Partners PROGRESS SMACNA & SMWIA—Building A Future Together Vol. 8 No. 2



Use Your Tools!

plus a look back at the Partnership Conference







Partners PKUGKES

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Partners In Progress

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Making use of the resources at your disposal spells the difference between success and failure.

t was only a few months ago when key members of the sheet metal industry, including business agents and managers, chapter presidents, contractors, JATC instructors, journeypersons, and apprentices gathered in Las Vegas at the 2010 Partners in Progress Conference. They discussed driving change and creating opportunities, even during difficult economic times.

Our apprentices were more in the spotlight than ever before—as record numbers traveled to compete in the ITI's annual Apprentice Contest and then join in the discussion. These rising stars were able to speak their minds—both their excitement and enthusiasm about learning new skills and their frustration that the industry does not embrace new technologies quickly enough. Furthermore, they—along with all of the other attendees—contributed to the kind of innovative thinking and collaboration that has the potential to move our industry to new heights.

Think of it as a flat pebble sent skipping across the surface of a pond. It's wondrous to watch—especially when that pebble keeps on going, sending out ripples that move the water and touch the shore. Not so interesting when it simply splashes and sinks to the bottom. All of the good ideas that came out during the week mean nothing unless we, as an industry, took them home and did something with them.

So what has happened in the ensuing months? Are you still watching that pebble skip? Are the ripples having a real effect on ways local labor and management partners work together and customers and potential customers perceive our value? Do we need to pick up the pebble and try again to stretch our thinking, explore the challenges that confront our industry, and seek solutions that grow our respective memberships and make our jobs more plentiful, profitable, and enjoyable?

A clear lesson to come out of the conference was that many tools already exist to assist us with working together, expanding our markets, more effectively reaching our existing markets, marketing our expertise, becoming more productive, making best use of new technologies, training our existing and future leaders, keeping our most valuable resources safe to return to their families.

Do you know what resources are out there? Are you taking advantage of them? This issue of *Partners in Progress* will help you inventory

the tools already on your tool belt, those things you may not have realized can make your life, your business, and your industry a better place to work. Some of those tools that you may consider include:

xpertise Branding—Potential customers don't know what "sheet metal" contractors do. For us, that's bad. What's good is that these same customers don't always put low price at the top of their decision criteria. We've found that they place more weight on

finding contractors with expertise. Our Expertise branding program is all about turning "potential" into "actual".

Ramp up your marketing efforts by tying your local, training center, company, or labor-management trust to this branding effort. Visit pinp.org and follow the link to the Expertise Logo Agreements. Licensing is free. You can use the logos for your web page, letterhead, business cards, shirts, company trucks, invoices, advertisements, and more. Find examples on the SheetMetalNetwork or in issues of Partnership Communicator. Links to both are available at pinp.org.

rofessional Ads, Without the Expense—One of the newest resources that SMACNA and SMWIA are making available is a series of professionally produced HVAC Expertise ads. These ads are ready for print or use online. All you need to do is add contact information for a local contractor, labor-management cooperation organization, SMACNA chapter or SMWIA office. The ads are available FREE from Partners in Progress on CD in PDF format. Contact Kaarin Engelmann at editor@pinpmagazine.org to place an order. (See a sample on page 11.)

heet Metal Photo Library—SMWIA and SMACNA have combined forces to catalog and make available on CD 1,900 photos of HVAC, architectural and industrial sheet metal specialty areas. SMACNA's safety director has reviewed each of the photos for potential safety violations. These photos are FREE and available for use by SMWIA and SMACNA members in ad campaigns, on websites, and for other public relations purposes. Contractors, locals, chapters, and JATCs may order copies of CD. Further, they may duplicate it and distribute it to SMACNA and SMWIA members. Contact Kaarin Engelmann at editor@pinpmagazine.org to place an order.

heet Metal Social Networking Site-SheetMetalNetwork.org is a forum for sharing questions, answers, experiences and ideas with industry friends, colleagues, mentors, and partners across North America. It can be a valuable resource for everyone from applicants who want to find out about the Sheet Metal Industry, contractors who are looking for the best way to expand into service work, locals who want ideas about how to recruit more apprentices, JATCs that are developing and implementing new curricula, and LMCCs designing advertising campaigns. Sign-up at sheetmetalnetwork.org. Contact Kaarin Engelmann at editor@pinpmagazine.org with questions.

ode of Excellence-SMWIA's Code of Excellence Program is a marketing tool that signatory contractors can use to talk about what they bring to the table in terms of productivity, professionalism, craftsmanship, safety, attendance, jobsite behavior, responsibility and zero tolerance for substance abuse. When the Code is adopted in your area, talk about it with your customers and on your marketing materials. If not, consider meeting with your local partners to discuss the Code's potential to benefit you. A Code of Excellence DVD has been created for use in promoting the program. Copies are available free of charge on pinp.org. Click on the "Order DVDs" button at the bottom of the page.

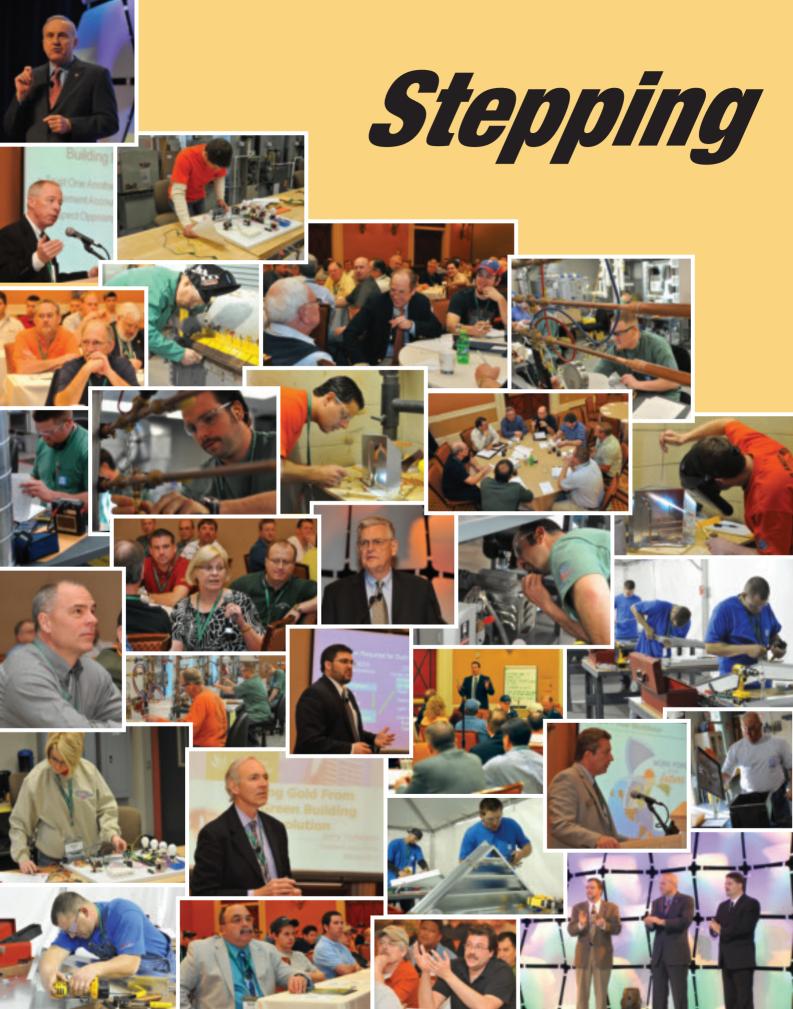
ertifications—See our article on page 6. Engineers and general contractors are increasingly demanding proof of qualifications. As a result, certifications can be a catalyst for success in the marketplace. SMACNA and SMWIA have worked with national and international certification boards to ensure our craftsmen and women have the credentials to show they are the best at their jobs.

ecruiting and Training—The International Training Institute (ITI) is jointly sponsored by SMACNA and SMWIA. ITI produces a standard sheet metal curriculum for various training programs and is constantly working to provide courses on new technologies, including energy auditing and building information modeling.

Visit sheetmetal-iti.org/catalog/ for details about available resources.

ealth and Safety—The Sheet Metal Occupational Health Institute Trust (SMOHIT) is a joint labor-management trust that offers intense health and safety training using the most cutting-edge technologies, including video and audio podcasts, interactive DVD, CD, and web-based resources, and printed fact sheets and books. Visit smohit.org for a full list of training products.

esearch and Development—SMACNA and SMWIA sponsor several organizations that work to identify opportunities in emerging markets, including energy management and efficiency. The National Energy Management Institute (NEMI) and the New Horizons Foundation turn good ideas into solid research to give HVAC and sheet metal contractors a chance to grow in new directions, create new jobs, and implement best practices. Find out about what they have to offer at nemionline.org and newhorizons foundation.org.



on the Gas!

Record-breaking attendance at the 2010 Partners in Progress Conference brought together labor and management partners willing to drive change and create opportunities. This issue covers some of the innovative ideas and tools discussed at the conference and how to use them to speed toward prosperity.





Status of ICB Certifications

Certification	Status	ANSI Accreditation	Description
TABB Technician	Available	Yes	A TABB certified technician understands HVAC system operations as no one else does. By training and experience, these professionals are methodical diagnosticians and problem solvers, taking the vital signs—pressure, airflow, loads, checking diffusers, recording operational details and adjusting the system to meet its design intent.
TABB Supervisor	Available	Yes	A certified supervisor ensures that HVAC project specifications are met.
TABB Commissioning Supervisor	Available	HVAC commissioning is the process of achieving, verifying and documenting the performance of a building's various systems to ensure they meets the specifical and needs of the owner and occupants. HVAC commissioning professionals we needed in increasing numbers in the years to come.	
TABB Sound and Vibration Supervisor	Available		When some air handlers "kick in," vibrations and loud noise can travel along ductwork to mixing boxes in the ceiling. The sound and vibration professional is essential in creating a solution to this problem.
Indoor Air Quality Technician	Available		Certified techs will probably be the first to look inside HVAC systems and ducts, mechanical rooms, crawl spaces, outdoor air intakes and basements—making them the one of few people likely to identify indoor air quality (IAQ) problems that may be caused by the HVAC system.
Indoor Air Quality Supervisor	Available		IAQ describes the condition of air inside a building. The condition of air is a combination of chemical, biological, and particulate matter, as well as temperature and humidity. IAQ is important because it affects people's comfort, health and productivity.
HVAC Fire Life Safety Level 1 Technician	Available	Application in progress	Certifies competency in installation, inspection, and maintenance of fire, smoke, combination fire/smoke dampers, and ceiling dampers in HVAC systems. Trained techs make an important contribution to the execution of the fire protection design and overall building performance in the event of a fire.
HVAC Fire Life Safety Level 1 Supervisor	Available	Application in progress	This program meets the recommendation of codes and standards by training supervisors to inspect, test and maintain fire and smoke dampers. The successful operations of these dampers may mean the difference between a nuisance fire and an uncontrollable catastrophe.
HVAC Fire Life Safety Level 2 Technician	Available		Certification requires completion of the International Training Institute (ITI) TAB module. Course content focuses on inspection, testing and maintenance of mechanical smoke control systems, smoke management and stairway pressurization.
HVAC Fire Life Safety Level 2 Supervisor	Coming Soon		Level 2 supervisors will coordinate and supervise Level 2 technicians as they inspect, test and perform maintenance of smoke control and smoke management systems.
Total Building Energy Auditing Technician	In Pilot		This two-part certification includes HVAC energy auditing and total building energy auditing. Technicians demonstrate skills to collect and, if necessary, measure data which captures the energy performance of the HVAC system and the building.
Fume Hood Performance Testing Technician	In Pilot		Technicians with balancing background show proficiency in the method of testing the performance of laboratory fume hoods according to the ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) Standard 110.
Bio Safety Cabinet	In Pilot		NEMI is developing training to prepare technicians for the National Sanitation Foundation certification exam.

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justing, and Balancing Bureau, studies show that the general public feels more comfortable turning over the controls of their building or other personal property to professionals who can demonstrate that they are keeping current with skills and technological advances in their fields.

"It's especially important for sheet metal technicians who work in one of the most diverse trades in the ever-changing building industry," says Kevin Casey, director of certification for TABB.

Steinbrecher started off as a journeyman and became one of the first certified Testing, Adjusting and Balancing (TAB) supervisors in the country. He now holds half a dozen certifications, including Fume Hood Performance Testing and HVAC Fire Life Safety. That last one enabled Steinbrecher to open a new branch of the company and pursue a new market.

He encourages all of his technicians to follow his example and pursue additional training, and he rewards those

"Certification is like having another tool in my toolbox." who do with higher salaries. Furthermore, he lists the credentials of everyone in the company on Fluid Balance's web site and includes them in bid packages.

Steinbrecher has found that his customers notice,

and that's good for everybody. "It means we're more likely to have work, and the certified techs are more likely to stay employed."

To further both professional and market growth opportunities, the International Certification Board—a committee of the National Energy Management Institute Committee—has made significant enhancements to the number and variety of advanced certifications that SMWIA and SMACNA partners can pursue. The table on page 7 lists current and future certifications available through the ICB.

Such a variety of certifications is available because the sheet metal industry requires craftspersons with diverse capabilities. "The hardest question to answer is 'What do sheet metal workers do?', because there are so many things they can do," says Joseph Stastny, Jr., an instructor with local 33 and the Cleveland District Joint Apprenticeship and Training Committee.

Certification programs, which are free to members, vary in time requirements, with most requiring between two days and three weeks. There are also numerous certifications available for SMACNA contractors that employ certified technicians and supervisors and meet criteria established by the ICB.

To date, more than 3,300 SMWIA members have been certified by ICB alone. For many of these technicians, certifications have provided an extra measure of job security.

Grieco is a freelance writer based in Blacksburg, VA. For more information about ICB certification programs, call 703-299-5646 or visit www.icbcertified.org.



ANSI Approval Increases Demand for ICB Certifications

Certifications give the performance guarantee that the sheet metal industry needs to grow, says International Certification Board co-chair and local 105 business manager Roy Ringwood. To give additional weight to that guarantee, ICB has received accreditation from the American National Standards Institute (ANSI) for many of its certifications.

ANSI is a private nonprofit organization that has overseen development of voluntary consensus standards for products, services, processes, systems, and personnel in the United States for almost 100 years. It accredits standards developed by standards developing organizations (such as ICB), government agencies, consumer groups, companies, and others.

Since ANSI approved the TABB Technician and TABB Supervisor certifications in 2008, demand for the programs has grown significantly.

"ANSI accreditation gives ICB certifications more clout. In turn, there is a greater demand for certified TAB technicians, which drives enrollment for accredited certification programs," says Testing, Adjusting, and Balancing Bureau's Chief Operating Officer John Hamilton.

"We are working to get approval for other certifications in order to gain greater recognition from the engineering and business communities," Hamilton says. Currently applications are in progress for HVAC Fire Life Safety Level 1 Technician and Supervisor certifications.

"Certification programs are valuable assets for the growth and success of many SMACNA contractors," says Howard Stine, ICB co-chair and executive vice president of Charles E. Jarrell Contracting Company. "These programs have contributed to our company being awarded more than a dozen government projects totaling greater than \$30 million."

Houston, we have a problem.

Can the sheet metal industry do what it takes to create a culture of performance and productivity?

By Skip Maloney

ho are the "partners" in "Partners in Progress"? Most members of the industry would answer that question with "labor and management," "contractors and unions," or "SMWIA and SMACNA."

According to Mark Breslin, speaker and author on construction leadership, strategy and labor-management relations, that is a flawed business model. "We don't have a two-party system. We have a three-party system—contractors and their association, SMWIA, and rank and file union membership."

Breslin believes the first two parties have not done enough

to engage the third. "If that doesn't change in a hurry, the unionized sheet metal industry will languish and lose even more market share to non-union shops and workers.

"What I know," he says, "is that the sheet metal industry is significantly underperforming, and we have a tremendous opportunity to turn that around." He calls "getting buy-in and commitment from the rank and file" absolutely critical.

No more business as usual

It's not the first time the construction industry has responded to a perceived crisis, Breslin says. "We've successfully changed job-site behavior through creating a culture of safety and taking a stand against alcohol and drug abuse. These changes overall enhanced profits, market share, value, and quality of life."

Creating a culture of accountability and performance is the next step.

In an informal poll, Breslin has asked apprentices across North America how many of them have been approached by a peer on the job site during the past year and asked to slow it down.

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"Houston, we have a problem," he says. "Almost all apprentices I asked have had this experience."

"These young people—the foundation of the future sheet metal industry—are being told by their peers to underperform in the hardest market we've ever seen," Breslin says. "Don't tell me that it isn't 'vour guvs,' because it's happening evervwhere."

To combat such attitudes, Breslin encourages implementation of the SMWIA's Code of Excellence. However, while the program is an excellent tool, the challenge is in the execution. "It's not enough to say you'll get rid of the idiots, because they'll wash out in this economy anyway."

The question is what the industry will do to get everyone else engaged in the attitude of excellence. Breslin contends that it's not just about addressing them in a mandatory safety meeting or handing out a newsletter or publishing a formalized code of conduct. He thinks it's about providing them with the "why" that goes beyond the paycheck.

"It's about providing them with critical information that allows them to understand not just the work that they do on a daily basis, but also the economics of the company and the industry and how everything fits together." The crux is that engagement is based on information.

Breslin believes that SMACNA contractors and SMWIA craftsmen have the best chance for success when they compete on skills, with apprentices and journeypersons who are full partners. That means giving them an intimate understanding of the competition, costs of doing business, and effects of schedule on profitability.

"Ideally," he says, "I should be able to walk onto a job site, anywhere in this country, select a random journeyman, and know whether or not the job they're working on is making money."

A culture of entitlement

That 'slow it down' attitude that Breslin has identified didn't develop overnight. "It comes from a sense of entitlement," says Robert Zahner, senior vice president of the Kansas Citybased A. Zahner Company. "Too many apprentices and journeypersons think that because they're in the union they're entitled to eight hours of pay, no matter what, regardless of their work ethic."

According to Zahner, entitlement is a mindset that has emerged over the past 30 years in both organized construction and the broader culture. "The mentality that everybody is special is getting worse and worse."

As the attitude gets more engrained, it becomes harder and harder to change. "It's not as simple a task as enforcing safety rules or imposing drug tests, because the transforma-

"I like to be responsible for my own future.

I'm ready for that."

-Adam Wood, apprentice from local 23 in Alaska, at the 2010 Partners in Progress Conference about creating a culture of performance and productivity. tion has to come from within the individual worker," Zahner says.

Zahner thinks the Code of Excellence is a step in the right direction, but he's concerned that some contractors will undermine it by doing what he describes as "the easy thing"instead of firing non-performers, laying them off to avoid any official allegations of impropriety. "It means non-performers just move to another job site and continue to spread the culture of entitlement."

Only if management enforces the Code of Excellence, and labor takes it to heart, will the code mean anything to the rank and file, Zahner insists.

Baby steps

Like Zahner, Vincent Alvarado, business manager of local 49 in New Mexico who came up through the ranks in the 1970s, has seen the damage that a culture of entitlement has inflicted on a generation of sheet metal workers. As a union representative, he takes this into account as he explores ways to engage his membership and establish in them a work ethic tied to a sense of personal pride.

Alvarado agrees with Breslin's contention that educating and informing the membership is the only way to turn things around. He advocates using a "targeted" message in a language and via a medium that the newer generation workers understand.

"A lot of times, they won't read newsletters," he says, "We have to be ready to use technology—like social networking sites and texting to get to these guys." He believes the message must get through that pride and work ethic are what will get the industry through the hard times.

Evidence that this flow of information is starting to reach the rank and file can be found in the person of Rene Chavez, a member of local 49 and a foreman with Albuquerque's Yearout Mechanical Co. "Yearout distributes a professional newsletter—with photos, spotlights on jobs and employees, and safety information. It's included with our paychecks, and we stand there and read it."

Chavez says he's seen evidence of the "slow it down" attitude that Breslin talks about. To combat it, he educates apprentices that they don't have to make the job last longer to make more money. "They need to understand that the more productive they are, the more work they'll have."

Another bit of education apprentices need is to understand they are part of a family—both the immediate family of their local, and also the extended family of the International and the organized construction industry as a whole.

"Pride," he adds, "has to be grown through education and participation, by becoming part of a family. It's like a baseball player. If you take pride in what you're doing, you'll do it better, no matter what team you're on."

Maloney is a freelance writer based in North Carolina.



Something's wrong. Your HVAC system isn't working. You don't care why—you just need it fixed...yesterday. How do you make it right? Look for the logo. Hire HVAC Expertise. To learn more, visit our Web site at www.hvacexpertise.com or a local SMACNA contractor.



Sharpen Your Pencil

Energy auditing opportunities abound for the sheet metal industry.

By Steve Grieco

'nergy auditing is emerging as a "green" market sector with real promise for SMACNA and SMWIA partners. Demand for this technical service is growing across North America and—even more encouraging—audits often lead to lucrative retrofit work.

"Energy auditing will become a routine process in operating a building," says Davor Novosel, chief technology officer at the National Energy Management Institute (NEMI).

"In California, the seller of a building has to provide the buyer with information detailing how energy efficient that building is. Not every commercial building has an engineer running it, or an energy auditor on staff. If the California model is adopted nationwide, I can foresee a significant demand for energy auditors."

Of course, audits are the first step toward energy efficiency—not the last. In California and New York City, energy audits will be part of building energy labeling soon to be mandated, says Jerry Yudelson, president of Yudelson Associates in Tucson, AZ.

These labeling programs compare energy efficiency ratings of like-size buildings. Owners of buildings that exceed the average energy usage for their size are encouraged or required to improve their properties' energy-efficiency ratings through retrofits, repairs, or other remedies.

"Labeling, which is growing in popularity, is a driver for the retrofit market. Energy auditing can be a gateway to the triple bottom line—profit, people, and planet," Yudelson says.

NEMI's Director of Research and Education, Gary Andis, agrees. Retrofits identified through energy audits improve energy efficiency, reduce carbon footprints, and could mean thousands of hours for sheet metal workers and contractors. "It's the retrofit that comes out of the energy audit that benefits everyone," he says.

Energy audit requirements are becoming increasingly visible in federally-funded projects like those in the \$452 million Retrofit Ramp-Up program.

"This is an expanding market, and there is a significant amount of activity going on," says John Randolph, a Virginia

> Tech professor who is working on a \$3.8 million U.S. Department of Labor grant for green job training.

Marc Norberg, SMWIA assistant to the general president, believes the already-distributed federal funding for green projects is just the tip of what is coming. That's one of the reasons International Training Institute (ITI) has ramped up training related to energy efficiency work.

Already, ITI is piloting certification courses in places like Austin, TX, where energy audit legislation has been enacted at the local level. One of the requirements there is that homeowners provide proof of an energy audit to any prospective purchaser.

Although non-union energy audit service providers have saturated the Austin market, there are still opportunities for commercial work, says Jerry Steinbrecher, TABB Certified Supervisor and owner of Fluid Balance International.

Steinbrecher thinks Austin's Energy Conservation Audit and Disclosure (ECAD) ordinance, which requires commercial buildings continued on page 14



What Is the Retrofit Ramp-Up Program?

The U.S. Department of Energy's Retrofit Ramp-Up initiative will support public and private partnerships in making large-scale energy-efficiency retrofits.

"This initiative will help overcome the barriers to making energy efficiency easy and accessible to all—inconvenience, lack of information, and lack of financing," says Energy Secretary Steven Chu.

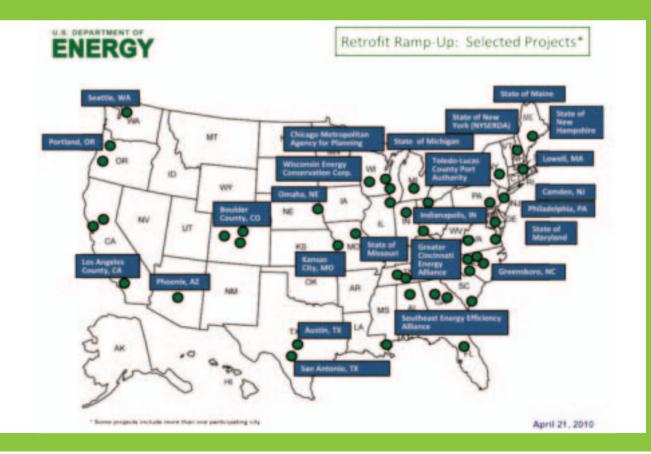
"Block by block, neighborhood by neighborhood, we will make our communities more energy efficient and help families save money. At the same time, we'll create thousands of jobs and strengthen our economy."

Retrofit Ramp-Up projects are starting in fall 2010 and could provide new opportunities for sheet metal contractors and craftspersons. Examples of project awards include:

 Boulder County, CO (\$25 Million): Boulder County is partnering with the city of Denver, Garfield County, the Governor's Energy Office, Xcel Energy, and others to launch the Colorado Retrofit Ramp-Up Program that will stimulate economic growth and investment in Colorado through largescale retrofits in neighborhoods and commercial districts in urban, suburban, and rural areas across the state.

Delivery of retrofits will be coordinated through a "Two Techs and a Truck" program, providing onsite outreach, audit and implementation services to businesses and residential homeowners and tenants, including efficiency testing and systems installation.

• San Antonio, Tex. (\$10 Million): The San Antonio Green Retrofit Initiative will provide a unified single-point-of-service energy efficiency delivery program targeting residential, commercial, institutional, industrial, and public buildings. Systematic retrofits will include comprehensive audits, identification of appropriate technology changes, and modification of energy systems. San Antonio's approach includes a door-to-door outreach campaign tailored to Spanish-speaking households, as well as an online one-stop center for retrofit information.



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receiving electricity from Austin Energy to have an energy rating by June 1, 2011, will drive demand in the commercial sector.

Addressing the need for skilled sheet metal workers who can also be energy auditors, Austin's local 67 has piloted NEMI and ITI's new energy auditing training course. "I hope to pick up 25% more business," Steinbrecher says.

NEMI and ITI have completed two components of what will eventually become a comprehensive whole building energy audit course. In the course, journeypeople learn how to analyze utility bills to determine a building's Energy Use Index (EUI). EUI compares energy use to a standard based on building use and square footage. They also learn to document performance and gather and assemble field data as a part of an ASHRAE level II whole building energy audit.

When the course and pilot program are complete, NEMI and ITI will submit it to the International Certification Board (ICB) for certification materials distributed to JATCs across the country.

"It's the first step in preparing our members to do work in an expanding market sector," says James Page, an ITI regional coordinator for Education and Training who is also a TAB specialist. He says the next step is for contractors to partner with their JATCs to provide focused training that meets state and local certification requirements.

"Within five years, all the legislation will be in place," Page says. Already, a new state law in Nevada will mandate energy audits for existing home sales. Auditors will need both Residential Energy Services Network (RESNET) and Building Performance Institute (BPI) certifications.

To get ready, SMWIA local 88 in Las Vegas is quickly working to train members and find them jobs. The local already negotiated an agreement with one of only two approved energy auditing companies in the state and is developing a training program that will incorporate ITI materials when available. More than 40 unemployed members are working on certifications.

"We're going to be the best qualified to do these audits," says local 88 Business Manager John Christiansen. "We've taken journeypeople who have a background in TAB, as well as people who have a background in service. We're finding it's a real easy transition for them"

Jeff Belmont, a journeyman with local 88 who has been out of work, has already passed both written certification tests and is preparing for supervised energy audits. He says he is eager to get back to work and use his new training.

"From a career perspective, it's the cutting edge of a new field," he says. "It's exciting to be part of the cresting wave. Any other tool I can put in my tool box is going to make me more marketable."

Success with energy auditing will be a win-win for SMWIA, SMACNA, and their customers. Industry partners can put techs back to work and establish themselves in a sustainable green market. Home and building owners will learn

What Codes and Standards Apply?

Energy auditing is being pushed by the Federal government in a number of different ways from the tried and true EnergyStar Portfolio Manager to the American Recovery and Reinvestment Act (ARRA). It's also part of Executive Orders calling to reduce energy usage in Federal buildings and by Federal agencies.

Furthermore, organizations such as the U.S. Green Building Council (USGBC), Green Globes, and ASHRAE are pushing for a more sustainable built environment. Green Globes has just been accredited as a buildings rating standard by ANSI (American National Standards Institute). ASHRAE has Standard 189.1.

All of these programs incorporate energy auditing in some form or another.

Finally, the 2009 International Energy Conservation Code and ANSI/ASHRAE/IESNA Standard 90.1-2007 increase awareness about and application of energy-efficient buildings.

These codes came about as a direct result of the American Recovery and Reinvestment Act of 2009. Experts, government officials, and industry representatives who manufacture, service, and maintain the systems and products that go into energy-efficient buildings contributed to the codes.

In 2009, the International Code Council also began developing a new International Green Construction Code (IGCC), committed to creating a model code focused on new and existing commercial buildings and addressing green building and performance.

IGCC uses mandatory language that provides a new regulatory framework, and performance and prescriptive solutions. It is designed to address local, state, and Federal law.

how they can reduce energy costs, and will know if their energy efficiency investments are actually delivering the dividends they were promised.

Grieco is a Virginia-based freelance writer and frequent contributor to Partners in Progress.

heard on the floor

Sometimes just a few words catch the spirit of the moment. Read on for a few comments overheard at the 2010 Partners in Progress Conference.

"We can't sit back and wait until things get better. We need to work out a game plan."



—SMWIA General Secretary-Treasurer Joe Nigro

"The six most expensive words in construction are 'put it over there for now'."

— Richard Reese, a consultant with FMI Corp. on strategic, financial, and operational issues for the construction industry

"Today, this is when the rubber hits the road. All of us have to stretch our thinking to explore the challenges that confront our industry..."

—SMWIA President Michael J. Sullivan

"It is our responsibility to make today's apprentices tomorrow's leaders."

> —former SMACNA President John Lindemulder, Sr.



"Everybody needs to take one person more under your wing."



—Mark Breslin, speaker and author on construction leadership, strategy and labor-management relations, about the importance of mentoring

"LEED is the only Green standard that anyone pays any attention to."

—Jerry Yudelson, a construction industry consultant on green buildings



"When the construction business goes down, the fire and life safety business goes up."

—John Hamilton, chief operating officer of the Testing, Adjusting, and Balancing Bureau (TABB) for the National Energy Management Institute, about emerging market opportunities

"We aren't marketing the sophistication of our training programs to our clients."

—David Allen, executive vice-president of McKinstry Co., a Seattle based contractor

"Once you lose market share, it's hard as hell to get it back."

—David Zimmermann, president and business manager of Local 36 in Missouri



Integrated project delivery provides a new vision for the job site.

By Cairine Caughill

ntegrated Project Delivery (IPD) is an entirely new approach that turns the "silo", or compartmentalized, approach of the traditional construction project on its ear. "IPD improves the process for everyone involved," says Matt Cramer, president of Michigan's Dee Cramer Inc.

IPD integrates people, systems, business structures and practices to harness all of their talents and insights. "Effective IPD teams usually include more than just owner, designer and prime contractor," says Tom Soles, SMACNA's executive director of member services and market sectors. Emphasis is on collaboration and trust and sharing risk.

There are no excuses or blaming shifting. "Everybody's pulling on the same end of the rope," Cramer says. "Architect, engineer, general contractor, and all subcontractors are tied to a single contract with end deliverables. Everyone understands their specific roles and responsibilities within the project. Each team is able to maximize its contributions to the project, and focus on its specialty."

Steve Sneed agrees. He's assistant coordinator at local 36 and has worked on several IPD projects. "The biggest difference I've noticed is that this approach makes everybody accountable. You all have to get along with one another and help find solutions to the problems."

For anyone interested in getting into IPD—or being successful in business, for that matter—Sneed advises them to build relationships. "Remember, nine times out of 10, you'll work with the same people on another project, maybe not the next one, but perhaps the one after that."

Besides, it's possible to make more money when a project team works together. Beyond that, IPD is a delivery method that maximizes end value to the owner. "On any construction project, time, cost, and scope or owner satisfaction are in play," says Cramer. "Using traditional processes, you can usually have two of those, but not all three.

"Thus, if you manage to get the scope right, achieving owner satisfaction, you can deliver on time, but above cost or deliver on cost, but extend the schedule. With IPD, you get all three," he adds.

This is possible because IPD reduces waste and optimizes efficiency through all phases of design, fabrication and construction. A job is drawn and coordinated as it is being designed, eliminating duplication of effort.

Jay Dougherty, Navigant Consulting, Inc.'s LEED AP and associate director of construction, thinks owners will be impressed by what IPD has to offer. "I also think it will offer good opportunities to a number of people in the industry."

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How are BIM and IPD Related?

Building information modeling (BIM) is a digital representation of physical and functional characteristics of a facility. It provides information that can be shared across a project team and used as a basis for decision making throughout the facility's lifecycle. Just how does BIM relate to integrated project delivery (IPD)?

"We use BIM design, clash detection, and collaboration tools to solve problems before you get out in the field. They are the first step toward IPD," says Jay Dougherty, Navigant Consulting, Inc.'s LEED AP and associate director of construction.

Matt Cramer, president of Dee Cramer, Inc., calls BIM the technology and communications portion of the IPD process, in the same place paper drawings fit into the traditional project delivery process.

"IPD is more than technology," Cramer says. He says it means

- involving all team members in design meetings,
- identifying key objectives up front,
- maintaining open collaboration at all stages of a project,
- minimizing paper-based processes by collaborating digitally.
- checking for and managing interferences with 3D clash detection software.
- setting up contract mechanisms that enable and reward achievement of key objectives, and
- creating a culture of trust and information sharing.



"Change Order" from Matt Cramers' presentation at the 2010 Partners In Progress Conference.

Traditional Project Delivery vs. IPD

Traditional Project Delivery		Integrated Project Delivery
Fragmented, assembled on "just-as-needed" or "minimum-necessary" basis, strongly hierarchical	Teams	Integrated team entity composed of key project stakeholders, assembled early in the process, open, collatorative
Linear, distinct, segregated; knowledge gathered "just-as- needed;" information hoarded; silos of knowledge and expertise	Process	Concurrent and multi-level; early contributions of knowledge and expertise; information openly shared; stakeholder trust and respect
Individually managed; transferred to greatest extent possible	Risk	Collectively managed, appropriately shared
Individually pursued; minimum effort for maximum return	Compensation/ Reward	Team success tied to project success; value-based
Paper-based, two-dimensional; analog	Communications/ Technology	Digitally based, virtual; BIM (3D, 4D, and 5D)
Encourage unilateral effort; allo- cate and transfer risk; no sharing	Agreements	Encourage, foster, promote and support open sharing and collaboration





Right in Front of Our Eyes



Top apprentices—tomorrow's leaders contribute to today's success.

By Cari Bilyeu Clark

utstanding apprentices are the same ones who end up as top journeymen, foremen, supervisors, and even contractors. Identifying, training, and fostering such apprentices is not only the task of the International Training Institute, but also one for every member of the industry.

Where to start?

"Recruiting is an excellent foundation," says Tony Keithley, training coordinator for local 2 in Kansas City. "We get the cream of the crop. We take on about 48 new apprentices per year out of 350 to 400 applicants. All of them are intelligent, and all of them exhibit a strong desire to succeed."

It's that attitude that sets apart exceptional apprentices, such as Boston's local 17's Michael Collins, who won the HVAC competition at both the 2009 and 2010 International Sheet Metal Apprentice Competitions in Las Vegas.

"Anything we give him, he can do. He's one of the most capable and motivated apprentices we have," says John Healy, local 17 training coordinator.

Becoming successful in the industry takes more than desire, though. It also takes top-notch training. "Our industry is really committed to training, and our instructors have a passion for passing along their knowledge of the industry," says local 66 training coordinator Eric Peterson.

Indeed, Collins attributes his success at the competition to his apprenticeship training and industry experience at Bryant Sheet Metal in Hanover, Mass.

Local 66's Lee Posey, architectural contest winner, appreciates the well-rounded training he receives at his local JATC. "It's really great to have instructors who foster learning. If you're willing to learn, they're willing to teach you."



Keithley credits "awesome teachers" for bringing out the best in the apprentices he brought to Las Vegas in 2010. Apprentice Ryan Burton won in the industrial/welding category and apprentice Ross Bumgarner won third in the architectural category.

Burton agrees with Keithley's assessment, "I feel pretty fortunate to have these teachers. I'd love to be able to teach at our JATC someday."

Beyond lessons taught on the job and in the classroom, SMACNA and SMWIA paved the way in 2010 for apprentices to get the big picture about the importance of partnership by inviting them to the Partners in Progress Conference.

They gathered together those individuals who in previous years would have battled it out in regional competitions and then invited them to attend breakout sessions, where business managers, contractors, training directors and other industry experts sat together brainstorming ideas and listening to each other.

"It was important that apprentices participated. Both the apprentices themselves and the entire industry will see a benefit," says local 36 Training Manager Dan Andrews.

Dustin Walker, an apprentice from local 36 who won the service category, says he took away much more than a prize from his experience in Las Vegas.

"The conference broadened my overall understanding of the industry by giving me different perspectives, from contractors to national union leadership," Walker says. "I really liked being able to hear from people from clear across the country and find out how they deal with similar situations as I face."

Walker's fellow local 36 apprentice Brett Moeller, who took fifth in the architectural category, appreciated that he was able to contribute his own perspective, give recommendations, and even ask hard questions—the type he wouldn't want to talk about with his boss. "Nobody cared that I was 'only' an apprentice," he says.

Local 36's Casey Wilson-Williams, who finished first in the TAB competition, agrees that attending the conference was invaluable. "We had exclusive access to industry experts from all over the country who could speak to our future," he says. Wilson-Williams was particularly impressed by Mark Breslin's presentation on leadership training.

Breslin, industrial relations strategist and keynote speaker, also talked about improving the image of union workers. He challenged apprentices to promote the union and work to keep the organized portion of the sheet metal industry strong.

His message hit home for apprentice Lance Fink, an aspiring TAB professional from Pittsburgh's local 12. "Breslin cares about our industry. He pointed out that we work hard and deserve to be paid well. We haven't just 'lucked' into these jobs, and we need to stick up for ourselves."

Such enthusiasm contributes to Healy's belief that bringing apprentices together for both the contest and the partnership conference was a giant step toward enhanced labor-management partnership.

"I think this experience changed the apprentices who attended," says local 9 Business Manager Dwayne Stephens. "They went home wanting to be more involved in the union and understanding the value of continuing their education after their apprenticeships are over."

Clark is a freelance writer based in Springfield, Va.





Get ready. Get set. Go to work!

By Cairine Caughill

Ithough "green" is not new to the sheet metal business, it is big in the market place. With this knowledge, local 19 and the Sheet Metal Contractors Association (SMCA) of Philadelphia decided to rebrand themselves as a "green" alternative, complete with a new logo.

"As a sheet metal industry, we've always been conscious of the importance of energy efficiency. Now as the nation focuses on more sustainable, green energy alternatives, we might as well let our customers know we already have the expertise to update and build HVAC systems that reduce energy and resource consumption," says Jim Shields, SMCA communications director.

HVAC is a great place to beat the energy crunch and the rising cost of energy, says Joe Sellers, president and business manager of local 19 and co-chair of the Sheet Metal Industry Advancement Committee.

"Buildings in the United States create 39% of greenhouse gases. If that's important to a customer, we think that we have value that we bring to the table," he says.

Sellers believes that contractors and locals ought to position themselves so that when energy efficiency becomes important to customers—whether they want to save money or the environment—the organized sheet metal industry has tools in place to respond.

Toward this effort, Philadelphia's sheet metal labor-manage-

ment team rolled out a strategy that included creating a new logo and Web site, and hosting a series of educational seminars. Timing was right. As the partnership effort was rolling out, Mayor Michael A. Nutter announced his plan to make Philadelphia the greenest city in the country by 2015 and PECO, the local utility, rolled out the "Smart Ideas" energy efficiency rebate program. "It was like a 'perfect storm' for us," Sellers says.



Making Things Happen

To start out on the right foot, the Philadelphia team turned to Virginia's Matrix Group International, Inc., a web marketing company, for advice on creating GreenHVACSolutions.org.

"We wanted to make it simple for customers to find the information they were seeking without having to wade through pages about other topics," SMCA's Shields says.

GreenHVACSolutions.org highlights SMCA contractors and local 19's expertise in HVAC green technology. It provides case studies on SMCA contractors' and local 19's work in the Philadelphia and Delaware Valley, lists green HVAC resources—including videos to help customers determine if their HVAC system is energy efficient, supplies reasons customers benefit from working with the organized sheet metal industry, and offers a link to help find qualified HVAC contractors.

The site lets customers know that SMCA contractors adhere to SMACNA standards, are knowledgeable about the latest green technologies and advancements, and employ craftspeople from local 19 who have graduated from one of the top award-winning apprentice training programs in the country.

"Although we were happy with the site, we knew it would really not be effective until we increased traffic to it," says Ernest Menold, president of Ernest D. Menold Inc. and co-chairman of the Sheet Metal Industry Advancement Committee.

To help drive potential customers to the site and increase community awareness of green issues, SMCA and SMWIA scheduled a series of seminars. "We also wanted to draw attention to our cooperative efforts to make Philadelphia a greener city," Menold says.

The first seminar covered deregulation of Pennsylvania utility companies, which goes into effect January 2011. "We wanted not only to help people understand the impending deregulation, but also how to prepare for the repercussion in their capital improvement plans," Sellers says.

He insists most people don't realize HVAC systems account for 40% to 60% of energy costs. "SMACNA and SMWIA are in a great position to help customers take control and reduce their energy use and their bills," Sellars says.

As a follow-on, the committee sponsored seminars on fume hoods and new technology to reduce the amount of energy required to run them

and on life safety systems in commercial and municipal buildings. Success of those presentations triggered demand for more and has increased traffic on the *GreenHVACSolutions*. *org* site.

"We had good attendance at the seminars and thoughtful questions came out of them. Even better, we've gotten coverage in the media and local sheet metal contractors have bid on and been awarded green work," Menold says. "Without these events, we wouldn't have had as many opportunities to directly reach decision makers."

Partnership—Key to Success

Shields feels the key to success of the Green Expertise program in Philadelphia is partnership. "It's important to show everyone that we're working together for the betterment of the industry."

This approach has surprised many people, especially as contract negotiations are underway. "We never would have guessed that you guys were in negotiations the way you both hosted the seminar," was one client's response.

Menold calls it a "true indication of the strength of our concerns for the industry that our relationship is solid enough to withstand the challenges."

A labor-management committee, or what local 19 and Philly SMCA call industry advancement committee, has been in place since 1994. This partnership was born out of the belief that, when the two groups work together, they have more job opportunities, and are more effective at solving industry challenges.

"It only makes sense," Menold says, "particularly when market share is down and work opportunities are limited."

Caughill is a freelance writer based in Ontario, Canada.



By Steve Grieco

ight hours labor. Two journeypersons on the job site. One replacement air conditioner installed. ■ Profit 20%, paid on the spot.

For Jeff Laski, president of S&M Heating Sales Co., that sort of profit margin is what made the leap into the residential service and replacement market one the best business decisions he ever made.

Laski remembers thinking the construction industry was sexy, but too many years of flat revenues changed his mind. "For a typical subdivision job, I won't even pick up a set of plans," he says. A few years ago his Detroit, Mich.-based business was 90% new construction. Now it's less than 10%.

"The fun is gone. There's too much involved to make no money. On the other hand, during the past year, the replacement market part of my business tripled."

Laski made his first foray into residential service and replacement years ago when he hired a service manager. He wasn't entirely sold on the new venture—and service was just a pain—until the recent recession hit.

"When all of a sudden my bread and butter was gone, I turned to this service stuff," he recalls. "I've put more energy into it in the past few years." Now S&M Heating has more than 3,000 service and maintenance customers and is making better money than the publicized SMACNA national average.

Profits. While profit may be the No.1 motivator for SMACNA and SMWIA partners to get more involved in residential service and replacement work, there

are many more reasons to consider this increasingly attractive market.

Financial incentives for customers. "The tax credit was huge," says Laski, who offered customers incentive

packages that included manufacturer rebates and SMACNA/ local union rebates. "We were selling every day on the phone."

Good ROI. Many who enter into the market can be profitable from year one and recoup initial start-up costs within one to two years.

Availability of training. ITI recently updated its Residential Service Work course. It emphasizes customer service skills, including being polite and profes-

sional, being tidy and cleaning up after a job is complete, and

even not using the customer's bathroom. All are part of creating a successful residential service culture.

Social skills are so important to residential and service work because jobs in this market require smaller crews. That means technicians end up with greater responsibilities, including sales (it's their job to up-sell the customer) and marketing (the tech is the face of the contractor to that customer).

New energy audit certification training from ITI. Keith Trimpe, president of C & C Sheet Metal in India-

napolis, IN, is taking advantage of it by training many of his workers to become energy auditors.

"We've considered entering this market before but never made the leap," says Trimpe, whose work has been primarily in commercial HVAC. He blames the market being flooded and fewer incentives to help overcome start-up costs. "I was looking for some play, some edge. The time is now."

Enhance customer service. Trimpe expects that the knowledge and skills gained through residential service work will ultimately make C & C Sheet Metal more competitive in other mar-

kets. For example, he expects his commercial customers to appreciate his techs improved customer service. That bleedover is the No. 6 reason to look at the residential service and replacement market now.



Improved cash flow. When residential construction does well, cash flow means contractors get paid. However, once an economic slowdown starts, builders are stuck

with spec homes, reducing prices to unload them or even losing them to lenders, and contractors take the brunt of it.

Build a customer base. That base will stay with you, come good times or bad. Laski believes the residential service and replacement market is more reces-

sion-proof than new construction market, which he says isn't likely to recover anytime soon.

"On a 3,000-square-foot new colonial house, I only make 1%. Even if I wanted it, I couldn't get that job anymore because there is no new construction," Laski says. "To make matters worse, when new construction projects are available, numerous contractors—union and non-union—beat up each other to win them."



Significant labor benefits. A NEMI Service/Retrofit Task Force identified the following benefits for residential workers: steady employment, company vehicle,

cleaner work, easier work, meeting people, and possible extra income from commissions.

Seeing this potential, Wisconsin's apprenticeship committee has instituted a program geared toward residential service and retrofit work. "We wanted a program geared specifically for the residential market," explains Patrick Landgraf, president and business manager for local 18 in Waukesha, Wisc.

"We're also in the process of renegotiating our residential agreement. The goal is to create more opportunities for people to work in the residential market and get more contractors to move into the market."

New resources to help. The No. 10 reason to enter this market is there are now many more resources available to

help contractors make the move.

"It's a very different market and culture for most SMACNA and SMWIA partners," Laski says. During the transition, he has sought out friendly guidance from Atlas Heating & Ventilating, a San Francisco company with in this market.

Similarly, Trimpe has been talking with the St. Louis SMACNA chapter and plans to visit Welsch Heating and Cooling Company, which has specialized in residential service and replacement for decades.

"Any new venture has challenges and obstacles," Laski says. His initial challenge was establishing a customer base. "Get help marketing. The phones will not start ringing on their own."

Laski also recommends following the work of the NEMI Service/Retrofit Task Force, which is compiling the resources already available for those interested in getting into this market. The group is also developing guidance and best practices to address some of contractors' top concerns about entering the market.

One best practice—suggested by Laski—is to have techs go directly to their customer's house at the start of the day, instead of clocking in at the shop. He uses a parts runner to save labor hours.

In central Indiana, where man hours are down 37%, C&C Sheet Metal is taking a team approach—working closely with local 20 and some other SMACNA contractors to crack the residential market.

"We want to make sure there is plenty of work out there for everybody," Trimpe explains. "It's all about putting guys back to work."

"You can compete in this market," advises Laski, who says that homeowners are mostly concerned with quality of work and confidence in contractor. "Cost is less of an issue."

Trimpe uses an automobile analogy to describe why he thinks SMACNA and SMWIA partners can succeed with homeowners. Not everyone on the highway is driving the cheapest cars, he says, "I think the average consumer can be convinced that there is a better product out there."

SMACNA and SMWIA partners are well positioned to succeed in the residential service and replacement market, according to industry leaders like Marc Norberg, SMWIA assistant to the general president.

"What we're up against is the belief that you can't compete, that you can't make money," he says. "Those who say this are wrong, absolutely wrong."

Grieco is a Virginia-based freelance writer.

Keith Trimpe passed away in September 2010. We appreciate his many contributions to the industry. He was dedicated to training and, in addition to his other work, had taught a detailing class for local 20.

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Navigant Consulting is a specialized, international consulting firm that combines industry expertise and integrated solutions.

LIVPROGRESS.

Cramer's company is experiencing the difference IPD makes on one of its current projects. "Because the owner is much more involved than he'd be in a traditional design/build project, he is able to make more informed decisions, and make them earlier," Cramer says.

Cramer also attributes the success of the IPD project to working with a team that had already built a relationship of trust. "If you're exploring new opportunities and taking new risks, it's nice to know that you're all on the same."

KLMK Group, an owners' consulting firm, is currently working on three IPD projects. The owners have been very supportive and can see positive differences in the way these projects are preceding, as compared with previous ones.

IPD is proving to be particularly effective in healthcare jobs. "These designs are complex, requiring medical technology, occupancy scheduling, and specialty experts. The earlier you bring it all to the table, the better," says Patrick Duke, a senior vice-president at KLMK.

Switching to IPD does not necessarily reduce project costs, but it brings value, particularly to owners. "I don't see it as cheaper, but owners aren't necessarily trying to save money. They want to get the most out of the money they spend," says Duke.

Despite IPD's potential, there are challenges to its implementation, says Navigant Consulting's Dougherty. He argues that the first step is changing the mindsets of everyone involved. "It's not just construction managers who need to change their thinking. There also are architects, owners, and subcontractors."

Duke agrees. "People easily revert to their old behaviors. Using IPD means not just managing the process, but also, even more than before, managing the people—and their psyche—and keeping them aligned with the goals and behaviors set out in the beginning. That's difficult."



Legal and insurance issues also present a difficulty. "When everyone is under one umbrella, it gets complicated," says Dougherty. "There's a difference between the general liability insurance that a construction manager has and the professional design liability insurance that a design team has, and if these two guys start cooperating together earlier on, what type of insurance does the project team have?"

Another challenge is to convince owners that what they used to consider subcontractors can now be part of the production design team. "I want subcontractors to get savvier when it comes to this stuff and get beyond the design assist mentality," Duke says.

"Find out how to be indispensible from the very beginning of a project. Sell more than the construction side of your business; also market your professional services."

Duke believes the sheet metal industry has not yet tapped into the opportunities that IPD presents; however, that "newness" may actually assist contractors who are looking to do more IPD-facilitated business. "There's a lot of momentum around IPD right now. People want to come to the table and work together. They are excited about it," Duke says.

Caughill is a writer based in Ontario, Canada.



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