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SMAAC NEWS

Leading Without Limitations

Across the country, women are becoming an increasingly visible force on sheet metal and HVAC jobsites and within SMACNA committees.



CONTENTS

Vol. 60 No. 4

Features

- 10 **Leading Without Limitations**
- 21 **Sonderling Visit Shows the Trades a Path Forward**
- 24 **How SMACNA St. Louis Built a Union Model That Still Works**

Sectors

- 02 **Architectural**
Once in a Lifetime in Copper
- 04 **TAB**
A Prescription for Healthy IAQ
- 06 **Industrial**
Inside the \$100-Billion Micron Megafab Campus
- 08 **Residential**
How One Illinois Contractor Turned Classic Trucks Into Marketing Machines

Columns

- 26 **Capitol Hill**
Housing Bill Could Speed HVAC Work
- 27 **Duct & Data**
I've Been Collecting All This Data. Now What?
- 28 **Financial Stewardship**
Why Job Costing Still Breaks Margin Visibility for Construction Firms





FROM THE PRESIDENT

Todd Hill

Adapt to Remain Competitive

When I started as an apprentice 36 years ago, the sheet metal industry looked very different than it does today. Many of us came from similar backgrounds, shared a similar approach to work, and even had similar stories about how we found our way into the trades.

Fast forward to today, and our industry has changed dramatically. If you had told me back when I was working on the shop floor that one day we'd be talking about Artificial Intelligence helping us design, plan and execute sheet metal projects, I probably would have asked what science-fiction movie you'd been watching. But here we are.

As our workforce continues to evolve, our industry has to evolve with it. We need to broaden where we look for talent and recognize that the best person for the job may not fit the traditional image of a sheet metal worker. That is not something we should resist, it's something we should embrace.

SMACNA and its members have already made tremendous progress, and we need to keep building that momentum. Technology is becoming an increasingly important part of how we operate, compete and grow. But technology alone isn't the answer. We

need talented people with new ideas, different perspectives and the skills to put those tools to work. Some may look back and wish the workforce still looked the way it did 20 or 30 years ago. I don't. I'm proud that we are changing and evolving with the times.

At Ventcon, we've had the opportunity to work on some incredible megaprojects. These are massive undertakings that require focus, ingenuity, creativity and teamwork to design, plan and execute. And if there is one thing those experiences have taught me, it's this: our success comes down to our people.

SMACNA and our industry as a whole is only as strong as the people who make it up. As you read this issue of SMACNews, you will meet some of the people who are helping move our industry forward and see the incredible work being done by the next generation of business leaders.

The industry I entered as an apprentice all those years ago is not the same industry we see today, and I believe that is a good thing. If we continue to welcome new people, new ideas and new ways of doing things, there is no limit to where this industry can go.

We have come a long way. And I believe our best years are still ahead of us. ▼

Eli Howard Named SMACNA COO

SMACNA appointed Eli P. Howard, III as the organization's new Chief Operating Officer. In this role, Howard will continue leading SMACNA's Technical Services Department, while collaborating across the organization to advance key initiatives, strengthen member services and support the association's long-term strategic goals.

"Throughout the last 30 years, Eli has consistently demonstrated a member-first mentality that reflects the core values of our association," says Frank Wall, SMACNA Chief Executive Officer. "His deep understanding of our industry, processes and commitment to our members has made him an invaluable part of the SMACNA team. Eli has played a significant role in building the



SMACNA COO

Eli Howard

trusted reputation of the SMACNA brand, and I am confident his leadership as Chief Operating Officer will help advance the association's mission while continuing to strengthen the exceptional technical resources our members rely on."

Howard has been with SMACNA for more than 30 years and oversees the development of SMACNA's technical standards, manuals and guidelines for the HVAC, industrial, residential and architectural sheet metal industry. ▼



Once in a Lifetime in Copper

Baker Group's restoration of Iowa's Webster County Courthouse involved a leaning clock tower, stamped rosettes from overseas and 10,000 hours of field work.

Webster County Courthouse's clock tower was in need of repairs to restore its copper-clad image in Fort Dodge, Iowa.

The clock tower of the Webster County Courthouse had been watching over downtown Fort Dodge, Iowa, since 1902. For more than a century, it marked the hour with a bell cast in 1882, its copper skin aging to the deep green patina only time and weather produce.

But by the time Jeff Hawkins got the call, the tower was doing more than aging; it was leaning. Three feet off plumb and visibly deteriorating, it had become a civic emergency wrapped in historic copper.

"The county's driving force was this tower, and it was leaning 3 feet in one direction," says Hawkins, a Project Manager with Baker Group who has spent 42 years in the sheet metal trade. "It was starting to fall apart."

What followed was an 18-month restoration that Hawkins describes as the most complex project of his career — a \$2.5-million undertaking that logged 10,000 hours of field installation time, survived a global pandemic, worked through Iowa winters at the edge of what soldering can physically tolerate and ultimately sent Fort Dodge's most beloved landmark back into the skyline looking exactly as it did when Grover Cleveland was still alive.

A BUILDING WORTH SAVING

The Webster County Courthouse is not a building that blends into its surroundings. Designed by Milwaukee architect Henry C. Koch — the same man who designed Milwaukee City Hall — and completed in 1902 at a cost of roughly \$100,000, the four-story Classical Revival limestone structure sits directly on a downtown corner

with no open space around it. Its mansard roofs and copper-clad clock tower rise out of the streetscape like something transplanted from a European capital. It has been on the National Register of Historic Places since 1981.

After suffering storm damage in 2018, a detailed engineering inspection uncovered what routine maintenance had obscured for years: the clock tower's interior timber framing had rotted through from decades of moisture exposure, the structure itself had shifted measurably off vertical and significant architectural features, including cresting, decorative copper elements and stamped ornamental details, had been removed or lost during earlier, less careful repair attempts. The county wanted it all back.

The project went to public bid. Baker Group, an Ankeny-based employee-owned specialty contractor founded in 1963 that has grown into one of the Midwest's largest full-service mechanical and sheet metal contractors with more than 1,500 employees, had an existing relationship with the general contractor, Neumann Brothers. Hawkins had been doing architectural copper work long enough that this kind of project found him. He priced it, Baker Group won it, and in January 2020 they started pulling together the people and materials needed to bring a 120-year-old building back to itself.

COVID, COPPER AND A CLOCK TOWER

Baker Group got the job in January or February of 2020, Hawkins says, right before COVID-19 shut everything down in March. The stamped rosette ornaments — decorative acorn-shaped elements that ring the base of the tower and accent the smaller decorative struc-

tures called pilothouse dormers — were being produced overseas by a firm that fabricates them through a process involving clay models, custom molds and metal stamping that Baker Group's shop doesn't perform. The overseas supplier shut down before the order shipped.

"We had gone through the whole process with them — getting everything developed, getting everything ready to go — and then they shut down," Hawkins says. The supply chain disruption cascaded from there.

On the job site, COVID forced the kind of crew management that no project estimator plans for. "We tried to separate them out and keep them separate so you have different groups," Hawkins says. "When one group would get sick, they'd be gone, and another group would step in and keep doing the work." In the shop, where fabrication of the tower's custom copper elements was underway, cases moved through the workforce unpredictably.

THE TOWER, PIECE BY PIECE

Once work was underway on the structure itself, the complexity of the copper scope came into full view. The approach to the clock tower restoration was methodical: Baker Group crews went to the courthouse at night, staged on the scaffolding and performed a full 3D laser scan of every level of the tower. That scan package went to the general contractor, who used it to plan the reconstruction of the internal steel structure and sheathing behind the copper skin — down to nothing before it was rebuilt.

"We tore all of that off — all the structure, the plywood and everything, just down to almost nothing," Hawkins says. "And then they rebuilt the whole thing back up, and then we put the pieces back on."

The challenge was that the historic copper pieces removed from the tower had to fit again on a structure that had been fully rebuilt. Every element had to match — both the salvaged original copper that the architect specified be reused and the new copper fabricated to replace what was beyond repair. "They had to fit again," Hawkins says. "So, there was a lot of communication on that, back and forth."

The heat involved in resoldering salvaged copper creates its own risks. Old solder joints break apart. Weakened sections of sheet that look stable come apart when heat is applied. "You would put heat on it, and it would be fine, but then if you overdid it, you would have to redo the whole thing," Hawkins says. "That's a huge challenge."

Most of the tower's copper elements were fabricated in Baker Group's sheet metal shop. The exceptions were the purchase globe finials and a clove relief casting that was sourced from a supplier but installed by Baker Group's crew. The stamped rosettes and ornamental details on the pilothouse structures eventually arrived from overseas once supply chains reopened.

And then there were the pigeon holes. "People in small-town Iowa used to take guns and shoot pigeons away," Hawkins says, describing what crews find when they get into old copper on historic buildings through-

out the region. On the Webster County tower, crews discovered approximately 150 bullet holes in some sections of copper where gunfire had been used to discourage roosting birds over the decades. "We'd get up there and find 150 holes where we expected maybe 20," he says. Each one required assessment, documentation and a conversation with the architect about what constituted a repair versus a change order.

WORKING THROUGH AN IOWA WINTER

The original project schedule called for just over a year of work. It ran nearly two years, from March 2020 to summer 2021, with the county holding a formal rededication ceremony on Oct. 1, 2021.

Some of the schedule pressure came from a county-imposed deadline. RAGBRAI, the annual bicycling event that brings thousands of riders across Iowa, was routing through Fort Dodge and county officials wanted the scaffold down and the courthouse gleaming before cyclists arrived.

The rest of the schedule pressure came from physics. Copper soldering requires heat, and below 15 degrees Fahrenheit, a soldering iron cannot maintain the temperature needed to properly sweat a joint. "Below 15 degrees, I will not be soldering because I cannot keep the iron hot enough to do the proper sweating," Hawkins says. But the project couldn't stop for Iowa winters, so the general contractor wrapped the entire scaffold structure in plastic sheeting and heated the enclosed space to bring the working temperature above that threshold.

The courthouse never closed during the entire restoration. Employees worked around the scaffold, hearings continued in the courtroom and county business proceeded as normal, which meant Baker Group's lifts, rigging operations and material deliveries had to be choreographed around the building's daily rhythms.

"We also had to make sure they were safe — when can we lift, when we cannot," Hawkins says.

ONE FOR THE CAREER FILE

Baker Group's core business is small- to large-scale commercial and industrial mechanical work — HVAC, plumbing, piping, electrical, automation, security systems and the stainless-steel specialty work that serves data centers and advanced manufacturing facilities. The company operates across Iowa and into Missouri from multiple offices and has earned national recognition for both its project work and its safety culture. Its guiding principle on that front is to "make sure the guys go home every night," Hawkins says. "That's our motto."

Architectural copper is a specialty within a specialty, and at Baker Group, Hawkins is one of the experts. "I'm kind of an oddball around here," he says. "I do all the copper work, which I've done all my life." He's training a successor now — someone six or seven months into learning the craft — with an eye toward eventually retiring. But the Webster County project is the one he returns to when describing what the work means. As Hawkins says, "It was a once-in-a-lifetime job for me." ▼



A Prescription for Healthy IAQ

SMACNA of Oklahoma member McIntosh Corp.'s TAB work helps patients, staff and visitors breathe clean air in a new Tulsa hospital tower.

*Saint Francis
Hospital South in
Tulsa, Oklahoma.*

The morning rush at a major international airport. A hospital pharmacy where patients depend on pressurized isolation rooms. A 9-story office tower in the middle of a downtown financial district. In each of these buildings, behind walls and above ceilings, sits a network of fire dampers and smoke control systems that most people will never see and, until recently, rarely think about. That invisibility, experts say, has been the problem all along.

A team of six Testing, Adjusting and Balancing (TAB) experts from McIntosh Corp. helped ensure that the air in a \$357-million Oklahoma hospital tower expansion was as clean as possible.

Twenty-nine-year-old Saint Francis Hospital South in Tulsa, Oklahoma, recently completed a six-floor tower expansion that added more than 283,000 square feet of space and 51,000 square feet of renovations.

The new tower has an advanced, medical-grade HVAC system. The \$62-million plumbing and mechanical contract to install it was awarded to Tulsa-based McIntosh Corp., one of the largest full-service mechanical contractors in Oklahoma. Saint Francis Health System is a regular client.

The contract required that the HVAC system be fully tested, adjusted and balanced to ensure efficiency and minimize the spread of airborne illnesses. That meant ensuring air changes met requirements and hydronic water flow, diffusers and grilles met the project's design specifications. Responsibility fell to employees of McIntosh Corp.'s test and balance division. The company has been offering TAB services for more than 40 years.

TAB WAS ONCE UNCOMMON

Four decades ago, contractors offering TAB work were rare, and few projects required it, says Anthony Wise, McIntosh's Test and Balance Division Project Manager. But McIntosh officials started to notice TAB requirements on larger jobs in the Tulsa region.

"They were starting to see test and balance in the specs," Wise says. "Back then, they didn't necessarily require it to be certified, but they required TAB work to be in the reports. And that's how the department slowly started. And then they bought a flow hood and it just grew from there."

Today, Wise supervises a staff of six technicians, including several certified by the National Environ-



mental Balancing Bureau (NEBB) and the Testing, Adjusting and Balancing Bureau (TABB). The crew often works in medical facilities, pharmaceutical labs, clean rooms and schools.

Wise says he enjoys the work.

"You very rarely (see) the same type of system design," he says. "You're usually always trying to think out of the box. To me, it's not the same thing every day. It's always something different."

In May 2023, McIntosh was awarded the tower's testing, adjusting and balancing contract. It included preparing the hospital's HVAC system for the new construction project. "We had to do pre-testing, pre-TAB (work) in the existing hospital before any demolition was started," Wise says.

Work began with the central utility plant, which Wise refers to as the CUP or "cup."

"We had to set the CUP up first, the primary pumps, fillers — all the major components that heat and cool the building, along with the water and boilers," he says. "Once we had all that set up, then we went into the facility and started working from there."

A COMPLEX SYSTEM

The hospital's tower HVAC system was complex. It called for the installation and testing of:

- Seven air handlers on tower, ranging from a 750-cfm isolation fan to 14,000-cfm kitchen hood fan
- 14 exhaust fans
- 60 fan-coil units
- 160 variable-air-volume (VAV) units, 95% of which had reheat
- 240 VAVs on tower, 90% with reheat coils
- Six secondary pumps and seven heating coil pumps for AHUs, all on the fourth floor mechanical room

"There was preheat, reheat and cooling coils in every single air handler," Wise recalls.

The tower's central utility plant has 10 pumps and the tower's three chillers and five boilers, plus three cooling towers.

McIntosh's TAB division also had to ensure the project met ASHRAE's standards for room/area infection control. "You have to have proper air changes to your isolation rooms," Wise says, pointing out that isolation areas have to stay under negative pressure to prevent germs from escaping. And operating rooms must be under positive pressure. "Rooms could be anywhere from 15 to 20 air changes (per hour); isolation rooms, 12 to 15. We had to check every one of those rooms based on the square footage and the cfm."

PROJECT CHALLENGES

When asked about the project's biggest challenge, Wise says it wasn't easy to hook up a newly constructed tower to the hospital's existing mechanical system. "It's hard to balance an entire building you literally doubled in size," he says. "Doubling the size of hydronic water, domestic hot water and chilled water was the biggest hurdle. The air handlers were easier because they were on their own individual systems."

But don't get the impression that it was a difficult project, Wise adds. Everything went smoothly. Working closely with the project engineer who designed the original building over 20 years ago helped.

"He knew where all the piping was underground," he says. "It was a collaborative effort. It really was kind of like all hands on deck, everybody putting their brains to work and trying to figure stuff out."

In late July, McIntosh sent its final TAB report for the fifth and sixth floors. From there, an engineer will send a punch list and then health and fire inspectors will certify if the floors are ready for occupancy. ▼

Anthony Wise is McIntosh Corp.'s Test and Balance Division Project Manager (left).

Ben Byington, an NEBB-Certified Technician, performs a flow hood balance check (center).

McIntosh Corp. employees include, from left to right, Journeyman Chris Robinson, Foreman Johnny Heath, Journeyman Marco Sandoval and Apprentice Easton Byington. All are members of SMART Local 270 (right).



Inside the \$100-Billion Micron Megafab Campus

As site work begins on one of the largest private construction projects in U.S. history, central New York's sheet metal industry braces for an unprecedented test of capacity, timing and labor.

A rendering of Micron's semiconductor manufacturing facility based in Clay, New York.

This year, Syracuse is the site of what may be one of the largest private construction projects in U.S. history — a semiconductor campus with no precedent in scale.

In January, Micron Technology broke ground on its Clay, New York, megafab. The company has committed up to \$100 billion over more than 20 years to construct four fabrication buildings, each spanning 2 million square feet with 600,000 square feet of cleanroom space inside. The U.S. Secretary of Labor called it “the largest construction project labor agreement in U.S. history.” For SMACNA contractors, the project represents both an opportunity and a logistical puzzle that has no playbook.

“We are all gas and no brakes,” Micron’s Construction Executive Jeffrey Mainment told Earl Hall, Executive Director of the CNY Sheet Metal Contractors Association and the Construction Employers Association of Central New York, who negotiates building trades bargaining agreements for the project’s signatory employers. As of summer, Hall says, Micron sits four months ahead of schedule.

A CHIPS AND SCIENCE ACT PROJECT

The Clay campus exists because of the CHIPS and Science Act, the federal subsidy program designed to bring semiconductor manufacturing back onshore after decades of production migrating overseas. In April 2024,

the Department of Commerce reached a preliminary agreement to provide up to \$6.1 billion in direct CHIPS Act funding to support construction of two fabs in Clay along with a third fab in Boise, Idaho, unleashing \$50 billion in private investment by 2030 as the first step toward Micron’s broader U.S. expansion plans. New York separately made up to \$5.5 billion available through its Green CHIPS incentive program over the project’s life.

The scale reflects supply chain strategy, as well as chip demand. He adds that Micron’s project labor agreement calls for up to five fabrication buildings, but the company’s draft environmental impact statement outlines plans for four, with Onondaga County securing additional land across the street to house Micron’s supply chain partners. The goal is to make it worthwhile for those partners to relocate their own operations to central New York rather than ship materials from elsewhere.

The timeline has already shifted once. After nearly two years of schedule drift, environmental filings confirmed in late 2025 that construction of the first fabrication plant would begin in mid-2026, with the final Environmental Impact Statement revising the operating date for the first plant to 2030. Hall confirms that target: site work and preconstruction began in January, pile driving starts later this summer, and the goal is



to pour foundations on the first 2-million-square-foot building by the fourth quarter of 2026.

THE SCOPE AND THE WAIT

For sheet metal and HVAC contractors, the most important detail may be the timeline. Hall estimates sheet metal/HVAC work won't begin until late 2027 or 2028 once the building shells are complete. During peak construction phases, up to 4,000 construction workers will be on-site simultaneously, according to public project documentation — a figure Hall corroborates.

Bechtel was named construction manager for the building phase, meaning the bidding process for trade contractors, including HVAC and sheet metal scope, will likely run through a standard RFP process once the company is ready to release bidding documents. Hall says that probably won't happen until mid-to-late 2027.

THE REAL CHALLENGE IS THE WORKFORCE

Ask Hall what worries him most about a project this size, and the answer is regional capacity.

"A big challenge with these megaprojects is that we've got to make sure we have enough contractors and union labor available to service traditional customers of our signatory employers," Hall says.

To manage risk, SMACNA and the SMART union run a national program aimed at megaprojects and designed to import labor from other states without depleting the workforce available for the region's existing customers. Hall says local business manager Michael Moran of Sheet Metal Workers Local 58 is closely tracking workforce timing and will have firmer projections by year's end.

A second challenge has already cost the project at least one bidder. Liquidated damages clauses — financial penalties triggered when a contractor misses a scope completion deadline — are standard in construction contracts, Hall says, but the severity of the penalty and the aggressiveness of the compressed schedule are what give contractors pause. "We've already seen at least

one contractor of significant size say, 'No thank you, I'm walking away from it,'" Hall says. With other construction work available in the region, he expects more contractors to walk if liquidated damages terms can't be negotiated down to something manageable.

A PROJECT WITHOUT A BENCHMARK

Much of what makes the Clay megafab difficult to plan around is its sheer novelty. The large firms brought in from Connecticut, Boston and New Jersey have built projects like this before, Hall says, but for central New York's regional ecosystem, nothing compares. Micron is reportedly using a parallel facility under construction in Boise, Idaho, as a model for how to execute the work, but Hall says the lessons from that project are new even to Bechtel's New York team.

"It will disrupt the ecosystem here in central New York — make no mistake about that," Hall says. "I just don't know what that's going to look like when we're done."

What he is certain of is that the opportunities the project creates for the regional construction economy outweigh the disruption, provided contractors and labor partners stay nimble. Project owners, he predicts, will have to accept that major construction work costs and timelines are rising and that contractors will be more selective about which contractual terms they're willing to accept.

"The success of projects like Micron won't be determined solely by engineering or financing — it will depend on the industry's ability to move skilled labor where it's needed while continuing to serve existing customers," says Jason Watson, SMACNA Executive Director of Labor Relations. "It is a total team effort between labor and management. Successfully delivering projects of this scale requires close coordination, workforce planning and a shared commitment from everyone involved."

SMACNews will update members on the Micron megafab as sheet metal bidding opens and construction progresses. ▼

This project will include up to 4,000 construction workers from multiple trades on site during peak construction after the building shells are complete.



How One Illinois Contractor Turned Classic Trucks Into Marketing Machines

Mendel Plumbing & Heating's themed fleet promotes everything from cancer awareness to local nonprofits, proving that community engagement can double as powerful advertising.

For Memorial Day, Mendel decorates trucks with patriotic and military themes to honor veterans.

Breast cancer awareness. Thanking first responders. Baseball season. Supporting the U.S. military. Mendel Plumbing & Heating Inc. in St. Charles, Illinois, has a dedicated fleet of custom-painted trucks and vans to observe every occasion. "I like the old trucks," says Mike Mendel, Mendel's Owner and CEO. He started his collection of one-off trucks 10 years ago, and over time they've grown into viral marketing tools, providing unique advertising opportunities for every season of the year. "It turns out that they're good marketing pieces."

Mendel reserves about 50 trucks for the routine work that every residential sheet metal contractor does, with 10 to 12 additional trucks and vans set apart for other causes and events. "They have special paint jobs, depending on if they're used for just showing our business or if they're used to support a cause," Mendel says. The humane society asked for support? He had a truck painted to encourage pet adoption. It's Mental

Health Month? Mendel had a truck painted green to increase visibility. Memorial Day is coming? Mendel has multiple trucks decorated with patriotic and military themes that honor our veterans.

The community pays attention to Mendel's imaginative trucks. Nonprofits and media outlets feature his trucks on their social media. When he used a pink truck to highlight breast cancer awareness, thousands of people liked Mendel's Facebook page to raise money for a cancer resource center. Members of the public took photos of themselves with Mendel's gold-themed "Pediatric Cancer" van to commemorate Childhood Cancer Awareness Month. And Mendel's orange "Random Acts of Kindness" van appeared on NBC Channel 5 in Chicago to promote a local nonprofit that invites everyone to change the world by showing kindness to their neighbors.

Parades in St. Charles draw thousands of spectators, and Mendel is a regular supporter. He might send three branded trucks to a single parade. "Sometimes we can



hand out candy,” Mendel says. “Other times you’re not allowed to. The different parades dictate what you can do.” The number of participants Mendel sends to each parade also varies. “Sometimes it’s just a few guys driving the trucks, but other times we’ve had walkers. It depends on what the parade allows, and it depends on what people are doing the weekend that the parade falls.” Mendel is already considering a Christmas truck for the 2026 Holiday Homecoming, a two-day festival which the St. Charles website bills as “one of the Midwest’s most spectacular holiday events.”

Mendel has sponsored both the St. Charles Electric Christmas Parade, which is held the Saturday after Black Friday, and its St. Patrick’s Day Parade, which is held in March. As a parade sponsor, Mendel is listed on the official city website all year round. “We’re signed up for the year on different parades,” Mendel says, “but you don’t have to do it that far in advance.”

The Mendel truck collection opens another unconventional marketing prospect: car shows. “You probably could go to a show every day here,” Mendel says. “I drove by one last night. It’s at a restaurant west of town, and I think it’s every Wednesday. Car shows are held in the summertime, usually in the evening for a few hours, but they’re all going to be different, so some might start a little earlier.” Car owners can travel long distances to participate in shows, but Mendel chose venues close to his service area. He found the local car shows online. “There are websites that you can search for old car shows. Some of the shows you

might have to pre-register for, but you can just drive up to most shows.” Sometimes Mendel’s fleet manager has taken multiple Mendel-branded trucks to three car shows in a week.

Mendel also uses the trucks to draw attention to his office in St. Charles. The parking lot is on a main road, so simply parking a distinctive truck there serves the purpose of a billboard or a sign. “There’s some good visibility,” Mendel says. “We change up what’s parked there, on average monthly, though sometimes we’ll have something up a little longer.” When the trucks aren’t on display, Mendel keeps them in one of his buildings.

The cost of buying the trucks depends on their type and age. “You can spend a ton of money on old trucks, or you can get them for not too much,” Mendel says. One of his dedicated trucks was originally used for regular residential work, while the rest were purchased specifically for promotional purposes. “Some of those are early 2000s, but we bought older trucks when we found them, so it’s a mixture of ages and styles.” One truck is wrapped with the letters painted on, but the others are completely painted with no wrap.

Mendel doesn’t know how many customers his trucks have brought in. “There’s not a way to measure that,” he says. “We don’t get people going, ‘I saw your old truck at the parade and that’s why I called.’” But he’s very happy with this inventive marketing strategy. “Remember, it’s something I like.” ▼

Mendel sets aside 10 to 12 trucks and vans for supporting local causes and events. This also acts as a company marketing strategy in the local community.



COVER STORY

Leading Without Limitations

Across the country, women are becoming an increasingly visible force on sheet metal and HVAC jobsites and within SMACNA committees. These professionals talk about what it took to get in, stay in and start pulling others in behind them.



It's lunchtime, and Michelle Acosta is alone at the will-call counter.

She's 18, maybe 19, covering the counter by herself while the rest of the crew at her grandfather's sheet metal manufacturing company is at lunch. A customer walks up needing fittings. "You can't help me here," he tells her. "You're a girl."

Acosta doesn't blink. "I do this all day, every day," she tells him. "Everybody's at

lunch. You can either sit in your truck and waste 30 minutes, or you can tell me what you need, and I'll have you out of here in 15 minutes. Your call." He stays. She fills the order.

It's a small showdown, over almost before it starts. But it captures something Acosta, now Vice President of Business Development at ATS Mechanical in San Jose, California, has lived through in one form or another for two decades.

She started at Acosta Sheet Metal Manufacturing at 15, answering phones. By 17, she was teaching herself to write orders by watching over the shoulders of the men in inside sales, because, as she puts it, "nobody wanted to give me a chance." By the 2008 recession, with the company short-staffed, she'd talked her way onto the shop floor doing shipping and receiving, carrying spiral duct, loading trucks and filling in wherever the business needed her.

Madon Sheet Metal hosted a Heavy Metal Summer Experience and welcomed students exploring careers in the skilled trades.

There was one problem nobody had planned for: none of the company's protective equipment came in her size. "I was swimming in them," she says. "I was maybe 115 pounds soaking wet, and the shirts were hanging off me, so I did my best to tuck them in as much as I could."

A teenage girl in men's-large shirts, doing a job nobody thought she'd want is, in miniature, the story of women in sheet metal and HVAC right now. More are in the building than ever before, and national data backs that up. But the equipment, the culture and the paths into the industry were mostly built without women in mind. Closing that gap is the work SMACNA and its members are now visibly, deliberately taking on.

WHAT THE NUMBERS SAY

Women made up 11.2% of the U.S. construction workforce in 2024 — the highest share in 20 years and up from just 9.1% in 2017, according to the National Association of Home Builders' analysis of

federal labor data. That's 1.34 million women, a number that has finally climbed back past pre-2008-recession levels after bottoming out at 802,000 in 2012. Growth has continued. Industry analysis of Bureau of Labor Statistics figures compiled by Fixr.com found women added roughly 22,000 net construction jobs between 2024 and 2025, pushing their share to 11.3%. A regional analysis by Associated Builders and Contractors' Carolinas chapter found women's participation in construction grew 45% between 2016 and 2025. And in 2025, women filled 12,000 of the 14,000 net new construction jobs added nationally, even as overall hiring slowed.

Acosta, who dug into the same data while thinking through her own story, put a finer point on it. "Women represent approximately 11% to 14% of the U.S. construction workforce," she says, citing California's Labor & Workforce Development Agency, "marking a historic

high driven by a 45% increase in female participation over the past decade. This figure lines up with the Institute for Women's Policy Research, which found women held just 4.3% of construction trade jobs nationally in 2024, even after a 77.3% increase in the number of tradeswomen since 2015. In three of the industry's five largest trades, women's share is smaller still: 3.5% of laborers; 3.2% of plumbers, pipefitters and steamfitters; and 2.9% of electricians.

Acosta's read on why the gap persists tracks closely with an analysis published in March 2026 by Bluebeam's Built blog, which found retention, not recruitment, is now the industry's real bottleneck. "Retention is the issue," Acosta says, "or as I describe it, a symptom. The underlying problems are everything from culture fit on the jobsite to the literal lack of fit of necessary PPE and everything in between." The Bluebeam analysis backs her up, pointing out that women enter construction



Michelle Acosta, VP of Business Development, ATS Mechanical, San Jose, California

Acosta grew up in her grandfather's sheet metal manufacturing business, starting as a receptionist at 15 and teaching herself inside sales by watching coworkers when no one would train her directly. She worked shipping and receiving during the 2008 recession — in protective gear that didn't come in her size — before earning a business degree with a minor in graphic design and redesigning the company's catalog and website. She stepped into the Vice President of Operations role in 2021 when the company's general manager departed unexpectedly, later personally negotiated the company's union production agreement, and joined the Bay Area SMACNA board. In November 2025, after nearly two decades in the family business, she moved to ATS Mechanical as Vice President of Business Development.

training and apprenticeship programs at higher rates than a decade ago, but leave the trades at higher rates than men, particularly in the first year. This is driven by isolation, thin mentorship and jobsite conditions like PPE that were never designed with them in mind. A 2025 industrial safety survey found more than one in five women linked a workplace injury directly to equipment that didn't fit — the same problem, in a different decade, that had a teenage Acosta tucking men's work uniform shirts into her waistband because there was no alternative.

Athena Chiera, Vice President of Athena Engineering in San Dimas, California, gives the honest, unsentimental version of that same trajectory from inside a company her parents founded in 1984. "It's better, but don't pop the champagne," she says of where the industry stands now versus when she started. "There are more of us, more contractors who want us there, and more clients

who genuinely expect it. But the numbers at the top and in the field are still thin, and too many women get in and then quietly leave because the culture treats them like guests. We've moved the needle. Now we have not finished the job."

NO SINGLE FORMULA

Ask how these women arrived in sheet metal and HVAC, and the honest answer is almost none of them planned to and almost no two of them arrived the same way. There's an engineer who didn't know what sheet metal was until she was 28, a grandfather's receptionist who taught herself the business from the back of a cubicle, a bank employee who took over her father's fabrication shop, a CFO who backed in through an accounts-receivable job, a Ph.D. in Shakespeare who found herself drawn into estimating, and a union ironworker's spouse who volunteered for a finance job she wasn't trained for.

Chiera says her path had two separate beginnings.

"The first is that I was born into it," Chiera says. "My mom, Jannie, started Athena Engineering in 1984 and had the guts to do it. My dad, Richard, was the technical one, but my mom was, and still is, the heart and the brains of this company. She blazed the trail I get to walk. I grew up on jobsites with my own toolbox, keying invoices at six and calling vendors to bid jobs at 11."

The second beginning, she says, was the one she chose: coming in as a sales and business development professional during the 2008 financial collapse. Her goal was simple: to help the family business survive. "I thought I was just pitching in," she says. "It turned out to be a natural fit, and I never left. So, the path found me first, and then I chose it right back."

Jen Clark, Project Integration Manager at General Sheet Metal in Portland, Oregon, thinks that range of paths is an important

"I learned early on that I had to be my own advocate," she says of building her own path forward. "Influence is power, and you don't need a title to have it."

part of the industry's story, but that the underlying imbalance is still very real.

Chiera goes one step further, arguing that the framing itself does specific damage before a girl ever gets near a jobsite. "By the time we recruit at the apprenticeship or college level, most girls have already crossed us off [the list]," she says, "not because a door slammed, but because we spent their childhood calling this industry 'male-dominated.' That phrase is well-meaning and it's poison; it tells a 10-year-old the seats are taken before she ever considers one. An industry has no gender. Stop giving it one."

WHAT SMACNA IS BUILDING

The industry isn't just tracking this shift from the sidelines. SMACNA is actively building infrastructure around it. The association's National Women in Leadership Committee, chaired by Kathy Kerber,

President and COO of KSM Metal Fabrication in Troy, Ohio, has spent the past several months rebuilding momentum after a quieter stretch, and the growth has been fast. The committee's private LinkedIn community, "Trailblazing Women in Sheet Metal and HVAC — Connected by SMACNA," has grown from zero members to more than 70 since its launch, giving women across the industry — in the office, in the field and in leadership — a place to connect with peers and mentors that didn't exist in this form before.

The committee meets twice a year, with a stated goal of making sure every avenue available to SMACNA members is genuinely open to the women working in the industry, whether they know those doors exist yet or not. Acosta has felt that outreach firsthand. She serves on the Bay Area SMACNA board, a seat she also didn't wait to be invited into. "I just simply

started going," she says of her early involvement. "I wanted more of that. I just charged my credit card and went."

That kind of direct, on-the-ground exposure is also happening at the shop level. Devon Madon, Co-owner of Madon Sheet Metal near Chicago, recently hosted a Heavy Metal Summer Experience event at her shop, bringing students in to see what a career in the trade could look like up close. "One of the highlights of the day was connecting with several young women who were excited to explore opportunities in manufacturing," she says. "Their curiosity, confidence and eagerness to learn were inspiring."

Clark points to the same program in Portland. "That's the importance of things like Heavy Metal Summer Experience — trying to reach out to younger people ... it's just making the trades a valid option."



Jen Clark, Project Integration Manager, General Sheet Metal, Portland, Oregon

Clark came to sheet metal by way of a civil and environmental engineering degree, a year volunteering in Honduras, four years at a software training company, and a three-month solo road trip that ended with her settling in Portland. She didn't know what sheet metal was until she was 28, when a friend mentioned General Sheet Metal might be hiring. Hired as a Project Engineer, she spent years learning the business from forepersons and project managers before pitching a company-wide technology role for herself — a job that didn't exist until she asked for it. She won SMACNA's Innovator of the Year award in January and currently serves on SMACNA's Construction Technology and Education Resource committees.

Her advice to anyone weighing the trades against a four-year degree: "Just because it's not college doesn't mean the people in it aren't really smart. The construction industry is always evolving and is a great place to keep learning."

Gina Medel, Chief Financial Officer of The Penn Air Group in Cypress, California, has taken a similarly hands-on approach in Southern California, giving tours of the local Joint Apprenticeship and Training Committee facility to friends' sons and daughters alike. "I try to do my best because the industry is so great, and we just don't market it enough," she says. Her advice to anyone weighing the industry: "Take a chance. If you love what you do, the money will follow."

Alongside the Women in Leadership Committee, SMACNA runs a second, broader effort aimed at the same underlying concern: making sure people in the industry are representative of the greater population. The Representation, Integrity, Support, and Empowerment Committee (RISE), a joint effort between SMACNA and the sheet metal workers' union SMART, is barely two years old, and Renee Hoffman,

Business Manager at Miller Sheetmetal in Bremerton, Washington, is one of its newer members. She joined, she says, after realizing she wanted a more direct hand in the conversation than the hallway small talk she'd been having on her own. "It's just including everybody and helping those who are underrepresented," she says of the committee's focus, which extends well beyond gender. "I wanted to be able to do more."

RISE also administers, alongside SMACNA's Safety and Health Committee, an annual Safety Sponsorship — up to \$5,000 toward attending the National Safety Council's Safety Congress & Expo — in partnership with SMACNA's BE4ALL initiative. Hoffman won the award in 2025, recognized for a safety program built on the same instincts that got her into finance: showing up, asking questions and refusing to let anything stop her. "Safety

is more than just following rules; it's about planning, communicating clearly and looking out for each other on every job," she says. "As our company grows, we want to make sure our systems, training and leadership grow with it."

Chiera won the same sponsorship in 2025. She built Athena Engineering's safety program essentially from scratch after joining full time in 2008 — work later recognized separately by the company's insurer, the ICW Group. "I've spent 18 years running our safety program while sending everyone else to the conferences," Chiera says. "This scholarship is the first time it's been my turn." She's using the recognition to push further, including expanding mental-health awareness at her company; improving near-miss reporting; and pressing on three concrete, practical fixes for women in the field: PPE that actually fits, reliable



Kathy Kerber, President/COO, KSM Metal Fabrication, Troy, Ohio

Kerber joined her father's company in 1997 after obtaining a business management degree at the University of Cincinnati and doing a stint at a bank. Early on, customers and vendors often refused to take her seriously; she navigated it largely without a formal mentor. She now leads KSM as President and COO, and she guided the company through a demanding aerospace certification process. Gaining that certification meant changing how the company did quality "from the top down," she says, which was "a great moment for the team."

Her advice to business owners who want to support female employees: "Invest in them."

bathroom access on jobsites and stronger channels for reporting harassment.

Chiera's involvement with SMACNA goes back further than the award. Athena Engineering has been a member "for a long time," she says, and the company made a deliberate bet on training when it went union in 2005, "because we needed access to better training and more skilled people." She's since joined the National Association of Women in Construction, sits on an advisory board for the Air Conditioning, Refrigeration and Controls program at Mt. San Antonio College, and counts some of her closest professional friendships among tradeswomen nearing retirement who spent entire careers on the tools without ever being asked for their story. "Their stories deserve to be told before they walk off the job for the last time," she says.

But several of the women make the same larger point: fixing safety protocols isn't accommodation for women; it's a safer jobsite for

everyone. Clark makes the case from the field. "I can't go out and lift 200 pounds over my head, so I'm probably going to be safer because I'm not trying to out-macho anybody," she says. Bringing in people of different sizes, strengths and backgrounds, she argues, pushes crews to use the lifts and equipment they're supposed to "because we all want to go home at night."

PROVING IT TWICE

Ask several of these HVAC and sheet metal professionals what got in their way as they explored industry careers and a specific pattern shows up. There was a quiet assumption that the woman in the room isn't the one in charge.

Chiera describes it as a fact of life on the sales side of the business, even now. "Men who were perfectly friendly with each other would see a woman walk up and assume she was a stand-in for the real decision-maker," she says. Two moments from her career have become the

stories she tells to explain what that assumption costs and what refusing it looks like. The first is a job walk where the electrical panel she needed to inspect sat inside the men's locker room, and she was told she couldn't go in. "I told them they'd have to cancel the entire RFP because a walk I'm not allowed to complete isn't a fair bid," she says. "Then I knocked on the door, told the men inside to put their underwear on because I was coming in, and I walked in and did the walk." The second, which was smaller but just as telling was when a crew offered to save her the trouble of a roof inspection. "'Don't worry about climbing the ladder to the roof. We'll just tell you what's up there,'" she remembers being told. "'No thank you. I'll climb the ladder and see for myself,'" she said back. Her rule for moments like these hasn't changed: "I don't get loud, I don't get small, and I don't let it become the story. I refuse the smaller version of the job someone's trying to hand me."



Gina Medel, CFO, The Penn Air Group, Cypress, California

Medel backed into the mechanical contracting industry through an accounts-receivable job while still in college; Penn Air offered her the Controller position in 1999, and the company's CEO asked her to become CFO in 2007. A labor dispute she navigated on the company's behalf led to her first involvement with SMACNA's Southern California chapter — a seat on a programs committee, then the Joint Apprenticeship and Training Committee, then the board. She's President of SoCal SMACNA now, with a term as Cal-SMACNA President beginning in April 2027. Her advice is to focus on the pride in the work.

**"We build hospitals," she says.
"We build stadiums. We build airports.
It gives me chills."**

Kerber describes a version of the same dynamic that lasted years rather than minutes. “Customers and vendors refused to talk to me and thought I had no idea what I was talking about,” she says of her early years at KSM. “It’s easier not to tell people who you are sometimes and just get a male counterpart to deal with some people.”

Acosta’s counter-scene is the same test. A stranger decided, on sight, that she couldn’t possibly be the person equipped to help him. All three describe handling it the same underlying way: not arguing the point; just doing the job anyway and letting the work settle the argument.

THE DRIVE IT TAKES

Talk to any of these industry professionals long enough, and a theme surfaces that has nothing to do with gender: none of them waited around.

Acosta calls it resourcefulness and traces it back to her first months in inside sales, teaching herself to type orders by watching

coworkers when nobody would train her directly. “I think resourcefulness — essentially not waiting for people to give me an opportunity but rather just simply taking it for myself — is kind of a theme in my life,” she says.

Kerber describes something similar from her own experience building a company culture around it. “I was born somewhat of a leader,” she says. “I also have sought out leadership training, workshops and one-on-one development to help me in my career. I like being a leader, and I like to develop leaders.”

Clark’s version of the same instinct shows up in how she got her current role. She didn’t wait for a job posting. “I went to the president of the company with an idea,” she says, “and he said, ‘You know what, that sounds like a great idea.’”

Hoffman’s came from raising her hand for a job running the company’s finances that she wasn’t trained for yet, then closing

the gap on her own time. “I can do this,” she remembers telling herself. “I can do whatever I put my mind to.”

Medel frames it as focus rather than proving a point. “I never looked at it like, ‘Oh, I’m a woman here,’” she says. “I looked at it like, ‘How can I be productive, how can I be effective and what can I contribute?’ I just wanted to do the work.”

All of them describe a genuine, if hard-won, advantage that comes with being one of relatively few women in rooms that used to have none. “When you’re one, if not the only, woman in the room, you’re more easily recognized and remembered,” Acosta says. “When you’re the one who’s not like the others, people are curious, and that’s helped me get an entry point into interactions and groups that let me then show who I am and what I’m about.”

Clark describes it in terms of trust. “I think there’s just less of an ego thing going on,” she says. “People feel comfortable brainstorming



Devon Madon, Co-owner, Madon Sheet Metal, Palatine, Illinois

Madon holds a Ph.D. in Shakespearean literature and spent nearly a decade teaching English before she and her husband, John, launched their own union sheet metal fabrication shop. She expected to work the business side; instead, she was drawn into fabrication, estimating and operations, discovering the trade rewarded the same critical-thinking and communication skills she’d spent years teaching. She recently hosted a Heavy Metal Summer Experience event at the shop, connecting with students — several of them young women — exploring careers in manufacturing.

“You don’t have to know everything before you start,” she says, “and you don’t have to look like everyone else to succeed.”

with me or being open with me in a way they don't necessarily feel as comfortable doing with another guy."

Kerber calls it "a gift where we're empathetic but strong at the same time ... sometimes we do better at seeing the big picture, and when that happens, we truly can bring unique input."

Chiera puts the sharpest point on it. "Being the only woman in the room is always an advantage because nobody ever forgets me," she says. "I'm 5'2", Cuban, Italian, and definitely not quiet, so I don't need a gimmick to stand out. For the record, I don't do the pink hard hat. I like pink fine; it's just not my color. In a sea of sameness, being different is memorable, and memorable wins work."

THE PART THAT ISN'T SOLVED YET

None of the professionals who talked to SMACNews oversell the progress of women in the industry.

Kerber is candid that the trend line hasn't been straight. "For a while, I felt it was getting better, and we were

making a difference," she says. "Now, I am not so sure. It seems like we have taken a back seat again. Hearing some comments from male colleagues feels like we are going back in time." Asked about the most common misconception outside the industry, she says, "I think they think we are figureheads sometimes, but if you really looked at it, we show up, put in the time and the work, and we contribute a lot."

Acosta zeroes in on something more structural: an industry-wide instinct to make newcomers (regardless of gender) earn their place through unnecessary hardship rather than real mentorship. "There is such an immense desire to say, 'This is how I suffered, so you gotta suffer, too,'" she says. "I'm not saying we need to make it easy, but why do people have to suffer and make mistakes that aren't helping anybody learn? They're just making people feel bad." She thinks that pattern, more than any single act of bias, is what actually drives people out. "I think companies forget that it is their obligation to help

people grow," she says. "None of us come out of college, an apprenticeship or a trade already knowing everything. I think once people get far enough in their careers, they forget what it was like to be a beginner."

Chiera's version of the same worry centers on visibility, and who the industry lets stand in for "women in construction" in the first place. "Scroll construction TikTok and the vast majority of women you'll see are young project engineers at big general contractors," she says. "Great job, nothing against it, but it's one narrow lane. What you don't see on the socials are the female welders, pipefitters and electricians. You know why? You can't film yourself while you're bending conduit, arc welding or sweating a pipe. Those women have their heads down doing the actual work, and we desperately need their stories out there." She's equally blunt about the misconception that follows from that gap. "That we're the exception that proves the rule — that a woman doing this work must be some rare unicorn who had to be



Renee Hoffman, Business Manager, Miller Sheetmetal, Bremerton, Washington

Hoffman joined Miller Sheetmetal as an Admin Assistant in 2019, with no direct construction background beyond her husband's career as a union ironworker. She moved up to Office Manager, then Business Manager, and in 2023 volunteered to take over the company's finances despite having no formal training in accounting — closing the gap through a college course and SMACNA's own financial training, paid for by the company. She won SMACNA's 2025 Safety Sponsorship Award, funding her attendance at the National Safety Council's Safety Congress & Expo, and recently joined the joint SMART-SMACNA RISE Committee. She's also begun mentoring a colleague, pushing her toward SMACNA's national training opportunities the same way she once pushed herself.

twice as tough to get here. It flattens us into mascots.”

And Chiera doesn’t let the industry off the hook on retention, the same word Acosta and the national data both keep circling back to: “Retention is the real scoreboard, and we’re not winning it yet.”

Hoffman, whose shop hasn’t yet had many women come through the field, says the fix must be ready before the need arrives, not after. “If a woman would need something,” she says, “we would absolutely add that to what we do.”

WHERE IT’S HEADED

Ask all the professionals what they’d tell a young woman weighing this career, and the answers land in roughly the same place, even if the delivery differs.

Madon, who came to Madon Sheet Metal from a Ph.D. in Shakespeare and a decade of teaching, wants the industry to make its intellectual case louder. “I wish more people asked how the humanities and manufacturing complement one another,” she says. “People think they’re

opposites; my experience has been the exact opposite.” The same skills — critical thinking and communication — that she taught in a classroom are the ones she now uses to estimate and run a shop, which leads her to how she’d frame the trade’s future. “It’s not just about building better products. It’s about building better thinkers.

“You won’t know until you give it an honest try,” Madon adds. “And one bad apple — a terrible boss, a terrible company culture or one bad situation — doesn’t define the industry. Move on, reassess.”

“Don’t think that you need to be able to lift things that are heavy, or that you can’t do certain things — go out and try it,” adds Hoffman. “If it’s worth having, it’s hard to get.”

When the topic of work-life balance comes up, Chiera doesn’t pretend it’s achievable. “Balance is a lie — there’s no such thing,” she says. “Some weeks it tips all the way toward work, some weeks toward my life. The trick isn’t balance, it’s honesty. I do what I enjoy, I work with people I enjoy, and if I stop enjoying something, I drop it.”

Medel confirms that an office role doesn’t make industry entry any smoother for women despite assumptions that it does. “It’s definitely harder than most people assume,” she says. “People think, ‘Oh, you’re the CFO, you can come in when you want.’ No, it’s a lot and the buck stops with you.” What makes it work, she says, is loving the work itself. “The balance is easier for me because I genuinely enjoy what I do.”

Kerber has similar advice. “[This career] is very rewarding,” she says, “but challenging as hell. It can be tough.” Her hope for the next decade is specific and structural. “Developing more women contractors will require more than recruiting women into the industry — we need to prepare them to lead and own businesses,” she says. “Women need equal access to technical training, estimating, project management, financial education, bonding, capital, industry networks and meaningful mentorship and sponsorship. I would have loved to have had that when I started.”

“I needed to put myself out there and get uncomfortable,” she says, “because I was way too comfortable where I was.”

Acosta's version of the same hope circles back, fittingly, to the framing question this whole story keeps running into. "In 10 years, I hope that gender doesn't make the headlines," she says. "I hope great leaders and great workers are simply recognized for who they are and what they do, not in light of a label. I want to see less about 'women leaders,' and see more women in leadership."

She points to the field leader she admires most in the industry — a man who has told his crew for years, in exactly these words: "I don't hire women. I hire sheet metal workers."

Chiera puts almost the same wish in almost the same

words, from the other end of a two-decade career. "In 10 years, I want a girl to be able to say 'I work in HVAC' or 'I'm a welder' and have it land as ordinary," she says. "It won't be brave or surprising. It'll just be her job."

And when she's asked what she's never been asked but wishes someone would, Chiera says she hopes she doesn't have to reach for anything about being a woman at all. "Ask me about the trickiest mechanical or controls-system problem I've untangled or how we kept the company alive through two recessions," she says. "Ask me the questions you'd ask any seasoned contractor. The day a reporter leads with, 'What's the most interesting

thing you've built?' instead of 'How does a woman end up in HVAC?' that's the day I'll know the industry really changed."

That's the state of the HVAC and sheet metal industry heading into the back half of 2026: more women in the building than in two decades; a growing, deliberate SMACNA infrastructure working to get more women in the door and keep them there; and career examples that prove there's no single blueprint for getting in. There is only, as Acosta puts it, a willingness "that I can simply walk in and pull up a chair." Back at that will-call counter, nobody handed her one. These days, more of the industry is building extra chairs on purpose. ▼



Athena Chiera, Vice President, Athena Engineering, San Dimas, California

Chiera grew up inside the design/build HVAC and building-automation firm her parents, Jannie and Richard Chiera, founded out of their townhouse in 1984, keying in invoices by age six and joining the company full time during the 2008 recession. She now runs Athena Engineering's business development team and estimators and is building out a new service department from the ground up. She built the firm's safety program from nothing — work later recognized by the company's insurer, the ICW Group — and won SMACNA's Safety Sponsorship Award after 18 years of sending colleagues to industry conferences instead of herself. She holds a bachelor's degree from Claremont McKenna College and an MBA from the Drucker School of Management, earned while working full time. Her advice to the women who want to get into the business is "control your destiny. Stay curious and never cast yourself as the victim," she says.

**"You're allowed to take up space without explaining why you're allowed to." Her message to the industry:
"An industry has no gender. Stop giving it one."**



FEATURE STORY

Sonderling Visit Shows the Trades a Path Forward

Acting U.S. Labor Secretary Keith Sonderling visited Pennsylvania's Luzerne County Community College, where union contractors and educators made the case for apprenticeships, early recruitment and stronger career pathways in HVAC and sheet metal.

Acting U.S. Labor Secretary Keith Sonderling visits Luzerne County Community College to discuss HVAC and sheet metal trade careers.

Acting U.S. Labor Secretary Keith Sonderling's June 10 visit to Luzerne County Community College (LCCC) in Nanticoke, Pennsylvania, offered a familiar but timely message for HVAC and sheet metal contractors: the trades still work, but the pipeline must start earlier, train smarter and keep people longer.

At a roundtable inside the college's Trades Building, workforce leaders, educators and SMACNA and SMART representatives talked about apprenticeships, technology, retention and the growing need to sell the trades as a modern, high-road career.

Sonderling says the most important thing communities can do is make sure local work-

ers get the first shot at the jobs being created close to home. "The most important thing we can do, especially in Pennsylvania communities like this, is make sure the local workforce has the first and best opportunity to fill these jobs," he says, adding that community colleges are uniquely positioned to help students stay in their communities, learn a



During the visit, participants discussed workforce strategies, including registered apprenticeships, which remain one of the industry's most reliable tools for early industry exposure.

trade and build a family-sustaining career without taking on unnecessary debt.

For contractors, that message landed squarely in familiar territory. The visit centered on PA Works, Pennsylvania's state-wide workforce strategy built around career and technical education, micro credentials and pre-apprenticeship programs. LCCC President John Yudi-chak says the state will need 300,000 skilled trade workers by 2030, and he cast community colleges as a critical partner in meeting that demand. Kelly O'Brien says the college is creating pathways that connect students, job seekers and

employers, while Dr. Russ Bigus says LCCC's training is designed to lead directly to employment and advancement.

The roundtable also gave SMACNA and SMART leaders a chance to underline what is working in the field. Registered apprenticeships remain one of the industry's most reliable workforce development tools, and early exposure through middle school, high school and pre-apprenticeship programs is increasingly seen as essential. The Heavy Metal Summer Experience was highlighted as a successful recruitment model, and veterans continue to represent a strong source of

talent through programs such as Helmets to Hardhats and SMART Heroes. Participants also pointed to retention, mentorship and workplace culture as critical pieces of the workforce puzzle, especially as experienced workers retire and the industry loses hard-won institutional knowledge.

Technology was another major theme. The modern sheet metal career, participants said, now includes 3D modeling, automation, digital fabrication and AI literacy, making the trade more technical than ever. Prefabrication and offsite manufacturing were also noted as expanding quickly



because they can improve efficiency, quality and safety. The message to young workers was clear: this is still a hands-on industry, but it is no longer just about hand tools and sheet metal snips.

The visit also highlighted a broader selling point contractors know well: the trades still offer a direct route to the middle class. John Weaver, an HVAC instructor at LCCC, told Sonderling that the field can provide a strong life for workers and their families. "It has provided all of us a great opportunity to provide very well for our families, and you'll never be without a job," Weaver

says. "You can go anywhere in this country and find a job in any of these fields, and AI is not taking that away." That line may end up being one of the most useful takeaways for contractors trying to recruit the next generation.

The roundtable included Stan Kolbe, SMACNA's Executive Director of Government and Political Affairs; Pete Jenkins, Executive Director at Sheet Metal Contractors Association of Philadelphia & Vicinity; Dominic Bonitatis, Owner of Prime Sheet Metal Inc.; Ernie J. Menold, President of Ernest D. Menold Inc.; and Jennifer Lohr, Vice President of

Fisher Balancing Co. Their presence reinforced the practical tone of the discussion, which is that the future of HVAC and sheet metal depends not only on recruiting more people, but on giving them good reasons to stay, grow and lead.

For contractors watching the labor market, the visit pointed to a simple conclusion. Apprenticeships still matter, community colleges still matter, and the trades still offer one of the clearest paths to a stable career, but the industry will need stronger partnerships, better messaging and a more modern training model to keep that promise alive. ▼

At the roundtable, workforce leaders, educators and SMACNA and SMART representatives talked about apprenticeships, technology, retention and the growing need to grow careers in the trades.



CHAPTER SPOTLIGHT: ST. LOUIS

How SMACNA St. Louis Built a Union Model That Still Works

Through rebate programs, training partnerships and close coordination with Local 36, the chapter has preserved market share and strengthened its contractor network.

*Susan Miller, SMACNA
St. Louis Chapter
Executive Director.*

The sheet metal market in Missouri is different from any other region in the U.S. “It’s this unique little bubble that we have, the St. Louis bubble, where unions are still strong,” says SMACNA St. Louis Chapter Executive Director Susan Miller. “I think our residential market played a huge part in that.” Nonunion competitors crowded SMACNA contractors out of most residential markets years ago, but SMACNA St. Louis sacrificed to keep that

sector. “There were years when contractors were taking a loss to hold on to that new construction, but during COVID, the residential work carried SMACNA when other companies were unable to work.”

SMACNA St. Louis and SMART collaborate on several residential rebate programs to encourage homeowners to choose SMACNA contractors. SMACNA administers the maintenance agreement program, which gives customers a \$25 rebate if they

sign a maintenance agreement for a regular clean and check.

“We give over 20,000 rebates a year, so we’re writing 20,000 checks for \$25 each,” Miller says. “The contractor will go to the home, perform the work, and the maintenance agreement is signed. The contractor pays SMACNA \$10, and we issue the \$25 rebate check at the end of the month. We then submit all the rebates to the union, and the union gives \$20 to SMACNA for each one.” The extra \$5

“It’s this unique little bubble that we have, the St. Louis bubble, where unions are still strong.”

—Susan Miller, SMACNA St. Louis Chapter Executive Director

per maintenance agreement covers the administrative costs for the program. “I majored in accounting for three years before I switched to business management, so that is what I started doing with SMACNA.”

“We built our program over customer interaction and taking care of the customer,” adds Paul Heimann, vice president of Welsch Heating and Cooling in St. Louis. “We sell them maintenance agreements, so we’re in the house twice a year, building a relationship.”

“We’ve got 6,000 maintenance customers, so that’s 12,000 service calls that we’re going to do next year alone,” Heimann adds. “Sometimes they have no idea what a furnace or an air conditioner or a filter is. Our guys educate the customer as best we can and build that relationship so we can continue servicing that customer for a long period of time.”

Cooperating with SMART on the residential rebate program is just one part of SMACNA St. Louis’s strategy to keep unions strong. “We have a great relationship with Local 36, which I know is not always the case around the country,” Miller says. “We don’t just meet when it’s time to bargain. They sit on our Architectural Sheet Metal Committee to help us keep and grow that market. Every year, they invite me to their pinning ceremony, where everyone gets their pin for their one-year anniversary, their 25-year

anniversary or their 40-year anniversary. They reciprocate and come to our events. Everybody’s end goal is the long-term health of the sheet metal industry in St. Louis.”

Open and honest communication is central to Miller’s leadership style. “When I first took this job, I didn’t quite understand all the benefits that the union workers received,” Miller says. She called Ray Reasons, Local 36 President and Business Manager, who put Miller in touch with the person in charge of benefits. “She spelled it all out for me.”

Heavy Metal Summer Experience provides an annual opportunity for Miller to invest in relationships with the local and her contractors. “A team of people, both union and contractors, select the students together,” Miller says. “We visit three to four contractors the first week, and the second week we take over the school, and the instructors teach the kids. I have Post-It notes on my desk with a list of all the kids that have gotten apprenticeships because of this program. Currently, we have over 400 people on our waiting list to become apprentices.”

Miller relies on the SMACNA St. Louis board and the Metal Industry Fund board to make things happen. Both boards are large, giving Miller a total of 21 board members. She appreciates every member. “These people are so invested

in SMACNA and in the culture they built,” she says.

The contractors build SMACNA, and SMACNA builds the contractors. “One of my passions is getting back to the grassroots of SMACNA training and educational offerings,” Miller says. “Our technical standards set us apart, and that’s who we are and why we exist. We have all this contractor education available to us. We’re using some of our funds to encourage our contractors to send people to national SMACNA trainings and educational programs.”

Miller’s own background is nontraditional. She earned a business management degree, then pivoted to become a stay-at-home mom to four children. She reentered the workforce by taking over the business office of a church before she learned of an opening at SMACNA. “I started as the bookkeeper running the residential rebate program in February 2021 and was promoted to the Associate Director position. Then the contractors wanted me to take this job.”

SMACNA changed Miller’s life. She loves going to the Chapter Executives Institute every year and getting to know the other chapter execs. “It’s awesome to pick up the phone and have this network,” she says. “You’re not expected to know everything. You grow, and you learn, and, before long, you’re speaking the SMACNA language.” ▼



Housing Bill Could Speed HVAC Work

The bipartisan 21st Century ROAD to Housing Act may be more than a housing policy win. If enacted, it could also create faster-moving opportunities for HVAC contractors by streamlining approvals, expanding retrofit work and supporting new construction.

The bill cleared both chambers of Congress by wide margins in late June, signaling rare bipartisan agreement on an issue that affects millions of homeowners, renters, builders and trades professionals. Lawmakers have cast the measure as a major response to the nation's housing shortage, with provisions aimed at lowering costs, increasing supply and reducing regulatory delays.

For HVAC contractors, the most immediate impact may come from the bill's emphasis on quicker project delivery. Section 206 would streamline emergency repairs or replacements of HVAC systems, hot water heaters and other essential utilities in HUD-assisted housing. By shifting those projects into exempt review categories, the bill could reduce environmental review delays and speed up both approvals and payment cycles.

That matters in a market where urgency often collides with bureaucracy. Faster emergency repairs would likely mean more rapid turnover on federally supported housing work, while also opening the door to a steadier flow of service-related jobs.

The bill also creates a pilot program for whole-home repairs that includes energy and water efficiency, resilience and weatherization improvements. While the language is broad, it could cover HVAC replacements, ductwork upgrades, ventilation improvements and heat pump installations. In practical terms, that means more retrofit work in aging housing stock

and more demand for contractors who handle system modernization.

"We are supportive of the bill and the long list of tax credits and grants to help homeowners retrofit and upgrade HVAC systems to drive down operating costs," says Stan Kolbe, Executive Director of Government and Political Affairs for SMACNA.

Another provision points to the industry's growing role in connected building technologies. The bill establishes a temperature sensor pilot program for federally assisted housing, with funding for internet-capable devices that monitor indoor air temperature. That kind of policy push reflects the broader move toward remote monitoring, smart controls, and more data-driven building management.

The strongest long-term effect, though, may come from the bill's housing-supply agenda. It encourages more construction through zoning reform incentives, expanded eligibility for affordable housing development and support for converting vacant commercial buildings into residences. Each of those trends carries HVAC implications, from new equipment sales to complex retrofit design work.

Converting offices, warehouses, hotels and other underused properties into housing typically requires new ventilation layouts, updated system sizing, and code-compliant upgrades. For contractors, those projects can be more technically demanding than new builds, but they also tend to create higher-value work.

"We have been tracking this and certainly see it as a sign that Congress can work together to pass significant legislation," says Brian Turmail, Vice President of Association and Industry Image, Associated General Contractors of America. "We hope this bill stimulates new demand for the multifamily construction many of our members build."

The legislation also aims to speed construction by reducing duplicative reviews and encouraging preapproved building designs. While those provisions do not target HVAC directly, they could shorten timelines across the board, allowing projects to move into installation and commissioning sooner.

What doesn't the bill include? The bill does not address the construction labor shortage and it does not create new HVAC-specific tax credits. It also avoids adding new mandates on heat pumps, electrification or refrigerants, which may help keep contractor compliance pressure from rising further in the near term.

For now, the measure remains a notable example of bipartisan housing policy with potential ripple effects well beyond real estate. If it becomes law, HVAC contractors could see more retrofit opportunities, more multifamily work and a faster pace of projects tied to the nation's push for more affordable housing. ▼

"We are supportive of the bill and the long list of tax credits and grants to help homeowners retrofit and upgrade HVAC systems to drive down operating costs."

— Stan Kolbe, SMACNA's Executive Director of Government and Political Affairs



DUCT & DATA

Travis Voss

I've Been Collecting All This Data. Now What?

Effective data management is the foundation of any successful data-driven initiative. Before diving in deep to see what insightful nuggets lie in this goldmine, there are some best practices to ensure that historical data is managed efficiently and utilized effectively in projects.

I used to be a larger proponent of the single source of truth, the centralized platform or cloud-based solution for data storage and management to ensure that all historical data is accessible from a single location, facilitating easy retrieval and analysis. While centralized platforms also provide a unified view of the project, enabling better coordination among different teams and stakeholders, they may not always be feasible, or the infrastructure may not lend itself to this structure. Another option is to leverage APIs and other communication tools to connect systems together provided there are adequate keys in the data to relate the information from one source to another. This allows the data to reside where you created it, but also makes it easily accessible.

For intensive data work, there is often a need to pull the data into one pool. Standardizing data formats is crucial for ensuring compatibility and ease of analysis. Without standardization, data from different sources can be inconsistent, making it difficult to draw meaningful insights.

This leads us to quality assurance. Implementing data quality assurance measures, such as regular audits and validation checks, can help maintain data integrity.

Machine learning (ML) and artificial intelligence (AI) can enhance data standardization and quality assurance by automating the processes of identifying, correcting and standardizing data discrepancies. ML algorithms can analyze vast datasets to detect patterns and inconsistencies, ensuring that data conforms to predefined standards. AI-powered tools can continuously monitor data quality, flagging anomalies and suggesting corrections in real-time. This automation reduces the manual effort required for data cleaning and validation, enabling the maintenance of high-quality data consistently.

Once data is collected, the next step is to analyze it to extract valuable insights. This is where data analytics and Business Intelligence tools come into play.

Descriptive analytics involves analyzing historical data to understand past performance and identify trends. This can mean reviewing data on project timelines, labor hours and material costs to determine what went well and what could be improved. Descriptive analytics provides a foundation for making informed decisions.

Predictive analytics uses historical data to forecast future outcomes. Identifying patterns and trends in past projects can help predict potential issues and opportunities in upcoming projects.

Prescriptive analytics goes a step further by not only predicting outcomes but also suggesting actions to achieve desired results. This involves using advanced algorithms and machine learning models to recommend the best courses of action. Prescriptive analytics can provide actionable insights on optimizing resource allocation, scheduling and procurement.

Analyzing data from previous projects develops more accurate project schedules. Understanding how long specific tasks take and identifying potential bottlenecks helps create realistic timelines that minimize delays and ensure timely project completion.

Historical data on material and labor costs can inform more accurate project cost estimates and budgets. Understanding past spending patterns can enable the development of budgets that are more realistic.

Labor productivity and material usage data can optimize resource allocation. Identifying which resources are most effective for specific tasks can ensure the right people and materials are in the right place at the right time, maximizing productivity and minimizing waste.

Historical data can also be used to enhance quality control and risk management efforts. ▼

Travis Voss is Director of Innovative Technology and Fabrication at SMACNA, where he leverages his background in the tech field to explore, adapt and develop technologies and workflows for the construction industry.



FINANCIAL STEWARDSHIP

Ronald J. Eagar

Why Job Costing Still Breaks Margin Visibility for Construction Firms

Financial pressure in construction rarely appears all at once. It builds over time across estimating assumptions, job cost tracking and delayed reporting. By the time it appears in financial statements, the underlying issue has already affected project performance.

Grassi's 2026 Construction & Architecture & Engineering Survey Report highlights the extent of the challenge:

- Only 25% of firms are very satisfied with their financial and operational data.
- Job costing accuracy is the top reporting challenge for general contractors and subcontractors.
- Cash flow forecasting is a shared issue across roughly 40% of firms.

These findings point to a broader issue: limited financial visibility, which directly impacts pricing, bidding, forecasting and overall margin performance.

WHERE FINANCIAL VISIBILITY BREAKS DOWN

Most firms lack timely, reliable insight.

In many organizations, financial reporting still follows cycles that do not align with project execution pace:

- Monthly close timelines delay decision-making.
- Job costs aren't consistently captured across projects.
- Project management and accounting systems are not fully integrated.
- Reporting reflects past performance rather than current conditions.

When this happens, leadership is forced to make decisions without a complete picture of performance.

THE REAL IMPACT OF JOB COSTING GAPS

Job costing is a core input into business decisions. Without accuracy, firms can't reliably assess margins.

This creates risk across several areas:

- Bids are based on incomplete or outdated data.
- Cost overruns are identified too late.
- Projections do not reflect actual job performance.

Over time, this leads to margin leakage from multiple small gaps throughout the project lifecycle.

INCONSISTENT CASH FLOW VISIBILITY

Cash flow forecasting continues to challenge firms across all segments due to construction operations complexities:

- Billing cycles and retainage structures

- Change orders and contract adjustments
- Vendor payment timing
- Project schedule variability

The report shows that many firms still struggle to translate project activity into reliable cash flow projections, even when profitability appears stable on paper.

This disconnect creates a common scenario: Profitable projects, but constrained liquidity.

WHAT LEADING FIRMS ARE DOING DIFFERENTLY

Firms that are improving financial visibility are changing how they use reports. Several patterns are emerging:

- 1. Shorter Reporting Cycles:** Approximately 60% of firms review financial results monthly, but leading firms are moving toward more frequent project-level insights to allow for earlier identification of issues.
- 2. Integration Between Systems:** Firms still cite challenges with integrating project management and accounting systems. Improved integration helps align operational activity with financial outcomes.
- 3. Focused KPI Tracking:** Profitability and net cash flow are the most widely used KPIs across the industry. High-performing firms focus on a defined set of metrics, including project-level profitability, cost variance, working capital and WIP position.
- 4. Treating Job Costing as a Strategic Function:** Job costing becomes part of decision-making across preconstruction and estimating, project management and finance leadership.

MOVING FROM REPORTING TO DECISION-MAKING

One of the most important shifts in the industry is the move from reporting results to informing decisions.

For firms looking to improve financial visibility and reduce margin leakage, a focused approach can help:

- Evaluate job costing accuracy across active projects.
- Identify delays or inconsistencies in reporting.
- Improve financial and project system integration.
- Define and track core KPIs consistently.
- Increase financial and operational review cadence. ▼

For more information, please contact Ronald J. Eagar, CPA, CCIFP, Chief Operating Officer and Partner at Grassi, at reagar@grassiadvisors.com or 516-336-2460.

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SMACNA's Associate Member program provides an opportunity for industry service providers and suppliers to build lasting partnerships with our industry-leading contractors. To learn more about becoming an Associate Member, visit smacna.org/community/associate-members.



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SMACNA CALENDAR

2026

SEPTEMBER

September 27-30

Project Managers Institute
Denver, Colorado

OCTOBER

October 5-7

Financial Boot Camp:
Interpret, Navigate,
Analyze!
Phoenix, Arizona

October 25-28

2026 SMACNA
Annual Convention
Orlando, Florida

NOVEMBER

November 16-18

Customer Excellence
Training
Indianapolis, Indiana

DECEMBER

December 6-8

Council of Chapter
Representatives Meeting
San Diego, California

2027

JANUARY

January 25-27

2027 MEP Innovation
Conference
Tampa, Florida

January 25-27

2027 AHR Expo
Chicago, Illinois

January 31-February 2

Chapter Executives Institute
San Diego, California

Welcome New SMACNA Members

DeFinis Mechanical Contractors LLC	Pittsburgh, Pennsylvania
Eklutna Construction and Maintenance LLC	Wasilla, Alaska
Go Fetsch Mechanical LLC	New Hope, Minnesota
Innovative Exteriors Inc.	Portland, Oregon
Prestige Metal Worx	Westbury, New York
Savignano Construction Services LLC	Clifton Park, New York
Stafford and Grech LLC	Medina, Ohio
Stellar Mechanical LLC	Ogden, Utah
Thassian Mechanical Contracting Inc.	Atlantic Highlands, New Jersey

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