

SUMMER 2020

Sheet Metal Journal

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Western Washington

WIC Week 2020

**Doubling the Number of Women in
Sheet Metal by 2025**

Tulalip Gathering Hall

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SMACNA
WESTERN WASHINGTON
Official Journal of
Record for SMACNA-WW

OUR CONTRACTORS SET THE STANDARDS FOR THE INDUSTRY



SMACNA-Western Washington is a trade association and a Local Chapter of the Sheet Metal & Air Conditioning Contractors National Association (SMACNA), which is located in Chantilly, Virginia.

SMACNA Contractors are heating, ventilating, air conditioning (HVAC), and sheet metal experts. They are your assurance of quality in the fabrication and installation of ductwork and air handling systems.

SMACNA contractors are also skilled professionals in:

- Architectural sheet metal
- Industrial sheet metal
- Kitchen equipment
- Specialty stainless steel work
- Manufacturing and custom fabricating
- Repair services
- Siding and decking
- Flow testing & balancing
- Energy management & maintenance

Well known and respected within the construction industry, SMACNA contractors provide the highest quality workmanship, professionalism, and service to their customers. They care about the life cycle of the project, not just the winning bid.

You'll find SMACNA contractors working in all areas of construction whether industrial, commercial, institutional, or residential.

SMACNA contractors developed the technical manuals and standards that today are accepted worldwide in the construction community. As leaders in their industry, they continue to adopt and apply the latest technologies to HVAC and sheet metal work. Everything from duct construction and installation to air pollution control, from energy recovery to roofing, from seismic restraint to welding... they do it all!

STATEMENT OF PURPOSE

The ultimate goal of SMACNA-Western Washington, Inc. is to achieve and maintain the following principles and programs for the sheet metal industry:

1. To establish advertising, publicity, and promotional activities that advise the public of the nature, extent, and availability of services performed by the industry.
2. To promote educational programs to formulate high quality standards of sheet metal construction.
3. To aid in the formulation of uniform sheet metal specifications and improvement of state and municipal codes.
4. To expose fraudulent or misleading advertising or representations intended to deceive the public.
5. To encourage and promote trade practices that will eliminate unfair competition or exploitation of the sheet metal industry.
6. To encourage and promote the establishment of a uniform pattern of payments by customers during the progress of jobs to avoid inequitable payment delays and economic penalties.
7. To provide a forum for the discussion of the common interests and problems of labor and industry, and to encourage and promote harmonious relations between labor and industry.
8. To encourage any proper activity that will increase the efficiency of the industry and its ability to serve the public.



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SMACNA and SMART seek to double the number of women in sheet metal by 2025. Women's committees are on board to make this goal a reality.

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WE ARE HERE FOR YOU

For many of us, 2020 will be an historic and unforgettable year. In times of distress, successful industries can be measured by their resilience and adaptability under extreme uncertainties, such as those generated from the COVID-19 pandemic. SMACNA-Western Washington has taken several initiatives to adapt to this rapidly changing situation. As our state begins to lift restrictions and define the new 'normal,' SMACNA-Western Washington is dedicated to supporting its membership every step of the way.

Industry Fund Relief

To provide our members and industry fund contributors financial respite during the COVID-19 crisis, SMACNA-Western Washington provided a relief on Industry Fund contributions for the hours worked in March, paid in April, and an additional month within the calendar year of 2020 at their discretion. SMACNA-Western Washington strategically offered this relief beginning in April when many contractors in the state were restricted from working on job sites. The Industry Fund Relief is not a loan and will not need to be paid back. We believe providing this moratorium on Industry Fund contributions has helped ease the financial insecurity our industry is facing.

Reopening Construction

Construction was one of the first industries to have a limited reopening under the Stay at Home order in our state. SMACNA-Western Washington has been closely following the news with regards to construction reopening and deciphering the guidelines within each phase. Working with our legislative consultant, Kathleen Collins, we have provided clear and concise communication with how the construction industry can move forward through the phased openings. SMACNA-Western Washington will continue to update its membership as the industry moves through each phase.

Industry Resources and Webinars

In addition to our communications about reopening construction, Administrative Services Coordinator, Patricia Bovie, has been diligent about curating weekly industry news related to COVID-19 in an email campaign titled, "COVID Updates." We believe this communication is instrumental to contractors staying informed and receiving the latest



By / Julie A. Muller-Neff, Esq.
Executive Vice-President, SMACNA-WW

As we look forward to safely reopening our state and putting the first half of 2020 behind us, SMACNA-Western Washington wants to let its membership know: We are here for you.

industry news. All our curated campaigns can be accessed directly on the SMACNA-Western Washington website under "COVID-19 Resources."

In April, Operations Manager, Carrie Heinrich, organized an economic webinar with Dr. Tom Schleifer titled, "Economic Crisis—An Immediate Measured Response." We hosted two webinar sessions for our membership and Industry Fund contributors. Dr. Schleifer provided a construction industry analysis and economic forecast for the future. This was a highly informative and industry specific webinar. If you missed the webinar and are interested in the recording, please contact SMACNA-Western Washington. Additionally, Carrie is also orchestrating future webinar events for our membership coming this summer.

We Are Here for You

As we look forward to safely reopening our state and putting the first half of 2020 behind us, SMACNA-Western Washington wants to let its membership know: We are here for you. Should you have any questions or concerns we (Carrie, Patricia, and I) are available Monday through Friday to answer inquiries. Please do not hesitate to reach out if you need additional guidance. With resilience, adaptability, and hope, we can surmount a difficult circumstance with success. We hope you and your families continue to stay safe and healthy. Please take care until we can see you again.▪



There's more to **SMJ** than just our magazine and website. Do you use Facebook?
Great! **LIKE** us at www.facebook.com/sheetmetaljournal.

SUMMER WEBINAR SERIES

Navigating the COVID-19 Crisis Together

SMACNA-Western Washington is committed to 'navigating the COVID-19 crisis together'. Our Summer Webinar Series was created with that in mind, providing you with the best industry resources accessed virtually online.

Stay tuned for more webinar offerings. If you have any webinar topic or speaker suggestions, please contact Carrie Heinrich at cheinrich@smacnaww.org. We look forward to seeing you at our virtual SMACNAWW Summer Webinar Series.

PANDEMICS AND PRODUCTIVITY: QUANTIFYING THE IMPACT

Pandemics negatively impact construction productivity. To date, no resource existed to aid contractors in quantifying these impacts for the purpose of seeking equitable compensation for lost productivity, adequately pricing upcoming work that will take place under pandemic driven work rules and conditions, and properly formulating financial projections that take into account stress on cash flow due to both decreases in productivity and the associated increases in overhead costs. In late April 2020, New Horizon's Foundation retained Maxim Consulting Group, LLC to quantify these impacts. **Webinar speaker: Michael McLin**

Learning Objectives:

- Quantification of the loss in productivity
- Calculator to price change orders
- Supporting study and related findings

Wed., August 5 at 10:30 am

LEADING AND MANAGING A REMOTE WORKFORCE

The events of 2020 may have forever changed the face of work as it was known. Working remotely has long been a sticking point between business owners and employees seeking freedom to work from home. Learning to lead and manage remote workforces is a different skill set and requires different tools and techniques to be effective. In this session, we will explore best practices in managing virtual meetings, defining goals and objectives and holding teams accountable for performance. **Webinar speaker: Stephane McShane**

Learning Objectives:

- Leadership vs Management
- Best practices in managing remote workforces
- Tools to lead effective remote Meetings

Wed., August 19 at 10:30 am

IMPROVING CASH FLOW – PRACTICAL IDEAS THAT WORK

Cash flow is one of the most important issues facing contractors today. As the market continues to stay strong, companies are faced with starting new projects, hiring staff, and investing in assets to support the business. More companies go bankrupt due to cash flow issues than due to profitability. Many things can and should be done to improve cash management practices. We will explore a range of tools and techniques, from simple to complex, that allow firms to manage and control cash flow. Examples include contractual negotiation strategies, pricing and bidding practices, development of cost and resource-loaded schedules that tie to billing activities in the schedule of values, use of 12-week cash flow forecasts, project closeout procedures, and managing the billings and collection cycle. Attendees to include project administrators, project engineers, project managers, project executives, group/branch executives, financial managers, and owners. **Webinar speaker: Michael McLin**

Learning Objectives:

- Learn the importance of cash management practices
- Increase profits with billings and collections
- Apply tools and techniques that optimize cash flow
- Maximize cash flow with process standardization
- Create transparency and accountability with measurement

Wed., Sept. 2 at 10:30 am

PULL PLANNING FOR CONTRACTORS

Pull planning is a lean technique that is being successfully deployed in the construction industry to help improve coordination, planning, and ultimately reduce overall schedule durations. Participants will review case studies demonstrating the inefficiencies experienced on projects due to out of sequence work. An introduction to pull planning techniques and terminology will allow participant to join in on two separate hands on activities that illustrate the productivity improvements experiences as a result of batch flow and sequential work. At the conclusion of the session, participants will be educated on the impacts and overall process of pull planning. Attendees include project managers, project executives, group/branch executives, schedulers. **Webinar speaker: Brian Lightner**

Learning Objectives:

- Understand the mechanics and terminology of pull planning
- Identify waste associated with out of sequence work
- Effectively participate in a pull planning session with owners or general contractors

Wed., Sept. 16th at 10:30 am

IMPROVING CASH FLOW – PRACTICAL IDEAS THAT WORK

Cash flow is one of the most important issues facing contractors today. As the market continues to stay strong, companies are faced with starting new projects, hiring staff, and investing in assets to support the business. More companies go bankrupt due to cash flow issues than due to profitability. Many things can and should be done to improve cash management practices. We will explore a range of tools and techniques, from simple to complex, that allow firms to manage and control cash flow. Examples include contractual negotiation strategies, pricing and bidding practices, development of cost and resource-loaded schedules that tie to billing activities in the schedule of values, use of 12-week cash flow forecasts, project closeout procedures, and managing the billings and collection cycle. Attendees to include project administrators, project engineers, project managers, project executives, group/branch executives, financial managers, and owners. **Webinar speaker: Michael McLin**

Learning Objectives:

- Learn the importance of cash management practices
- Increase profits with billings and collections
- Apply tools and techniques that optimize cash flow
- Maximize cash flow with process standardization
- Create transparency and accountability with measurement

Watch your email for webinar invitations, RSVPs, and direct online registration.

WE CAN DO IT – AND WE ABSOLUTELY SHOULD

Let’s talk about women in construction. Back in March, women came together across the construction industry to acknowledge and celebrate Women in Construction Week, a series of events meant to embrace and inspire recruitment efforts that bring women into the industry. Of the 10 million Americans employed in construction, only 9% of them are female, and this figure primarily represents women in administrative and office positions in construction. The percentage of women actively working on construction sites is much smaller. Beyond that, women in leadership roles in construction are also low. Among *Engineering News Record’s* Top 100 contracting firms and Fortune 500 construction companies, 44% of these have women in executive roles, such as vice president and director, but only 16% have women in C-level roles like chief financial officer and chief marketing officer. Furthermore, only 3% of companies have a female construction manager.

WIC Week is a great opportunity to highlight the reasons women ought to consider careers in construction and to unpack the reasons they don’t—gender-bias, sexual harassment, and social perceptions are just a few, but lack of mentorship is also an important contributing factor. It is a known fact that individuals of any gender, ethnicity, or personal identity are far less likely to participate in organized groups that do not already have participants with whom they can visibly identify.

Despite the challenges, there are so many reasons for women to consider construction as a career choice. Leadership opportunities abound, and studies show having a woman at the table improves team performance and conflict resolution skills, and brings fresh perspectives to the business. Women who work in trades earn an average 30% more than women



By / Jessica Kirby
Editor, *Sheet Metal Journal - Western Washington*

who work in traditionally female-dominated careers while helping to address the labor shortage, which is expected to climb to a staggering 1.6-million-person need over the next five years.

Most importantly, women who join the construction industry are actively changing company standards in a positive way. They are bridging conflict gaps, advocating for equality where it doesn’t exist, and breaking through barriers to pave the way for the women who come after them. This is an essential pivot point because it means the next generations will come to the field understanding construction is for the hard-working, technically-minded, productive, and inspired—not just “for the boys”.

It has been reported on numerous occasions in these pages and others, that the best feeling in the world is being able to look out the window or drive through town and point to the structures that make up the city’s signature and landscape, knowing these are buildings you helped construct from the ground up. Working in construction creates this passion for

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UPCOMING SMACNA-WW EVENTS

October 21, 2020
Membership Oktoberfest

SMACNA-Western Washington’s fall membership social mixer will be held at Topgolf, Kirkland. This exciting Oktoberfest celebration will have all the staples of the traditional event, including beer tasting and other fun activities for members to partake in. Reach out to Patricia Bovie at pbovie@smacnaww.org for more information. ▪

October 13-15, 2020
SMACNA Edge Conference
A Virtual Education Forum - See page 26

December 4, 2020
Annual Holiday Gala
*W Hotel, Bellevue * New Location*

SMACNA-Western Washington’s 2020 Holiday Gala event promises a grand theme, guest appearances from SMACNA’s board and leadership, and a spectacular meal followed by awards, prizes, and music. Be sure to mark your calendars and watch your emails for more details as they unfold. If you have questions, please contact Patricia Bovie at pbovie@smacnaww.org at the SMACNA-WW office. ▪

MEET THE BOARD – BRENT WYMAN

SMACNA-Western Washington's newest board member is Brent Wyman, president at Airtest Co. He started his at-large position at the beginning of 2020, and has volunteered on the board's Programs Committee and the Legislative Committee for the past two years.

Airtest Co. specializes in HVAC Testing and Balancing, and also does fire life safety testing in high rises and HVAC commissioning. The company is NEBB certified, and Wyman has been an NEBB Certified Professional since 2003.

Back in July of 1994, Wyman started at Holaday-Parks as a service technician apprentice. Airtest was started in 1995 by Al Fudge, and Wyman started there in 1997. His story of how he entered the industry is a familiar one:

"After finishing my Bachelor's degree and taking some jobs that I really couldn't stand, I was searching for something that I could make a career," Wyman says. "My father, who at the time was a journeyman sheet metal mechanic, asked if I would be interested in getting into the trade."

Until that time, Wyman's father hadn't really mentioned Wyman entering the trade and had expressed that he thought college was the best route. For that reason, Wyman hadn't really given it much thought.

"When he did ask me about my interest, I said, 'At this point, I will look into anything,'" Wyman says. "My father had a friend at Holaday Parks that got me in for a interview for their new service department. They hired me, and I was about as green as possible, but I liked it and found that I could make a career out of this work."

A long and successful career has stretched out before him, leaving him with some important personal and professional words to live by: "Never ask anyone to do something you wouldn't be willing to do yourself."

Although the industry has presented many challenges over the years—recruitment, global economics, recession—the period we are in now might just be the industry's biggest hurdle yet. "The COVID environment has created a lot of uncertainty, and I have never seen anything like it," Wyman says.

Technology might be the thing that has brought the most drastic change to the industry, helping companies like Wyman's improve

Do you have an article idea you'd like to share? Great!

Please reach out to our editor, Jessica Kirby, to table your suggestions for a future issue of *Sheet Metal Journal - Western Washington*

**Contact Jessica at:
250.816.3671 or email jkirby@pointonemedia.com**



productivity and get information out in a timely manner. Moving forward, it will be interesting to gauge demand for the type of work performed by Airtest and similar companies.

"Are the big tech companies going to continue to have the office space needs in the future?", Wyman asks. "Is the political climate going to be detrimental in this area?"

No matter what the future holds, SMACNA has an important role to play in how its members adapt and evolve to fulfill their greatest potential.

"SMACNA is a great resource and leader in the construction industry," Wyman says. "The association provides industry trends and guidance to better assist their members. Since I am the only member of the board whose company focuses on testing and balancing, I have another point a view on many of the topics or issues we, as a board, deal with."

Learn more about Airtest Co at www.airtest.us. ■

POWERS OF COMMUNICATION MEMBERSHIP EVENT GUEST SPEAKER ERIC ANDERTON, ENTREPRENEUR AND ADVISOR

September 10, 2020 at Seatac Marriott

The Three Pillars of Powerful Communication – This is a step-by-step leadership framework, built by a construction industry expert, that will teach you and your leadership team how to grow as leaders and communicators.

To improve your communication, you must concisely, clearly, and consistently focus on three messages:

1. Vision
2. Comfort
3. Direction

Vision

To give vision you must communicate the “why” and “where.” Why does your company exist (purpose) and where is the company going (strategic plan)?

Direction

This involves the “how,” “who,” and “when”. How the project or task is going to get done. Delegation to who is responsible to execute, and deadlines for when it will get done.

Comfort

This is the “secret sauce” of great leaders. The idea of comfort comes from the ancient Roman legions. A “comforter” was an officer who would offer his troops encouragement prior to and in the midst of a battle. He also held them accountable for their assignments and gave them recognition for their accomplishments.

So, focus on three messages:

- “You can do it!” (Encouragement)
- “Did you do it?” (Accountability)
- “You did it!” (Recognition)

Proven Experience

Eric Anderton has more than two decades of career and entrepreneurial business experience, alongside 25 years of public speaking, small group facilitation, and one-on-one mentoring.

He is a trusted leadership advisor, executive mentor, and expert meeting facilitator to construction companies that range in annual revenue from \$5 million to \$1 billion. Since 2004, he has helped his clients increase profitability by building clear strategic plans, developing their best people, and executing their most important priorities.

Practical Wisdom

Eric’s talks and workshops are packed with inspiring insights and practical tools to help you be a profitable leader, build a profitable business, and live a profitable life.

SMACNA-Western Washington will host up to four contractor member attendees and one affiliate member attendee. It will also host one new member to attend free of charge. To save your place, contact Patricia Bovie at pbovie@smacnaww.org for a registration form. ▪

MEMBERSHIP INDUSTRY NIGHT GUEST SPEAKER KEVIN BROWN, SPEAKER AND AUTHOR

November 11, 2020 at Seatac Hilton

Calling all sheet metal workers, SMACNA members and office staff, project managers and engineers, JATC apprentices, and Local 66 members. Kevin Brown, keynote leadership speaker and author of The HERO Effect®, will be the guest speaker at the rescheduled Labor-Management Industry Night.

Kevin is on a mission to help people and organizations embrace a simple philosophy that separates world class organizations and high performance people from everybody else. He is passionate about helping people expand their vision, develop their potential, and grow their results. And, as the father of an autistic child, he knows firsthand how the principles of true success reach beyond the boardroom and into the lives of real people facing the challenges of everyday life.

As a highly sought after keynote speaker, Kevin has had the privilege of speaking to a wide variety of organizations including Siemens, State Farm, Country Financial, Bristol-Myers Squibb, Northwestern Mutual, Delta Airlines, Trans America, and Allianz, to name just a few. Kevin entertains, inspires, and challenges people to show up every day and make a positive difference at work and in life!

All attendees will receive a copy of Kevin Brown’s book, and all Local 66 members will receive a \$100 gift card for attending. Attendees can expect fabulous prizes, including Seahawks tickets, gift cards, electronics, and more. Check in is at 3 p.m. Email Patricia Bovie at pbovie@smacnaww.org for a registration form and RSVP by November 4. ▪

ACI MECHANICAL HVAC AND SALES WELCOMES NEW PRESIDENT KEITH GLASCH

Glasch takes over for Jim Sinclair,
joining Mike Otani at the helm



ACI Mechanical HVAC and Sales has a new president, Keith Glasch. Jim Sinclair, ACI's long-time president, has retired and Glasch took over ownership with Jim's longtime partner Mike Otani in February.

Keith has a long history in the national HVAC industry. He started doing eddy current testing on chillers in 1983 and loved the practical, applied physics of the business.

"I have stayed in the industry because I know the business, like the people in the business, and have fun everyday doing it," Glasch says.

He has known ACI's owners since 2011 when he took the leadership role at Titus in Plano, TX.

"I really liked the team and their can-do attitude toward customers," Glasch says. "When the opportunity came to buy in and take over for Jim Sinclair, aka 'Jimmy Diffuser' and be closer to my children living in Spokane and Portland, I left the president role at Ruskin in Kansas City to move here. Now, I am a Seahawks fan and hope for a Kansas City vs Seahawks Superbowl in 2021."

Moving forward, ACI is expanding its location in Portland to a 13,000-square-foot warehouse and training center and investing in e-commerce to serve sheet metal and mechanical contractors better with real-time information order, delivery, and e-commerce.

Learn more at <https://www.acimechsales.com/> ▪

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SMACNA members perform work in industrial, commercial, institutional, and residential markets. They specialize in heating, ventilation and air conditioning, architectural sheet metal, industrial sheet metal, kitchen equipment, specialty stainless steel work, manufacturing, siding and decking, testing and balancing, service, and energy management and maintenance.

CONTRACTOR MEMBERS

ACCO Engineered Systems	Holmberg Mechanical
AccuDuct Manufacturing, Inc.	Johansen Mechanical, Inc.
Air Handlers, Inc.	L & M Sheet Metal Fabricators, Inc.
AIRTEST Co., Inc.	MacDonald-Miller Facility Solutions, Inc.
Apollo Mechanical Contractors	McKinstry Co., LLC
Argo Blower & Mfg. Co., Inc.	Miller Sheet Metal, Inc.
Auburn Mechanical, Inc.	Miller's Smith & Losli Sheet Metal, Inc.
Ballard Sheet Metal Works, Inc.	Neudorfer Engineers, Inc.
Capital Heating and Cooling, Inc.	Olympia Sheet Metal, Inc.
D/B Solutions, LLC	Pacific BIM Services
Delta Technology Corporation	Phoenix Mechanical, Inc.
Distribution International	Pinchiff Mechanical LLC
Eckstrom Industries, Inc.	PSF Mechanical, Inc.
Emerald Aire, Inc.	PSR Mechanical
ENVIROMECH	Schmitt's Sheet Metal & Roofing
Evergreen State Heat & AC	Scott & From Co., Inc.
GB Systems, Inc.	Shinn Mechanical, Inc.
Gensco, Inc.	Sunset Air, Inc.
H & R Mechanical Systems, Inc.	Trotter & Morton Facility Services
Hermanson Company, LLP	TRS Mechanical, Inc.
Holiday-Parks, Inc.	UMC, Inc.

AFFILIATE MEMBERS

ACI Mechanical & HVAC Sales	General Insulation Company, Inc.
Ahlers Cressman & Sleight	Gripple, Inc.
Air Reps, LLC	Hudson Bay Insulation Co.
AIREFCO, Inc.	ISAT Seismic Bracing
Armacell, LLC	Industrial Air Systems, Inc.
Automated Controls	Johns Manville
Barnhart Crane and Rigging (DBA Magnum)	Johnson-Barrow, Inc.
CL Ward, Inc.	Milwaukee Tool
C.M. Hoskins Company	Pacific Product Sales, Inc.
CliftonLarsonAllen, LLP	Performance Contracting, Inc.
Cole Industrial, Inc.	PlanGrid/AutoDesk
Dorse & Company, Inc.	Star Rentals Inc.
Ductmate Industries	SPI, LLC
ECCO Manufacturing, Inc.	Sunbelt Controls
Edge Construction Supply	Sunbelt Rentals
Employer Solutions Law	Trane
	York NW Factory Direct

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WIC Week 2020

SMACNA-Western Washington and partnering organizations held another successful Women in Construction Week, this one focused on the theme, Paving New Roads to Construction

SMACNA-Western Washington would like to thank everyone who participated in the 2020 Women in Construction (WIC) Week. From March 1-7, SMACNA-Western Washington joined construction associations, companies, and partnerships across the United States and Canada in celebrating Women in Construction week, the ultimate opportunity to highlight women as a visible component of the construction industry.

According to SMACNA-Western Washington, WIC is an important opportunity to raise awareness of the opportunities available for women in the construction industry and to emphasize the growing role of women in the industry. The theme for this year's WIC was Paving New Roads to Construction.

Through out the week, SMACNA-Western Washington supported, sponsored, and facilitated programs and events. On Day 1, members of SMACNA-Western Washington and SMART Local 66 kicked off WIC Week 2020 by visiting TRP Cohort 109 at the ANEW Kent training center, and a lunch and learn followed the program.

All State Hot Chocolate 15k/5k race is America's Sweetest

Race, beginning at Seattle Center and featuring both a 15k (9.3 miles) and 5k (3.1 miles) distance. All participants received a super-sweet goodie bag, and runners enjoyed music, hot chocolate merchandise, and finishers' mugs filled with hot chocolate, chocolate fondue, and tasty treats at the Post Race Party. Make-A-Wish® was the official race charity of the Allstate Hot Chocolate 15k/5k, and as part of WIC, SMACNA-Western Washington sponsored 15 participants in the 5k race. Congratulations to all participants.

The AGC of Washington Luncheon was hosted in partnership with the National Association of Women in Construction (NAWIC). Since 1953, the women of NAWIC have provided opportunities for professional development, education, and advocacy for the community. Participants at the luncheon honored the commitments of these organizations that are impacting the direction of women in the construction industry.

Wednesday's sold out event at The Museum of Flight brought more than 200 industry professionals together for a delicious Women in Hardhats Breakfast, presented by the women of PSF Mechanical Inc. This free breakfast and networking event brought together women throughout every trade in the construction industry, and a panel of industry-leading women shared their personal experiences and ideas on how the entire industry can Rise Together. PSF Mechanical, Inc.

opened the event with a lively raffle before introducing the speaker panel. SMACNA-WW Executive Vice President Julie Muller moderated the panel discussion, which covered a range of topics concerning Rising Together as women in the construction industry.

The week wrapped up with the Women of Hermanson Power Trio networking event at Lemay—America’s Car Museum. Attendees enjoyed live music from the Sheryl Wiser + The Lost Lovers Trio, drinks, appetizers, mocktails, sweets, and socializing with industry colleagues. There was also an opportunity to check out the Lemay Museum exhibits during the event. This year’s theme was The Power Trio: Advocacy // Opportunity // Empowerment, and women were encouraged to bring two friends and enjoy the event as a power trio. SMACNA-Western Washington was a sponsor for this event.

During the entire week, Rosie’s Closet Donations, an initiative from Local 66’s Women’s Committee, collected donations from participating members and companies in an ongoing effort to fill Rosie’s Closet with lightly used work clothing for women.

Another ongoing initiative included a video contest highlighting women in construction, and a social media contest that encouraged industry members to post images that inspire, create, and support the theme of Paving New Roads to Construction using the hashtag #smacnawic2020.

Thank you to everyone who helped celebrate the amazing women in the construction community during WIC week. The programs and events wouldn’t be as successful without the association members and partners who support them.

WIC Spotlights: Each day of WIC Week featured two women who are enjoying successful careers in various parts of the construction industry. Read on to find out how they are paving the way for other women looking for a bright future in construction.



**Jennifer Schneider, Project Manager
Holiday-Parks, Inc.**



I was working for the Snohomish County Jail as a custody officer for 15 years prior to getting into the mechanical contracting industry. The last few years I was there, I worked on the Snohomish County Jail Expansion as an owner rep to Mortenson. We built a 640-bed expansion, moved all operations into the new building, and renovated the old jail to tie the two buildings together. I worked closely with them as it related to constructability, coordinating shutdowns, and commissioning.

Once the project was over in 2005, I went back into working in the modules, locked up with 72 inmates with only keys and a radio. I had a taste of project management, and knew I didn’t want to settle for the corrections life any longer.

In July 2006 I was hired by the WA Botting Company, starting out in document control and working my way up. I gained a lot of experience there, and by the time I left in 2009, I was managing projects. I have been a project manager for 13 years and very much enjoy what I do. I like being a part of a team with my field crews, general contractor, other subcontractors, and owner. There is a real sense of pride in having a completed project to show the fruits of our labor.

**Pattie Reuter, Financial Manager
Miller Sheetmetal, Inc.**



I joined the team at Miller Sheetmetal, Inc. in 2009 as an administrative assistant. Over the years, I’ve proven myself to be a valuable member of the team and worked into my current position of financial manager. Working for a small company has given me valuable insight into all areas of the business, from our shop fabrication and retail sales to our much larger military and industrial projects. I’m also part of the SMACNA Risk Management Committee.

I was introduced to the construction industry in 2004 when I moved to the Pacific Northwest. I quickly realized this industry was like no other, and fell in love with the fast-paced, ever-changing environment. When I’m not at work, life with my husband and son keeps me quite busy. I can usually be found volunteering at my son’s school, working on the PTA executive committee, or helping with Cub Scouts.

**Angela White, Marketing and
Relationship Manager
Holmberg Mechanical**



After graduating from college with my Bachelor’s in Marketing, I became a project manager for a construction

company. After that, I knew I was in the right industry. I later found Holmberg, and it's been my place to call home for almost eight years. I have enjoyed being involved with SMACNA-Western Washington for the fun events, interesting educational classes, and overall support of our business and the industry as a whole.

**Michelle Willems
Holmberg Mechanical**

I became interested in this industry in 2000 when I had been around a non-union architectural shop in San Francisco, CA. I thought it was fascinating how they turned a flat piece of metal into a gutter.



After 13 years as a stay-at-home parent, going through a difficult divorce, and working in a hot kitchen, I decided to make a change. I found a Craigslist ad for ANEW, the six-week pre-apprenticeship program for getting women into the trade. When I called for details, they invited me to an orientation that Wednesday. I showed up and was able to do the physical activities required.

There were 22 ladies in my ANEW class. Almost half wanted to be electricians, but when I talked to Eric Peterson at a career fair, he said sheet metal might be the career for me, since I had taken advanced math and science in high school and done well. I applied and got direct entry because of ANEW.

I won't say it was a cakewalk. I will say, however, it was worth it and has challenged me both physically and mentally. I am very grateful for the office experience side of it, because it makes me understand a lot more of why we do what we do in the field.

I have a wonderful fiancé (we call each other married) and a two-year-old daughter at home. We attend The Lake Church in Lake Stevens and live in Monroe. I feel so blessed to be working for Holmberg.

**Catherine Gundlach, Operations
Support Manager
PSF Mechanical, Inc.**

As an operations support manager at PSF Mechanical, I have the opportunity every day to work with individuals who are committed to their disciplines and craft.



It is exciting and challenging to be a part of the construction industry as a whole and know that our efforts have a positive and lasting impact.

My 25+ year association with the SMACNA organization began with my marriage. I was fortunate to have a variety of SMACNA experience, both on the local and national levels. In the past five years, my personal commitment and involvement

have increased, and I currently enjoy participation in the Women in Construction committee.

In my downtime, I enjoy spending time with family and traveling. I'm currently planning my next big adventure—a solo trip to Antarctica.

**Tammy Meyen, Shop Foreman
PSF Mechanical, Inc.**

During the summer of 1999, I was 19 years old. My dad asked me what my plans for the future were and I came up blank. I was already a year past high school with no plans to attend college, so I gave him the typical teenager shrug with “I dunno” attached to it. He suggested I should get a real job and look into the trades while I figured out what to do with myself. He was a union roofer, but steered me toward the sheet metal workers' union.



I went down to the hall, signed up as a material handler, and took the test to get into the apprenticeship. I started working for Climate Engineers that summer. It was an interesting transition going from a Taco Bell employee to a construction worker. I had zero knowledge of tools—what they were called, how to use them, when to use them. But, with the help of my coworkers, I made it through the learning phase. I became an apprentice in April 2000 and completed my apprenticeship in June 2005.

I've been working for PSF Mechanical since 2004 with a few exceptions during slow times where I had to find work elsewhere. I became the shop foreman in February 2011 and have held that position ever since.

I've been active with the Local 66 Women's Committee for several years now, which includes participating in the mentoring program and assisting with the set-up of several extra activities for our sisters to enjoy.

**Vanessa Carman, Trimble/RTS Foreman
Hermanson**

It's amazing how far construction technology has come in such a short amount of time. I remember being on layout crews as a new apprentice. We would do layout using a tape measure, and it would take us a weeks to complete a floor. Using Trimble, that same layout can be done in one day. Being part of Trimble allows me to be part of many projects. I have probably been to most of the Hermanson job sites in the last four years. When I am not out doing Trimble work, I am based at the Google Block 25.



Before sheet metal I worked in accounting for a wholesale florist company. I was bored at my job, and I knew I wanted to work with my hands and get outside. One of my brothers decided to get into the trades, and I thought it sounded like a fun job. At that time, I never thought I could do something like construction work because there were very few women in the trades.

I applied at a residential HVAC shop for a warehouse/delivery driver position, hoping I could get my foot in the door. It worked. I worked for a few years as a residential installer while attending night classes for HVAC service. In 2007, I applied to get into the sheet metal apprenticeship at Local 66. I have been at Hermanson for more than five years.

**Desiree Ropel, Safety Manager
Hermanson**

Desiree brings nine years of industry experience to Hermanson along with the knowledge and discipline she acquired while in the United States Navy. She believes that Safety is a CORE value, not just a priority.



Desiree is a versatile safety professional who has supported the safe production efforts for a span of industrial construction projects. She is also experienced in establishing and sustaining safety management systems, utilizing formal processes for education, training & enforcement, and delivering solid safety and production improvements at reduced costs.

Desiree is particularly skilled in coordinating and managing construction safety efforts within occupied and fully operational medical centers situated in congested urban locations. She has the advanced skills necessary to monitor and supervise construction teams in these complex environments to maintain safety throughout the project duration.

**Karen Galipeau Forner
Employer Solutions Law**

I was born in Seattle, raised in the Kent area, and attended Whitman College. After graduating from law school, I worked for a judge for one year. I moved on to work at the Attorney General's Office in the Labor and Industries Division. After handling workers' compensation cases for a few years, I branched out to whistleblower cases and prosecuting workplace safety citations against employers. From those cases, I got an inside look at construction companies and safety practices (or lack thereof!)



Fourteen years ago, I founded K-Solutions Law (newly named Employer Solutions Law) in Bellevue, Washington.

I have been working with employers on L&I and employment law issues. I care about our clients, and my greatest satisfaction is working with employers on becoming safer companies to save money and lives. My practice has grown into advising and representing employers statewide on matters including workers' compensation, workplace safety (WISHA/DOSH/OSHA), wage and hour, prevailing wage, and employment law issues. I have also become an industrywide speaker and am often called to do training presentations across the state and nation. I am especially passionate about speaking on suicide awareness and prevention.

**Lisa Connors, P.E., Project Manager
ACCO Engineered Systems, Inc.**

I grew up in Northern Idaho and Eastern Washington, where I spent my time between the great outdoors and at my father's auto repair shop. I developed a passion for working with tools at a young age while working next to my father as he repaired and restored classic cars. Throughout my childhood, my parents would always tell me I could do anything I wanted to do, which I took to heart.



I graduated from high school in Spokane and, shortly after, took a job opportunity with a tool store that moved me to California. Still having a passion for automobiles, I eventually moved on to working in an automotive plant at the age of 22. Within a few years, I learned that the repetitive and passionless duties of the job were not for me, so I went back to school and received my BS in mechanical engineering at Sacramento State University California.

During my studies, I worked several internships, ranging from electrical engineering and R&D work to HVAC design. With each internship providing another unique and enjoyable experience, I found HVAC design and construction the most exhilarating. Solving customers' problems and figuring out what seems impossible was especially rewarding. In 2013, I was offered a job with ACCO Engineered Systems as a design engineer and worked in the San Leandro office for 11 months before transferring to Seattle. After one year as a design engineer at the Seattle office, I was asked to step up as a project manager for a newly awarded data center build-out project. Shortly after successfully managing my first project, I was officially promoted to project manager and have been enjoying my job ever since. ■





Doubling the Number of Women in the Industry by 2025

By / Natalie Bruckner • Photos courtesy of Local 28

When it comes the sheet metal industry, or any construction trade for that matter, it has been well documented that women remain seriously underrepresented. Recent studies suggest that women working in construction make up 10.3% of the workforce in the United States and 12% in Canada. Even smaller is the number of female construction workers on the front lines of a job site: one woman for every 100 employees on the field.

To address this, SMACNA and SMART have been ramping up efforts to double the number of women in the industry within the next five years.

A lofty goal perhaps, especially during these trying times, yet with numerous efforts going on across the country and the sharing of information, it's an achievable goal... as long as the efforts are ongoing.

“When I started as the training director back in 2011, I made it my mission to start pushing the recruitment of more women in our industry,” says Leah Rambo, director of training for Local 28—Metropolitan New York & Long Island. “Back then female members accounted for only three per cent at our apprenticeship program, but after continuous recruitment efforts and introducing a direct entry program, we managed to increase that number to 11%.”

In Rambo's own words, the way to do it was to become a “pain in the neck” by continually asking why women weren't being recruited and offering help to find ways to attract suitable candidates. It was a strong approach, but one that worked.

However, Rambo says that when they reached the 11% mark she made the mistake of thinking that upward curve would

naturally continue. “I slowed down my efforts because I thought it would increase organically, but it was way too soon to celebrate,” she says. “The numbers started to drop. I realized you can never take your eye off the ball. We ramped up our efforts again and started knocking on doors. Today we are up to 14%, the highest in the nation for sheet metal.”

Local 28 is proof that to succeed you cannot take your foot off the accelerator. Organic growth won't happen overnight, or even in 10 years, for that matter. “According to statisticians, the celebration number, before organic growth can actually happen, is closer to 30%,” Rambo explains. “My goal was to have 20% women by 2020, but with what is happening right now with COVID-19, I won't end up having the recruitment. But, I know that, because of my efforts in getting the word out there, the direct entry into the industry will be about 25% women.”

Across the country there are various examples of efforts underway to address the challenge of attracting women into the industry, one of which is to create women's specific groups. The goal is also to make the industry a more comfortable and welcoming space that will not only benefit women in the industry today, but will iron out issues to better pave the way for future sheet metal sisters.

However, don't be mistaken. This isn't a “ladies only” coffee get-together. Over at the Local 18 Women's Committee in Wisconsin, for example, the men are extremely active in the group, at the request of the women.

“When we started up the Women's Committee back in 2018, we told the women we would be available to help facilitate whatever they needed but they were adamant that they wanted

us at the meetings,” says Mike Mooney, president/business manager at Local 18. “We learn so much. Their devotion to the trade is second to none.”

Local 18’s staff originally came up with the idea of creating a women’s committee after realizing they needed help, not only attracting women into the industry, but in retaining them.

“There has always been an issue with getting minorities in the trade in Wisconsin—and keeping them,” says Hallie Jennerman, statewide organizer. “We were at approximately one per cent women and know SMART general president Joe Sellers would like to see a 20% female rate, which is ultimately our goal, too. We have a long road ahead of us, but we are committed. We understand it’s about listening to the needs of women in the industry and responding accordingly.”

In addition to holding regular meetings and outreach programs, Local 18 is extremely active in the marketing space. To raise awareness of Local 18’s Women’s Committee the team came up with the concept of Rosie The Tinner—a figure that acts as a symbol to demonstrate the power and strength of women in the industry.

“We started out by making hardhat stickers of Rosie the Tinner to draw attention to the Women’s Committee, and it really took off,” says Stu Wilson, Local 18 business representative. “Then we started making t-shirts with Rosie the Tinner on them, and recently, we have been sending out the stickers with metal nose strips we’ve been manufacturing to help make homemade face masks more effective against COVID-19. We have had women calling us up asking about the stickers. It’s about getting the message out there, however we can, to a wider audience.”

When it comes to one of the most effective means of attracting women into the trade, beyond word of mouth of course, SMACNA and SMART are in agreement that there is no stronger message to say women are welcome in the industry than to have women in the industry.

“Recently, I was on a panel for women in construction and we all mentioned that we never intended to get into the position we are in,” says Angie Simon, president of Western Allied Mechanical in California and SMACNA national president. “I mean, I never desired to be the president of my company. At the end, during the Q&A, this young lady from the audience said that she didn’t understand why I didn’t want to be the president of my company and explained, ‘I see you guys and that’s what I want to be.’ You have to see it to want to be it. I think the challenge for us back when I got into the industry was that we didn’t think it was a possibility because there were no women in those positions.”

Simon adds that while this is slowly changing, there are still very few women at the top, so a change in attitude of the guys at the top is needed to reach the goal of doubling the number

by 2025. “We are fortunate to have Joe Sellers who is not just talking the talk, but walking the walk,” Simon says. “He joins in on women’s leadership groups and listens. He is committed to making a difference.”

Over at Local 18 they are actively seeking out females to run for leadership positions and encouraging promotion within. And as Simon says, it’s not about getting the numbers of women up, but about getting the best person for the job. “We hire the best available people, and it so happens that a lot of times it’s a woman. It’s not that we focus on women, but having a woman in the leadership position definitely helps attract other women.”

Rambo says that in order to move forward successfully, the industry needs to listen. “If you are the president of your Local, ask your members and staff, ‘Would you like your daughter to come and work in the industry?’ If they say no, then ask why. We have to be willing to look the ugly in the face.” ■

Reprinted with permission from the June 2020 issue of Partners in Progress magazine. Read more at pinp.org.

ADVICE FROM THE EXPERTS:

“Mentorship is one of the most important factors in any recruitment/retention plan, so create mentorship opportunities for women, take women to trade shows and recruitment fairs, and ask women to speak to their friends and relatives about the opportunities that exist in our trade. And when opportunities for extra training or advancement arise, ensure everyone has equal access.” – Julie Muller, executive vice president of SMACNA-Western Washington

“It’s pretty cut and dried that we won’t tolerate any kind of bullying or hazing. We won’t allow it.

The women know that and know that we mean it. It helps them feel more confident and comfortable.” - Hallie Jennerman, statewide organizer at Local 18, Wisconsin.

“You need to figure out a way to fast track somebody into your board of directors. Women need to be seen in the upper levels. They can’t just be HR director or accountant. A woman in leadership position is going to make a big difference for the young ladies coming into the industry.” - Angie Simon, president of Western Allied Mechanical in California and SMACNA national president.

“You have to realize that a lot of skills are transferable, and get that message out there. For example, a hair stylist—that is still transferable to a trade because of the hand-eye coordination required. My niece was a hair stylist and is now one of the best welders I know.” - Leah Rambo, director of training for SMART Local 28, Metropolitan New York & Long Island.

“Mentoring other females in the industry is by far the best part of my job. Watching them gain confidence makes me proud and hopeful for the future of the industry. Reach out to other women and find a mentor. Then return the favor and mentor others. We are all in this together!” - Nicole Billings, senior project manager, Intech Mechanical, Roseville, CA

TULALIP GATHERING HALL

Where function and tradition meet

By / Jessica Kirby • Photos courtesy of TGB Architects and Johansen Mechanical Inc.

"It is important that we return to the tradition of gathering to revitalize our tribal values and integrate them into our emerging present-day culture. An increasing percentage of our tribal community are youth. Our gatherings need to help them to know our traditions and customs to help them into the future. We must balance between the old and the new ... We must balance between what is meaningful and what is useful."

— Tulalip Tribes



Location: Tulalip, WA

Project size: 61,000 square feet

Owner: Tulalip Tribes

Architect: TGB Architects

Sheet Metal Contractor: Johansen Mechanical

Tulalip Gathering Hall in Tulalip, Washington, is a multi-use facility carefully and thoughtfully designed to accommodate up to 1,500 tribal members for such activities as General Counsel, Pow Wows, meals, funerals, and other gatherings. It is sited on Tulalip Bay—the historic and cultural center of the Tulalip tribes—offering a sacred connection to the land and stunning views of Puget Sound.

According to TGB Architects, architect for the project, the form and materials of the building are simple and traditional—the ancient wisdom of tribal peoples draws them to gather in a circle, which allows them to both listen to a speaker and see the faces of the other listeners, helping them find the way to consensus and agreement.

“Large supporting cedar columns in the main gathering space are arranged in a gentle curve to encourage a circling arrangement of gathering,” says TGB Architects. “This enclosing shape also references the shape of a canoe, which is an important artifact of travel for the Coast Salish People.”

The 12 cedar columns are finished like mighty trees that fit perfectly with the warm, interior wood finishes in the space. These include a high ceiling, polished wooden floor, extensive bleacher seating, and intricate wood working detail. But the columns are more than aesthetically pleasing. The base of each hosts a large custom floor grille, and supply air is served from basement ducts into a sheet metal plenum below the grilles. Air is then expelled around the perimeter of each pillar through the floor grilles.

The project was a unique undertaking for Johansen Mechanical Inc. (JMI), which had never installed an underfloor system in this type of application. “The below floor system achieved the look that the owner and architect wanted,” says Keith Johansen, president of JMI. “There is no exposed ductwork in the space, which provides a clean, streamlined aesthetic.”

JMI installed the entire mechanical system, which included 11 air handling units totalling 135 tons. When it came time to work on the floor grilles, Johansen’s site team quickly realized that the factory product specified lacked some important elements. Their ability to stand up to foot traffic was questionable, which may have led to warranty issues down the road. The grilles did not come factory built in a standard size, which meant they would have required supplemental structural components to be installed from underneath.



“It was a challenge to find a sufficient product and one that we felt comfortable with,” Johansen says. “We do custom metal fabrication ourselves, and we know what level of quality the grilles required. So, we provided an alternate solution.”

The in-house architectural metals group at JMI devised a concept for a custom grille. The project required 48 individual sections, and they needed a 5” circular shape built into each corner to accept lights.

Dan Moore, custom metals project manager, drew the mock-up using 3D imaging, which allowed rotational views of each side of each section and how the sections would fit together and incorporate the openings.

“The pieces match up on the flange end, each coming together at the corners to make a circular shape where lights fit in and shine upwards,” Johansen says.

Each grille section was engineered from aluminum bar grating to be both durable and removable for service and maintenance, and to be able to access the lights and plenum below. Sections had to be cut and welded to size, which also incorporated the required structural integrity. “It was down to the wire, so we quickly had to create the mock-up and pitch it in a GoTo meeting set up by BNBuilders, the general contractor,” Johansen says. “BNB was great to work with. We got approval from the architect to build a physical mock-up and present it at the job site. Once that was approved, we got the green light to do the balance and our shop came through in building them.”

“Overall, this was a great team effort,” Johansen adds. “When we faced challenges with the grilles, Dan did the concept drawing and 3D mock-up and ran the GoTo meeting. Between Mark Nosbusch, field superintendent; Justin McGovern, field foreman; and Bill Allen, shop foreman, coordination between the shop and field was flawless.”

Johansen’s work also included a full kitchen and two type 1 hoods with welded grease duct. The company provided upfront BIM coordination—working with Pacific BIM Services— and realized that in some places the truss space was too tight to accommodate the new ducts.

“This was another challenge, as BIM pointed out the issues with the truss layout and not fitting the ductwork in properly,” Johansen says. “We had to get them to change some of the trusses to allow the new ductwork to fit.”

Another important partnership involved K&R Indoor Air Quality, a small tribal company with which JMI has teamed up on other Tulalip projects. “K&R helped out on the project management and tribal relations aspect,” Johansen says. “We are very grateful for our long-term working relationship with Bob Lane and K & R”.

Despite the site closing temporarily in mid-March due to COVID, the project completed in May.

“We are really happy with how it turned out,” Johansen says. “The building is extremely important to the Tulalip Tribes, and we are proud to have been involved with this unique project.”

Ryan Duckworth, BNBuilders project manager, says the team at Johansen was terrific to work with and consistently met the project standard for setting and keeping durations and milestone dates, and pushing other trades to stay on track.

“The knowledge their site supervision provided helped quickly and effectively resolve issues with the design and work through the challenges every job faces between some difficult contractors, procurement delays, and scope gaps,” he says.

“The team’s willingness to fill those gaps with the in-house specialty metals work has helped keep us on track here at the end, and I appreciate Johansen’s understanding of budget constraints and efforts to help control those costs.” ■

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ALL THE DRAMA MOVIES AREN'T ON NETFLIX

How many of you, when you are flipping through the channels, will re-watch a movie you have seen 5 or 10 times? All of us. *The Godfather*. *Shawshank Redemption*. *Rocky*. *The Departed*. *Jurassic Park*. *Titanic*. My weakness is *Gladiator*. I've watched that probably 10 times. You know what is going to happen. You know the lines. You enjoy its familiarity, not the surprise or shock of something new.

Well, that is exactly the situation our industry finds ourselves in again. One of two movies is going to play for you, beginning later in 2020 and probably through 2021. And it won't be on Netflix.

These movies represent the economics of our construction marketplace. If you have been at this for any length of time, you have seen them both at least two or three times, and maybe four if you have some grey hairs.

The first movie, most recently re-released in 2008, is rated five stars. Lets call it, *Desperately Shoveling Cash*. The plot is massive infusions of federal infrastructure dollars to put [people] America to work. Infrastructure is the dependable, proven, and fastest way to put people to work. From the Great Depression to the Financial Crisis, government turns to us to generate economic firepower. If we watch this movie, there is some cheering, fist bumping, the good guys win, and in the end, it bridges the gap to the other side of the recessionary period. If this is happening for us, this will be decided in 2020, and more likely in the next 60-90 days.

The other movie is a one-star, low budget horror flick. Let's call it, *Slashers at the Jobsite*. In this one, the feds cannot, or will not, agree on solutions prior to the election, and the states are on their own. So, that starts with a slashing of sources of funding for the entire market.

Except for the bi-polar stock market, the economic indicators says the sky is kinda falling. And if not now, pretty damn soon. Public entities are already getting nervous with tax revenues in steep decline and their capital budgets looking ripe for reassignment. Private construction owners looking ahead probably need Xanax. Industrial expenditures more or less on hold. Building offices in the Zoom world? Maybe later. And finally, uncertainty on the V recovery, U recovery, or the Nike Swoosh recovery. Ok. So, what to do? Watch that crappy movie. Again. Let's check out your viewing history:

U.S. Recessions Impacting our Industry

- 1980-82
- 1990-91
- 2001
- 2008-09



By /Mark Breslin

Unless you are among the many new apprentices** or college graduate project managers who have never seen a hard down market cycle before (welcome to the real world, sons and daughters), the downturn movie is mostly the same. And that familiarity should be an asset—you know the plot.

So, before we grind through it again, 2020 is a time to time to sit down with your management team and ask the key questions that everyone needs to prior to a market cycle change:

- What did we learn from watching and living the last versions of the movie? Let us remind ourselves this is not new and market cycles are normal in our business.
- What is our operational edge that we need to focus on right now?
- What market pivots would be smart to make now that will pay off later?
- What are the discretionary vs essential investments we need to make in people, programs, technology, training, or equipment to get to the other side?
- What sacred cows, processes, legacy BS, or other barriers need to be eliminated because a good shock to the system is a fine time to enact change?
- What sacrifices, economies, or leaning out can and should we do to roll through market instability? Where is the maximum ROI?

I have seen both of these market trends and, as an organizational leader, it doesn't freak me out or leave me wondering what to do. I have always tried to think and act in "what is most important now" mode, so when the situation hits the fan, my organization is not facing conflicting resource priorities. Disciplined ROI is the name of the game: to improve operational or economic outcomes for your companies.

So, the show is about to start. The coming attractions look mixed. Settle back with your popcorn and take a breath. 2020 will likely be a decent year based on back logs and current market momentum, but the path ahead is quite clearly one requiring additional forethought and vision. I can tell you that the theatre is packed (social distance doesn't apply here) as we ride it out together. For the question of ROI, though we cannot

continued on page 26

PANDEMIC CREATES LEGISLATIVE UNCERTAINTIES AND CHANGES

To quote an old song – “the times they are a changing” – and that is certainly true on the state legislative front. The Legislature left Olympia in March with a well-funded budget that was almost 20 percent higher than the previous biennium. In the last few days of session, the Legislature began to grasp the potential for disruption from COVID-19 and reduced some planned expenditures, passed \$200 million in aid and put \$3 billion in reserves. As it turns out, that won’t be enough.

As the economy shut down, so did the state’s revenue. In June the Economic and Revenue Forecast Council estimated \$4.5 billion dollar in reduced revenues for the second year of this biennium and \$4.3 billion for next biennium. Dr. Stephen Lerch, the Executive Director and Chief Economist for the Council, said the state is in a recession. How fast the state can move out of the recession is filled with unknowns, but it likely won’t be fast.

Special session

The Governor and legislative leaders agree that they will need a special session before next January to rebalance the budget. The question is what will they do? Regarding the current budget, the Republican budget leaders say it is possible to use the \$3 billion reserve and trim \$1.5 billion from newly funded programs to fix the current budget imbalance. They also assert that the current budget has programs that can be reduced without harming critical services. The Democrats are saying they can’t support an “all cuts” budget and want to at least consider new revenue, especially for new programs that will be needed to help economic recovery. And some legislators are holding out hope for more COVID money from the federal government.

Potential for taxes

Even before the pandemic there was a push for more taxes, and recently taxes that target high income earners and businesses. In the waning days of the 2019 session, the Democrat majority passed \$2 billion in taxes largely for new education and social programs. Although the capital gains tax was desired by many Democrats, they settled on increases to the B&O and real estate excise tax on commercial transactions.

Looking to either a special session, or more likely the 2021 session, taxes will be part of the discussion and possible budget solution. Former Speaker Frank Chopp has already rolled out a proposed \$2 billion-dollar tax package relying on a “head tax” on employees earning \$500,000 or more along with a more traditional capital gains tax. Last session King County leaders and many businesses supported a high-income employee head tax that did not make it out of committee. They would have used the money for housing and social services. More recently two different high-income business and head tax proposal are



By / Kathleen Collins
SMACNA Legislative Consultant

under possible consideration by the Seattle City Council, again with different thresholds. These proposals would only impact Seattle businesses. Rep. Chopp’s proposal would be statewide.

What we can expect

With most of the business sector feeling the fiscal stresses of the pandemic, taxing either small business or consumers will be met with stiff opposition. Proposals that would include increase sales tax or property tax or increase the B&O on smaller businesses are likely off the table. However, tax proposals targeting larger businesses are certain to emerge. Besides Rep. Chopp’s proposal, we could see a second try for a high earner tax for King County businesses. The devil is in the detail with these types of tax proposals. SMACNA opposed the King County tax last session. The cost was not the only concern. The tax would have been extremely difficult for contractors to track work done in specific locations so those cities would get the tax benefit and it included several other unfair and unworkable features.

Besides tax and budget proposals, we expect to see requests to provide more coverage for COVID related employee benefits. There may be efforts to expand government subsidized childcare, especially if schools do not fully re-open. SMACNA will keep you informed on these issues and all of the various budget and tax proposals that emerge as the Legislature wrestles with the changing times and fiscal consequences of the pandemic. ▪

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EXPLORING NEW BANKRUPTCY RESTRUCTURING OPTIONS

Distressed small business looking for a fresh start have new options for reorganizing their business to eliminate bad debt and preserve favorable assets. Under the new Small Business Bankruptcy Reorganization Act ("SBRA"), eligible small businesses that might be considering closing their doors due to heavy debt obligations may be able to find a solution to keep their business operational.

Background

Traditionally, businesses that are unable to meet their financial obligation have had two options:

1. Closing the doors and liquidating their assets through a Chapter 7 bankruptcy, or
2. Pursuing a restructuring under the Chapter 11 bankruptcy rules with creditor and court appointed oversight.

Unfortunately, the complicated process, high fees, and restrictive oversight have made most Chapter 11 bankruptcies unsuccessful. In an effort to make bankruptcy reorganization available and successful for more small business, the SBRA was passed in August 2019 and became effective in February 2020. It creates a new option for smaller business that provides many of the same advantages of a Chapter 11 bankruptcy with a far more efficient and streamlined process. The new Subchapter V option is available to businesses with less than \$2,725,625 in debt.

Advantages

Pause Button

Immediately upon filing a petition to reorganize your business, all creditor collection activity against your business automatically stops for at least 30 days. This gives the business owner a moment to pause, breath, and proactively plan for the future.

Creating a Plan

Under a SBRA Subchapter V reorganization, the business owner works with his or her attorney to create a plan for repaying the

debt on the assets that the business needs. The repayment plan typically takes 3-5 years. This gives the owner an opportunity to take a good hard look at what is working and is not.

Discharge

At the end of the reorganization plan, the business receives a discharge of all excess debts that were not included in the repayment plan.

Eligibility

The SBRA is available to companies with debts less than \$2,725,625. However, that number has temporarily been increased to \$7,500,000 under the CARES Act in response to COVID-19. The increased cap is scheduled to expire on December 31, 2020 when the CARES Act expires.

The new Subchapter V under the SBRA is intended to address some of the barriers faced by otherwise viable small businesses by streamlining the process, removing hurdles, and reducing costs. For eligible companies, the SBRA provides a new option for stripping away unnecessary debts and assets while retaining control of the company, allowing the company to emerge reorganized and profitable.

Conclusion

Unprecedented economic impact from slow-downs and forced temporary closures has successful businesses considering whether they can continue operations. If your company has questions about whether they might find relief under the new Small Business Bankruptcy Reorganization Act, please reach out to attorney Erin O'Leary at (425)64. ■

Erin joined Employer Solutions Law in January of 2018 as an Associate Attorney. She brings with her a wide breadth of experience in commercial litigation, business law, and bankruptcy law. Because of her experience working in and with family owned businesses and closely held businesses, she understands the need to ensure that any recommended course of action must be both a good business decision as well as a sound legal strategy.



By / Erin O'Leary
Associate Attorney
Employer Solutions Law

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AIR CURTAINS

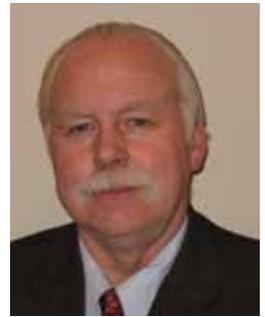
Air Curtains are Allowed as a Vestibule Substitute in the New ASHRAE Standard

Good news for building owners, engineers, architects, and HVAC contractors who can now save energy, construction costs, and space in commercial facilities with the latest code update. ASHRAE, the leading policy maker for the heating, refrigeration, and air conditioning industry, has formally approved the use of properly certified and installed air curtains as an exception to the vestibule requirement.

Consulting engineers and architects who previously were hesitant to replace vestibules with air curtains due to inconsistent code language now have the support of ASHRAE Standard 90.1-2019. Furthermore, sheet metal contractors will see a spike in air curtain installations to accommodate facilities looking to prevent energy loss through their main entries and meet building codes. Also, air curtains can now be a recommendation for value engineering because they are roughly only about 10 percent of the total cost of a vestibule in time and materials.



Office and other commercial buildings can now look at retrofitting vestibules and repurpose the space (anywhere from 40-300 square feet) for more productive purposes. Studies have shown that air curtains are equal or more efficient than two-door vestibules as energy savers. Also, air curtains protect against the infiltration of outdoor air, flying insects, wind, and dust through open doorways.



By / Norm Grusnick, P.Eng

Vestibules maintain an air lock and discourage an open wind tunnel effect where conditioned air rushes through two doors open simultaneously. Unfortunately, the concept is easily defeated by both doors opening at the same time. Air curtain technology draws interior air from the facility and discharges it through long linear nozzles across the doorway.

A properly sized air curtain uses approximately 70-85 percent of the conditioned expensive indoor air and returns it to the space. Also the air curtain separates the indoor/outdoor environments by maintaining AMCA-certified minimum velocities of 400 ft/min at the floor. An air curtain is typically activated by limit activated controls. When the door is closed the options are also available for supplemental heating.

A Canadian University – Concordia- Dr. Liangzhu Wang conducted two third-party studies, “Investigation of the Impact of Building Entrance Air Curtain on Whole Building Energy Use” in 2013 and “Energy Saving Impact of Air Curtain Doors in Commercial Buildings” in 2016. Dr. Wang’s studies concluded that, on average, air curtain protected doorways were proven to save total building energy usage by a factor of 0.3 to 2.2 percent more over that of vestibules.

These studies, as well as ANSI/AMCA Standard 220, which states air curtains maintain 400 ft/min airstream velocity, led to changes in ASHRAE 90.1-2019. ■

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Reach out to jessica.kirby@pointonemedia.com or call 250.816.3671 to share your ideas.

BALANCING PROGRESSIVE ENERGY CODES WITH PUBLIC HEALTH

As we await the incorporation of the 2018 Washington State Energy Code into our design and construction world, postponed from July 1 to November 1 of this year due to the COVID-19 pandemic, we should reflect on our roles as stewards of building energy use and make sure we are thoughtfully balancing high-performance/low energy mechanical systems with providing even better indoor air quality to meet the health and safety needs of the people who will occupy these spaces.

Since 2009, the Washington State Energy Codes have been targeting an ambitious goal to reduce energy use in new residential and commercial buildings from 2006 code levels by 70% by 2031. This has been, and will continue to be, implemented in eight code updates every three years starting in 2009 and ending in 2030. This ambitious goal means an average of a 14% reduction for each code update compared to the previous code's requirements to meet the 70% target. In past code cycles the focus has been on improving building envelope construction and reducing lighting energy consumption. As these elements of building construction have been optimized, the target has shifted to the next big energy user, fan energy. In the past the use of large fan systems (typically large centralized variable air volume [VAV] systems) has accounted for up to 25% of the total energy used in a building, and, starting with the 2015 energy code, reducing fan energy became the target to meet energy reduction goals.

Current and future codes will prefer the use of dedicated outdoor air systems (DOAS) for providing minimum ventilation and to



By / Peter Boileau

Chairperson, SMACNA-Western Washington Technical Committee

discourage the use of outside air economizers for ventilation and cooling due to the high energy/fan horsepower requirements for delivering large amounts of outside air into (and out of) buildings. With the use of DOAS systems, heating and cooling are provided by small distributed zone level HVAC equipment, such as water-source heat pumps, variable refrigerant flow (VRF) systems, fan-coil units, sensible-cooling terminal units or chilled beam systems. Again, with an eye to reducing fan horsepower these systems use piped instead of ducted systems to provide heating and cooling to each area of the building. This results in less ductwork required for a building using these systems, and the ductwork provided is typically smaller in size and lower in pressure class, which can impact our business, since we will be fabricating and installing less ductwork on each project as hydronic and refrigerant based piping systems work increases to meet current and future energy code requirements.

But does this shift from high air-change systems to minimum ventilation systems effect indoor air quality? In our quest to reduce our carbon footprint are we stagnating our interior environments? Given the current (and possibly future) concern with pandemics, are we certain that we are truly safe inside buildings that minimize outdoor ventilation rates? Perhaps we should not only think of ourselves and our industry as stewards of energy use in buildings, but also take responsibility and stewardship of the quality of the environments we build for our customers and their occupants. If we are to provide leadership in improved indoor air quality, perhaps we should consider the following ideas:

1. Increase outdoor air ventilation rates: new code compliant office building DOAS systems typically provide around 0.15 CFM of outdoor air per square foot of floor area. Enhanced designs to meet LEED ventilation criteria increase this airflow rate to around 0.20 CFM/SF. Not so long ago, a central fan VAV system provided the same building type with between 0.8 and 1.2 CFM per square foot, or four to eight times as much outdoor ventilation when operating in economizer mode. The energy code now discourages economizer operation, which results in reduced and potentially stagnant indoor air, and DOAS systems (equipment and ductwork) that are too small to

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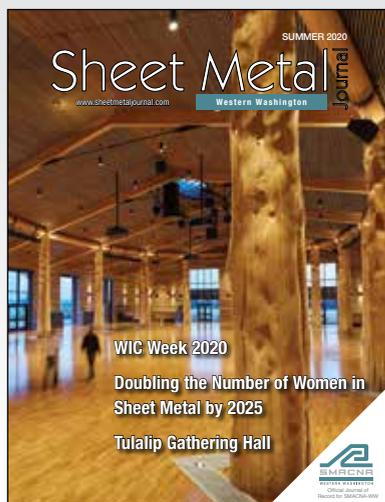
flush out a building with large amounts of outside air. A better approach might be to increase the DOAS ventilation systems to 0.50 CFM per square foot or more to make sure new buildings are well ventilated and can be flushed rapidly with outside air to improve occupant comfort and safety.

2. Better air distribution strategies: Today, most air distribution systems are designed and installed to utilized ceiling supply air diffusers with ceiling return air grilles. These systems rely on large overall airflow rates to mix the air in buildings and induce air movement to evenly mix the air, preventing stratification so floor-to-ceiling temperatures are similar and outdoor air is evenly mixed. However, future energy codes are promoting increased use of hydronic systems to provide temperature control (think chilled beam systems). Ventilation systems are limited in size with this system approach and do not provide the air mixing capabilities that large air systems do. A solution to this might be to consider using vertical laminar air distribution. This type of airflow design is common in large auditorium and theater spaces with overhead supply and floor return (or the opposite) to create vertical airflow instead of horizontal. This approach, and others like ceiling air supply with low-wall returns or raised floor systems move air over the occupants vertically to distribute ventilation evenly and help prevent the spread of viral illnesses. The use of this approach in theaters comes from a long history of understanding that people gathering from different places and sitting in close proximity to each other for performances can be both comfortable and safe, encouraging them to return for another performance in the future. Why not use this idea more often to ensure the buildings we design and build will be equally comfortable and safer from transmission of airborne disease?

3. Better air filtration: We typically install air filtration devices depending on the anticipated use of the facility, with office and retail spaces typically getting low-level filtration (typical MERV rating 4-12) and labs and hospitals getting higher levels (MERV rating 13 and higher). Given the current concerns with airborne disease transmission, we should consider installing systems that can use higher levels of filtration than we currently plan for. Better filtration makes for a better indoor environment, and we owe it to our building owner partners to present the option to install a cleaner air system and therefore a better space. In addition to disposable filters, perhaps we should consider other technologies to reduce airborne contaminants like UV systems or even electrostatic precipitators, which can remove more airborne pollutants than HEPA filters can. And in addition to HVAC equipment and duct system filters, perhaps building owners should consider using technologies like combination UV disinfection/lighting systems in high-density locations, such as main building entrances and elevators, to continuously sanitize these high traffic areas to help prevent the spread of harmful diseases.

In these unique times it is incumbent on our industry to create new solutions to keep our indoor environment safe and the people that live and work in the buildings we build healthy and productive. Although energy conservation is one of our critical responsibilities to help reduce our carbon footprint, we also need to prioritize public health in our projects. As long as people choose to live and work indoors in a temperature-controlled environment, as stewards of the indoor environment our industry needs to be cognizant of all aspects of design and construction necessary to create healthy, comfortable, and energy energy efficient spaces. ■

Submit your news, story, or photo idea



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SMJ-WW is on the lookout for interesting HVAC, architectural sheet metal, testing & balancing, and industrial / specialty news and feature topics. If you have a great idea, notice an industry issue that needs addressing, or want to weigh in on a technical subject, we would love to hear from you.

We also need great pictures – current and historical – of people working in all aspects of the sheet metal industry. If you have something to share, please email it to our editor, Jessica Kirby, with a caption about what is going on in the photo.

Questions about how else to get involved in a future issue of *Sheet Metal Journal*? Reach out to jessica.kirby@pointonemedia.com or 250.816.3671 and get the scoop.

EDITORIAL

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building and feeling of having contributed in an important relevant way to one's community. Shouldn't this feeling be open to everyone?

SMACNA-Western Washington and its membership participated in a number of events that brought the construction industry together for WIC Week. These events were both for the participants and to demonstrate the need for greater engagement in recruitment efforts. See page 10 for a run down of WIC Week and to get inspired to participate in next year's events.

Creating momentum for recruitment efforts that bring women into construction is a joint initiative from SMACNA and SMART that aims to double the number of women in the industry by 2025. This effort has been supported by various women's groups in construction but also by men in the industry, which is essential, and together the lofty recruitment goal can become the reality.

In this issue's article on the subject, which begins on page 15, Angie Simon, president of Western Allied Mechanical in California and SMACNA national president, recalls a key moment in a recent speaking engagement when the need for mentorship was illustrated:

"Recently, I was on a panel for women in construction and we all mentioned that we never intended to get into the position we are in," she says. "I mean, I never desired to be the president of my company. At the end, during the Q&A, this young lady from the audience said that she didn't understand why I didn't want to be the president of my company and explained, 'I see you guys and that's what I want to be.' You have to see it to want to be it. I think the challenge for us back when I got into the industry was that we didn't think it was a possibility because there were no women in those positions."

Be sure to check out the project story that begins on page 16. Johansen Mechanical innovated to solve an important problem at the Tulalip Gathering Hall project in Tulalip, WA. Because of its expertise and ability to innovate, the team was able to mock up, pitch, and fabricate custom grilles that saved the client time and money and proved the company's ability to adapt as the project requires. ■

NEWS

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**SMACNA NATIONAL PRESENTS:
A VIRTUAL EDUCATION FORUM**

October 13-15, 2020

With member health and safety top of mind, SMACNA has cancelled the 2020 Annual Convention planned for Colorado and is now offering The SMACNA Edge Conference, A Virtual Education Forum, October 13-15, 2020. This new virtual experience will provide amazing content, expert speakers, and valuable information on the topics most relevant and important to members.

SMACNA's Virtual Education Forum will include four educational sessions per day, two in the morning and two in the afternoon.

Visit <https://www.smacna.org/annualconvention> often to register and for more information and important updates.

For any questions regarding Convention, please contact John Franco jfranco@smacna.org or Kristin De Guzman kdeguzman@smacna.org in the SMACNA Meetings Department. ■

CONTRACTORS 101

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guarantee a happily-ever-after ending to the movie ahead, you are going to want your team aligned in the seats behind you, watching your back.

** Note: every apprentice, project manager, or other employee who started work for you in the last 10 years has never seen a downturn. In fact, they have been employed in a period of unprecedented opportunity. The ability to manage expectations, emotions, and compensation will be another management challenge in 2020 and beyond. ■

Mark Breslin is an author, speaker, CEO and influencer inspiring change for workplace success across all levels of business. Mark has improved leadership, accountability, innovation, and engagement for organizations and individuals. He has spoken to more than 400,000 people and published several books on leadership and workplace culture. His new micro-learning video series, "The Professional Construction Leader", is revolutionizing construction foreman training as well as field operations, performance, and profitability. For more information on Mark go to www.breslin.biz

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