

SPRING 2018

# Sheet Metal Journal

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British Columbia



## PROMPT PAYMENT

*Also in this issue*

**Get to Know Your Foremen**

**Contractors: Get off the Low-bid Treadmill**

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Official Journal of  
Record for SMACNA-BC



# PROMOTING GROWTH AND STABILITY IN OUR INDUSTRY

Formed in 1969, the British Columbia Sheet Metal Association (SMACNA-BC) was the first international chapter of the Sheet Metal & Air-conditioning Contractors National Association (SMACNA). Founded in 1934, SMACNA traces its history to the National Association of Sheet Metal Contractors established in 1910, and has 2,300 members worldwide.

SMACNA-BC is a member-driven association representing unionized sheet metal contractors in the Mainland of BC, and suppliers to our industry. It promotes the growth and stability of the members and industry.

## OUR MANDATE

- To improve the financial stability and business conditions of the sheet metal industry, and to develop and promote methods to improve managerial proficiency
- To improve quality, efficiency and productivity of this industry, and to implement high standards of work
- To establish and maintain high ethical standards of conduct between members of the Association, and between members and owners, architects, engineers, other contractors, and the public
- To study and help in the development and enforcement of governmental codes and regulations, and such legislation as may be necessary for the best interest of the public and the sheet metal industry
- To promote harmony in labour relations
- To exchange technical, professional, and educational information with other contractor associations in the sheet metal industry and its allied trades in Canada and other countries
- To affiliate as a Chapter with the Sheet Metal & Air-conditioning Contractors National Association, Inc.



[BC Sheet Metal Association \(SMACNA-BC\)](#)

Executive Director: Bruce Sychuk

315-15225 104th Ave. Surrey, BC. V3R 6Y8

Phone: (604) 585-4641

E-mail: [smacnabc@smacna-bc.org](mailto:smacnabc@smacna-bc.org) • [www.smacna-bc.org](http://www.smacna-bc.org)



PUBLISHER / EDITOR  
Jessica Kirby  
[jessica.kirby@pointonemedia.com](mailto:jessica.kirby@pointonemedia.com)

CONTRIBUTORS

Mark Breslin  
Kevin Burns  
James Careless  
Andrew Delmonico  
Norm Grusnick  
Matthew T. Potomak

COVER PHOTO

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ADVERTISING SALES

Christina Tranberg  
877.755.2762 ext. 1408  
[ctranberg@pointonemedia.com](mailto:ctranberg@pointonemedia.com)

GRAPHIC DESIGNER

Lara Perraton  
877.755.2762  
[lperraton@pointonemedia.com](mailto:lperraton@pointonemedia.com)

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## BC PARTICIPANTS ENJOY PARTNERS IN PROGRESS CONFERENCE

As many of you know, Partners in Progress held its annual conference February 13&14, challenging more than 500 attendees to work together to “sustain and expand market share where opportunities exist.” In SMACNA National's coverage of the event, SMACNA president Jack Knox set the tone by asking everyone to put their differences and pride aside and vow, as teams, to come up with strategies that will make a difference.

“It is well known that when contractors and local unions have healthy working relationships, our market share increases, our work opportunities materialize, and our day-to-day working relationships improve,” he said. “If we can communicate, commit, and deliver, we can make a difference.”

SMART general president agreed and encourages teams to commit to the future and to taking advantage of knowledge and experience in the room. “If we don't shape our future,” he said, “our future will be shaped for us.”

Key speakers at the event included Kevin Doherty, keynote address, SMACNA secretary-treasurer Angela Simon, and former SMACNA president Guy Gast. Still on everyone's mind is the final presentation by former lead solo pilot of the Blue Angels, John Foley, who delivered a high-energy address



by / Jessica Kirby, Editor

that metaphorically illustrated the ideal culture of high trust and leadership to turn “unforgiving flight” into extraordinary experiences.

SMACNA-BC membership represented well at the event. Six management, six union, and one second-year apprentice were sent courtesy of the association. SMACNA-BC executive director Bruce Sychuk co-facilitated the Western Regional Breakout Session with Tim Carter, business manager, Local 66 in Western Washington. The session addressed topics like training, technology innovation, and manpower recruitment, and included a short section on how to get younger and female apprentices into the trade. Tara McDonald, Quest Sheet Metal Works Ltd. and SMACNA-BC's attending second-year apprentice, was encouraged to share her experience and her ideas on what draws her peers into the trade.

“She was a little hesitant at first, but then like the true trooper she is, she explained what and how to draw the younger people and ladies into the trade,” said Sychuk. “The room, with over 100 in it, gave her a standing ovation. It was very cool.”

All attendees from BC enjoyed the event and felt their eyes were opened to new and interesting perspectives and possibilities. SMACNA-BC appreciates the opportunity to involve its membership and is already looking forward to next year's conference.

For SMACNA National's full coverage of the Partners in Progress Conference, please see page 10. View the conference speakers, presentations, and photos at [www.pinp.org](http://www.pinp.org). ■

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We do all the work, you take all the glory, and it doesn't cost a cent. What are you waiting for?

## 10 THINGS YOU DON'T KNOW ABOUT YOUR FOREMEN

I bet you think you know your foremen pretty well. You don't. Really. They've been working for you forever, right? But you haven't really been paying attention. Your foremen are the backbone of your company. And they are holding back on you. You're missing a lot by making assumptions about who they are and what they think. And those assumptions are costing you hundreds of thousands (if not millions) of dollars in lost profits over the course of their, and your, careers. I've spent the last several years talking with and training several thousand foremen and superintendents all over the US and Canada, so I know what I'm saying when I tell you, honestly, you don't have a clue what's going on inside their heads. Let's start by examining a list I put together of 10 very important things you probably don't understand about your foremen.

1. Your foremen don't see themselves as professionals. They don't describe themselves that way. They don't see it as a professional position—in fact, they barely see it as a management position. If guys who are going to manage \$100,000,000 to \$1 billion in projects over the course of their careers aren't professionals, then what are they? Maybe you should ask them.
2. On average, your foremen have received zero formal professional leadership and management training to prepare them for this high level responsibility, role, and identity.
3. Your foremen don't know what they do for a living. When I ask them, a full 90% respond, "I'm a [pipefitter, ironworker, boilermaker... fill in the craft]." This is the wrong answer. It reflects a craft-worker mindset, not a supervisory one. The correct answer is, "I am a professional construction foreman/superintendent." It's very difficult for them to make that jump and not feel embarrassed, but how they see themselves determines how they act and lead on the job. They are no longer just "one of the guys".
4. Your foremen rarely solicit input from their crews. They a) think they will look weak, b) worry that someone else will get credit for a good idea and take their job, c) would never think to ask, or d) don't even know that it's part of their job.
5. Your foremen run their crews almost 100% of the time using authority, not influence. Which approach do you think is more effective, productive, and profitable?
6. Your foremen are often stuck between the roles of "boss" and friend. This kills the ability to discipline and hold others accountable for their actions.
7. Your foremen do not effectively delegate. They are get-it-done people and therefore over-participate in the action



by /Mark Breslin  
Breslin Strategies

at the jobsite. They are excellent at directing tasks. They generally do not empower people and wouldn't know how to anyway. Wonder whose fault that is?

8. Your foremen often have confused loyalties between their roles as multi-million dollar company managers and union members. The peer pressure of being a "good union guy" is leveraged regularly by their peers, reducing their effectiveness and authority.
9. Your foremen do not admit mistakes or failures. Failure is not a learning experience in their eyes; failure is simply failure.
10. Your foremen do not know how to effectively motivate their crews. The most effective and well-documented tools of praise and positive reinforcement are generally entirely absent. What was not given to them will not be given to others.

Now let's review. I'm willing to guess a few of the items on this list didn't come as a surprise to you. So the obvious question is, what are you doing to fix these attitudes among your foremen? By refusing to act or address the problems, you own them—they're all on you. How about the attitudes and actions on the list that you didn't know about? Now that you do, what's your next move? Are you going to discuss them and provide your guys with the tools to address them, or just rationalize them away and take the path of least resistance? Several hundred thousand foremen are waiting for help. They're doing the best they can with what they've got, but they need their employers to help them understand how important and vital they are to their company and the industry. They need serious professional support to become high-quality leaders and managers. But really, I think they're waiting for you to acknowledge the challenges. ■

*Mark is noted as the number one speaker in the nation on construction leadership, strategy, and labour-management relations. He is also the author of five bestselling books that have created profound and positive change across the industry. He has spoken to and inspired more than 300,000 people during his career. Please view his latest book The Five Minute Foreman or his collection of five at [www.breslin.biz](http://www.breslin.biz).*

## MEET THE BOARD – KEVIN TAYLOR, CITY SHEET METAL

by / Jessica Kirby  
photos courtesy of City Shee Metal

Kevin Taylor, owner / estimator at City Sheet Metal, is currently serving his first four-year term on the SMACNA-BC board of directors. He is also finishing a four-year term on the Sheet Metal Industry Training Board, he is a member of the SMACNA Young Executive Committee, and is slated to be assisting with the Joint Conference board.

Taylor has been in the sheet metal industry for 16 years, and joined City Sheet Metal Limited in 2008. The company specializes in HVAC, architectural, and custom sheet metal.

Taylor entered the industry after pursuing a kinesiology degree at SFU for two years and accumulating students loans.

“I decided that I would like to get a trade and start making money instead of building up a debt,” he said. “I had always loved making things with my hands, and since my dad has always been in sheet metal it was a natural fit for me to follow in his footsteps.”

Over the years many aspects of the trade have changed, but none quite like the degree to which the trade has become automated.

“The biggest change I have noticed from my first time walking into my dad’s shop over 20 years ago is how far technology has come with better equipment and computer software,” he said.

### SAVE THE DATES!

**February 13-14, 2018**  
**Partners in Progress Conference**  
**Orlando, FL**

**March 30, 2018**  
**Good Friday**

**April 1, 2018**  
**Easter Day**

**April 26-29, 2018**  
**SMACNA-BC 49th Annual Convention,**  
**Penticton Lakeside Resort & Conference**  
**Centre, Penticton, BC**

**May 3-6, 2018**  
**MCABC Conference, Whistler, BC**

**June 10-12, 2018**  
**SMACNA National Council of Chapter**  
**Representatives Meeting, Boston, MA**



At the same time, sheet metal has seen its fair share of challenges.

“The greatest challenge industry has faced over the years and continues to face is the ability to find skilled labour,” said Taylor. “We need to get more young people interested and aware that sheet metal is a great profession.”

He says the future looks bright with new automated machinery and software for companies, and the local training centre’s amazing facility, which is capable of turning out an increased level of skilled trades workers.

“Now we just need to be able to attract the youth of today to want to make sheet metal their career,” he said. “There is plenty of opportunity for women, not just men, to succeed in our profession.”

In a cyclical industry facing labour challenges, SMACNA-BC has an important role to play, especially when it comes to building a positive relationship between labour and management.

“I recently got back from the Partners in Progress convention where this was the main theme,” he said. “I am happy to report BC is really a leader in this department, in large part due to the open communication of Local 280 and SMACNA Leadership.

“Having active boards like the Joint Conference allows an open form of communication between labour and management to make sure we are prepared and continue to lead by example going forward.”



**British Columbia Sheet Metal Association (SMACNA-BC)**

Providing products and information related to the Sheet Metal Industry, including technical manuals and guidelines.

The unmatched technical and managerial expertise of SMACNA-BC Contractors is enhanced by the talent and skills of the workforce they employ. SMACNA-BC Contractors employ only Red Seal Certified Sheet Metal Journeymen and Registered Apprentices.

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| Downtown Custom Metal Works Ltd. | Tri-Metal Fabricators                   |
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| Equity Plumbing & Heating Ltd.   | York Sheet Metal Ltd.                   |

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- |  |                                  |
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| All Therm Services Inc.                                      | Intercon Insurance Services Ltd. |
| Bailey West Processing Inc.                                  | Manson Insulation                |
| Brock White Construction Materials                           | Maxam Metal Products             |
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| Crossroads C&I Distributors                                  | Modern Tool (BC) Ltd.            |
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| EMCO (HVAC Division)   | Raven Hydronic Supply Ltd.       |
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**BC Sheet Metal Association (SMACNA-BC)**  
 Executive Director: Bruce Sychuk  
 315-15225 104<sup>th</sup> Ave. Surrey, BC V3R 6Y8  
 Phone: (604) 585-4641  
 E-mail: smacnabc@smacna-bc.org



Speaking of moving forward, Taylor's day-to-day working mandate is simple and clear: "Those who know me, know that I use the abbreviation DBS a lot, which simply stands for Don't Be Shitty."

Learn more about City Sheet Metal online at [www.citysheet.com](http://www.citysheet.com). ■

# Sheet Metal Journal

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Wondering what is going on in the Western Washington market? Check out *SMJ-Western Washington* online

## BC BUDGET 2018 – WHAT YOU NEED TO KNOW

“It’s an ambitious budget that is working hard to provide assistance to equity seeking groups, which we can all appreciate. But it’s likely to be hard on small businesses who will see increased expenses—this is concerning because employers already have a significant cost burden. “

- Chris Atchison, President, BCCA

*\$5.2 Billion in new spending and \$5.5 billion in new taxes*

1) Increased revenue through new taxes directed at the housing market

- \$1.6 billion on new housing units over the next three years (\$6.2 billion over 10 years)
- new speculation tax on residential properties of 0.5 per cent in the first year, and going up to 2 per cent in 2019:
  - › Expanded to Metro Vancouver, Fraser Valley, CRD, Nanaimo Regional District, Kelowna
- increasing and expanding the foreign buyers tax:
  - › Starting on Wednesday, the tax will go up to 20 per cent, from 15 per cent

› Expanded to CRD, the Fraser Valley, the Central Okanagan and Nanaimo

- increasing the property transfer tax on homes valued over \$3M from 3 to 5%, plus increasing the school tax on those homes.

2) *Billions more in spending, focused on education, child care, health, and social programs:*

- elimination of Medical Service Plan premiums by Jan. 1, 2020
- Payroll tax will be implemented January 1, 2019:
  - › Businesses with a payroll of more than \$1.5 million pay 1.95% on total payroll
  - › Businesses with a payroll between \$500,000 and \$1.5 million will pay a reduced rate
  - › Businesses with a payroll under \$500,000 will not pay the tax.
  - › 2019 small businesses will have to pay both the payroll tax and in many cases pay for their employees MSP premium payments. The tax will take in \$1.85 billion starting next year that will make up for loss revenues associated with the elimination of the MSP.

- New affordable child care benefit that will benefit an estimated 86,000 families across the province by 2020. The funding will go directly to licensed daycares with the savings being passed on to parents.

- Pledging \$18 million to provide outreach and counselling support for women and children affected by violence

3) *Other key actions:*

- Freezing fares on all major BC Ferries routes (reducing by 15% on smaller routes)
- Investing \$50 million to revitalize and preserve Indigenous languages in the province
- Carbon tax going up \$5-a-tonne which works out to about \$200 million in revenues for the government
- Hike on tobacco taxes ■




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<b>Business Manager &amp; F.S.T.</b>	<b>James Paquette</b>
<b>Assistant Business Manager</b>	<b>Dan Burroughs</b>
<b>Business Representative</b>	<b>Richard Mangelsdorf</b>
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## DIVERGENT OUTLOOKS FOR CONSTRUCTION IN CANADA

After posting its strongest growth since 2013 last year, Canada's residential construction industry is forecast to see a small contraction in 2018. Meanwhile, non-residential construction is expecting a modest turnaround this year, according to The Conference Board of Canada's latest outlooks for the two industries.

"Non-residential construction is expected to bounce back this year, following a contraction in 2017," said Michael Burt, director, industrial economic trends, The Conference Board of Canada. "However, business investment levels are expected to remain below their 2014 peaks, which will lower growth opportunities for non-residential construction going forward."

Following two years of contractions, Canada's non-residential construction industry is forecast to grow by 1.9 per cent in 2018. The value of new non-residential building permits increased by an estimated 15 per cent last year to reach \$35 billion, indicating a healthy number of non-residential projects in the pipeline.


Growth in e-commerce continues to drive demand for more warehouse space. In combination with several new mining projects and planned plant expansions, this will support growth in the industrial segment. Follow The Conference Board of Canada on Twitter. ■

## VETS GROUP TAKES OVER AIRTEK SYSTEMS

VETS Group of companies acquired AirTek Pneumatics Ltd in 2016, bringing over 140 years of collective dust abatement experience to VETS' already 97 years of HVAC and sheet metal operations. AirTek Pneumatics, now operating as VETS Sheet Metal, has well appointed shops located in Kelowna and Surrey, British Columbia, that offer superior dust collection services to supplement VETS' head office in Edmonton.. For more information please visit [www.vetsgroup.com](http://www.vetsgroup.com) ■

## SMACNA-BC WELCOMES MESTEK MACHINERY AS ASSOCIATE MEMBER

SMACNA-BC would like to extend a warm welcome to Mestek Machinery, the association's newest Associate member. As a leader in the HVAC machinery business, Mestek Machinery is always looking for feedback from the field on issues and factors contractors are facing, in the hopes the company can develop products specifically to help sheet metal contractors. Whether it is a safety issue, a productivity issue, a duct quality issue, or software issue, Mestek Machinery would like to hear about it. The company has been active with local community training and trades educational programs and invites you to learn more at <http://www.mestekmachinery.com> ■



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## SMACNA INVITES CANADIAN MEMBERS TO COMPLETE SAFETY SURVEY

*SMACNA National invites you to participate in the 2018 SMACNA Safety Excellence Award Program – Canada.*

SMACNA started the Canadian survey in 2015 and each year has recognized Canadian firms for their efforts in safety and health. The winners each year can use the recognition in marketing and promotional materials and to demonstrate to employees the importance of working safe.

All US and Canadian SMACNA members can access the on-line version of the 2018 annual survey at [www.smacna.org/safety/survey](http://www.smacna.org/safety/survey). Selecting your state or province will direct you to the appropriate survey (US or Canada). Your input is critical to the success of the program. All surveys are due May 4, 2018.

The purpose of the program is to recognize SMACNA members for their dedication to safety and health, and the data from the survey questions is used to produce a Safety Profile to trend significant information related to safety and health in the sheet metal and HVAC industry.

SMACNA is collecting this data and will provide you with a Canada-specific Safety Profile in the future. All information is

held as confidential in the SMACNA headquarters.

Please continue to promote safety in your company and the industry as a whole. Everyone is a winner when safety and health is part of doing business.

Learn more from SMACNA's director of market sectors and safety Michael McCullion at 703.995.4027 or [mmccullion@smacna.org](mailto:mmccullion@smacna.org). ■

## HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE

The third edition of the *HVAC Duct Construction Standards, Metal and Flexible* is intended primarily for commercial and institutional duct construction. This American National Standard (ANSI/SMACNA 006-2006) contains tables and details for constructing ductwork for ½" to 10" wg positive and negative pressures.

This edition improves upon the second edition with expanded pressure class tables, separate tables for TDC/TDF construction, and expanded tables for round duct construction including 6" wg positive and negative pressure and sizes up to 96".

New in this edition is an engineering and design chapter to provide additional information to design professionals, double-wall construction details, new casing construction details, and additional accessory items. The standard is applicable for construction using uncoated steel, galvanized and stainless steels, and a limited range of aluminum ducts.

This standard has been adopted in the ICC International Mechanical Code. Includes soft metrics. ■

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**2018 PARTNERS IN PROGRESS CONFERENCE: COMMITTED TO MAKING A DIFFERENCE**

Leaders from both labour and management joined forces at the 2018 SMACNA/SMART Partners in Progress Conference, Feb. 13-14, and accepted the challenge to work together to sustain and expand market share where opportunities exist. Contractors, chapter executives, and future leaders attended 28 sessions and workshops focused on creating successful labour/management teams, market recovery and expansion, recruiting quality applicants, and the development of critical communication skills for the 21st century.

SMACNA president Jack Knox set the tone for the one-and-a-half days urging everyone to put differences and pride aside and vow – as teams – to come up with strategies that will make a difference.

“It is well-known that when contractors and local unions have healthy working relationships, our market share increases, our work opportunities materialize, and our day-to-day working relationships improve,” he said. “If we can communicate, commit, and deliver, we can make a difference,” he added.

SMART general president Joseph Sellers echoed Knox’s thoughts, encouraging the teams to commit to moving the industry forward and taking advantage of the knowledge and the experience assembled at the meeting. “If we don’t shape our future, our future will be shaped for us,” he challenged.

Keynote speaker Kevin Dougherty used his bold and brash style, backed by 30+ years of construction industry experience, to explain the issues surrounding recruiting quality applicants.

“We’ve got the best kept secret in the world and we pay more, so why can’t we recruit applicants?” he asked. “Because we stink at marketing,” he shouted. Things have changed. “We have to consistently recruit because it is difficult to be productive if you have an inconsistent workforce.”

*Predicting the future.* To get partners talking about how industry trends could affect their markets, SMACNA secretary-treasurer Angela Simon and former SMACNA president Guy Gast shared the latest trends and predictions from the New

*Continued on page 23*

**SMWIA Local Union No. 280 / SMACNA-BC Partnership**



Left: Jud Martell Local Union No 280 President.  
Right: Angelo Paris, Apollo Sheet Metal Ltd., SMACNA-BC President.



**Labour & Management  
“Embracing the Challenge”**

- B. Flaherty, Cornell University, Syracuse, N.Y.



# Prompt Payment

Written and presented by / Prompt Payment BC

As discussions around prompt payment's arrival in BC continue, association leaders share straightforward information about what this legislation would mean for contractors.



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*"Trends in industry over the past two decades have seen many changes ... the most onerous of which has been the introduction and use of "pay when paid" clauses, which mean payment may be arbitrarily delayed by each party in the hierarchy withholding payment to sub-trades ... "*

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Owners and developers are at the top and usually contract with a prime or general contractor, who in turn sub-contracts with a series of specialist trade contractors. These companies or individuals may also sub-sub-contract with even more specialized trades, all working in concert to deliver a built structure.

As work to complete a structure progresses, the intention is that payment for the work will progress in tandem. According to a presentation by Prompt Payment BC, many standard form contract agreements indicate payment terms within 30 days of billing, meaning "30 days after work of the previous 30 days has been completed and for which payments have been made by trade contractors for wages and materials for the work completed."

Trends in industry over the past two decades have seen many changes to standard payment terms, the most onerous of which has been the introduction and use of "pay when paid" clauses, which mean payment may be arbitrarily delayed by each party in the hierarchy withholding payment to sub-trades until that party actually receives payment from the party above.

Trade contractors inherit such terms from the 'head contract' but remain obliged to pay employees and suppliers regularly on time. The trade contractor is effectively financing the construction project.

### What does delayed payment look like?

A survey conducted in 2014 among Alberta trade contractors showed 86 per cent of companies surveyed said late payments were a "moderate or serious" problem. For 2014, the average number of days in accounts receivable was 78.60 days, the average amount of bad debt reported was \$17,018.55, and the average amount outstanding for accounts 60 days or more overdue was \$223,819.92—predominantly from private accounts.

### Who is affected?

Predominantly, small businesses bear the brunt of delayed payment. BC's stats report a current construction workforce

Prompt payment legislation is provincial legislation that assists and ensures participants in the construction chain receive payment for goods delivered and services rendered. It means no individual or group of service providers carry an unfair burden of the construction risk and costs, and it removes unnecessary impediments to delayed payment.

Construction is a high-risk business conducted through a hierarchy of supervision and pay-masters.

▪ Prompt Payment



© Can Stock Photo / tcey

of 226,000 or in excess of 9% of labour force. WorksafeBC identifies some 15,250 firms in the BC industrial-commercial-institutional marketplace, and 11,250 Worksafe-registered employers report payrolls between \$100,000 and \$500,000—meaning companies with 1 to 7 employees. A further 4,000 companies have payrolls of \$500,000 or more annually.

### What are the effects overall?

Employment is lower because the amount of operating



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*"All construction costs, both government and private, are higher because trade contractors have incorporated the risk of late payment by general contractors into their bids, driving prices higher."*

expenses that a trade contractor can support has been reduced by the increased in payment risk. Some trade contractors have resorted to off-loading payroll risk by increasing the number of self-employed, independent operators in their workforce.

Fewer apprenticeships are created because of lacking willingness to make long-term employment commitments that are required to recoup the investment in training.

Increased payment risk leads trade contractors to make fewer investments in new machinery and equipment, reducing the long-term productivity in construction and raising costs overall.

All construction costs, both government and private, are higher because trade contractors have incorporated the risk of late payment by general contractors into their bids, driving prices higher.

All government costs – provincial, school board, and municipal – are also higher because increased risk reduces the amount of work trade contractors can afford to take on, thus reducing the bidding pool for projects.

### Where is prompt payment?

Until very recently, Canada was the only Western country that had not adopted some form of prompt payment legislation. Laws that ensure subcontractors get paid on time are in already place in Australia, Ireland, New Zealand, the United Kingdom, and the United States. Meanwhile, the European Union has adopted a motion to require all EU members to enact prompt payment legislation.

S-224 passed the Senate in May and is before parliament, with the Liberal government now agreed to initiate a broad-based consultation process with a view to legislation soon. Bill 142 has passed its third reading in Ontario unanimously with all party support and is currently awaiting Royal Assent.

The Province of Saskatchewan has communicated to industry that it is prepared to introduce an Ontario modelled bill in the spring of 2018, as has the government of New Brunswick. Alberta has revised government procurement payment rules to remove delays, and is reviewing legislation options, while

Quebec's Charbonneau Commission identified delayed payment as a contributor to corruption in the construction industry, prompting the government to regulatory and legislative change.

### Who supports prompt payment legislation?

This article is sponsored by COCTA – the BC Council of Construction Trades Association, but others are adding their support. COCTA is modelling its strategy in favour of prompt payment legislation after Ontario's, where all of industry is on board. Labour also supports legislation that ensures workers get paid.

### Moving forward

Prompt payment is the best alue for tax payers dollars, since governments are currently paying more for infrastructure because specialty trades are building in the costs of slow payment. Trade contractors are shouldering the risk, and with no access to the prime contractor, this puts contractors at risk. In addition, slow payment creates an external cost to labour and labour relations in trying to recover wages and benefits

Every other western jurisdiction has reached the same conclusion—payment problems cannot be corrected through contract language. Prompt payment legislation is a win for small businesses and for government. ■



### Prompt Payment Highlights:

- Nationwide, \$46 billion in construction invoices remained unpaid beyond a 30-day period, an amount representing approximately 16 per cent of the estimated \$285 billion in annual construction activity in Canada.
- Between 2007 and 2012, the average duration of receivables increased by more than 13 per cent, rising from 62.8 days to 71.1 days.
- Laws that ensure subcontractors get paid on time are in already place in Australia, Ireland, New Zealand, the United Kingdom, and the United States. The European Union has adopted a motion to require all EU members to enact prompt payment legislation.
- Construction in BC is a \$16-billion-dollar industry and employs more than 225,000 men and women, making it the largest employer in BC's good sector.



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# GET OFF THE Low-bid Treadmill

By / James Careless

Whatever their specific trades, many trade contracting businesses are stuck on the ‘low-bid treadmill’. They make their living fighting for contracts where only the lowest bidder wins. The result for the winner is a skinny profit margin – if it exists at all – that keeps their firm in a chronic state of financial crisis; one where expansion, decent wages, and a nice income seem like impossible dreams.

Fortunately, it is possible to revive your trade contracting business’ prospects and get it off the low-bid treadmill. With the right moves, you can advance onto higher margin projects that will pay you better while relieving your firm’s financial stress.

Here’s how firms get on the low-bid treadmill, and how they can get off.

## The Low-Bid Treadmill Trap: How It Gets Sprung

As an experienced contractor business coach, George Hedley spends his time advising contractors on ways to make their businesses more profitable.

Hedley is the person who coined the phrase ‘low-bid treadmill’. It is a term he applies to contractors who live and die by low-bid contracts—and Hedley says they only have themselves to blame for being snared in this trap.

“A company ends up on the low-bid treadmill when they hope and wait for potential customers or general contractors to phone them and say, ‘bid my work,’” George Hedley explained. “These companies don’t do anything pro-active to find new jobs or customers themselves. They spend zero time and money on marketing their companies to potential new clients, and they don’t improve themselves to access better job opportunities and higher-paying markets: They go for whatever gets offered to them.”

By becoming reliant on low-bid jobs, such contractors turn themselves into easily-replaceable commodities. From a general contractor standpoint, the main thing that differentiates one low-bid qualified subcontractor from another is how low they’ll go on the price. Almost everything else is interchangeable.



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## ▪ Low-bid Treadmill

To say the least, it can be demoralizing to be a low-bid contractor. There never seems to be enough money, and the pressure is always on to find the next paying job. Wages have to be kept down to stay within low-bid contracts, depressing the tradespeople who stay with the firm, and motivating the better ones to move to higher-paying jobs whenever they can.

In such a situation, it is not surprising for any contractor to go downhill. To revive their business, they have to take steps to leave the treadmill. Hoping someone will call with a higher-margin contract just won't happen.

## Getting Off The Treadmill

The first step to getting off the low-bid treadmill is accepting that a change must be made. Specifically, "your business cannot be all about low price," said Ronald Coleman; a contracting business consultant/solutions provider ([www.ronaldcoleman.ca](http://www.ronaldcoleman.ca)). "Instead, to command higher prices from general contractors, you need to stand out in one or more of four areas to make it worth their while."

According to Coleman, these four areas are completing jobs on time, staying within the job's budget, doing all work to the contractor's standards (not higher/not lower), and maintaining the customer's goodwill to get future work.

"You likely won't hit all four of these outcomes but as you get

better at it and get a reputation for meeting or getting close to these four outcomes you will raise the bar and get on more 'invitation only' bids," he said. "Doing that and improving your firm's certifications and skills to compete for highly demanding and more exclusive jobs will certainly take you to the next level and will also likely give you a better chance at doing design-build work and that's where the money is."

In addition to these points, it is important for trade contractors to become specialists in well-paying, highly-skilled areas of construction. At least, this is important to contractors who wish to win higher-margin contracts and better pay.

"There are lots of trade contractors who build schools, but not many who build hospitals because hospital projects have higher, more demanding standards and specifications," said Hedley. "This is why general contractors who build hospitals seek out the small group of trade contractors who have the necessary skills and expertise to do the work, rather than looking for the lowest bidder." Such specialized trade contractors get to charge more—raising their margins and leaving the low-bid treadmill.

Even for trade contractors who don't specialize, there is yet another way to get off the treadmill, and that is by investing in marketing and personal relationships with their clients.

"When you spend money on quality marketing materials, and take the time to take your general contractor clients to lunch and hockey games, it pays off: People think of you first at contract time," Hedley said. "In the same vein, looking for work when times are slow can lead your firm to better jobs with higher margins, rather than waiting for the phone to ring with low-bid requests."

If there is a moral to this tale, it is that contractors have the choice of staying on the low-bid treadmill, or doing the work necessary to get off it; making more money and reviving their businesses in the process. The work involves:

- improving the overall quality of your firm;
- figuring out what makes it unique and selling that difference;
- upgrading skills and capabilities to go after more exclusive, higher-paying jobs; and
- getting serious about marketing your services to potential customers, including building and maintaining personal relationships with them.

"You can get off the low-bid treadmill," concluded George Hedley. "Or not: It's all up to you." ■

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## VALUE ENGINEERING MADE QUICK AND EASY WITH FASTDUCT® ESTIMATING SOFTWARE

By Mike Postiglione  
FastEST, Inc. Director of Marketing

FastEST, Inc.'s collection of software programs offers numerous ways with which sheet metal contractors can improve and streamline their estimating process, from faster takeoffs to quick and easy customizable bid reports. One particular example that can be highlighted is the ease and speed with which estimators can make value engineering comparisons after an initial estimate is completed. Let's visit a particular example of this within the FastDUCT® program.

In this example, we have a partial takeoff of a school building. In the base bid, the rectangular duct and fittings were calculated as shop-fabricated galvanized metal, with a 1-inch acoustic liner. Round duct and fittings were taken off as spiral.

If we run a report on this estimate takeoff, the approximate results are: CDN \$ 17,227 in materials, 184 hours of shop labour, and 440 hours of labour in the field.

Now, let's say the estimator wants to see how the estimate's numbers might change if they utilized unlined rectangular duct and fittings, with a 2-inch fiberglass duct wrap instead. With FastDUCT®, it's just a few clicks of the mouse, and a new report can be run. The user simply needs to visit the takeoff and switch the applicable material spec being utilized—in this instance, change from the 1-inch lined duct spec to the unlined duct wrapped spec. There is absolutely no requirement to repeat the takeoff before a recalculation can occur.

Once the report is re-run, the revised numbers look like this: CDN \$9,808 in materials, 116 shop labour hours, and 408 field labour hours.

So, to summarize and compare our two reports:

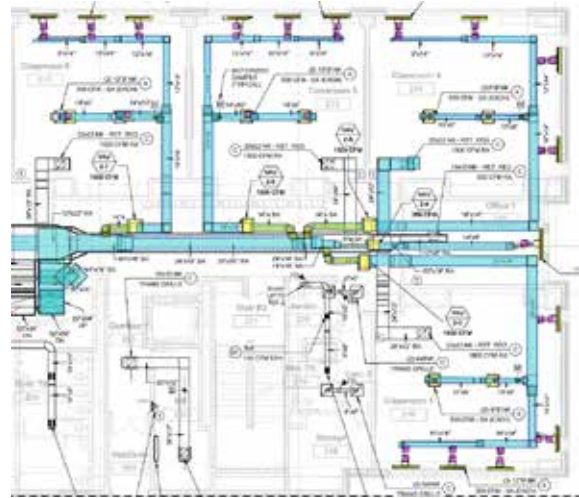
Original bid with lined ductwork and fittings: \$17,227 in materials, 184 shop hours, 440 field hours

Revised bid with bare ductwork and duct wrap: \$9,808 in materials, 116 shop hours, 408 field hours

Now, in the instance of this revised scenario, an insulation subcontractor quote would need to be integrated, which we could run a rough budget number off of the calculated duct wrap square footage of 5,076 square feet at CDN \$2.50 per square foot, totaling approximately \$12,690 in mechanical insulation cost.

That said, even at a glance, we can see the difference in material costs (about CDN \$7,400) and labour hours (about 100 hours combining the shop and field) is at least worth

comparing, and thereby considering the inclusion of a value engineering alternate bid option to the client.



This value engineering task can also be completed in our FastPIPE® and FastWRAP™ estimating programs, especially on projects where material or labour changes can make a large difference in base bid versus value engineering bid comparisons.

*Continued on page 23*

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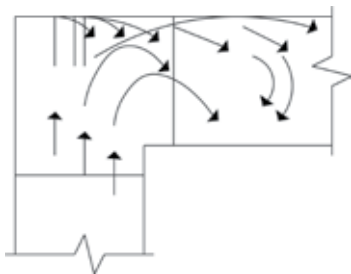
## TURNING VANES

Turning vanes in HVAC ductwork are perhaps one of the greatest sources of conflict between sheet metal contractors and HVAC engineers. Why? Because many mechanical/sheet metal contractors believe turning vanes can cause the ductwork to become less efficient by increasing the pressure drop in the system and by adding expense and time to the installation. This belief seems to be based on simple logic: when there is more surface area exposed to the airflow, the amount of friction will be increased, and the harder the fan must work to achieve the required airflow.

In some cases where the HVAC system is having difficulty supplying the required volume to all zones, contractors want to recommend the removal of every second turning vane to reduce the friction in the duct. This practice is in violation of SMACNA turning vane spacing requirements, because it decreases the uniformity of the airflow and increases system pressure drop. The real question is, does reality match up with popular beliefs?

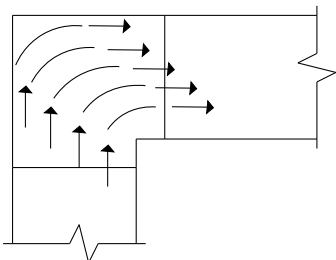
When there is a change in direction in a duct that has no turning vanes, the duct walls must absorb the sudden impact of the air in order to re-direct the airflow to the desired direction. Turning vanes assist the airflow in making a smoother and more gradual change in direction, thus transferring less impact and less force to the duct walls. While the turning vane surfaces do add a small amount of friction, the amount of energy lost to friction from the vanes is very little compared to the energy lost in the impact resulting from the airflow taking an abrupt change in direction. Figures 1(a) and 1(b) show the airflow resistance that occurs in a 90 degree elbow with and without turning vanes.

Figure 1a: Inefficient (height/width = 1.0)



Lack of turning vanes causes excessive turbulence in fitting: result is high pressure drop.

Figure 1b: Efficient (height/width = 1.0)



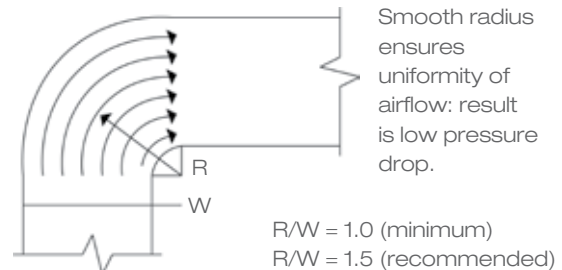
Turning vanes ensure uniformity of airflow: result is very low pressure drop.



by / Norm Grusnick, P. Eng.  
Commercial products manager, ECCO Supply

From these figures it can be seen that the elbow with turning vanes is much more effective than the same elbow without the vanes. If the client desires a less expensive installation, the design engineer may specify a radius elbow without turning vanes. A radius elbow is still highly effective but with a recommended 1.5 center line radius it occupies a lot more space. Figure 1(c) shows a radius elbow.

Figure 1c: Efficient (height/width = 1.0)



In all cases above it can be seen that as the airflow changes direction more gradually, the fitting pressure drop decreases and with it the energy required by the system fan to supply the desired airflow volume.

Turning vanes are proven very valuable for reducing pressure losses and increasing system efficiencies. Designers should always specify fittings with the highest possible efficiency to increase system efficiency at every available opportunity. Contractors should never take it upon themselves to add or remove turning vanes from the engineer's design.

### References

American Society of Heating, Refrigeration, and Air-Conditioning Engineers Inc. (ASHRAE) 2017 ASHRAE Handbook-Fundamentals.

Sheet Metal and Air Conditioning Contractors National Association Inc. (SMACNA) HVAC Duct Construction Standard-Metal and Flexible Third Edition 2005. ■

## WHEN TIME ISN'T ON YOUR SIDE

A contractor may be asked to provide a homeowner with an estimated schedule for completion before a project starts. While there are always contingencies and unforeseen circumstances, projects can get delayed and extend well past expected deadlines.

As was made clear in *Sanwo Enterprise Ltd. v. Huang*, 2018 BCSC 31, a deadline provided in an estimate can form a fundamental term of the contract that a contractor will be liable for failing to meet.

### The Facts

In or around May 2013, Ms. Huang (the “Owner”) retained Mr. Feng (the “Contractor”) to manage the construction of a two-story detached house and coach home in South Vancouver, pursuant to a written contract (the “Contract”).

The Contract included a “Project Duration” clause, which estimated completion of the project to be seven months from the date of obtaining the building permit. The clause also included a qualification that project duration may be extended for reasons including bad weather, changes made to the drawings or house structure, delays in material purchases, and uncooperative owners.

On July 8, 2013, the building permit was issued and construction began. However, significant delays and related disputes in the course of construction led to a breakdown of the relationship between the Owner and Contractor.

The Owner emphasized to the Contractor on multiple occasions the need for timely completion of the project. The Owner even attempted to execute a new addendum to the Contract solidifying an exact completion date, which the Contractor refused to sign.

After further delays and breakdown of the relationship, the Contract was terminated in June 2014, prior to completion of the project.

The Contractor sued the Owner for non-payment of management fees and cost of the work done by subcontractors that he covered on the Owner’s behalf. With respect to delays, the Contractor argued that the delays were caused by the Owner’s constant changes to construction plans and failure to issue payment to sub-contractors in a timely manner.

Conversely, the Owner took the position that the delays were caused by the Contractor’s incompetence in being able to effectively manage construction of the project. The Owner counterclaimed for breach of contract, arguing the work was deficient, took too long, and for costs incurred to retain a new builder to complete the project.



by / Andrew Delmonico and Matthew T. Potomak

### The Decision

Ultimately, the Contractor was found liable to pay damages for breach of contract, which was partially off-set for amounts he paid to sub-contractors on behalf of the Owner.

Even though the Court found that the estimated seven-month completion date in the contract did not expressly require strict compliance, the Court inferred based on the surrounding circumstances that time had become of the essence in completion of the project.

The evidence showed that after 11 months of the building permit being issued, the project was only about 55% complete. The Contractor was found to have deprived the Owner of the benefit she was to receive under the Contract, despite the fact that she caused some delays herself. The Contractor was ultimately deemed to have repudiated the Contract in failing to effectively manage the project site and bring the project to a timely completion.

### Lessons Learned

1. A contractor may not be required to strictly comply with a contractor may not be required to strictly comply with time estimates in the absence of an express contractual provision requiring this. However, in certain circumstances, the court may imply that “time is of the essence” to performance of the contract and hold a contractor responsible for delay costs. As such, contractors should be sensitive to timelines even when they are just included in estimates.
2. A contractor should document all owner-caused delays in the course of construction to ensure solid evidence exists to defend against potential delay claims by an owner. ■

*This article was written by Andrew D. Delmonico, and Matthew T. Potomak, Articled Student, who practice in construction law with the law firm of Kuhn LLP. This article is only intended as a guide and cannot cover every situation. It is important to get legal advice for specific situations. If you have any questions or comments about this case or other construction law matters, please contact us at 604-864-8877 (Abbotsford) or 604-684-8668 (Vancouver).*

## 7 ESSENTIAL PARTS OF SAFETY LEADERSHIP

A question was posed by a safety person asking what are the traits that make up safety leaders. Asking which traits make a good safety leader is like asking which auto parts make the best car. Is it parts that make a customer choose BMW over a Mercedes or a Dodge Ram over a Chevy Silverado? Nope. Not parts. It's the whole package.

A car is tangible. You can see it, touch it, smell it, hear it, and drive it. It is a thing you control when you are behind the wheel. Leadership, of the safety variety, is much the same except you can't see it, touch it, smell it, or hear it. But you can drive it.

Having a collection of car parts on your front lawn is useless. Having those parts assembled by a skilled technician is what makes it a car. Leadership traits mean nothing unless assembled by a skilled technician. Then, the collection of parts must be driven by a proficient driver.

Leadership is not a position. It is an attitude. Management is the position. One has nothing to do with the other. Safety, too, is an attitude. It is a state of mind and a way of living your life.

Do you need air conditioning to drive a car? Or heated mirrors? No, but they do add to the comfort level. Every vehicle has a list of necessary parts and another list of optional, comfort parts.

Safety leadership has a list like that. There are optional parts and traits of safety leadership. But there is also a list of necessary parts.

Here is a list of 7 essential parts of safety leadership:

1. **Honesty** - which comes wrapped in accountability and responsibility. Any attempt to deflect accountability negates honesty. Honesty is the trait that allows leaders to be vulnerable and accept that they don't know everything. You can't fix what you don't know, but you won't fix what you cover up.
2. **Communication** - key to keeping yourself and others safe on a job site. If no one is talking, then no one is listening. When no one is listening, instructions get missed and people get hurt. Communication doesn't include scolding or lectures. People don't respond well to that. Communication involves conversation. People engage in conversation. When they engage, they pay attention.
3. **Confidence** - without it, you're not a leader. When a worker lacks confidence in performing the job, others are put at risk. Scold a worker and they will lose their confidence. Lack of confidence is a distraction. When job site setbacks occur, people turn to those who display confidence and who possess an "I've got this" attitude.
4. **Commitment** - perhaps the most contagious of all traits. Working alongside those without commitment to the job



by / Kevin Burns  
Management Consultant

is tenuous. If you're not committed to the job, you're not committed to safely doing the job. When surrounded by those with commitment to safety, you feel more confident. Commitment includes focus and when workers are focused, they act safely.

5. **Positive Attitude** - regardless of whatever adversity you may face, your attitude is key. People focused on the worst attract the worst. People who can find the silver lining will always emerge as victors. Positive attitude people see what needs doing and take action instead of wallowing in fear. A positive, supportive job site tends to attract those who will contribute to it.
6. **Intuition** - when you plug into your surroundings, you can see what is coming and prepare for it. There is a quiet confidence in observing first, then internalizing what you've had happen before. When you can "know" what is about to happen, you can prepare yourself and those around you. You can address issues before they become issues. The tough decisions are easy to make when you can depend on your gut instinct for answers. Learning to trust yourself is as important as your team learning to trust you.
7. **Sense of Humor** - there is no reason safety can't be fun. The benefits of being safe are being happy and joyful. So why can't we laugh on the job site? It's tough to laugh when you're frightened. If there's no laughter, there's no teamwork. But when you and your team have confidence, communication, and a great attitude, there's no reason that you can't have fun at work. Humor allows people to comfortably settle into their safe work.

People buy in to the leader long before they ever buy in to the safety program. Are you the person that your people can depend upon to give good advice, treat them fairly, and have their backs? People follow people, not titles. Be a great leader. ■

*Kevin Burns is a management consultant, international thought-leader in workplace safety, and a speaker based in Calgary, Alberta, Canada. Kevin has authored 10 books on human performance and safety, including his most recent release, PeopleWork - The Human Touch in Workplace Safety.*

INDUSTRY NEWS

Continued from page 10

Horizons Foundation Futures Study. Tough questions they asked were:

*Are SMACNA contractors investing in the future or hanging on to the past?*

*Can we release our attachment to jurisdiction in multi-trade fabrication?*

*Are we able to embrace being a factory?*

*Solutions first.* “More and more dollars and manhours are moving to contractors who provide solutions first, prices second,” Gast said. Does this favor union contractors? Straight-line sheet metal contractors? Full mechanical/electrical/plumbing contractors?

*Technology wins.* “The people who control the data will control the work,” noted Gast. “Technology is growing exponentially, especially the Internet of things (IoT).” He encouraged everyone to think how the IoT is going to change things very shortly in the next one to three years.

*Change is inevitable.* “We’re going to have to change if we want to be successful,” Gast concluded. “The future is bright, but it involves changes,” Simon stated, adding, “Be nimble, be viable. There’s nothing standing still right now.” Nurture change and commit to one thing you’d like to do as a team when you get home.”

*Blue Angel soars to lead.* John Foley, former lead solo pilot of the Blue Angels, closed the event by delivering a high-energy address explaining in great detail how he performed in an extreme, high-stakes environment, flying at speeds of more than 500 miles per hour and in formations as close as 18 inches apart. He said it wasn’t dangerous, just “extremely unforgiving.” In this

environment, John went on to explain how he relied on a culture of high trust and leadership to turn inherently “unforgiving flight” into extraordinary experiences. His visualizations, which captivated everyone, served as extreme metaphors to motivate teams to reach for their highest potential.

*Take-aways.* Both Sellers and Knox summed up the meeting by sharing that the secret to getting ahead is getting started. Attendees were encouraged to continue the goodwill and positive momentum by scheduling a meeting with their counterparts and discuss one of the programs/projects covered at Partners in Progress and report back. Presentations and handouts from Partners in Progress are available at [www.pinp.org/conferences/pinp18/schedule](http://www.pinp.org/conferences/pinp18/schedule). ■

FEATURE FOCUS

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