged. Act as if my confidence flourished despite my racing heartbeat. Act as if the clothes I was wearing weren't uncomfortable because I wanted to assimilate and be as nonfeminine as possible. Act as if I had no emotions. Act as if I wasn't myself.

Fortunately, the first day ended up being OK. Was it great? No. Was it tolerable? Yes. Was I able to work extra hard to prove myself and my worth? Absolutely. Nearly nine years later, I was named vice president of the company, something I am extremely proud of accomplishing. However, I'm the exception to the rule. Not every woman is given the same opportunity or in an environment where her work is valued and her achievements are acknowledged and rewarded.

My story is a happy one, but it wasn't all sunshine and rainbows. I faced challenges being a woman in the roofing industry—sexist remarks, microaggressions and tasks assigned to me because I am a woman, such as ordering lunch or planning parties. Things that made me cringe when I was asked to do them, but I politely obliged. At one point, I was threatened to be raped by a subcontractor for not approving his payment application. And what did I do when I was threatened? I acted as though it didn't bother me.

There are too many stories like these within our industry that go unheard, and this is why diversity, equity and inclusion are vital. Many people from historically excluded groups have told me about their unique challenges and experiences in the roofing industry. The common thread to their stories? People have been made to feel they have to act as if they're someone they're not.

If we want our industry to thrive and grow with talent

and employee engagement, we can't expect people to "act as if" they feel a sense of belonging. If we want people to perform well, they have to feel good about themselves and their work environments. Bottom line: We need to do better, and we can.

Diversity, equity and inclusion, or DEI, have been popular buzzwords since 2020. However, there are many misconceptions about their meaning and intent. Diversity, equity and inclusion are not challenges or threats. They offer an opportunity.

If you are like other roofing professionals, your company has experienced a labor shortage. I believe DEI is the answer to that problem. DEI strategies can strengthen your business and employee experience; you just need to do the work.

DIVERSITY

According to *Merriam-Webster*, the definition of diversity is: "the condition of having or being composed of differing elements; variety, especially: the inclusion of people of different races, cultures, etc., in a group or organization."

Diversity often is what you can see: age, gender, race, ethnicity, etc. However, diversity goes beyond that. It

also applies to diversity of thought and experience, sometimes referred to as neurodiversity. Harvard Medical School describes neurodiversity as "the idea that people experience and interact with the world around them in many different ways; there is no one 'right' way of thinking, learning and behaving, and differences are not viewed as deficits."

Diversity, equity and inclusion are not challenges or threats. They offer an opportunity.

Diversity is important because it drives a spark in thought creativity and innovation, which leads to greater production and profitability. Imagine a room full of people all with the same mindset. How much "thinking outside the box" would occur? We need diverse groups to move past the status quo.

Per a report by McKinsey & Company, "ethnically and culturally diverse companies are 33% more likely to be more profitable." Diverse teams can help cut through the confusion and enhance problem solving. A study by *The New York Times* detailed that "interacting with diverse groups produces answers that are 58% more accurate." And Deloitte research showed "diversity and inclusivity in a team setting improved decision-making quality by 20%."

Diversity is the key to broadening your production and talent pool horizons. However, it's one thing to have

Equity goes beyond equality to ensure fair opportunity and access for each employee to succeed

a diverse team and quite another helping people feel included. You can hire the most diverse team on the planet, but if you aren't creating an inclusive culture and environment, you're basically wasting your time.

EQUITY

Equity is probably the most misunderstood component of DEI

and often confused with equality. However, equity goes beyond equality to ensure fair opportunity and access for each employee to succeed. The *Oxford Dictionary* defines equity as "a system of natural justice allowing a fair judgment in a situation which is not covered by the existing laws."

When I was working for that same roofing contractor, the company had a strict 7:30 a.m. start time. Tardiness was not tolerated, and corrective action was implemented when employees were continually late. There was a foreman who had a habit of coming in late, and the leadership team was on the verge of firing him. I asked to talk to him first to figure out what might be going on. He told me he was in substance use recovery and was going to a clinic to receive medication certain mornings to help him stay sober. Sometimes, the line was long, which would cause him to be late.

Once I learned that, he was granted a flexible start time—an *equitable* start time. The best thing for him was staying healthy, and that surpassed the rule of punctuality. Why? Because treating employees equitably allows the best possible outcome for the individual and the company. Had we fired him, we would have lost talent and spent time and money finding a new hire. And he would have the stress of having to find a new job. It made sense to offer the flexibility he needed to show up the best version of himself every day even if he sometimes arrived later than we would have liked.

Another example of equity is to think about a track with runners at the starting line. If the runners have a literal "equal" starting position, it wouldn't give each runner the same fair opportunity and access to win because the inner laps are shorter than the outer laps. This is why races use equitable, staggered starting positions to ensure fairness for all participants.

Imagine giving all your roofing crews the same tools and materials for the day: a hand welder and some TPO material. However, one crew is on a shingle tearoff; one is on an EPDM repair; and one is working with TPO. A heat gun is great for the TPO crew but isn't going to help the others. Giving everyone the same tools is equal, but it's not equitable. The crews working with shingles and EPDM don't have what they need to succeed.

INCLUSION

The Cambridge Dictionary defines inclusion as: "the act of including something or someone as part of something."

Inclusion is an action; it's a feeling. The only true way of getting key performance indicators on inclusion is getting input and feedback from your team. Inclusive leadership creates employee engagement and a sense of belonging. It's a constant moving machine driving the culture forward in a positive way to create an environment where every person feels they have a purpose and that they are seen and heard for who they are as individuals.

Think of a time when you were excluded from something. Maybe it was being chosen last for a team, not being invited to a party or being shunned by your peers at school. How did it feel? As humans, we all have experienced the sting of exclusion at some point in our lives. Now, imagine that happens day after day in your place of employment. How would you feel? How would your productivity be? How engaged would you be with your team and your work?

Often, we confuse an employee's satisfaction with engagement. They're two different qualities. Being satisfied means an employee likes his or her job, but the factors are missing for full engagement. Leading and acting on inclusion motivates employees to want to do their assigned tasks not just merely doing what is assigned to them.

Inclusion brings purpose and allows employees to be their authentic selves and synthesize their motivation with their work. A Gallup poll shows "engaged employees are psychologically committed to their work, go above and beyond their basic job expectations, and want to play a key role in fulfilling the mission of their organizations."

So how does inclusion affect roofing? If you have a service tech out on a work order, and she is fully engaged in her work because the culture fosters a sense of belonging, how likely is it she will go above and beyond and get the job done right the first time? It is highly likely and more likely than an employee who is simply "satisfied." A satisfied employee may enjoy the company, pay and benefits, but is the culture giving that employee a true sense of feeling included to the point of full engagement and the desire to perform well? The satisfied employee might go to the job site and fulfill the work order but not feel the motivation to walk the roof for other potential issues, talk to the customer, take the right amount of pictures, fill out the work order completely, etc.

The key to fostering a company culture of inclusion is making sure employees are seen and heard. This means clear communication and the opportunity to hear input without fear of retribution. This also means having uncomfortable conversations. If an employee has an idea or an issue, he or she should be able to express, respectfully, his or her thoughts. This doesn't necessarily mean every request is granted, but an environment that allows a free flow of communication creates inclusion and engagement. Providing freedom to express thoughts and feelings is called psychological safety. Uncomfortable or time-consuming conversations have a huge return on investment in the long term.

Communication from leadership with transparency is another key component. If your employees don't know about something, it doesn't exist. Perception is reality. This is where companywide meetings, lunch and learns, team-building events and state of the company addresses are vital. Talk to your employees and tell them the "why" for everything they do. Telling someone why they need to do something and why it's important creates purpose, which leads to engagement.

For an article related to this topic, see "Working with diversity," February 2008 issue.

TYING IT TOGETHER

Employing DEI initiatives within your company can help you confront the current labor shortage facing the industry. Consider:

- An Indeed survey found "55% of job seekers say it is very important or extremely important to work at a company that prioritizes diversity and inclusion."
- A Glassdoor survey details "a staggering 2/3 of job seekers take a look at a company's diversity when job hunting."
- A Deloitte study found "organizations with inclusive cultures have higher retention rates and greater productivity rates. They are able to focus on retaining and developing talent, instead of constantly trying to backfill a revolving door of resignations."

Although I am no longer employed by a roofing contracting company, I genuinely care for the roofing industry, and I have a passion for DEI. By embracing DEI initiatives, you can ensure a steady pool of talent, a more engaged workforce and people who want to be in roofing. No longer do I "act as if" now. Rather, I take authentic action.

So I ask: Are you simply "acting as if" or are you courageous enough to lead with authentic action to elevate this great industry? Diversity, equity and inclusion are the future, and now is the time to seize this opportunity and embrace it.

MANDY McINTYRE is owner and president of Level Up Consultants, Cleveland.

To view tips for successful DEI programs in the construction industry, go to professionalroofing .net.



The future of health care

Biohealth care helps prevent employee injuries

by Stephen Grennan, D.C., D.O.

s you know, your workers are the key to your company's success, and the last thing you want is workers out because they are injured. With 28 years of experience in occupational biomechanics, I understand the importance of injury prevention. Finding solutions to discomforts and implementing unique, proven solutions to reduce injuries in the workplace are components of what is known as biohealth care.

Biohealth care helps minimize financial and human costs associated with workplace musculoskeletal disorders. It is designed to intervene and find solutions to employee discomforts before seeking treatment from a medical clinic, thereby reducing Occupational Safety and Health Administration recordable accidents and workers' compensation claims and costs.

To help keep your employees safe and injury free while improving productivity, consider adding biohealth care to your company's health care benefits.



Workers implement biohealth stretches before working on a job site. These stretches help the body loosen up and have good range of motion throughout the day.

Many office workers who sit at desks for long periods experience tight shoulders. Using a hyper volt tool releases tension.

What is biohealth care?

According to the College of Science at Oregon State University, Corvallis, biohealth science is a new name for one of the oldest disciplines that encompasses biology. Biohealth scientists accelerate discovery and advance understanding of human health. Biohealth care focuses on finding effective solutions for physical discomforts and educates employees regarding injury prevention, such as preparing for overextension when doing certain tasks.

A successful biohealth care program reduces workers' compensation claims, focuses on tips and advice for preventive measures, and helps build healthier, more prepared employees. Importantly, it provides individual preparation and stretching programs for workers. By applying a specific, individualized and proactive approach to injury prevention, employees recognize it's about them and for them, and when applied, it makes their lives better.

Roofing workers' needs

In the roofing industry, physical labor occurs every day, comes in numerous forms and can leave employees exhausted, tired and possibly sore. Too much physical labor can leave employees irritable and overwhelmed.

Days, weeks and sometimes months of repetitive movements create stress and strain. Degenerative joint disease is consistent with cumulative joint usage. Carrying 80 pounds of bundled shingles on a steep-slope roof when not in an optimal ergonomic position feels a lot

more than 80 pounds on ankles, Achilles tendons and calves. Picking up shingles all day affects the No. 1 area of concern—the back.

Pushing to remove roofing materials from a roof with tools such as pry bars, axes, shovels, spades and hydraulic hammers also can cause strain on the back. A strong biohealth care program creates individualized solutions for back discomforts and addresses them before they turn into injuries.

Following is an example of a four-phase customized biohealth care plan:

- Phase one focuses on a proactive approach to finding vulnerabilities for strains and sprains and then implements solutions to prevent injuries.
- Phase two is an active approach that prepares joint and muscle groups for simple repetitive motions and overextension performed daily.
- Phase three is a reactive approach to recognize types of discomforts and educate employees to avoid additional aches in specific bodily regions.
- Phase four is rehabilitation where analysis information is used to interpret the type of care needed to rehabilitate and restore stability back to a muscle and/or joint region.

A biohealth care program should sort out high-, medium- and lowrisk injuries. The idea is to assess employees to find those who need more specifically designed programs. Much like the sports industry, the roofing industry has unique specifications for body preparations such as lower back, wrist, ankle and knee discomfort.

A case study

During the summer of 2020, NRCA member Commercial Roofing & Waterproofing Hawaii Inc., Waipahu, partnered with my company, Bio Health Care LLC, Kapolei, Hawaii, to challenge internal processes that may be affecting productivity.

Through a customized program that includes four visits per month, Commercial Roofing & Waterproofing Hawaii employees receive effective solutions to take care of nagging discomforts and address preventive care to reduce work injuries. Labor-intensive work sometimes surpasses a person's physical capabilities. Preventive care helps avoid a long-term imbalance between physical demands in the workplace and an individual's physical capability.

For workers with specific needs, insoles, braces and orthopedic supports to comfort their feet, knees, ankles and wrists were recommended to help employees reach and maintain a healthier position. We started with about 40 employees and did full-range of motion and flexibility testing. We conducted a number of orthopedic and strengthening tests to gauge early symptoms of discomforts. We then started a program that included testing once per week.

"I have seen a marked improvement with reduced injuries, and I attribute it directly to biohealth care," says Steve Kalani, safety director for Commercial Roofing & Waterproofing Hawaii. "There is a good level of trust among management, field crews and the biohealth care team."

An example of intervention was an employee complaining of acute (quick onset) low-back pain after bending over to pick up shingles. We concluded the employee had a low-back sprain as a result of bending in an uncomfortable position. His range of motion in the torso was 20% and extension abilities was 15%. With the employee's consent, we applied our first-aid care application, including percussion and e-stem tools that reduce swelling and improve blood flow to at-risk joints and muscles. We recommended light-duty work and re-evaluation the next day.

After re-evaluation, the employee's range of motion increased by 40% and extension abilities increased by 20%. Although the employee was doing much better, we recommended he continue light-duty work and be re-evaluated in three days. Following re-evaluation, the employee's flexibility and extension abilities were within

normal range and his discomfort level was down to a one or two (little to no discomfort) from a previous eight (great discomfort).

Several other employees became interested in participating in the program because of our success.

"If you improve your employees' health, they work smarter and more productively," says Guy Akasaki, CEO of Commercial Roofing & Waterproofing Hawaii. "They go home still able to give attention to their families. They feel glad to come to work knowing our company takes care of them."

Cost

An individualized Bio Health Care program for a small-sized company of 50 or fewer employees starts at around \$48,000 annually. This may sound too expensive, especially if you have a smaller company that does not have a large number of employees. However, a single back injury processed through workers' compensation insurance can cost a company an average of \$58,000.

A biohealth care program helps with joint-related discomforts before they become a problem. It is a proactive approach that helps your company and employees prevent accidents, OSHA recordables and other costs (tangible and intangible) that hurt a company's bottom line.

"When I first saw the program, I embraced the concept, but I had a hard time embracing the cost because it's all on the front end," Akasaki says. "But the back end is where you start to see the savings. You can see it in productivity, employee welfare and employee demeanor. Many of our crew members say they feel like Superman after a visit and want to push their bodies."

Care for your crews

Day in and day out, your roofing workers' bodies absorb continual wear and tear on bones, joints and muscles caused by overextension. No job is so important and no service is so urgent that we cannot take time to care for our crews. It's time to implement a biohealth care program at your company. When you do, you will improve employee morale and productivity while reducing potential for expected injuries.

STEPHEN GRENNAN, D.C., D.O., is CEO of Bio Health Care LLC, Kapolei, Hawaii.





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CELESTAL ROOFING

A-1 ROOFING AND HUTCHINSON DESIGN GROUP COLLABORATE TO RESTORE CHICAGO'S ADLER PLANETARIUM

by Chrystine Elle Hanus

In 1913, Oskar von Miller, a German engineer, commissioned Carl Zeiss Works, a manufacturer of optical systems, to design a mechanism that projects an image of celestial bodies onto a dome. The invention was achieved by Walther Bauersfeld, and the first planetarium debuted in Munich in 1923. By 1929, there were 15 planetariums in Europe.

Max Adler, a retired former executive from Sears, Roebuck & Co., Chicago, visited the original planetarium in Germany with his cousin, architect Ernest Grunsfeld Jr. Adler commissioned Grunsfeld to design a planetarium for Chicago, and on May 12, 1930, Adler's birthday, the first planetarium in the U.S. opened on Northerly Island. The Chicago chapter of The American Institute of Architects awarded Grunsfeld a gold medal for his design.

Decades later, the lead-coated copper roof system on Adler Planetarium's dome began to erode, exposing raw copper that patinaed green. During 2021, A-1 Roofing Co., Elk Grove Village, Ill., and Hutchinson Design Group Ltd., Barrington, Ill., teamed up to restore the Chicago landmark.

DESIGN and PREP

In April 2021, the teams began work on Adler Planetarium. The project originally was set to begin in spring 2020 but was delayed because of the COVID-19 pandemic.

"We all revisited the project the following year, and it was determined on-site work would begin in May 2021," says Jeremy Schnizlein, project manager for A-1 Roofing. "With the museum closed to the public all of 2021, deliveries and hoisting the material would be much easier."

Hutchinson Design Group designed the dome's new copper roof system, prepared plans and spec documents, reviewed submittals and observed construction. The teams worked closely with Gilco Scaffolding Co., Chicago, to devise a solution to access the dome safely. A five-level scaffolding setup was designed to rest on the dome and engineered to withstand winds off Lake Michigan.







Left to right: Entrance to Adler Planetarium; flared transitions in copper panels on top of dome; aerial view of the planetarium's new copper roof



"The planetarium is next to Lake Michigan where it is exposed to the elements and has its own unique weather," Schnizlein says. "Wind, rain and flies always were a challenge. We secured all material to withstand whatever surprises were going to come any given day."

The DOME

Once scaffolding was erected, a crew from M&E Construction Co., Elgin, Ill., helped remove the existing copper, underlayment and cork insulation from the 10,000-square-foot dome. It was a slow process as it was imperative the dome's interior remain dry.

"The dome tear-off was an extremely complicated part of the roofing project," Schnizlein says. "We started at the bottom and worked up, removing each section down to the concrete. We took great care to keep the roof watertight at the end of each day."

The crew installed 2- by 2-inch wood battens on the concrete roof deck and added high-density EPS insulation in between the battens followed by two layers of 3/8-inch-thick marine-grade plywood bended to the dome's radius. The plywood was glued and screwed to the battens. This involved a great deal of measuring and cutting as a result of the rounded surface.

Next, team members applied GRACE ICE & WATER

SHIELD® HT self-adhering underlayment and nailed SOPRALENE® 180 polymer-modified bitumen underlayment to the plywood. Workers then placed red rosin paper to prevent the 20-ounce copper panels from adhering to the underlayment.

Tapered standing-seam, loose- and flat-lock copper roof panels were fabricated and installed by Progressive Dynamics Inc., Streamwood, Ill. Every row of panels incorporated a variety of sizes and shapes to conform to the radial nature of the dome and match the original.

"The goal was to replicate the original aesthetic appearance," explains Tom Hutchinson, AIA, FIIBEC, RRC, principal at Hutchinson Design Group. "The dome base is designed as a dodecagon (12 sides). Each of the corners was set as an expansion joint location that continued to the dome cap. In between each expansion joint are nine vertical sections tapering up to the top of the dome. The dome elevation was horizontally divided into 16 equal sections from the base up to the top of the dome.

"Each roof panel was designed and fabricated in a trapezoidal shape with a concave curve; the sides had a flange for a lock seam and the ends (top and bottom) had returns for a loose-lock seam. With the wind off the lake, we wouldn't have been able to use larger, full radial panels for fear of losing some during and after installation."





Left to right: New roof drains to direct rainwater to an interior copper gutter system were installed around the dome's base; a worker locks a standing-seam panel to a lower panel.

PROJECT NAME: Adler Planetarium
PROJECT LOCATION: Chicago
PROJECT DURATION: April-December 2021
ROOF CONSULTANT: Hutchinson Design
Group Ltd., Barrington, III.

ARCHITECT: Wight & Company, Darien, III.
ROOFING CONTRACTORS: A-1 Roofing Co.,

Elk Grove Village, III.; M&E Construction Inc., Elgin, III.; Progressive Dynamics Inc., Streamwood, III.

ROOF SYSTEM TYPES: Copper and EPDM
ROOFING MANUFACTURERS: Carlisle SynTec
Systems, a division of Carlisle Construction
Materials, Carlisle, Pa.; GCP Applied
Technologies Inc., New Haven, Conn.;
Revere Copper Products Inc., Rome, N.Y.

High winds and crashing waves made installing the panels difficult.

"Getting the control lines to keep the panels in line was fun and a small challenge for some on our team," Hutchinson says. "The younger workers on the crew only had experience with lasers to create level horizontal lines, which didn't work on a large radial dome. The installation team had to revert to what was used 40 years ago—a water-level line. It's a wonderful feeling to pass down some old techniques to younger generations."

LOW-SLOPE and GUTTERS

At the bottom of the dome is a 30,000-square-foot low-slope roof area covered in ballast. The A-1 Roofing team removed the old ballast and existing insulation and cleaned the surface of the existing hot rubberized asphalt waterproofing. Next, crew members loosely laid 45-mil FleeceBACK EPDM, placed a drainage mat on the membrane and laid down extruded polystyrene insulation followed by concrete pavers and light-colored ballast.

New roof drains that direct rainwater to an interior copper gutter system were installed around the dome's base. This work involved constructing scaffolding inside the dome's attic to access the drains to tie into the gutter system.

In addition, at the top of the dome are cellular and TV antennae. The original access structure to the dome's top was made of brass bars affixed to the dome's deck. The spacing was wide and a challenge to climb, so the teams added a custom-designed radial aluminum ladder with a rail for fall protection that was attached to the brass bars.

An ICON RESTORED

The teams completed the Adler Planetarium project in December 2021 before snow arrived. More than 14,000 pounds of copper were used to restore the high-profile dome.

"It was rewarding recreating a 100-year icon," Schnizlein says. "I never thought I would one day stand on the top of the dome of Adler Planetarium. It was rewarding to help on a project that is a well-known part of Chicago architecture as well as a place I have been visiting since I was a kid."

For its work on Adler Planetarium, Hutchinson Design Group was awarded a 2022 North American Copper in Architecture Award from the Copper Development Association.

CHRYSTINE ELLE HANUS is *Professional Roofing*'s associate editor and an NRCA director of communications.

Roof repair expertise

NRCA releases a new addition to its technical library by Maciek Rupar

n December 2022, NRCA released *The NRCA Repair Manual for Asphalt Shingle Roof Systems*.

This newest addition to NRCA's technical publication library is patterned after and a companion to NRCA's *Repair Manual for Low-slope Membrane Roof Systems, Second Edition*. Both manuals provide step-by-step instructions with photo illustrations.

The NRCA Repair Manual for Asphalt Shingle Roof Systems is an unbiased, authoritative manual of industry best practices your crews can use as a go-to reference guide for identifying problems and properly repairing asphalt shingle roof systems.

Scope and use

The procedures in *The NRCA Repair Manual for Asphalt Shingle Roof Systems* are intended for long-term repair of asphalt shingle roof systems. For each repair procedure, the manual provides step-by-step instructions in text and photographs to assist field workers. Procedures are based on information collected by NRCA from knowledgeable, practicing roofing contractors and asphalt shingle manufacturers and reflect the consensus of the consulted professionals.

The manual contains 31 procedures that address a variety of repairs and maintenance tasks



commonly performed on asphalt shingle roof systems. The manual does not address temporary, emergency, unconventional or regionally specific repairs.

Complex repairs, including those requiring additional evaluation or design work, are outside the scope of the manual. In such cases, field crews should collect additional information describing existing conditions and forward it to management who may choose to develop project-specific bids for building owners.

The manual does not include all repair practices and applications such as time-tested area practices that have been found to work satisfactorily in specific climates or geographic regions.

The procedures primarily are intended for professional field workers but may be used by building maintenance personnel trained in roofing safety practices and common repair scenarios applicable to the roof system installed on buildings. If building maintenance personnel have no experience with needed repairs, it is best for the building owner to hire a professional roofing contractor to perform the work.

The manual may be used as a resource by roofing professionals when communicating with building owners, homeowners' associations, insurance companies and others. For instance, roofing contractors can reference the manual to substantiate asphalt shingle roof system repair practices and cost estimates to homeowners and insurance companies when repair costs are paid for by homeowners' insurance.

The task force

NRCA's Steep-slope Repair Task Force was responsible for creating the manual. The work took place from July 2020 to May 2022 during which the task force held 23 meetings. Earlier during its term, the task force developed *Asphalt Shingle Roof Systems—A Homeowner's Guide for Inspection, Maintenance and Repair,* a 30-page guide published by NRCA in the fall of 2020 (see "A new resource for consumers," November 2020 issue).

Nine task force members contributed to the development of the manual. Additionally, three NRCA member roof



Content

The introduction addresses the manual's scope, NRCA terminology used in the manual, manufacturer and contractor warranties, material identification, investigating leak root causes and roof system historical records.

Thirty-one repair procedures make up the core of the manual and are organized into seven sections.

General

Repair procedures in the General section address removing and replacing damaged or defective asphalt shingles from the field of a roof; replacing a section of damaged underlayment and roof deck sheathing; replacing hip cap shingles and ridge cap shingles; and repairing or replacing sheet-metal ridge cap flashings.

Fasteners

This section addresses backed-out nails, incorrectly seated shingle nails, and instances where too few nails had been used to fasten asphalt shingles or shingle nails had been placed incorrectly.

Flashings

This section includes procedures for installing new or missing flanged penetration flashings (a box attic exhaust vent, for example) and sheet-metal counterflashings; maintenance and repair of flanged penetration flashings and sheet-metal counterflashings; replacing step flashings and repairing headwall flashings; and backer flashing.

Valleys

Instructions for asphalt shingle roof system valley repairs including clipping valley shingles, trimming open valley shingles, stripping-in open valley metal, and complete replacements of closed-cut valleys and open valleys are addressed in this section.

Edge metal and gutters

This section addresses maintenance of gutter sealant, patching damaged gutter systems, installing drip edge metal, installing and replacing downspouts, reusing existing gutters and replacing gutters.

Ice and snow

The Ice and Snow section includes detailed instructions for repairing roof system and roof deck damage resulting from ice dams and associated leaks. Practices for safe rooftop snow removal also are included.

Crickets

Cricket flashings and cricket substrates are addressed in the final section. NRCA recommends crickets at the upslope side of chimneys and roof curbs when the chimney or curb is more than 24 inches wide. For all crickets, NRCA suggests wood framing and decking be installed beneath crickets for support. The section provides instructions for installing a wood cricket substrate, flashing a shingled cricket and a metal-skinned cricket.

Repair procedures contained in all sections include a scope statement, checklist of tools and supplies, applicable warnings and notes for repair crews, and step-bystep instructions illustrated with color photographs.

Three checklists to help manage service crews also are included in Appendixes 1-3: a checklist of information collected from an incoming problem call, a checklist of information brought back from a service call, and an inventory of service truck materials and tools.

A go-to resource

The NRCA Repair Manual for Asphalt Shingle Roof Systems is a valuable resource for roofing professionals seeking best practice recommendations for asphalt shingle roof system repairs. For many of the repairs, no other sources exist for similar instructions at a comparable level of detail.

If your company performs asphalt shingle roof system repairs, especially if you've had your repair recommendations challenged in the past, you should add this manual to your technical reference library.

The manual is available as a three-ring binder where individual pages may be removed for convenience when preparing submittals and as a PDF to download. To get your copy, visit NRCA's online bookstore at nrca.net/shop.

MACIEK RUPAR is an NRCA technical director.





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NO ONE ISSAIE

Understand your cyber vulnerabilities and how to protect yourself

by Cheryl Ambrose, CHST, OHST, and Andy Metzler



onstruction job sites have long been attractive targets for thieves enticed by valuable, portable equipment and contractors' limited ability to physically secure property. The theft of machinery, equipment and supplies can carry great cost to a business, particularly during a time of supply chain constraints. But a newer threat has emerged: cybercrime.

YOU ARE A TARGET

Although corporate cybercrime has been an issue since at least 2015, hackers now are targeting smaller, more vulnerable enterprises because that is where hackers can have the most success. Smaller companies' systems are less complex and secure, employee training is not widespread and often one person can issue checks for large amounts of money.

The trend of cybercriminals targeting smaller companies is increasing at an eye-popping rate. The FBI reported a 400% increase in cybercrimes since the start of 2020. And the more roofing contractors rely on technology, the more susceptible they are to cyberattacks.

For example, roofing contractors are just as reliant on technology as other industries, using numerous tools, including telematics, onboard computers, sensors, GPS and building information modeling to name a few. Factor in the increasing number of vendors entering the marketplace, the high rate of personnel turnover, data and file sharing outside of the company, and the use of mobile offices and devices, and it is easy to see how roofing companies have become attractive targets for cybercriminals.

In 2019, 61% of all cyber incidents occurred in small and midsize businesses, according to a survey highlighted in a *Technology Trends* article. The survey polled nearly 5,400 professionals from companies with fewer than 100 employees. Nearly 97% of those polled had some knowledge of cyber insurance coverage, but only 41% had coverage in place. According to Netwrix's 2017 IT Risk Report, one out of four small businesses failed a cyber readiness test, with most respondents citing lack of budget and time and insufficient staff training.

WHAT ARE THE WEAKNESSES?

There are several reasons why roofing companies can be particularly vulnerable to cybercrimes.

First, most roofing companies do not have sufficient security defenses and firewalls to effectively fend off cyberattacks. Second, construction executives mistakenly believe the data they store isn't valuable. But what would happen if your data were to disappear? How would your company operate? Would you be willing to pay to get it back, and how much would you pay?

A roofing company's multiple technology systems for accounting, communication and estimation, for example, are probably not protected under one large security system, which increases vulnerability. Additionally, access to multiple vendors' and subcontractors' systems often is reciprocal. These connections are additional pathways into systems for opportunistic cybercriminals.

Further exposure to vulnerable systems such as unsecured home or hotel Wi-Fi networks or unsecured mobile devices also leave a company open to attack.

And smaller companies often do not update computers and operating systems as often as needed, leaving older systems more vulnerable to attack. Attackers have more time to find weaknesses, and security patches become less frequent as these systems age.

WHAT CAN HAPPEN?

If a hacker were to successfully infiltrate your systems, what could happen? There are several scenarios.

Hackers could go straight to extortion and make ransom demands. They would shut down a system, which could, for example, affect your email, estimation software or accounting software, until you pay.

Even BPM Insurance, Prairie Village, Kan., which specializes in cybersecurity coverage and has a full-time IT team, fell victim. About 10 years ago, the company's systems were locked down by a hacker. The company contacted the police and FBI, and the agencies suggested the company pay the ransom because there was little chance law enforcement could retrieve the data safely.

The company paid the ransom, got the data back and has since invested significant time, capital and redundancies into its systems, including purchasing a cyber insurance policy.

Another scenario is hackers can release sensitive financial or personal information. This means private client or partner data would be made public.

And there is the possibility of hackers stealing money directly from your company via fraudulent wire transfers or something disguised as "authorized" payments. Because banks typically have better security and some insurance to cover their fault in wire frauds, the latter happens more often.

QUICK TIPS FOR BETTER CYBERSECURITY

Follow these guidelines to enhance your company's cybersecurity:

- Require strong passwords and use multifactor authentication for users with access to critical data and applications or involved with wire transfer changes or approvals.
- Have a procedure in place to authenticate the legitimacy of requests for payment and changes to wire transfer instructions.
- Ensure critical vulnerabilities are patched within 30 days of release by the vendor and only run operating system services that are absolutely required for network operation.
- Maintain frequent backups and encrypt or store backups offline to prevent cybercriminals from encrypting or destroying your backups as part of the attack.
- Have an incident response plan. This prescribes the way your business will respond to and manage the effects of a security attack.

It usually works like this: An employee gets an email that appears to have been sent by a trusted person or entity. The email has an invoice attached with instructions to send payment to a new bank. The invoice amount is low enough or the relationship trusted enough that the invoice is approved, and the payment is then legally sent. The imposters posing as a "trusted" entity continue to send different invoices until someone finally notices the money was never received by the actual trusted entity. By then, the money is long gone.

PROTECTION

Now that you know some of the ways you can be at risk, what can you do?

Just like the relationship between safety training and workers' compensation insurance, it's a combination of training, upgrading systems and

making sure you have adequate insurance coverage.

To help with your company's cyber liability insurance needs, NRCA has partnered with BPM Insurance and Acrisure LLC, Grand Rapids, Mich., to offer an association-sponsored cyber liability insurance program.

The NRCA-endorsed cyber liability insurance coverage is a best-in-class coverage and a standalone policy, so there is no need to change insurance companies.

A bright spot to consider is cyber liability insurance premiums are stabilizing after years of steep increases. A recent study by insurance advisory company Marsh, White Plains, N.Y., showed the pace of rate increases is slowing. Demand remains high for cyber insurance coverage, but the stabilization of rates is being attributed to improved security awareness across all industries and improved resiliency within insured companies. NRCA's program offers two types of coverages:

First-party coverage covers you and your business for financial losses arising from a cyber event. A cyber event is defined as any actual or suspected unauthorized system access, electronic attack or privacy breach, or system downtime. It is important to note a vast majority of cyber claims stem from first-party losses.

Third-party coverage covers you and your business for liability actions against you arising out of a cyber event.

Let's look at the key elements of a good cyber insurance policy: incident response, system damage and business interruption, cybercrime, network security and privacy liability, and media liability.

Incident response

Incident response is at the heart of any good cyber policy. This coverage generally will pick up all the costs involved in responding to a cyber incident in real time, including IT security and forensic specialist support, gaining legal advice in relation to breaches of data security, and the costs associated with having to notify any individuals who have had their data stolen. One of the most important aspects of a cyber policy is it provides speedy access to the right specialists as well as pays for their services.

Look for insurance providers that have a proven track record of responding to claims, an in-house cyber claims team and local specialists.

Damage and interruption

System damage and business interruption coverage helps keep your business up and running and covers the costs for your data and applications to be repaired, restored or recreated in the event your computer systems are damaged from a cyber event. It also reimburses the loss of profits and increased cost of work stemming from an interruption to operations caused by a cyber event or prolonged system downtime.

Look for coverage that not only is triggered by malicious cyber events but also by accidental system failure, meaning a cyber event does not have to take place for coverage to apply. You also will want to make sure the policy addresses consequential reputational harm.

Cybercrime

Within the context of a cyber insurance policy, cybercrime usually refers to attacks that involve theft of funds as opposed to theft of data or other digital assets. This usually happens in one of three ways:

- Electronic compromise: Attackers hack into the insured's network and gain access to online accounting or banking platforms.
- Extortion: Hackers use the threat of exposing or destroying data they have already compromised to extort money from the victim.
- Social engineering: Attackers imitate a senior executive or third party and trick the insured into legally sending funds.

Look for policies that cover the full range of cybercrime types from funds transfer, fraud and ransomware to targeted extortion and the unauthorized use of computer resources. Ask your underwriter whether any risk management warranties apply.

Security and privacy

Network security and privacy coverage covers third-party claims arising out of a cyber event be it transmission of harmful malware to a third party's systems or failing to prevent an individual's data from being breached.

Media liability

Media liability coverage applies to any third-party claims arising out of defamation or infringement of intellectual property rights. Media coverage started out in cyber policies to offer protection with respect to online content only, but as policies have broadened, it is common for full media coverage to be provided.

BEST PRACTICES

As with any risk, you should try to prevent cybercrime before it happens or at least mitigate the damage. Here are some best practices your company should implement:

- **Email security.** Protect your business with phishing monitoring, impersonation defense and account takeover protection.
- Advanced anti-virus protection. With more sophisticated threats to your business possible, your anti-virus solution should offer ransomware protection, real-time threat prevention, and 24/7 managed detection and response.



- Vulnerability management. To protect against
 a cyberattack, it is important to identify where to
 focus the risk mitigation. Your vulnerability assessment and monitoring should include real-time risk
 prioritization; cloud, virtual and container assessment; and accelerated vulnerability remediation.
- Information and event management. This should be integrated with your vulnerability management component and enable you to easily spot anomalous activity or threats, speed up investigations and response via automation, know how to respond via built-in detections library, and leverage internal and external threat intelligence.
- Data backup and disaster recovery. To avoid your data being lost or a major business disruption, it is important to have the right security backups and a disaster recovery plan. Implement malware detection and back up to a private or public cloud.
- Security awareness training. Cyber security
 awareness training is an effective way to educate
 employees about how to identify and avoid potential cyber threats. Find a training solution that
 offers videos, phishing simulations and games to
 ensure employee engagement, teach employees
 how to avoid being tricked by cybercrime and
 enhance overall cybersecurity posture.

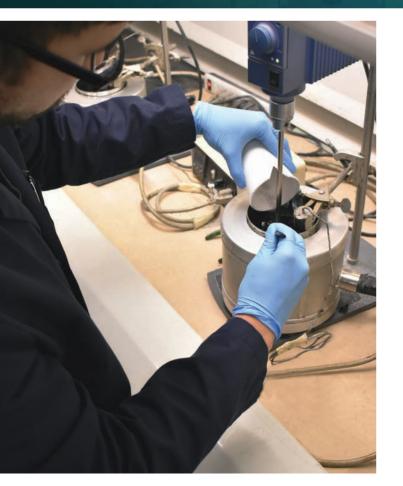
Most insurance companies include several free services with their cyber coverage. We recommend you locate an agent who is familiar with the cyber market and can help analyze your needs and find the best solution for your company.

For more information about NRCA's cyber liability insurance program, go to nrca.net/cyberpolicy.

CHERYL AMBROSE, CHST, OHST, is NRCA's vice president of enterprise risk management, and **ANDY METZLER** is P&C producer for BPM Insurance, Prairie Village, Kan.

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MANUFACTURER NEWS

CertainTeed to build new facility in Texas

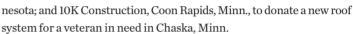
CertainTeed LLC, Malvern, Pa., has announced plans to build a new manufacturing facility and distribution center in Bryan, Texas.

The facility will co-locate a distribution center with a manufacturing site to reduce distances for product transportation, lowering the company's carbon footprint and aligning with Saint-Gobain's global vision of carbon neutrality by 2050. Construction is expected to begin this year with project completion expected within several years. CertainTeed expects to create 130 full-time jobs in Bryan.

"Our new manufacturing facility and distribution center symbolizes our commitment to customers in the southern U.S., to the state of Texas and to the city of Bryan and its citizens," says Carmen Bodden, vice president and general manager of CertainTeed Roofing. "As the leader in light and sustainable construction, this new facility will ensure our business has the materials necessary to continue serving our customers while remaining focused on minimizing our environmental footprint."

GAF replaces roof system for veteran in need

GAF, Parsippany, N.J., recently partnered with The Contractors Association of Minnesota; Disabled American Veterans of Minnesota;



Rich Daniels served in Vietnam from 1967-68 supporting Army intelligence efforts and has since dedicated his life to serving other veterans. As a former history teacher, Daniels takes pride in working with local educators to talk about Vietnam and his life since the war.

The home Daniels built in 1991 still had its original roof system, which was beginning to deteriorate significantly. 10K Construction and GAF stepped up to support Daniels by donating the roofing materials and labor to make the roof replacement project possible. The collaboration is part of GAF's social impact initiative, GAF Community Matters.

Holcim Building Envelope recognized for diversity

Holcim Building Envelope, Nashville, Tenn., was named one of "America's Greatest Workplaces for Diversity 2023" by *Newsweek*.

Newsweek and Plant-A Insights Group, New York City, conducted a large-scale employee study to identify diverse employers. The study analyzed more than 350,000 anonymous reviews from employees of U.S. companies with more than 1,000 employees.

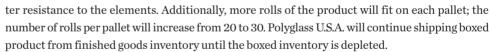
"Our commitment to diversity has yielded more innovation and collaboration at every level of the organization," says Jamie Gentoso, president of Holcim Building Envelope and global head of Holcim Solutions & Products. "Our differences make us stronger, and knowing our teammates are our most fundamental and important asset, I've worked hard to instill inclusivity in our hiring, training and promotion processes—especially as a female in an industry predominantly led by men."

The complete list of winners is available at newsweek.com/rankings/americas-greatest-workplaces-2023-diversity.

Polyglass U.S.A. announces product changes

Polyglass U.S.A. Inc., Deerfield Beach, Fla., has announced Polystick® XFR packaging has been upgraded from a box to a roll wrap, and Polystick P has been temporarily discontinued while the product undergoes production changes.

Polystick XFR has transitioned to roll-wrap packaging, which reportedly enables less waste on job sites, easier handling and bet-



Significant changes to the production of Polystick P are under way in an effort to enhance the underlayment's quality and performance. Polyglass U.S.A. has paused production and temporarily discontinued availability of the product until the fourth quarter of 2023.

The BILCO Co. hires manufacturer representatives

The BILCO Co., New Haven, Conn., has announced Architectural Building Solutions, St. Charles, Ill., will be its manufacturer representative in Illinois and Indiana.

Architectural Building Solutions is part of BILCO's group of independent representatives that provide building materials and customized solutions for challenging projects. Architectural Building Solutions aligned with BILCO in 2021.

In addition, BILCO has hired Roofing Trade Services, Martville, N.Y., as its manufacturer representative for selling specialty access commercial building products in upstate New York.

Roofing Trade Services is an independent sales representative firm specializing in commercial roofing material sales. The company has provided services to contractors, architects, building owners and construction professionals since 2007.



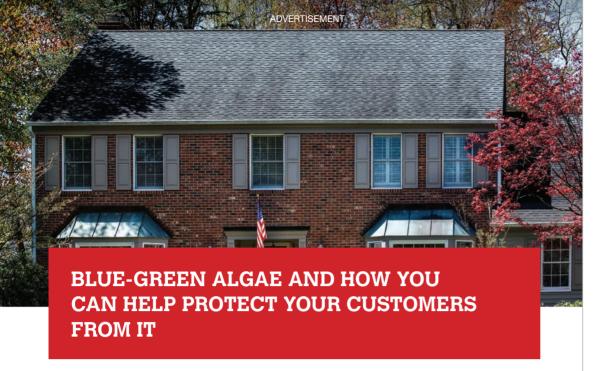




In 2020, GAF introduced Timberline HDZ® Shingles with LayerLock™ Technology and the StrikeZone™ Nailing Area.

Now we're making our most popular shingle even better — with the addition of a 25-year StainGuard Plus™ Algae Protection Limited Warranty¹ against blue-green algae discoloration. Offer your customers Timberline HDZ® — the shingle that just keeps getting better. Only from GAF. Find out more at gaf.com/StainGuardPlus





The dark stains you see on roofs all over the U.S. and Canada are often caused by tiny cyanobacteria called *Gloeocapsa magma* — commonly known as bluegreen algae.

It's a bacteria that travels on the wind and thrives in moist environments — so if one house in a neighborhood has it, others have probably been exposed as well. The darkening effect can impact the appearance and resale value of a home, as well as the effectiveness of highly reflective cool roofs.

Across the U.S., blue-green algae growth is often just a matter of time. The GAF Time-Release Algae-Fighting Technology used on shingles with a StainGuard Plus™ Algae Protection Limited Warranty¹ is formulated to put time back on your side.

The GAF StainGuard Plus™ Algae Protection Limited Warranty¹ provides 25 years of coverage against blue-green algae discoloration. It now comes with many of the most popular GAF Shingles, as well as hip and ridge cap shingles and visible starter strips.

Algae protection is important to customers. In fact, when GAF asked homeowners about it, 87% said it was very-to-extremely important to protect their roof from blue-green algae stains.² 89% said warranty length was very or extremely important when purchasing an algae protection product.²

GAF helps answer these customer needs. Shingles and roof accessories with a StainGuard Plus™ Algae Protection Limited Warranty are covered for 25 years against blue-green algae discoloration.¹ They also provide long-lasting

algae-fighting power thanks to GAF Time-Release Algae-Fighting Technology.

Proprietary GAF Time-Release Algae-Fighting Technology

At certain concentrations, metals like copper and zinc are toxic to blue-green algae, and can help prevent it from growing. In fact, on much older homes you may still see pitted copper and zinc strips tucked up under the ridge caps.

Using copper is also the idea behind traditional algae-prevention granules. They contain a layer of copper that leaches onto the roof. And that works for a while. But eventually, the granules degrade and release less copper, which makes them less effective at stopping algae growth.

GAF Time-Release Algae-Fighting Technology delivers the algae-fighting copper in a whole new way. Instead of a copper layer, specially-engineered capsules are infused throughout with thousands of copper microsites, which release copper steadily over time, for long-lasting algae-fighting power. It's algae resistance so powerful it allows us to offer the 25-year StainGuard Plus™ Algae Protection Limited Warranty¹ on many of our most popular products.

The long-lasting algae-fighting power and warranty coverage your customers want is now available from eave to ridge — only with GAF Time-Release Algae Fighting Technology and the 25-year StainGuard Plus™ Algae Protection Limited Warranty.¹

You can't offer a more advanced GAF shingle. Period.





Find out more at gaf.com/HDZ

¹ 25-year StainGuard Plus™ Algae Protection Limited Warranty against blue-green algae discoloration is available only on products sold in packages bearing the StainGuard Plus™ logo. See *GAF Shingle & Accessory Limited Warranty* for complete coverage and restrictions, and qualifying products.

² Based on 2021 survey commissioned by GAF of 500 homeowners in areas with moderate to high amounts of blue-green algae.

³ 15-year WindProven™ limited wind warranty on Timberline HDZ® Shingles requires the use of GAF starter strips, roof deck protection, ridge cap shingles, and leak barrier or attic ventilation. See GAF Roofing System Limited Warranty for complete coverage and restrictions. Visit gaf.com/LRS for qualifying GAF products. For installations not eligible for the WindProven limited wind warranty, see GAF Shingle & Accessory Limited Warranty for complete coverage and restrictions.

Owens Corning expands algae warranty

Owens Corning, Toledo, Ohio, is transitioning its shingle lines and all hip and ridge shingles to a 25-year Algae Resistance Limited Warranty. Owens Corning shingles previously had a 10-year warranty.

The warranty covers most Owens Corning laminate shingles, including Oakridge® Series, Duration® Series, Berkshire,® Woodcrest® and Woodmore.® To get the enhanced warranty, approved Owens Corning hip and ridge shingles will need to be installed alongside a new algaeresistant laminate shingle roof system.

The long-term algae protection 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. The combination of laminate shingles with hip and ridge components reportedly works to deliver protection against algae that covers the entire slope of a home's roof.

Additional information is available at owenscorning.com/en-us/roofing/streakguard.



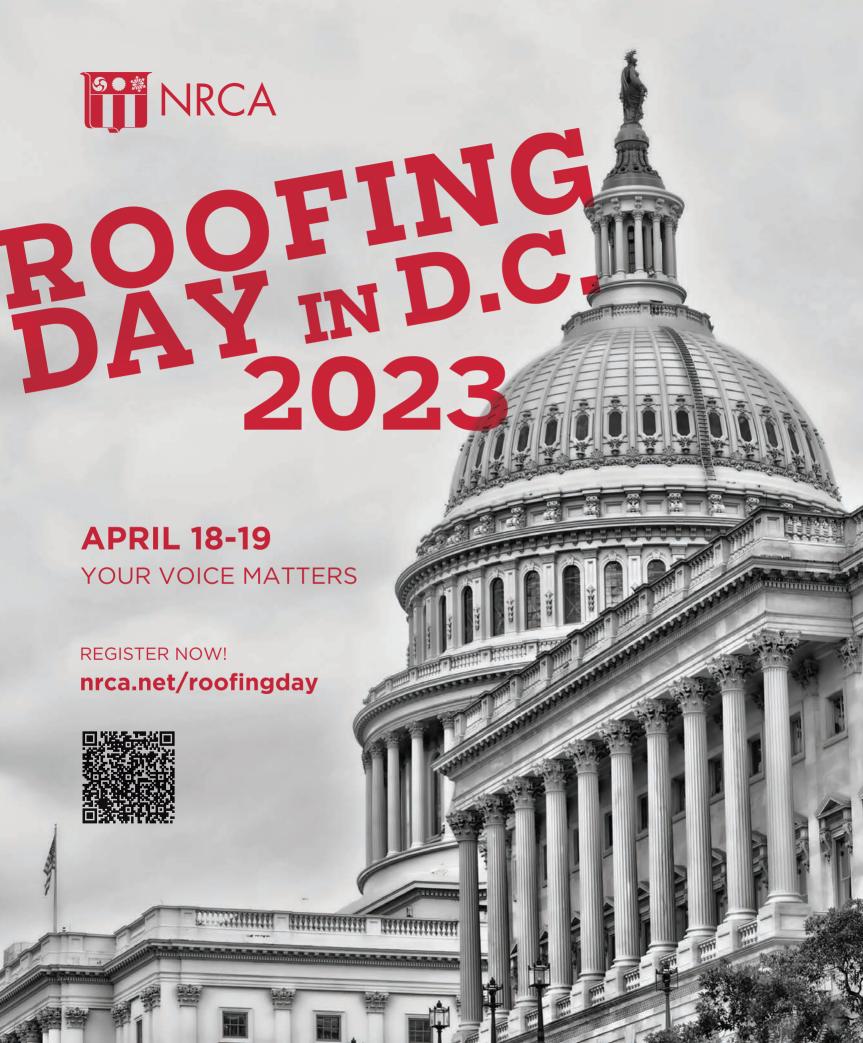
CONTRACTOR NEWS

Roofing Corp of America expands to Texas

Roofing Corp of America, Atlanta, has expanded into Texas with the acquisition of WeatherShield Roofing & Sheet Metal, Aledo, Texas. The company is Roofing Corp of America's eighth acquisition.

WeatherShield Roofing & Sheet Metal was founded by Brandon Flowers in 2009 to serve the Dallas/ Fort Worth commercial and residential roofing markets. The company has become one of the largest providers of emergency reroofing services for building owners navigating loss from hail, wind, rain or fire.

WeatherShield Roofing & Sheet Metal will operate as a standalone entity within Roofing Corp of America and continue to be led by Flowers.



Korellis CEO Pete Korellis retires

Korellis, Hammond, Ind., has announced CEO Pete Korellis' retirement after 40 years at the company.

Working alongside friend and business partner Jeff Tharp, Korellis built a team that has nearly 220 team members during the summer construction season.



of NRCA before the Workforce Protections Subcommittee of the House Committee on Education and the Workforce in 2011. He discussed NRCA's concerns with new fall-protection rules issued by the Occupational Safety and Health Administration.

Korellis also hosted OSHA visits to his company's job sites to witness fall protection being used and how dangerous some regulations could be for certain roof systems. Additionally, he helped support production of NRCA's safety videos and has involved Korellis' safety director with NRCA's Health and Safety Committee for more than a decade.

John Ziolkowski, company president since April 2021, now will take on CEO as a part of his title.

DISTRIBUTOR NEWS

Gulfeagle Supply to open new branch

Gulfeagle Supply, Tampa, Fla., has announced its newest branch will open in Englewood, Fla.

The branch will share a property with its sister company Kimal Lumber and support contractors rebuilding areas affected by Hurricane Ian. Gulfeagle Supply now has 25 locations in Florida.

UP THE LADDER

Malarkey Roofing Products® has named **Craig Lott** director of sales operations.

Mule-Hide Products Co. Inc. has named **Kyle Stavish** national business development manager.



Korellis and his wife, Susan, at his retirement party

EVENTS

MARCH

6-9

NRCA's 136th Annual Convention

NRCA

Dallas

Contact: NRCA's Customer Service Department (866) ASK-NRCA (275-6722) or info@nrca.net nrca.net

7-9

International Roofing Expo®

Informa Markets

Dallas

Contact: Informa Markets (800) 684-5761 or info@theroofingexpo.com theroofingexpo.com

22

Virtual CERTA Train-the-trainer

NRCA

Online

Contact: NRCA's Customer Service Department (866) ASK-NRCA (275-6722) or info@nrca.net nrca.net

23

LEGALCon Virtual 2023

NRCA

Online

Contact: Anne Schroeder, NRCA's director of legal and volunteer leadership administration (847) 493-7547 or aschroeder@nrca.net nrca.net/legal

APRIL

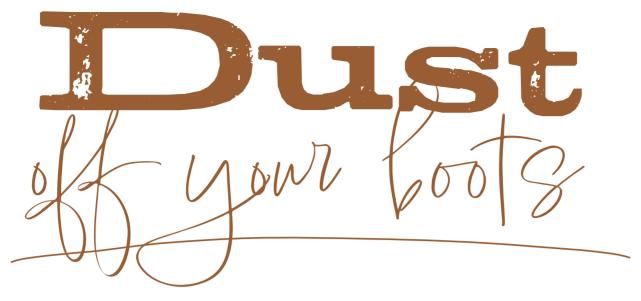
12-13

Virtual Qualified Trainer Conference

NRCA

Online

Contact: Jared Ribble, NRCA's vice president of certifications (847) 493-7526 or jribble@nrca.net nrca.net



VISIT NRCA BOOTH 3319 DURING THE 2023 INTERNATIONAL ROOFING EXPO® IN DALLAS!

"SPIN TO WIN" fantastic prizes, including a Solo Stove® (sponsored by the Roofing Alliance), Bosch job-site radio, DEWALT tool backpack and more!

Bid on fabulous items, including memorabilia, jewelry and vacation getaways in the **ROOFPAC SILENT AUCTION!**

Relax in the NRCA member lounge with a **COMPLIMENTARY MASSAGE** courtesy of the Roofing Alliance (NRCA members only).

Learn about **NRCA PROCERTIFICATION**[®] and see live hands-on performance exam demonstrations.



NRCA NEW MEMBERS

ARCHITECTS/ENGINEERS/CONSULTANTS

ButlerMatrix LLC, Orlando, Fla.

Empower Claims Inc., Fort Worth, Texas

Halliwell, Marietta, Ga.

National Property Consulting Group, Loveland, Ohio

Platinum Building Management, Grand Cayman, Cayman Islands

Roof Inspections, Joliet, Ill.

Sedgwick, Peyton, Colo.

Wehrman Investigative Engineering LLC, Bessemer, Ala.

Whitman, Requardt and Associates, Baltimore

Wrap Building Enclosure, Edmonton, Canada

CONTRACTORS

Achelpohl Roofing & Sheetmetal Inc., Little Mountain, S.C.

METAL DECK REPLACEMENT? **DECK SUPPLY** WE HAVE IT IN STOCK NOW! YOUR ONE-STOP VISIT US AT **IRE BOOTH** METAL DECK SHOP **CONTACT US TODAY FOR THE BEST** SERVICE AND LEAD TIME 15 LOCATIONS TO LARGEST INVENTORY IN STOCK FOR IMMEDIATE USE SERVE YOU PICK UP OR DELIVERY KNOWLEDGEABLE STAFF ROUD MEMBER SALES@METALDECKSUPPLY.COM METALDECKSUPPLY.COM

All House Group LLC, Louisville, Ky.

Apex Maintenance, Wilmette, Ill.

Beckett Roofing, Big Bear Lake, Calif.

Bell Commercial Roofing, Pennsauken, N.J.

BluRoof LLC, Marietta, Ga.

Currie Legacy Construction LLC, Roseburg, Ore.

Fox River Roofing, Chicago

HoodCo Construction & Roofing Inc., Mineral Wells, Texas

Javco Roofing LLC, Palm Coast, Fla.

Lion Roofing and Construction, Centennial, Colo.

Lion Roofing and Contracting, Austin, Texas

Mighty Dog Roofing, Dade City, Fla.

My Roofing Contractor, Hamilton, N.J.

No. 1 Exteriors, Danville, Ind.

Palladium Roofing, Moore, Okla.

SHC Roofing Inc., Shawnee, Kan.

Spartan Construction LLC, Noblesville, Ind.

SPG Roofing & Restoration, Whiteland, Ind.

Stalwart General Contractor LLC, Baton Rouge, La.

Stinson Services Inc., Edina, Minn.

Sweeps N Ladders, McKinney, Texas

TKO Construction & Roofing LLC, Poultney, Vt.

Top Crew Construction, Fort Worth, Texas

Tristar Roofing Solutions, Dickson, Tenn.

Wrangler Roofing, Forney, Texas

Yowell's Roofing, Tampa, Fla.

MANUFACTURER

Ace Screws, Wall, N.J.





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Roof system installers are some of your hardestworking employees. Recognize and celebrate their excellence with **NRCA ProCertification.**®

Your experienced installers can become NRCA PROCertified® in the following designations:

- Architectural Metal Flashings and Accessories
 - Asphalt Shingle Systems
 - Clay and Concrete Tile Systems
 - EPDM Systems
 - Metal Panel Roof Systems
 - Metal Shingle Systems—NEW
 - Thermoplastic Systems

Watch **LIVE** hands-on exam demonstrations at IRE in booth 3119!

And through an online exam, your foremen can become PROCertified, too!

Gain a competitive advantage while establishing a career path for your most dedicated workers.

Certify your workforce today!

nrca.net/procertification

Mule-Hide Products

Shur-Gard Roof Wrap is a 12-mil polyethylene shrink film that is heated to shrink to the roof to temporarily protect the structure. It exhibits exceptional exterior durability, ultraviolet stability,



superior flexibility and high reflectivity. It is a temporary shrink film that protects the structure and can last up to 12 months, which is five to 10 times longer than a traditional tarp. Contact Mule-Hide Products at (800) 786-1492 or mulehide@mulehide.com, or visit mulehide.com for more information.

Are you considering selling your roofing. sheet metal and/or **HVAC** business?

Join us. With a solid financial base. available capital and an appreciation for what's already working in your business, our group has a solid track record of creating successful alliances. We can tailor the sale to meet your needs. If you have an interest, please email acquisition .pr@gmail.com. All responses will be kept confidential.



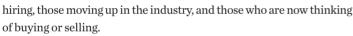
You need to know **Dave Peterson**

Forty-three years of experience.

A lifetime of providing services in commercial roofing.

A lifetime of partners and ethical business practices.

Dave has built a network of knowledge, individuals and companies, including those



Whatever your needs, contact Dave for a frank conversation of the pulse of the industry and your individual situation.

If you've even thought of selling, buying or moving up the ladder in your career, you need to contact Dave at (772) 778-4343, ext. 2, or dave@onlinepcg.com, or visit **onlinepcg.com**. All information is kept in the strictest of confidentiality.

Reduce energy costs, extend the life of the roof!

White elastomeric coatings provide a highly reflective, seamless barrier against corrosive elements that lead to moisture penetration and damaging leaks. Polyglass premium elastomeric coatings address a wide range of roofing applications and challenges, including the repair



and restoration of multilayer APP and SBS roof systems, single-ply systems, and metal roofs. Visit polyglass.us/whitecoatings for more information!

Quicksilver Engineering

Get rid of your clumsy and substandard warning-line stands, and step into more efficient, cost-saving equipment. SpeedStand makes protecting workers from falls quick and easy with one-piece stands that set up instantly and increase production. Made from steel with rubber pads, these durable stands are engineered to save labor job



after job. To see why SpeedStand has been the industry standard for 18 years, call (800) 460-7579 or visit **qe-1.com**.

Malarkey's highest-performing architectural shingle

The Legacy™ Scotchgard™ is the highest-performing architectural roofing shingle by Malarkey Roofing Products. Designed in the popular architectural style and made with Malarkey's industryleading NEX® Rubberized Asphalt, Legacy Scotchgard shingles deliver



superior all-weather resilience and a Class 4 hail-impact rating and include granules that reduce algae streaks and help clean the air of emission pollutants. Legacy scored Excellent or Good in every category of the latest Hail Impact Study by the Insurance Institute for Business & Home Safety. Learn more at malarkeyroofing.com/products/ shingles-overview/legacy-scotchgard-shingles.



LEGALCONVIRTUAL

March 23

AS LOW AS **\$99!**

- Get the latest developments from the brightest minds in the roofing industry.
- Learn from the convenience of your home or office.
- The best part ... registration is only \$99 for NRCA members and \$149 for nonmembers!

Register now at nrca.net/legalcon!

UNIDRIVE 500: Manual and automatic welding combined

The UNIDRIVE 500 semiautomatic welding machine combines manual and automatic welding in a handy 9.9pound device. Thanks to its compact design and reversible drive, it's ideal for most roofing



applications. Ergonomically guided by two handles, optimum results can be achieved on field, edge and wall flashing details. Visit Leister Technologies at IIBEC booth 913 and IRE booth 7308 to learn more about our roofing tool portfolio and receive professional advice from our expert team or visit leister.com/en/product/Unidrive-500.

Production-ready metal panel cut-lists with Metal Roof Estimating LLC

Speed up your quoting process while also increasing your accuracy with a metal panel layout and a corresponding cut-list (bill of materials) with Metal Roof Estimating. We also do tile and shingle take-offs. Revisions included.



We service roofing contractors and small manufacturers and excel in residential and smaller commercial projects with most take-offs returned in 24 to 48 hours.

Please contact us at estimator@metalroofestimating.com or (813) 777-9432. More information can be found at metalroofestimating.com.

YOU TAKE CARE OF THE BIG STUFF

WE'LL TAKE CARE OF THE DETAILS

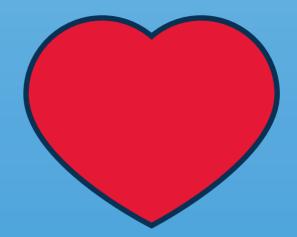


Our fasteners, sealants, and tools provide easy installation and long-life performance.









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JESSICA JUDD

WHAT IS YOUR POSITION WITHIN YOUR COMPANY? I am director of commercial roofing for Bone Dry Roofing, Indianapolis.

WHAT IS THE MOST UNUSUAL ROOFING PROJECT OF WHICH YOU HAVE BEEN A PART? One of the most unusual



projects was a 26,000-square-foot rooftop deck project we completed with tan TPO in Silverthorne, Colo. We completed a full roof system replacement on the home that had beautiful views and a lot of details!

WHY DID YOU BECOME

INVOLVED IN THE ROOFING INDUSTRY? My dad,

Gene Judd, is owner and president of Bone Dry Roofing. Growing up, I always was at the office after school and on weekends while my dad worked, and I loved learning from his team. I enjoy how every day is different in the roofing industry.

WHAT WAS YOUR FIRST ROOFING EXPERIENCE? Roofing always has been a part of my life so probably riding along with my dad while checking on job sites and meeting with homeowners.

WHAT WAS YOUR FIRST JOB? Filing paperwork at the office after school!

WHAT QUALITIES DO YOU MOST ADMIRE IN A PERSON? The ability to be honest and humble are qualities that really stand out to me.

IF YOU COULD HAVE ANY SUPERPOWER, WHAT WOULD IT BE? WHY?

Flying! I read the Maximum Ride book series as a kid, and I always thought it would be cool to have a bird's eye view.

WHAT DO YOU CONSIDER A WASTE OF TIME? Sitting in the DMV line

IF YOU HAD A TIME MACHINE, WOULD YOU GO TO THE FUTURE OR THE PAST? WHY? The past—I wish I lived in a less digital world with more human-to-human interaction. Plus, the future is a bit intimidating.

WHAT THREE
CONDIMENTS ALWAYS
ARE IN YOUR FRIDGE?

Hot sauce, coconut aminos and guacamole

WHAT'S THE MOST
EXCITING/ADVENTUROUS
THING YOU'VE DONE?

In early 2020 before the COVID-19 pandemic, I did a 36-mile trek through Milford Sound in New Zealand in one day. I ended the day with a seaplane ride back to my car!

WHAT IS YOUR FAVORITE STRESS RELIEVER? Hitting a trail with my dogs WHEN YOU WERE A
CHILD, WHAT DID YOU
WANT TO BE WHEN YOU
GREW UP? I wanted to be
a lawyer or follow in my dad's
footsteps. I feel lucky I'm able to
do that and be involved with my
family's passion for the industry.



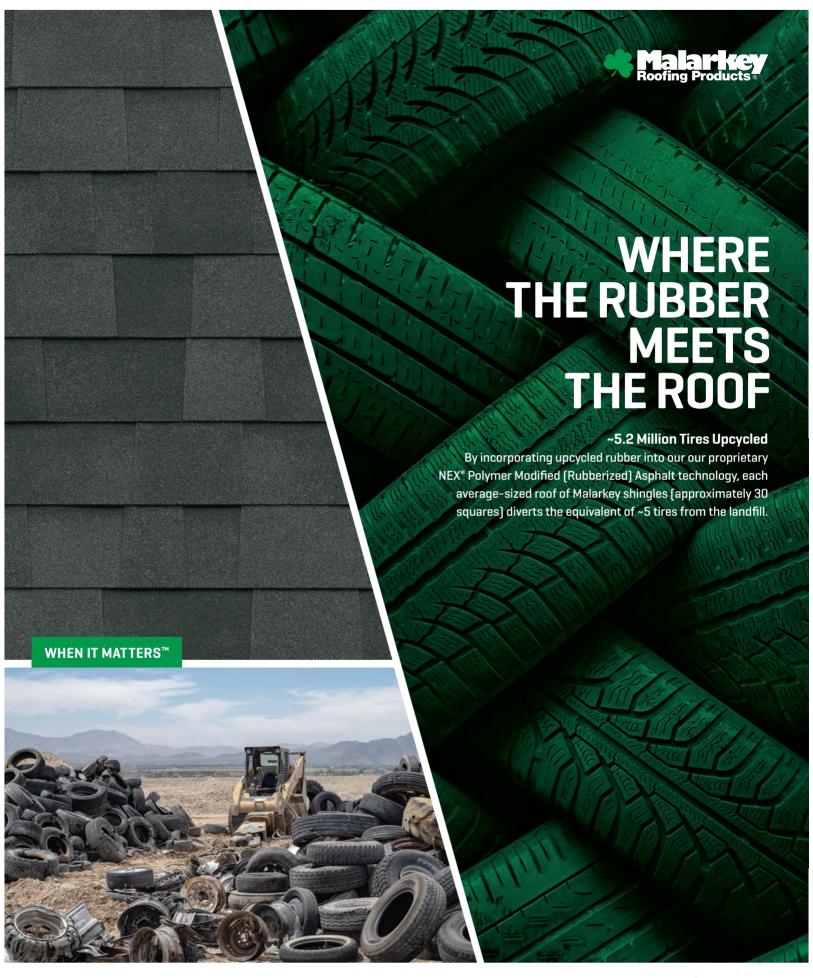
WHAT SONGS ARE YOU LISTENING TO OVER AND OVER? Anything by Tyler Childers

MY FAVORITE PART
ABOUT WORKING IN THE
ROOFING INDUSTRY IS ...

That's easy—the people at Bone Dry Roofing! We have the best team, and they always go above and beyond for our clients.

WHAT'S YOUR FAVORITE ROOFING MATERIAL TO WORK WITH? WHY? EPDM because the material is easy to manipulate in the field and can solve clients' issues quickly.

WHAT DO YOU CONSIDER YOUR MOST REWARDING EXPERIENCE? Any time I hear from our employees about the opportunities Bone Dry Roofing has provided them, I feel truly grateful to be a part of the company. From sending their kids to college, leaving the country for the first time or buying their first home, Bone Dry Roofing has been able to support employees through major life moments. Knowing we make a difference in people's lives always means a lot.







The partners you count on to support your roofing business are ready to champion your growth in whatever direction you want to go. GAF offers a full line of low-slope and steepslope roofing systems. Technical support. Expert training. And excellent warranties and guarantees backed by North America's largest roofing manufacturer. We're building a better GAF Commercial so you can focus on building your business. gaf.com/commercial

