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# Sheet Metal Journal

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British Columbia

## Assignment of Design to Constructors: Part 3

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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 \(SMACNA-BC\)](#)

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## FEATURES

### 8 ASSIGNMENT OF DESIGN TO CONSTRUCTORS: PART 3

Part 3 of a series on assignment of design to constructors, discussing forms that help contractors know and understand how to document these projects.

### 14 CONFERENCING AS PARTNERS

When labour and management attend conferences and other learning events together, everyone wins.

### 16 PSF MECHANICAL: A MODEL OF EFFICIENCY

This Western Washington SMACNA contractor digitized some key areas of the business using the British Columbia-based BuildCentrix sheet metal-specific software.

## DEPARTMENTS

4	EDITORIAL	19	CONTRACTOR'S ADVICE
5	MEET THE BOARD	20	ENGINEER'S DESK
6	INDUSTRY NEWS	21	IT'S THE LAW
6	CALENDAR OF EVENTS	22	ADVERTISER INDEX
18	FEATURE FOCUS		

## CELEBRATING SMACNA-BC, MEMBERS AND PARTNERS

### SMACNA-BC Turns 50

You may have heard the news: SMACNA-BC has an important birthday this year, and all members and their families are invited to participate in the 50th Annual General Meeting and Convention, which is scheduled for May 9-11 at the Delta Grand Okanagan Resort in Kelowna, BC. As usual, we have a stunning line-up of speakers, activities, and social festivities to help you help us ring in this association's fifth decade.

We kick off Thursday evening with hotel and convention check-in beginning at 4 p.m. After you are settled, come say hello to old friends and new at the opening reception from 7-10 p.m., which will feature your beverage of choice, appetizers, and a late-night dessert.

Friday begins at with opening breakfast, as delegates get ready for the various activities taking place throughout the day. Golfers won't want to miss the chance to play a round while taking in the natural beauty and incredible facilities at The Harvest Golf Club, which boasts wide fairways, amazing walkability, breath-taking panoramic views, and more than 800 fruit trees decorating the fairways. Thoughtfully carved through fruit orchards, several acres of the property remain devoted to working apple and wine grape orchards. If you haven't booked the chance to visit this amazing course yet, do it right now. You won't regret it.

Wine-loving delegates may visit the South East Kelowna Wine Trail Tour, which meanders in a luxury shuttle bus along a custom wine trail tour with knowledgeable wine guides to lead the way. After enjoying stops and tastings at some smaller, boutique-style wineries, including The Vibrant Vine and The View Winery and Vineyard, the group will gather to enjoy a wonderful lunch at the Summerhill Pyramid Winery.

Those who appreciate the open air and vast waters may sneak away for a four-hour yacht charter on Okanagan Lake. Learn a little about sailing and the history of Okanagan Lake, and enjoy the company aboard. The captain will take you to his favourite spots for clean wind and clear water for swimming and lounging onboard or on the water. Enjoy a specially prepared picnic lunch while the boat is anchored.

There are always some in the crowd who are young at heart with a penchant for fun—those folks can check out Scandia Golf & Games for a fun-seekers ideal afternoon. Release your inner-Andretti while racing go-karts, knock some mammoth home-runs in the batting cages, take aim in the shooting gallery, try your hand at mini golf, or take a crack at more than 140 arcade and redemption games. Bring your kids, or let the kid in you run free!



By / Bruce Sychuk, Executive Director, SMACNA, BC

Whatever you get up to on Friday, save some energy for the Anniversary Reception and Anniversary Celebration in the evening. Relax and enjoy the musical, comedic, and magical wonders of Andrew Jones, Tracey Bell, and Wes Barker. Sit with friends, reminisce over SMACNA-BC experiences, and enjoy a tasty dinner, delicious desserts, and specially mixed drinks.

Before getting down to business on Saturday, don't forget to rise and shine early enough to participate in the Air System Supplies annual fun run event. You can walk, you can jog, you can speed, or you can push your kids in strollers—any effort and everyone is invited to stretch your legs and get some fresh air and exercise on a mapped-out route along the lakeshore. The Air System Supplies Fun Run is for your own enjoyment and health—and be sure to grab a prize at the end!

Time to zero in on business from 10-12 as the annual general meeting brings the board and membership together for 2018 reports from the board members and members are elected to fill open board and committee seats. Attendees will be caught up on association activities, fiscal information from the past year is shared, and questions are addressed. All guests are welcome and encouraged to attend.

The grand finale to this celebratory anniversary event will be the elegant, black tie 50th Anniversary President's Ball, which will be full of memories covering the past 50 years of SMACNA-BC. This is your chance to express gratitude to Aaron Smith for a job well done as the 2018-19 president, and welcome Bernie Antchak as he begins his 2019-20 reign in the leadership seat. End the weekend right, with an evening of wine, dinner, awards, dancing, and entertainment from Kelowna's best nominated premier dance band, **Easy Fix**. Running along side the President's Ball, from 5:30-10:30, the kids' party will feature the spectacular services of [www.nannysitters.ca](http://www.nannysitters.ca), who say the fun never ends! Kids can enjoy a kid-friendly meal, supervised video games, arts and crafts, movies, toys, and games. We hope to see you all there.

### SMACNA-BC & ASHRAE-BC Technical Session

Ninety-eight participants gathered in Surrey this past March to attend a joint technical session with SMACNA-BC and ASHRAE-BC.

ASHRAE-BC chapter members, architects, engineers/consultants, building officials, inspectors, specification writers, building owners, and fire marshals were invited to advance their knowledge of the HVAC industry through the use of SMACNA standards at this one-day event.

This intensive program provided technical information to learn the methods and concepts of SMACNA's technical standards, which in turn enhanced participants' abilities to provide well-designed, constructed, and cost-effective projects for clients. Topics covered included information from SMACNA's technical manuals, including HVAC Duct Construction Standards, HVAC Air Duct Leakage, HVAC Systems Duct Design, and Fire, Smoke, and Radiation Damper Installation Guide for HVAC.

SMACNA-BC would like to thank presenters Eli P. Howard, III, executive director, technical resources for SMACNA, Inc.; Mark Terzigni, director, engineering and technical resources; and Shawn Ohara, Project Manager, Technical Resources, SMACNA, Inc. for their contributions of time and knowledge to the betterment of our industry.

I would also like to take this opportunity to thank our participating SMACNA-BC contractor members who expended time, effort, and expense to provide the valuable hands-on assorted mock-ups that were displayed. Thank you to:

- Summit Sheet Metal Ltd. - Fire damper wall mock-up
- Apollo Sheet Metal Ltd. - Assorted TDC/S&D fittings
- ECCO Supply - Slab duct display/insulated oval pipe/misc. fittings
- Norm Grusnick, BC Insulation Contractors Association, along with Aarc-West HVAC Solutions Inc. - Fire wrapped insulated grease duct/aluminum lagged duct.

### New Members

SMACNA-BC proudly welcomes new members Samson Metals, Inc., HVAC Systems & Solutions Ltd., and National Air Technologies. Samson Metals is growing to become a leader in the manufacture of metal roll-formed products and structural sections. As well, Samson can offer coil, flat sheet, standard and custom flashings, fasteners, closures, caulking, and various other accessories typically required for installation work. It focuses on supplying quality products and superior service. Learn more at [www.samsonmetals.com](http://www.samsonmetals.com).

HVAC Systems & Solutions Ltd. provides unique solutions and exemplary customer service during all stages of a project, including design, sales, shipments, commissioning, and continued support. It specializes in product-based solutions for healthcare, commercial, industrial, data centres, residential, and hotels, providing guidance to engineers, contractors, property managers, owners and architects. The company prides itself on being

leaders in the industry and integrating its core products into the design of each project. Read more at [www.hvacsystems.ca](http://www.hvacsystems.ca).

National Air Technologies provides Vancouver and the Lower Mainland with superior HVAC cleaning, duct cleaning, and dryer vent cleaning as it has for the past two decades. As a dedicated, certified and insured company offering competitive pricing, National Air Technologies guarantees respectful service by professionally trained technicians. Obtaining reliable information and measurable outcomes allows National Air Technologies to diagnose potential performance failures and to provide customers with comprehensive information that will help guide them toward safer and cleaner living. Visit National Air Technologies at [natech.ca](http://natech.ca).

Samson Metals, Inc., HVAC Systems & Solutions Ltd., and National Air Technologies, along with all SMACNA-BC associate members, recognize that the SMACNA-BC Associate Member Program is an important element for connecting company products, services, and people with the industry's major specifiers, buyers, and decision-makers, strengthening and raising the bar on quality in our industry. ■

## SMACNA-BC MEETINGS & EVENTS

<b>May</b>	<b>9-11</b>	<b>50th SMACNA-BC AGM &amp; Convention Kelowna, BC</b>
	<b>14</b>	<b>Board of Directors Meeting</b>
	<b>28</b>	<b>Conference Board Meeting</b>
<b>June</b>	<b>11</b>	<b>Board of Directors Meeting</b>
	<b>21</b>	<b>Young Executives Committee Meeting</b>
	<b>20</b>	<b>Lower Mainland Dinner Meeting</b>
	<b>25</b>	<b>Joint Conference Board Meeting</b>
<b>July</b>	<b>9</b>	<b>Board of Directors Meeting</b>
<b>August</b>	<b>13</b>	<b>Board of Directors Meeting</b>
<b>September</b>	<b>10</b>	<b>Board of Directors Meeting</b>
	<b>13</b>	<b>Golf Classic, Northview GC</b>
	<b>19</b>	<b>Young Executives Committee Meeting</b>
	<b>19</b>	<b>Lower Mainland Dinner Meeting</b>
	<b>24</b>	<b>Joint Conference Board Meeting</b>
<b>October</b>	<b>8</b>	<b>Board of Directors Meeting</b>
	<b>20-23</b>	<b>SMACNA Inc. Annual Convention JW Marriott Austin, Austin TX</b>
	<b>29</b>	<b>Joint Conference Board Meeting</b>
<b>November</b>	<b>12</b>	<b>Board of Directors Meeting</b>
	<b>21</b>	<b>Young Executives Committee Meeting</b>
	<b>21</b>	<b>Lower Mainland Dinner Meeting</b>
	<b>26</b>	<b>Joint Conference Board Meeting</b>
	<b>29</b>	<b>SMACNA-BC Christmas Party</b>
<b>December</b>	<b>10</b>	<b>Board of Directors Meeting</b>



## SMACNA-BC'S NORTHERN CHAIR REPRESENTATIVE: BRAD POPOFF

Brad Popoff is currently serving a two-year term as SMACNA-BC's Northern Chair Representative. He owns Equity Plumbing & Heating, Ltd., which specializes in new institutional mechanical construction, and is a member of the Mechanical Contractors' Association of BC and the Northern Regional Construction Association.

Popoff also owns FARR Fabricating Ltd., specializing in fabrication of structural steel, storage tanks, and specialty stainless steel products for the pulp and paper industry and FARR Installations Ltd.—a company that completes field erection of structural steel and storage tanks and tank lining and repair using exotic metals, also for the pulp and paper industry.

He has been in the business for 14 years, but his curiosity about how things work and are built began when he was a kid. He took computer drafting and CNC programming classes in high school and decided to pursue engineering as a career.

“After high school I attended BCIT and took mechanical engineering—systems option,” he says. “During my time at BCIT I had an instructor who had worked in mechanical contracting and said it was a very rewarding industry and there was lots of opportunity. I applied for a junior estimator position with a



large mechanical contractor in the Lower Mainland and was the successful applicant.”

Popoff worked in that shop for three years, during which time he was exposed to all facets of mechanical contracting. He then returned to BCIT part-time and received a Bachelor's degree in construction management, and the rest is history. Through his years in business he has grown confident in some key business philosophies that have contributed to his success: a company's best asset is its people, and you can't manage what you can't measure.

The greatest challenge the industry faces at the moment, says Popoff, is the lack of skilled tradespersons. “Especially in northern BC, it has been difficult to maintain a consistent level of work to carry an apprentice through their training,” he says. Of course, construction and the workforce in general are constantly changing for many reasons, including technology—with smartphones, for instance, people never really leave the office. Labour mobility and prompt payment are other areas in which the industry will see challenges and opportunities as these important issues evolve.

“Our biggest opportunity is demand from industry,” says Popoff. “Businesses don’t just create jobs because... there needs to be a demand. And with this demand it will allow our industry and businesses to grow.”

SMACNA has an important role to play in how the industry and businesses like Popoff's develop and weather the construction cycle, he adds. “Its role is advocating for the trade in industry and all levels of government,” says Popoff. “Also, the training and educational programs offered by the association are invaluable.” ■

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Jim is a professional engineer with over 30 years of experience working in the HVAC industry as a consulting engineer, an account manager for a global HVAC company, and most recently as the general manager and partner of an HVAC sales agency.

Jim has a vast array of experience in solving HVAC problems that arise during the design and installation processes. Jim provides innovative solutions that take into consideration all phases of a system's lifecycle: design, installation, and maintenance. Jim possesses extensive product and system knowledge from years of industry involvement, yielding innovative and economical solutions specific to the client's HVAC needs. Jim's focus is on building strong relationships with our partners—engineers, architects, contractors, building owners, and manufacturers. He embraces the opportunity to connect contractors, engineers, owners/end users, and architects with our manufacturers to foster teamwork and derive the best solutions.

Jim's experience and ECCO's commitment to supplying the ultimate value to our business partners by consistently delivering expert service and quality, innovative product will propel ECCO Supply™ to new heights in the Calgary market. ■

## SMACNA NATIONAL SAFETY SURVEY

It is that time of year again to take the opportunity to submit your 2019 SMACNA National Safety Survey. The online survey for SMACNA's 2019 Safety Excellence Awards Program is revamped and easier to use. Simply log on to SMACNA National's website at [smacna.org/safety/survey](http://smacna.org/safety/survey) to complete your survey.

Each year, SMACNA conducts this annual Safety Excellence Awards Program (SSEAP) to recognize members for their outstanding safety performance while collecting vital safety and health data. Many SMACNA members have benefited from this valuable program by winning safety awards or using the safety data to improve their safety and health cultures.

Your input is critical to the success of the program. Most information needed can be found in your company's 2018 injury and illness records. Submitting your survey is quick, easy, and confidential. See SMACNA's most recent Safety Statistics Profile 2018 on the Surveys and Statistics section of SMACNA's Safety webpage at [www.smacna.org/safety/surveys-statistics](http://www.smacna.org/safety/surveys-statistics).

If you have questions regarding the SSEAP, please contact Mike McCullion, SMACNA's Director of Safety and Health, at [mmccullion@smacna.org](mailto:mmccullion@smacna.org) or at 703.995.4027. ■



### 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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Alliance Metal Fabricators Ltd.	M&T Air Conditioning Ltd.
Allied Blower & Sheet Metal Ltd.	Northwest Sheet Metal Ltd.
Ames Metal Fabricators 82 Ltd.	Pacific Rim Industrial Insulation Ltd.
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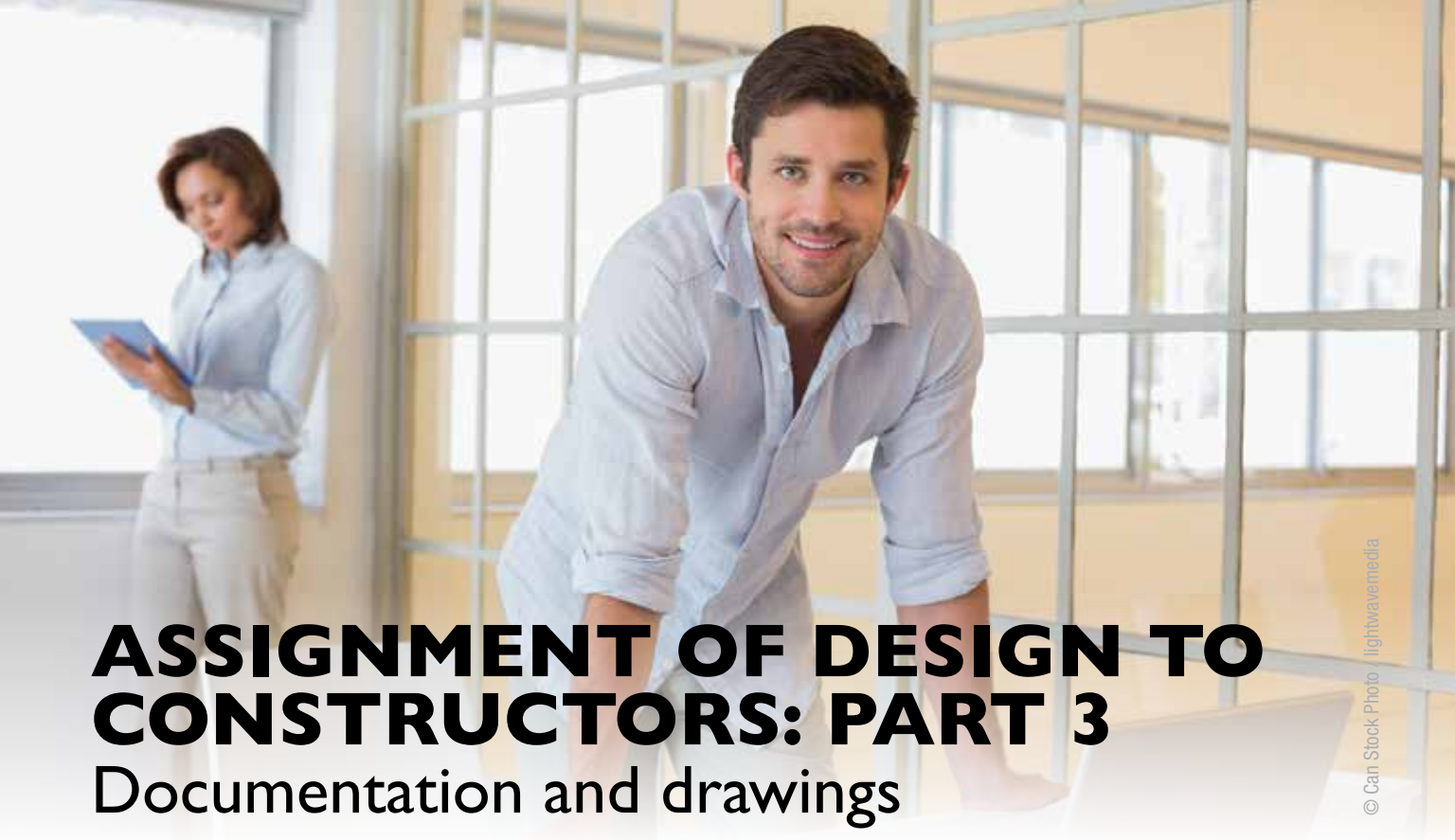
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# ASSIGNMENT OF DESIGN TO CONSTRUCTORS: PART 3

## Documentation and drawings

By / Keith Robinson, RSW, FCSC, FCSI, Cameron Franchuk, PE, and Gerald Murnane  
Reprinted with permission from *The Construction Specifier*, February 2019 issue.

**RECENT ISSUES** have caused responsibility for many design solutions to be transferred to the constructor, as mentioned in Parts 1 and 2 of this series. To properly complete deferred design, a solid understanding of regulations surrounding shop drawings, specifications, and other types of documentation is necessary.

### Documentation regulations

The *International Building Code (IBC)* does not require supporting registered professionals to submit documentation detailing their commitment to design and compliance following site reviews. However, this is required of the registered professional of record (RPR) so there is a record of assurances to address building permit and occupancy obligations to the authorities having jurisdiction (AHJs). The following are some examples of documentation regulations set by architectural and engineering associations in the United States and Canada.

#### **NYSED**

The New York State Education Department (NYSED) Office of the Professions requires professional engineers licensed by the New York State Society of Professional Engineers (NSPE-NY) and architects licensed under other jurisdictions to follow design delegation guidelines. These guidelines state a design professional may delegate through or accept delegations from a contractor or subcontractors for the design of certain

ancillary building components or systems when all parameters the design must satisfy are clearly stated, with a further ruling the supporting registered professional design the solution based on the RPR's performance specifications.

#### **EGBC/AIBC**

Two Canadian organizations, Engineers and Geoscientists BC (EGBC) and the Architectural Institute of British Columbia (AIBC), established guidelines for documentation mirroring each other's responsibilities, which are intended to be completed by the supporting registered professional and are retained by the RPR as part of the permanent project file.

#### **APEGA**

In Canada, the Association of Professional Engineers and Geoscientists of Alberta (APEGA) requires specialty professionals (i.e.; supporting registered professionals) to complete letters of commitment and compliance to provide closure to the responsibility of the applicable component of deferred or collaborative design, confirm whether site review is required to certify component completion, and offer assurance that the specialty professional is competent in the work being performed. These are retained by the RPR as a part of the permanent project file.



## PEO

Professional Engineers Ontario (PEO) in Canada requires specialty engineers (i.e.; supporting registered professionals) to complete the standard form for commitment to general review and letter of general conformance when site visits form a part of the work for assurance of installed components. These documents prove specialty engineers are qualified to perform the work being provided to the project and are retained by the RPR as a part of the permanent project file.

## Other Jurisdictions

Other jurisdictions have similar requirements for the supporting registered professional. Although not identified as well as in the previous references, some form of documentation indicating responsibility for the completed work is required from the supporting registered professional in these areas and is retained by the RPR as a part of the permanent project file.

For example, under the *Missouri Code of State Regulations (CSR)*, the rule 20 CSR 2030-21.020, "Engineer of Record and Specialty Engineers," includes definitions, communication and performance requirements, and participant responsibilities. Also, under the *California Code of Regulations (CCR)*, Title 21, Division 1-21, "Designation of Responsibilities for Public School Standards," includes definitions, the types of delegation that are permitted, and participant responsibilities.

Submittal of the various commitment and compliance documents identified by professional engineering associations establishes a similar relationship with the constructor's engineer as with the sub-consultants. They are responsible for their portion of design in a similar way as the coordinating professional of record (CPR), except liability associated with that risk is administered by the RPR.

## Document submittal and shop drawing expectations

Guidance governing the best practice expectations for treatment of various types of submittals and show drawings provided by the constructor during the construction period is similarly fractured between various engineering and architectural associations. Other forms of contract, such as the ones that are available from AIA and ConsensusDOCS in the United States, contain works describing responsibilities for 'signed and sealed' submissions specifically assigned to the constructor.

The following is a compilation from several associations.

## Purpose of Submittals

Submittals consist of product data, shop drawings, samples, certifications, design calculations, and other documents requested under the terms of the contract.

The intent of submittals is to provide information assisting the design professional in confirming the contractor's design



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The process of deferring design, whether or not there is contribution by a supporting registered professional, cannot absolve the RPR of overall responsibility for design contained within submittals presented by the constructor during the progress of the work.

solutions meet expectations communicated within the construction documents. They also provide suppliers, fabricators, and manufacturers with information allowing them to make required components of the project.

The RPR must clearly identify required submittals within the construction documents and limit the number of requests to those submittals needed to adequately describe the extent of the contractor's involvement by providing explicit communications associated with design solutions. Most forms of construction contracts allow the RPR to request additional submittals where reasonable interpretation of the contractor's approach to construction is required.

Design solutions can be deferred to the constructor as a component of the submittal review process provided there is clear indication of the extent of responsibility associated with providing them. The process of deferring design, whether or not there is contribution by a supporting registered professional, cannot absolve the RPR of overall responsibility for design contained within submittals presented by the constructor during the progress of the work.

**Third party responsibility (delegated design)**

Deferred design requiring a design solution necessitating engineering will need the seal and signature of a professional engineer for submittals associated with the following:

1. *Component design drawings:* These include submittals associated with structural elements and individual components, special connections, or equipment designed specifically for a particular application by the professional engineer acting for the fabricator, supplier, or manufacturer. This does not include submittals associated with pre-engineered components (described later in this article for assigned design submittals).

2. *Proprietary items:* These include submittals associated with

the proprietary solutions (such as open-web steel joists and steel decking) confirming the professional engineer takes responsibility for the selection of components forming a part of the engineering solutions for the project.

3. *Erection drawings:* Contractors' solutions not comprising part of the RPR's engineering responsibilities (such as temporary facilities, cribbing or soldier pile foundation supports, crane foundations, or loading sequencing and concrete forming drawings), where they may have an effect on the engineering required by the registered professional, may require some form of reliance statement in addition to signed and sealed erection drawings.

The same may be required from the constructor to provide design assurance to the RPR that work is being performed by qualified individuals.

**Third party responsibility (assigned design)**

This refers to deferred design requiring a design solution that does not involve engineering acumen and resulting seal and signature of a professional engineer for any submittals associated with the following:

1. *General arrangement drawings:* These are reproducible copies of drawings and specifications provided by the RPR for the express intent of use by the constructor for annotating general arrangement of construction and products. General arrangement drawings are not design related. Therefore, these drawings do not need to be sealed and signed by the fabricator's, supplier's, or manufacturer's professional engineer.

2. *Fabrication or detail drawings:* Fabrication or detail drawings do not require the seal and signature of a supporting registered professional because they normally do not contain design information. However, this is required when they contain design information requiring engineering.

3. Standard connections, components, or equipment: These components typically do not involve engineering design because they are comprised of elements selected from manufacturers' standard catalogue offerings or industry handbooks. However, standard component and equipment submittals require the seal and signature of a supporting registered professional specific to the elements needing engineering input by the RPR (such as connection loads between curtainwall or cladding applied to primary structure of the building or reaction loads applied by elevator installation to structure) or completion of design responsibility by the RPR.

An alternative to waiting for connection and reaction loading during the construction phase is initiating a design-assist arrangement with the affected construction types and equipment to obtain critical information required by the RPR to complete the design before issuing documents for bid or tender.

### Specification contents

MasterFormat includes specifications covering the need for submittals during construction and provides a location for describing the deferred design procedures within Division 01-General Requirements. These sections must include definitions and identify content appropriate to local practices associated with deferred, delegated, and assigned design and design-assist. They are applicable to all divisions within the MasterFormat and to all RPRs, regardless of their discipline, following the principle of, "Say it right in one location, and reference from all other locations within the document structure."

A complete listing of deferred design components necessary for the project must be included in the specification, describing deferred design procedures, making project requirements explicit to the constructor, and clearly identifying and incorporating costs associated with the design solution in bids for the project.

The authors note their own firm is not consistent in the way it currently describes deferred design. The firm has occasionally used implicit language describing requirements surrounding deferred design components, which does not state in complete, reliable, and identifiable terms the degree of responsibility being attributed to the constructor's design solutions.

### Technical Specifications

Specification sections can make identification of the different types of submittals required to administer the deferred design process more explicit to the constructor by referencing the document preparation guidelines publication, the CSC/CSI SectionFormat/PageFormat. This includes the following types of submittals, which must be provided before any onsite work starts.

#### 1. Action submittals

Submittals indicating the constructor's design solutions for constructibility and conformity with the RPR's engineering, which can include submissions such as letters of commitment and compliance, shop drawings, product data, samples, and other information requiring review and acceptance by the RPR.

#### 2. Informational submittals

Submittals necessary for coordination of the work associated with assigned design or for proof of performance where review from the consultant is limited to assessing items are in general conformance with stated performance requirements. This can include shop drawings (with limitations), certificates, testing reports, source and site quality control submittals, and qualification submittals.

#### 3. Special design submittals

A third potential submittal type forming a part of the deferred design process can be associated with special project procedures, such as documentation providing confirmation of sustainable design-related components.

As part of project record-keeping, any of these documents are usually submitted concurrently with any informational submittals. Individual technical specification sections must contain clear submittal requirements indicating which submittal



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type or combination of submittal types is required during the contract administration phase of the project. The specification must also contain accurate descriptions of the engineering, aesthetic, and performance criteria on which the constructor will base the design solution, including co-ordination of related requirements and cross-discipline communication.

### Drawing content

Drawings are the best place to identify and co-ordinate the deferred design content. This content must be explicit and should be located on the drawing set with the most impact on the design deliverables. For example, architecturally exposed structural concrete or structural steel is best identified on the structural drawing set, while the exposed layout of mechanical ductwork is best identified and fully illustrated on the mechanical drawing set. In these examples, the architect is usually the CPR, meaning content for deferred design components is fully identified on the architectural drawing set with references to the appropriate sheet locations and detail numbers.

Simply stating “see structural” (or mechanical, electrical, etc.) is not acceptable, since this misses the requirement for providing explicit direction to the constructor for design responsibility. Under no circumstances should a deferred design component be identified on the drawing sets that has not been directed by the RPR to prevent inadvertently transferring engineering responsibility to the constructor.

Deferred design content must be directed and reviewed by each contributing RPR and harmonized between each discipline so complete content is available in one fully co-ordinated drawing location. There should be clear indication to the constructor of loads, restrictions, geometry, and other design-dependent information the supporting registered professional or supporting certified/qualified contributor will need to complete design solutions.

### Contract administration processes

Contract administration requires corresponding review stamps for each action, informational, and special submittal associated

with deferred design components. Each discipline involved in review of deferred design components may have different responsibilities when it comes to applying review stamps, meaning action and information stamps are applied by different disciplines.

#### Assigned design submissions

All assigned design submissions are action submittals within the contract administration document review process.

#### Sustainable design submissions

All sustainable design submissions are informational submittals within the contract administration document review process.

#### Delegated design submissions

There are three components to reviewing content associated with delegated design elements, as follows:

1. *Action submittal (indication of commitment)*  
The constructor submits the supporting registered professional's indication of commitment to the project, describing the extent of its design responsibilities using recommended best practices from the local engineering association.
2. *Informational submittal (design solution)*  
The constructor submits signed and sealed design solutions prepared by the supporting registered professional, consisting of shop drawings and supporting information. This could include review of design calculations where the RPR requires additional assurance and only when requested. This submission must be completed before any work associated with the design solution begins and must contain the responsible supporting registered professional's seals and signatures.

There are exceptions to this process when other RPRs contributing to the original deferred design component are required to review the shop drawings. For example, the structural engineer reviews the design solution for general conformance to the project requirements where architecturally exposed structural steel is required. The architect reviews this same shop drawing as an action submittal. The indications of commitment and conformance do not affect the architect's review, meaning two review stamps are applied to the project: the informational submittal stamp by the structural engineer and the action submittal stamp by the architect.

3. *Action submittal (indication of conformance)*  
The constructor might submit the supporting registered professional's statement of compliance upon site review to confirm the design solution is required by the work being undertaken or when site modifications

alter the solution using the recommended best practice form from the local engineering association.

This submittal may not be necessary where the supporting registered professional is not required to conduct site reviews as a component of commitment to the project.

### Subrogation of design responsibility

There is tendency for supporting registered professionals to include language in the commitment and conformance documents to limit their responsibility and even make the CPR and RPR responsible for shop drawing content, which is inappropriate since *IBC* makes it clear that the CPR/RPR cannot assign their responsibilities for engineering or code compliance.

This is not to say the supporting registered professionals are not responsible. They will always be responsible for the deferred design solutions assigned to them because of the contribution being prepared by an RPR. This responsibility is limited only to what they provide to complete the design based on the complete engineering requirements provided by the RPR.

This relationship is clearly indicated within *IBC* and should require no further clarification by any of the contributing supporting registered professionals, provided the roles of the RPR and supporting registered professionals are clearly delineated and the deferred design process is applied correctly.

### Delayed submittals from supporting registered professionals

Supporting registered professionals sometimes supply the “preliminary documents” describing their design solutions as a component of the informational submittal and provide the signed and sealed documents at completion of the work as an indication of compliance. This is inappropriate. Delaying submittal of fully executed design solutions is akin to the RPR submitting building permit documents without a seal and signature, with a promise to the AHJs that work will only be certified on completion.

The relationship and requirements for design solutions provided by registered professionals are clearly indicated in *IBC*. Although submittals from the supporting registered professionals are not submitted to the AHJs, they must be treated the same as the RPR's commitment for complete documentation. Any submittal received that is incomplete, or that contains limitation clauses or disclaimers, should be returned to the constructor and marked 'revise and resubmit.'

Note: For more, see Part 1 in the fall 2018 issue of *Sheet Metal Journal*, and Part 2 in the winter 2019 issue. ■



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# CONFERENCE PARTNERS

By / Jessica Kirby

Reprinted with permission from *Partners in Progress* magazine, January 2019 issue. Read more at [www.pinp.org](http://www.pinp.org).

## THE 2018 PARTNERS IN PROGRESS CONFERENCE

was just one event that saw hundreds of labor and management delegates from across North America attend to learn more about each other, themselves, and the tools required to foster meaningful and productive relationships. A strong Canadian delegate team represented our local industry, bringing contractors and their craftspersons together for the combined benefit of the sheet metal industry in Canada.

What does that mean, exactly? How can all participants in the sheet metal industry commit to a mandate where they are 100% committed to progress and mutual benefit? Contractors and sheet metal workers in British Columbia see it as a matter of communication and trust, and of taking up learning opportunities together.

SMACNA-BC's Executive Director Bruce Sychuk says the association makes a concerted effort to draw new contractors and tradespeople to conferences like Partners in Progress—including Sychuk, six SMACNA contractor representatives from the British Columbia chapter and six Local 280 representatives attended the 2018 event.

“We hope all new people in our industry recognize the value in attending these events, and we try to get new people each time,” Sychuk says. “Conferences represent important opportunities to see everyone's success stories and failures so you can learn from that.”

SMACNA-BC aims to take at least five contractor members and apprentices to these kinds of events and polls participants at the end to see if they felt the experience was valuable. “These

guys are our future,” says Sychuk. “We want them to get a good look at what is ahead for them in the industry.”

In 2018, most of British Columbia's delegates were first-timers, including Phil McDonald, co-owner of Summit Sheet Metal and Kevin Taylor, owner of City Sheet Metal.

McDonald, who is also a member of Local 280's Joint Conference Committee, says his primary motivation for attending was interest in how other regions work together. “I wanted to learn about what we could do better in building relationships between contractors and our labor pool,” he says. “I was also looking for new, fresh ideas.”

McDonald was set to bring an apprentice along, but family commitments prevented that person from attending at the last minute. McDonald sees contractors attending with members of the workforce an important element of mutual success. “It just makes everything more successful because it helps create a good working environment,” he says. “It is nice to know what we are up against and vice versa.”

McDonald says he came away with a great deal of useful knowledge and tips to put into practice, but he was particularly excited about Kevin Doherty's talk on “Recruiting Quality Applicants” and Stephane McShane's “Critical Communication Skills for the 21st Century”.

“The workforce is constantly changing so we have to adapt,” he says. “It isn't a fact of whether you want to change; you have to change. We have the aging workforce so we have to work hard at fresh recruitment techniques.”



“With McShane, I always try to catch her presentations because how we communicate between labor and management is so important,” he adds. “Hence part of the motivation behind bringing an apprentice or one of our tradespersons to the event.”

As a member of SMACNA-BC's board of directors, Taylor felt attending the conference was a great opportunity to gauge how the association is faring compared with other Locals, understand the problems other regions experience, and stay ahead of the curve to avoid potential problems.

“The thing that was made clear to me is that we are leaders in our industry with how our Local and owners deal with one another,” he says. “I credit a lot of that to the open lines of communication made possible through the Joint Conference Board.”

He says the association and union in British Columbia work together to bring attendees and to ensure new individuals have the opportunity. “Giving more people opportunities to attend functions like this makes our industry strong, our relationship between our Local and owners stronger, and allows for new people to come up with new ideas,” he says. “It is a great reminder why it is important to have open lines of communication with one another and what happen in other Locals that don't.”

SMACNA-BC and Local 280 have an unprecedented relationship, given they meet nine times per year and address issues openly and with confidence in each other's ability to solve problems before they arise, Sychuk says.

“If you only meet when you negotiate, how can anyone get to know each other?” he asks. “It's important to foster these relationships because we all want to share the wealth and focus on training, developing new ideas, and networking, and not on months-long negotiations.”

Tara McDonald is a sheet metal worker with Quest Metal Works in Vancouver, British Columbia, and a member of Local 280. SMACNA-BC and the union co-sponsored Tara to attend the Partners in Progress—an experience McDonald says is one that should be extended to apprentices and other tradespersons because it helps explain the “political side” of the industry.

“A lot of sheet metal workers are unaware of that side of our unions, and I think it is very beneficial for us to get the chance to learn why and how our unions work,” McDonald says. “For example, we need to learn how to recruit more workers and why it is important to build relationships to keep our workforce strong. At these conferences we – the unions – learn how to bring back answers to these questions from the presentations and from hearing the experiences of others.”

She says great strides occur when employers trust a sheet metal worker to attend conferences and come back to relay their thoughts and opinions on strengthening the company by

***“If you're not at the table you're on the menu, which means if you aren't willing to put in, you won't get anything out.”***

sharing knowledge with their coworkers in the shop or field.

“It makes a worker feel like they can also have a voice for the brother/sisterhood that work so hard everyday,” she says. “Even just a little voice can go a long way.”

McDonald feels fortunate to have attended a number of conferences besides Partners in Progress and hopes more unions will send workers to learn answers not necessarily found in the shop or on site. “Several other people I know who have had the chance to go have great ideas that need to be heard,” she says. “And we will always have room in our unions for bigger, better ideas.”

Local 280 Business Representative Richard Mangelsdorf agrees and prioritizes extending these opportunities to new attendees. “That is one of the most important things for us—not just having the same few people understand the issues and why the relationship is important,” he says. “We don't want to keep sending the same three or four; we want to send a half dozen who have never been so they understand and learn why it is important to the industry to have the relationship we do with our contractors.”

Having attended in 2018 for the first time, Mangelsdorf understands how important it is that labor and management get off to a good start. “When it comes down to it, there is a bit of a dance that happens at the beginning where we have to transition from one kind of relationship to another,” he says. “In that transition is trust and being able to trust one another and know the other is not going to go behind your back or pull a fast one.”

If trust is disrupted on one side, it can sour the entire relationship, he says. “I've been fortunate in that those who built that relationship here from the beginning have always had trust in mind.”

Phil McDonald says John Foley's 2018 conference-closing address on high-performance teams was “mind-blowing” and left him with a sense of how important it is for contractors and the workforce to look ahead and have the courage to adapt to the industry's new reality and the possibilities that come with it.

“Foley's message was 'embrace change,' and that should be a motto for all of us,” McDonald says. “If you're not at the table you're on the menu, which means if you aren't willing to put in, you won't get anything out. There is no such thing as one side succeeding and the other not. We all have to succeed together.” ■



# PSF MECHANICAL

## A Model of Efficiency

By Jessica Kirby

Photos courtesy of PSF Mechanical

**PSF MECHANICAL** is one of the Pacific Northwest's leading full-service commercial mechanical firms. Its scope of work spans the United States, and its commitment to quality and leadership is more than 120 years old.

PSF Mechanical implemented the BuildCentrix field ordering software in the company's sheet metal division two years ago. It allows online ordering from the field with fitting and component specific parameters and mandatory fields so orders are correct and the process is streamlined and efficient.

Recently, the company began using BuildCentrix timecards in the company's fabrication shops and in the logistics (shipping, receiving, delivery) areas—this module produces real-time labor and production data that can be integrated with materials and other cost factors to measure productivity, efficiency, and areas for improvement.

“We've got probably 23 field foreman ordering using BuildCentrix, and we have about 32 using timecard,” says Talo Balderrama, shop general foreman for PSF Mechanical. “We are looking to expand that to other departments of the company and are just trying to figure out whether the detailing department can also use it.”

The ordering portion is a time-saver in the shop, says Balderrama, since data needs only be entered once and imported to wherever it is needed. “It also saves time, error, and a step because the system self-corrects you if you mistype a dimension,” he adds.

“It will tell the user that the recommended length for the fitting input entered is X. So, we know a number of issues that could have arisen are already taken care of before we see the order.”

Prior to using BuildCentrix, PSF Mechanical crews were filling out job order sheets by hand, naming the job number, job name, time in, and time out, but it wasn't uncommon for forms to be illegible, have conflicting information, or have information missing.

“Often I would have to track down a job number that didn't match with the job name, or if a field was left blank I would have to figure it out by asking the employee,” says Balderrama. “I can't tell you how many timecards didn't add up to eight. That was just the start—sometimes even reading handwriting was impossible.”

The BuildCentrix timecard eliminates these issues. Job names and numbers and time in and out must be inputted and must match or the user can't click “accept”.

“Missing information is not an issue, which saves me time because I don't have to check as closely,” says Baldemmera. “I save, easily, 50 percent of the time I used to spend on timecards, and I am aware of what everyone is doing. If anything feels wrong, it is much easier to check mistakes and get the problem fixed.”

The payroll department was a bit resistant to the timecard implementation at first, uncertain the information BuildCentrix

gathered would import correctly to the company's Spectrum accounting software. "It took some convincing, but now they are enjoying the same benefits the shop is," says Balderamma. "The information they receive is confirmed and has no errors."

Martin Marty, application support specialist for PSF Mechanical, says excellent customer support from BuildCentrix was essential in making the integration a success. BuildCentrix built a custom export report that PSF can import directly into Spectrum to facilitate communication between the two programs.

"This has been great because it still allows accounting to review the exports and adjust if needed and then easily import that into Spectrum using the Spectrum Data Exchange add-on in Excel," says Marty. "We recently built background services that automatically create new jobs in BuildCentrix and assign proper phase codes to each job using the new API BuildCentrix developed and our Microsoft Business Intelligence software that tracks all of the projects."

The quality of the data has not been affected since PSF Mechanical started using BuildCentrix for its time tracking—if anything it became better and more accurate.

"The entire process is very simple and I have not seen any other product like BuildCentrix," says Marty. "We have tried numerous time tracking software in the past and failed miserably; BuildCentrix was the game changer for PSF."

**"Some of the guys were reluctant to try software and wanted to stick with pen and paper, but within three days everyone was on board."**

People working in the shop have varying levels of tech savvy, says Baldemerra. "Some of the guys were reluctant to try software and wanted to stick with pen and paper, but within three days everyone was on board. Training people who were using the previous method is much easier, since the information is already provided, and training new people is simple because they don't know any other way."

Balderrama says the company will use the information generated by the timecard module for more accurate and specific review and monitoring of other company functions. Most importantly, the process has been streamlined and smooth, and BuildCentrix has provided nearly immediate response to any problems that have arisen.

"When we need to address something, the shop manager will email BuildCentrix and they are really good about jumping right on it, or responding right away to let us know they will get to it as soon as they can," he says. "That has impressed me the most. I am a big customer service advocate and when there is an issue, I want a solution on my time, not someone else's." ■



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## 4 WAYS FASTDUCT® 18 MAKES ESTIMATING FASTER AND BETTER THAN EVER

At the turn of 2019, FastEST, Inc. released the latest and greatest versions of its estimating software programs. FastEST is well into its third decade of providing top-tier estimating solutions and continues to improve upon the already award-winning FastDUCT®, FastPIPE®, and FastWRAP™ programs. The programs have changed and improved in a variety of ways. Let's take a look at a few of the examples within the FastDUCT® 18 program.

### Improved takeoff interface

As technology evolves, FastEST is staying on the cutting-edge. The latest version is programmed to be able to handle the details and intricacies of HD, ultra HD, and 4K monitors. The display, both in-program and, most importantly, in the takeoff screen, is now higher-resolution with an optimized layout. The simplified takeoff screen design streamlines how the buttons are organized, plus increases the plan viewport window, so users can see more of their digital plan as they takeoff. This improved takeoff screen means faster takeoffs than ever before, which means more bids completed faster and more awarded projects in a contractor's backlog.

### New features galore

Within the latest version of FastDUCT®, there are many new,



innovative features available, along with the opportunity to add more features down the road. One example is our new Visual Deduct takeoff tool, which grants users the ability to takeoff on the digital plan with highlighted mark-ups like usual, but it will actually count towards deducted work, or perhaps change order work (where there is some removal but some new work installed as well, for example). Another instance of a new feature is the ability to create scalable assemblies so that a kit of parts (for example, a run of multiple ducts on a trapeze hanger) can be scaled off in linear feet.

### File compression, program speed

The file structure has changed with the latest versions of the FastEST programs, as well. These changes “under the covers” wouldn't be easily explained to a layman, but the bottom line is, the changes affect estimators, project managers, and other users of the programs for the better. Files have been compressed, which means faster saving of estimate data, quicker report calculations, and faster real-time movement within the active takeoff screen. It's also very handy for improved file back-ups, so estimates can easily be recovered should a user's computer crash or if the network connection gets interrupted.

### Benefits for multi-user and network users

This file compression also extends benefits into the realm of contractors who use our program within an office, across multiple users, and especially in a networked environment. Users sharing a network database experience exponentially improved response times accessing their estimates and the program catalogues, and within the takeoff and report portions of the programs.

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## GETTING THINGS DONE: URGENT VS IMPORTANT

Making decisions about controlling your time and utilizing your talent requires you to be thoughtful and strategic. One of the first steps on this path is to learn the difference between “urgent” and “important” tasks.

Don't mistake urgency for importance. Don't think that because a fire is burning it warrants your immediate attention every single time. Often the fires will burn themselves out. And don't think that endlessly jumping from one thing to another is good leadership.

Have you ever had a day when you feel you worked your ass off and got nothing done? That was a day when you decided to focus on urgent issues instead of important ones.

If you look at the box above, you can easily see how to categorize any task that needs your attention. Everything you do fits into one of the boxes numbered one through four. Let's take a look at what might fit into these boxes:

### Box 1: Urgent and Important (Take Action Now)

These are things that need attention now. Both the critical nature of the issue and immediate timing combine in this box. Some examples would be:

- Responses to key clients
- Decisions where time or money is on the line
- Deadline-driven projects, tasks or important commitments
- Critical decisions that cannot be made by subordinates

### Box 2: Important but Not Urgent (Be Proactive)

There are things that are important but often don't jump out as vital. Time spent on these things, though, directly improves the bottom-line results of the organization. Ignore these tasks at your peril. Examples of important-but-not-urgent tasks would include:

- Planning
- Evaluating people
- Evaluating systems
- Client relationship building

### Box 3: Urgent but Not Important (Don't Be Reactive)

These are things that are time-driven and may or may not be worthy of your action. Because of habit or others' needs, we can sometimes get lost in urgent-but-not-important activities, which become matters of “daily firefighting.” A lot of work is involved but not much really gets done. Some urgent-but-not-important items include:

- 50% of all phone calls
- 80% of all email
- 95% of text messages
- Problems brought to you by others for you to solve that they have not tried to solve themselves




By / Mark Breslin

	URGENT	NOT URGENT
IMPORTANT	Urgent & Important  <b>1</b>  Do it now	Not Urgent & Important  <b>2</b>  Block off time for this
NOT IMPORTANT	Urgent & Not Important  <b>3</b>  Automate or delegate	Not Urgent & Not Important  <b>4</b>  Periodically do this to recharge

continued on page 22

## SMART Local Union No. 280 / SMACNA-BC Partnership



Left: Jud Martell Local Union No 280 President.  
 Right: Aaron Smith of Smith Sheet Metal Works Ltd., SMACNA-BC President.




## Labour & Management

### “Embracing the Challenge”

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

## MECHANICAL INSULATION – COST EFFECTIVE AND SAVES ENERGY

Picking the “low-hanging fruit” is a metaphor commonly used to describe doing the simplest or easiest work first. Maximum gain for minimum effort is also fairly descriptive. However, when budgeting for a new building or considering a cost-effective solution to saving energy when retrofitting, finding a simple, cost-effective solution that produces results without taxing the budget can be a daunting task. At a time when societal pressures place so much emphasis on saving energy for the future, the task of doing so without driving capital or long-term operational costs through the roof typically falls on the shoulders of building owners and managers and their staff. Mechanical insulation, properly specified and installed by professionals, may be the low hanging fruit building operators are looking for.

### Mechanical Insulation “Payback”

Insulation reduces energy consumption, which means less fossil fuel is burned to produce that energy. This, in turn, decreases the amount of polluting gases such as carbon dioxide and sulfur dioxide emitted into the atmosphere. Because carbon dioxide is one of the principal greenhouse gases contributing to global warming and sulfur dioxide is the major component of acid rain, insulation plays a significant role in protecting the environment.



By Norm Grusnick, P.Eng  
 Technical Director, BC Insulation Contractors' Association

A properly designed and installed insulation system provides an excellent return on investment and quick payback through cost savings. Insulation is a low-risk investment because the savings and the payback can be forecasted with a high degree of accuracy. Insulation is one of the few technologies where the payback for the investment is considered more than acceptable when compared to many other equipment or maintenance purchases. If the insulated system is maintained, the savings from the investment continue for the life of the facility. In fact, it costs more to not insulate properly. The return on investment or payback for an investment in insulation is often from six months to two years.

### Reduced Mold, Corrosion, Component Replacement

Insulation with a good vapour retarder controls condensation and limits corrosion on cold piping, ducts, chillers, and roof drains. Specifying sufficient insulation thickness with an effective vapour retarder system is the most effective means of providing a system for controlling condensation on the membrane surface and within the insulation system on cold piping, ducts, chillers, and roof drains.

Sufficient insulation thickness is needed to keep the surface temperature of the membrane above the highest possible design dew point temperature of the ambient air so condensation does not form on the surface. The effective vapour retarder system is needed to restrict moisture migration into the system through the facing, joints, seams, penetrations, hangers, and supports. By controlling condensation, the system designer may control the potential for mold growth and the potential for health problems resulting from water condensate, as well as corrosion of pipes, valves, and fittings caused by water collected and contained within insulation system.

### Personnel Safety and Aesthetics

Thermal insulation is one of the most effective means of protecting workers from burns resulting from contact with hot or extremely cold piping and equipment. For hot surfaces especially, insulation reduces the surface temperature of




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<b>Business Manager &amp; F.S.T.</b>	<b>James Paquette</b>
<b>Business Representative</b>	<b>Ken Elworthy</b>
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continued on page 22



## MAKE SURE YOU KNOW WHO IS GOING TO PAY YOU BEFORE YOU GO TO WORK

It is easy to be so distracted by the anticipation of a new project that formalities fall by the wayside. Unfortunately, the failure to take basic preliminary steps, such as clearly establishing who is responsible to pay for your work, can have a real impact on collecting when the job is done. The recent case of *Kooltech Refrigeration v. Toor and Imraj Holding Enterprises*, 2018 BCPC 297 addresses a contractor's risk in going to work before understanding, and clearly documenting, who is going to pay for its work.

### The Facts

In early 2011, Imraj Holdings Enterprises Ltd. (the "Owner") acquired and began renovating a truck stop in Salmo, BC, known as the Whiteline Truck Stop (the "Project"). To assist with the renovations, the Owner entered into a verbal agreement with Trousdale Construction Ltd. (the "General Contractor") to construct a walk-in cooler and sales counter.

The claimants in this case were engaged to provide refrigeration services to the Project. Specifically, the claimants were initially approached by, and received most of their initial instructions from, the General Contractor. The claimants say it was the General Contractor who told them that they would get paid by the Owner. Unfortunately, the claimants never bothered to confirm this with the Owner or get any commitments in writing from the General Contractor.

The claimants performed the work at the Project and no issue was taken with the quality of their work or the amounts charged. The real issue was who was responsible for paying the claimants' bill. The claimants asserted it was the Owner who was responsible to pay the bill, while the Owner claimed it was the General Contractor.

The claimants commenced an action against the Owner and its principal, Mr. Toor, for unpaid invoices and six years' worth of interest at the rate of 2% per month. The General Contractor also became a Third Party in the litigation, but for unknown reasons, was later released from the action before trial.

### The Decision

The BC Provincial Court ultimately dismissed the claimants' action against the Owner.

The claimants based their claim for unpaid invoices on, among other things, an argument that they had a contract with the Owner. The claim for interest was based on a statement that appeared at the bottom of the claimants' invoices, which read: "Interest will be Charged at 2% Net 30 days on All Over Due Accounts."



By / Andrew D. Delmonico and  
Matthew T. Potomak

With respect to the first part of the claim, the Court was unable to find any evidence that the claimants' contract was with the Owner, rather than the General Contractor. The Court reasoned that two parties cannot agree to bind a third party to a contract without that third parties consent or some evidence of agency, so the General Contractor could not oblige the Owner to pay the claimants' invoices.

With respect to the second part of the claim, the Court found the claim for interest was based on a unilateral decision to charge interest by the claimants. It was not a term that was agreed to by the Owner, so could not be recovered by the claimants.

continued on page 22



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**ENGINEER'S DESK**

continued from page 20

pipng or equipment to a safer level, resulting in increased worker safety and the avoidance of worker downtime due to injury. As an added bonus, insulation covering exposed air conditioning and plumbing lines gives a finished appearance to a building. Mechanical rooms insulated and finished by professionals will no longer be areas to be avoided.

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**CONTRACTOR'S ADVICE**

continued from page 19

- Personnel issues that can and should wait
- Any form of employee venting, frustration, or emotional dumping that does not lead to resolutions

**Box 4: Not Important and Not Urgent (Be Disciplined and Ignore)**

We live in a multitasking world where immediate reaction is standard behavior. Young people especially think they need to respond moment-to-moment via email or social media. This is

indulgent and simply a bad habit to be addressed. This is a key area where major chunks of time are wasted.

Poor planners fill their time by focusing on tasks that are neither urgent nor important. It's the stuff people do when they are reactive instead of proactive. It means inaction. This is bad stuff.

So there it is. A simple matrix to getting shit done. Important stuff – not everything all the time; not what you like to do and are good at; not what other people want you to do for them.

Get your boxes lined up and apply discipline and focus – the results for you and your team will be profound. ■

**IT'S THE LAW**

continued from page 21

**Lessons Learned**

1. There are typically many different parties involved in a construction project. Before starting work, make sure you understand who your contract is with, and which of these parties is going to be paying your bills.
2. A right to charge interest on unpaid invoices cannot be based on a unilateral term inserted in an invoice. Consider instead including provisions in a written agreement that unpaid invoices are subject to contractual interest. ■

This article was written by Andrew D. Delmonico and Matthew T. Potomak, lawyers 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).

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