the edmonton Specifier

Construction Specifications Canada is an organization representing diverse interests in the construction industry and related professions. It is dedicated to improving the quality and flow of information between these interests, whether in the form of specifications, contract administration or marketing.

Editor: Tracey Stawnichy & Neil Cochrane

2015

SEPTEMBER
Challenges in Large Format Tile

OCTOBER
The Surety Association of Canada

NOVEMBER
Integrated Project Delivery

DECEMBER
TBD

2016

JANUARY
Chapter Social Event

FEBRUARY
EIFS… Not Just a Pretty Face

MARCH
Joint Meeting with Calgary

APRIL
Infonet

MAY
Annual Chapter Meeting

JUNE
Golf Tournament

VISIT YOUR WEBSITE AT

http://www.cscedmonton.ca/

Help us develop a website that meets your needs. Go to the "Want More Info" link on-line and let us know.

Breakfast: Integrated Project Delivery 101

Speaker: **Jen Hancock,** Director of Innovative Construction with Chandos.

Dinner Sponsor: **None**

Place: **Chateau Louis Conference Centre;** 11727 Kingsway Road

Time: Meeting Registration: Starts at 7:15 AM

Breakfast: Starts at 7:30 AM with presentation to follow.

Cost: Registration: $35.00

Reserve: Register online at www.cscedmonton.ca.
Please be advised pre-registration is recommended.
Cost for registration at door is $45.00

In This Issue:

2015/ 2016 Edmonton Chapter Executive

Chairman	Kevin Osborne	780 717 1007
Director	Skip Helfrich	780 466 3101 ex30
Vice-Chairman	Jeff Halashewski	780 917 4681
Secretary	Richard Lucid	780 485 7612
Treasurer	Shaune Smith	780 446 2082
Architect	Linda Lipinski-Olson	780 497 3975
Chapter Liaison	Jozef Urban	780 916 3807
Education	Mike Ewaskiw	780 237 7844
Engineer	Geoff Richer	780 203 2449
General Contractor	Polly Hai	780 446 2566
Interior Design	Corry Bent	780 428 4000
Manufacturer/Supplier	Mike Lafontaine	780 907 4920
Marketing, Promotion and Communications	Jonathan Chinn	780 299 2529
Membership	Donna DeVloo	780 984 5612
Newsletter	Tracey Stawnichy &	780 994-3699
	Neil Cochrane	780 246 4618
Specifications	David Watson	403 896-0728
Website Administrator	David Watson	780 758 4147
Trade Contractor	Frank Dudley	250 718 3727
Program	Kevin Ainscow	780 499 7706

Advertising Rates

Business Card: April 1 to May 30
Rates cover your ad on our website 24 hours per day, 7 days per week
Business card online:
Annual $100 if received by May 1;
$75 if received by August 1;
$50 if received by November 1;
$25 if received by February 1
Add $50 to have a link to your company website from the CSC Edmonton Chapter web page.

Chapter Sponsor

New Chapter Sponsor Bundles go to:
edmonton.csc-dcc.ca/About+Us/Sponsor+Opportunities+-+CSC+Edmonton+Chapter/

Student Sponsor

CSC Student Sponsorship pays for 6 monthly meeting tickets for a CSC, NAIT, or University student to attend a scheduled meeting. Annual $250

Meeting Sponsor

$50 for Individual (Personal) Sponsor
$250 for Corporate Sponsor

FOR FURTHER INFORMATION

Contact any member of the Executive, attend one of our chapter meetings, or send your name and address to CSC Edmonton Chapter, PO Box 35093 Mid Town PO, Edmonton, AB T5J 0B7 or go to edmonton.csc-dcc.ca for additional contact information

GOALS OF CSC

Construction Specifications Canada is a multi-disciplinary non-profit association dedicated to the improvement of communication, contract documentation, and technical information in the Construction Industry. CSC is a National Association with Chapters in most major Canadian Cities.

To this end, CSC pursues the study of systems and procedures that will improve the coordination and dissemination of information relevant to the construction process.

We seek to enhance the quality of the design and management aspects of construction activity through programs of publication, education, and professional development, believing that by so doing, we can contribute best to the efficiency and effectiveness of the construction industry as a whole.

OBJECTIVES OF CSC

To foster the interest of those who are engaged in or who are affected by the compilation or use of any forms of specifications for the construction industry.

To publish literature pertaining to the construction industry.

To engage in activities to improve procedures and techniques related to the construction industry.

Special Announcements:

This area is for announcements about you, our members. Any milestones, awards, or other announcements, please contact the Executive.

Announcements

Chair's Message

Kevin Osborne, CET, CSC Edmonton Chapter Chair, Architecture | Tkalcic Bengert

The Executive continues to work on initiatives related to CSC Edmonton Chapter promotion and membership expansion. Unfortunately we have lost a few members to retirement recently, but we are actively marketing for new members through the Executive and at our networking and monthly events.

We will also be hosting a booth at Buildex again, early in the New Year, as well as offering a CSC Education Stream at Buildex; more details and information will be forthcoming as we finalize our role at the next Buildex Conference.

We are going to be working with the Edmonton Construction Association (ECA) to see if some synergies can be developed between their educations programs and ours, and reviewing other avenues of programs or services that would benefit both our memberships. An initial meeting between the two organizations is being organized to discuss and explore the possibilities.

We encourage all members to keep up on the Chapter through our Specifier publication and to keep signing up for our monthly talks and events.

Membership in CSC

Donna Devloo, Biblioteca

In the construction industry's fast-paced environment, the need for and value of Construction Specifications Canada is greater than ever. CSC brings together individuals from all segments of the construction industry. All who have a vested interest in Canada's largest industry are invited to join CSC. When you join CSC you become part of the only association that brings together professionals from all aspects of the construction industry.

DESIGN TEAM

CSC offers members of the Design Team the opportunity to meet with other members and exchange information. It also affords you the chance to help improve technology and its management, and the means to improve ways in which your ideals are translated into clear, concise and complete documentation.

BUILDING TEAM

If you are a member of the Building Team, Construction Specifications Canada offers you the opportunity to become involved in formulating specifications. Your valuable input into the programs can help generate time and cost savings as well as improve performance.

SUPPLY TEAM

The multi-disciplinary composition of CSC allows members of the Supply Team to meet with other members of the construction team. CSC programs in data filing and information retrieval are geared to present convenient and concise information on your products for proper evaluation and specification.

THE STUDENT

If you are a student of architecture, engineering or construction technology, CSC will provide you with greater exposure to and a better understanding of the Construction Industry, giving you an excellent opportunity if you plan a career in the construction field.

Contact Donna DeVloo for membership information

P: 780-984-5612
E:ddevloo@bibliotecainc.com

People And Places

Fresh Faces (New Members)

Mr. Keith Wallace
Estimator
Desa Glass
17555 – 108 Avenue NW
Edmonton, AB T5S 1G2
Tel: 780-222-3184 Fax: 780-783-5879
Email: kwallace@desa.ca
New Member Sponsor: Jeff Halashewski

Yes, We've Moved (Contact / Mailing Address Update)

Mr. Cam Munro, LEED AP BD+C, CTR
Standards and Specifications Specialist,
Facility Planning and Architecture
Technical Services Branch, Health & Government
Facilities Division
Alberta Infrastructure
3rd Floor, 6950 – 113 Street
Edmonton, AB T6H 5V7
Tel: 780-422-7476 Fax: 780-422-7479
Cell: 780-231-1739
Email: cam.munro@gov.ab.ca

Previous Members Re-Joining / Re-Activated

None this month

CSC Education:

Mike Ewaskiw, CTR

Principles of Construction Documentation

The PCD course is an introductory course that will enable the student to have a better understanding of construction documentation (specifications, drawings, and schedules), products, bidding procedures, and contracts**. It is also a prerequisite to all the other CSC education courses.**

Specifier 1

The Specifier 1 course is an intermediate level course that will take the individual beyond the concepts previously introduced in the PCD Course. Although some of the same topics are included in this course, the depth of comprehension and explanation exceed that of the PCD course. The Specifier 1 course is a prerequisite for the Certified Specification Practitioner (CSP) designation from CSC. Successful completion of the course may be credited toward the experience component requirements for the Registered Specification Writer (RSW) designation.

Technical Representative

The TR course will provide a better understanding of contract documents and bidding procedures, product representation, professionalism, and ethics, and will provide a new depth of understanding and explanation of concepts beyond what was previously introduced in the PCD course. The course is designed for the individual involved in the supply section of the construction industry such as manufacturer representatives, agents or distributors of products. The student will have successfully completed the PCD course.

Contact Mike for all of your educations needs.

Mike Ewaskiw, CTR
Project Development
StonCor Group
P: 780.237.7844
E: mewaskiw@stoncor.com

CALL FOR PHOTOS FOR SPECIFIER AND WEBSITE!

The Chapter would like to ask the membership to volunteer photos for the website and the front page of The Specifier. The photos do not have to specifically relate to projects, or materials of interest. They can be personal photos of members, events (both CSC and non-CSC events), or Members' hobbies and interests. Anything goes, as long as it's interesting! Anything you would like to share could end up HERE!

EDUCATION COURSES

Upcoming Classes: Starting September 14, 2015:

- Principals of Construction Documentation (PCD) – classes to be held at DIALOG
- Specifier – classes to be held at Architecture | Tkalcic Bengert
- Construction Contract Administration (CCA) – classes to be held at IBI Group
- Technical Representative (TR) – classes to be held at Clark Builders

Classes run from mid-September to mid-November each year
Cost: $600.00 for members and $700.00 for non-members
Class Times: 6:00 – 9:00 PM.

Upcoming Classes Online:

Principles of Construction Documentation - Course starts September 8, 2015.

INDUSTRY NEWS & EVENTS

November 4-5, 2015
BUILDEX Calgary
BMO Centre, Stampede Park
Calgary, AB
http://buildexcalgary.com

December 2-4, 2015
The Building Show
Informa Canada
Metro Toronto Convention Centre
Toronto, ON
www.constructcanada.com

November 18-20, 2015
Greenbuild International Conference & Expo
Washington Convention Centre
Washington, DC
http://greenbuildexpo.com

Social Media:

Jonathan Chinn
Omtrak Canada

Check us out:

https://www.facebook.com/CSC-Construction-Specifications-Canada

Articles of Interest

Roman Concrete More Than Stands the Test of Time

Sourced From: http://dailycommercialnews.com/Technology/News/2015/9/Roman-concrete-more-than-stands-the-test-of-time-1010334W/

The secrets of Roman concrete could pave the way for greener concrete, according to researchers who have created a recipe to replicate the mix as it was 1,900 years ago.

Trajan's Marketplace in Rome (left) was the main reference point for a University of California, Berkely Team in examining how Roman concrete works have stood the test of time for nearly two millennia (Photo credit: University of California, Berkely).

There's still much work to be done, but for years engineers and historians have marvelled at how Roman concrete works have stood the test of time for nearly two millennia, especially those poured during the imperial reign of Augustus Caesar (63 BC to AD 14).

Dr. Marie Jackson of the University of California, Berkeley, Civil and Environmental Engineering Department, is part of a team working to understand what makes Roman concrete so resilient both in terms of structures, and building seawalls and other waterfront structures.

It turns out there is at least one magic component: volcanic ash from a nearby volcano where excavation at a specific location produced a type of granular material perfect for making concrete at lower temperatures.

This so-called Pozzolanic Cement is named after the volcanic ash it derived from, called the Pozzolane Rosse. This ash flowed and fell nearly half a million years ago around the Alban Hills volcano some 12 miles southeast of Rome.

It's a simple recipe of volcanic ash and lime. While it takes longer to cure than modern day concrete, it has some valuable properties. "The selection of the volcanic ash was a very good choice compared to other volcanoes around the area," she said noting it was clearly by design.

"Portland cement is made by burning rock at about 1,450 C whereas volcanic ash concrete (Roman concrete with lime) is burned at about 900 C, which results in far less energy being consumed and a far smaller carbon footprint."

The team went to Cornell University to recreate the mix specified by the architect Vitruvius (circa 15 BC to AD 80-70). They found it had remarkably different properties which gave it strength and longevity.

The mortar binding the aggregates is calcium-aluminum-silicate-hydrate (C-A-S-H) whereas in Portland cement it is calcium-silicate-hydrate (C-S-H). It's the aluminum which seems to trigger crystallization of strätlingite and siliceous hydrogarnet (katoite).

Studying the crystallization microscopically, the team determined they formed at the interface of the aggregate and cement, which in Portland cement is often the weakest point of bonding. However, the strätlingite crystals play an important role in preventing cracks from spreading, creating a form of self-healing concrete, she said.

"The crystals are an obstruction, so when cracks start to form they are blocked by the crystals, and in fact more crystals will grow in the cracks," she said.

The architect Vitruvius is credited with writing 10 seminal works on architecture. Among his writings a formula for the mix was found, though it was hard to decipher. The team used that information, microscopic analysis of core samples, and an iterative process to come up with a working mix. They cast it and let it sit for six months before cracking it open for microscopic analysis.

The composition closely mirrored the sampling of concrete from the famed Trajan's Market in Rome which had been the team's main reference point. It's billed as the world's oldest shopping mall, built 100-110 AD, featuring a grand hall with a concrete vaulted roof.

What's interesting, said Dr. Jackson, is that those concrete structures and vaulted ceilings were made without rebar or even fibres being added to the mix as they would today.

More pointedly, given the region's history of earthquakes, the self healing properties seem to be perfectly planned to repair microcracks as they formed internally, preventing larger ones from developing and extending the life of the structures.

Dr. Jackson, who started her academic career as a volcanologist before shifting into civil engineering, is now taking her work further. She is examining samples of marine concrete built by the Romans which also seem to have longer than normal lifecycles despite exposure to seawater. Indeed, it appears seawater itself is the magic component in the mix.

Concrete used in Trajan’s Market in Rome AD 100-110 (left) has self-healing properties that repair microcracks as they formed internally, preventing larger ones from developing and extending the life of the structures (photo – University of California, Berkeley).

"We're also looking at volcanic ash in North America and seeing how it might be used," she said.

Future applications of the knowledge gleaned by the team could be used to reduce the amount of energy used in making concrete, which is currently substantial, and look at ways volcanic ash might be used to make high performance concrete.

Creating a better, greener concrete mix would be a wonderful end goal, Dr. Jackson said, but added a caution, noting there's no magic wand with volcanic ash cement. "We have to be realistic," she said.

“There's a really important role for Portland cement concrete in modern construction and people are doing a lot to reduce the carbon footprint of the materials. I see the boom in concrete prototypes for specialty concrete and high performance purposes."

That said, however, she said demonstrating common volcanic ashes can be used in the same way the Romans did, perhaps with Portland systems or lime systems, that would be a huge step in building massive structures like seawalls or concrete infrastructures like dams.

"These Roman structures were massive so that's where there would be more reasonable application of this," she said adding there are many volcano sites in North America and an abundance of ash

samples, though extraction and transportation of large quantities may make for logistical challenges.

In the meantime, the team is looking at drilling a relatively new volcanic site in Iceland to sample the ash materials for comparative purposes. Surtsey is a small island which erupted from 1963 to 1967, and it's hoped an interdisciplinary research program will unearth a myriad of new data around micro organisms and geologies, including volcanic ash. "What we're talking about is natural concrete which is the earth's crust itself," she said.

CCA Ready to Build with Liberal Government

Sourced From: http://dailycommercialnews.com/Government/News/2015/10/CCA-ready-to-build-with-Liberal-government-1010926W/

Now that the Liberals have secured a majority government, there's some building to do both inside and outside the walls of Parliament Hill.

"Anytime you've got a new government elected, they're going to have a lot of building to do," Canadian Construction Association (CCA) president Michael Atkinson said during the CCA's fall board meeting in Thunder Bay, Ont.

"We'll be keen to see who are put in key cabinet positions that are important to us, working with their new implementation chain, discovering who their new staff people are going to be. That's going to be one of our top priorities."

Liberal Leader Justin Trudeau and his party secured 184 seats in the federal election after one of the longest election campaigns in Canadian history spanning 11 weeks.

"The fact they (the Liberals) are a majority government gives them some time to put in place the people they want and get on with the job," Atkinson explained. "If it had been a minority situation, especially if it had been a slim minority situation, governments tend to go into re-election mode rather than sticking with their platforms."

The first day of the recent CCA board meeting happened to fall on Election Day, Oct. 19, which had many attendees wondering who would end up leading the country and deciding on matters that could impact the industry.

Earlier in the campaign, indications suggested it would be a close election but that was quickly snuffed out as the Liberals' red wave began with early poll returns from Atlantic Canada and continued nationwide throughout the night. The Liberals increased their number of seats by 150 since the 2011 election. The Conservatives secured 99 seats, a 67-seat decrease, while the NDP fell to 44 seats, which is a 59-seat decrease. Shortly after it was confirmed the Liberals would lead Canada, Prime Minister Stephen Harper said he would be stepping down as Conservative leader. The Conservatives have governed since 2006.

Atkinson believes a majority government means more stability and that potentially more will get done.

"It gives us a little more certainty that we're going to see something rolled out. Frankly, certainly the infrastructure programs are very important because I think it allows other levels of government to plan," he said.

During the campaign Trudeau promised he would almost double federal infrastructure investment to nearly $125 billion from the current $65 billion over 10 years and also divvied up where the money would go.

For Atkinson and CCA Chair Anibal Valente, working with the various levels of government is essential in order to make sure the proper infrastructure programs are carried out.

"Details, how they're rolled out, the underlying framework that's required between governments, we want to ensure that's not a stumbling block," Atkinson said. "We want to work with the government to make sure the implementation process is as streamlined, as flexible and as timely as possible."

Valente stated municipalities have to be able to access funding in a timely manner.

"I just hope that these infrastructure promises aren't unduly delayed due to red tape or long processes to go through to the point where the municipalities become frustrated," he added. "We're waiting for the details."

The Liberals have promised social infrastructure investments of $20 billion over 10 years and are encouraging the construction of new rental housing by removing all GST on new capital investments in affordable rental housing. This is expected to provide $125 million per year in tax incentives to grow and renovate the supply of rental housing across Canada, they believe.

The Liberals also state there will be an inventory taken of all available federal lands and buildings that could be repurposed in order to make them available at low cost for affordable housing.

The Liberals committed to spending $20 billion over 10 years on public transit by giving the provinces, territories and municipalities long-term federal funding for transit plans.

Green infrastructure was also on the agenda, with $20 billion committed over 10 years, for local water and wastewater facilities, clean energy, climate resilient infrastructure, like flood mitigation systems, and other infrastructure that will withstand changing weather.

Among the other infrastructure promises was the establishment of a Canada Infrastructure Bank that would provide loan guarantees and small capital contributions to provinces and municipalities to ensure projects are built.

But while infrastructure spending is welcome news to the CCA, Atkinson stated there were some areas when it comes to apprenticeship where more discussion is needed.

The Liberals stated they will work with employers and workers to determine an "appropriate" apprenticeship ratio for all federal infrastructure projects. The CCA has stated there are options other than ratios.

"We share the same objective and that is to get more employer engagement with apprenticeship, no question," Atkinson stated. "I guess where we may differ is the best method or most effective means by which to achieve that objective."

Valente said incentives could be a better approach for companies.

"The majority of the tax incentives have been directed at the apprentices themselves and if that hasn't been working, to the extent that we all want it to work, we're suggesting let's try something different and that would be giving the companies themselves some incentive to hire more apprentices," he said. "These are positions we made all parties aware of."

Virginia Tech Engineers Develop New Safety Vest That Could Save Lives

Sourced From: http://www.constructionjunkie.com/

Construction sites are some of the most dangerous places in the world. Couple a job site with the general public and they're disasters waiting to happen. According to the American Road & Transportation Builders Association, 579 people were killed in highway work-zone related accidents in just 2013 alone. Equipment, machines, and clothing are becoming "smarter" every day, even things we never thought about as technology, such as the recent development of the smart hard hat. Tapping into technology allows users greater and easier access to ever important data and, in some instances, safer work environments.

Professor Tom Martin and Kristen Hines, engineers at Virginia Tech, hope to greatly reduce that number with their recent development of a smart safety vest that gives several seconds of warning to workers if danger is approaching. With their creation of the InZone Alert system, workers can be alerted by flashing light, audible alarms, or physical alarms, such as vibrations or compression of your clothing if a car is approaching too quickly or too closely. The researchers' goal is to create alerts that are distinctive, but won't startle the user.

With the ever improving technology of vehicles, the Virginia Tech team also hopes to integrate communication between the vest and cars driving by with the use of short range radio signals. That would add to the safety features of the vest by also alerting the driver of the vehicle that they are in immediate danger of causing an accident.

Initial tests of the InZone Alert system have wielded success rates of 90 percent. The higher the percentage, the better, because frequent false alarms would result in users ignoring the alarms or greatly reducing job site productivity. The Virginia Tech Transportation Institute has been conducting testing of the vest on the Virginia Smart Road in Blacksburg, VA, which is a closed course test road for research purposes.

Skilled Trades Careers Negate Youth/Parent Perceptions

(Sourced http://equipmentjournal.com/Home/tabid/56/ArticleID/1349/Skilled-Trades-Careers-Negate-Youth-Parent-Perceptions.aspx

Though parents and youth say they believe career opportunities in the skilled trades to be limited, the Canadian Apprenticeship Forum (CAF-FCA) published a new national report today indicating the opposite is true.

With insights and observations from 754 certified journeypersons across Canada, "The Benefits of a Skilled Trades Career: Journeyperson Perspectives and Experiences" sheds new light on career progression in the trades. Journeypersons point to benefits including good pay, interesting work, full-time employment and the job satisfaction that comes with building or creating something. Based on a national survey with tradespeople at various stages of their career, 50% of respondents reported making more than $80,000 annually.

"In recent surveys to gauge parent and youth understanding of the skilled trades, we were disappointed with the perception that skilled trade careers are 'dead end jobs,'" said Sarah Watts-Rynard, CAF-FCA's Executive Director. "This study reflects a much different reality, one of broad opportunity both in the trades and in related occupations. Tradespeople often transition into different

fields, including teaching, training, management and business ownership. We need to share that story with young people."

When asked what a skilled trades career brought him, one respondent said "Massive adventure. I bought my first house at 21 and had a successful business by 24. I travelled around the world, became a professor by age 30... [all while] my university buddies were still eating Kraft Dinner."

Another respondent said, "I would question the notion that front-end programs, like degrees and diplomas, are equivalent or superior to an apprenticeship as they often lack the most critical component-social interaction in the context of the workplace. No one ever learned how to be a senior executive at school. They learned it at work."

The survey found that the majority of journeypersons valued their Red Seal endorsement because it made them more employable and enhanced their labour mobility. Many had also become mentors themselves, expressing satisfaction in becoming leaders who promote a positive work environment, model good safety practices and facilitate team collaboration.

Edmonton Artery & Graphic Arts Buildings Face Steep Preservation Costs

(Sourced from http://www.metronews.ca/news/edmonton/2015/10/07/edmonton-artery-graphic-arts-building-face-preservation-bill.html

Two heritage buildings have been spared a date with a wrecking ball, but preserving them for the long term will cost many millions, according to a city report.

The Mitchell and Reed Auction House, which was home to The Artery, and the Graphic Arts Building, are both popular buildings in the city that were destined to be razed to make way for a construction yard for the future Valley LRT Line.

Recently, Council asked its administration to explore ways the buildings could be saved, and Wednesday a report was presented offering a short-term fix. The city has found another construction yard space for the LRT, sparing the buildings for the short term.

But preservation of both buildings could cost nearly $7 million, according to Wednesday's report — and Coun. Scott McKeen said the numbers are jaw-dropping.

“Obviously we will have to have a robust discussion and debate around that," he said. "I am a little shocked by the numbers. They are really high.”

The nearly $7 million is the cost for moving the buildings temporarily, restoring them, and moving them back to the same spot. Restoring both buildings on the site would cost $5.3 million and moving them to a new site and restoring them later runs $4.7 million. Dismantling the buildings so they can be restored at some point in the future is estimated to cost $750,000, while protecting only the buildings' most significant heritage elements is estimated to cost $430,000.

McKeen said these cost also don’t include lost money for not redeveloping the buildings. “We haven’t even talked about the lost opportunity cost because that site was designated for a tower,” he said.

He said the most important thing is there is no longer a looming deadline. “It allows some time for the public and people who are interested to have a look at those numbers.”

Do you Know What Owners Want from your BIM?

(Sourced https://thebimhub.com/2015/10/03/do-you-know-what-owners-want-from-your-bim/#.VilF4X6rRpj

The design and construction industry continues to move more and more into the Building Information Modeling (BIM) realm, with benefits ranging from fast delivery, reduced costs and an overall efficient process. But sometimes, there's a concern that owners don't always understand BIM, the data or the costs involved.

According to Tuan Tran, northeast regional technical advisor for Guardian Industries Corp., resistance to BIM adoption from owners and others in the building team comes from BIM not providing a high level of product detail and performance energy data.

"They need a streamlined, accurate process for producing and viewing custom, project-specific glazing makeups in 3D with the energy performance data in real time early in the design process," says Tran.

The Associated General Contractors of America (AGC) hosted a webinar recently to discuss how contractors and others in the construction industry working with BIM can help convey that level of understanding to owners. Joe Eichenseer, director of Building Lifecycle Solutions at Imaginit, led the discussion.

He offered a question: What is a building information model? He answered that the idea behind it is solid: "It's all about data."

Eichenseer explained that when looking at information in a building model, identifying what's important to the owner, contractor, designer, it's the data. "It's information that we care about,"

He said that in the early design stages, the vast majority start as graphics. Then, as we move from design further into construction, that balance (graphics to object data) starts to become more even.

"Then by the time we get into operations, I would argue that the amount of graphic data should be less than what you have working through construction or design," he said. "By and large object/text-type data becomes much more important than graphics used to generate it. It's not the graphics as much as the information that's what counts."

So, when it comes to the information needed by owners, what are they specifically looking for? Eichenseer said there are three questions to consider.

Space Management

Challenges

- Recovery of facility costs requires detailed spatial data;
- Massive effort to gather; and
- Need to defend spatial data.

Solution

- BIMs inherently understand space boundaries, eliminating the polylining process;
- Space can be easily scheduled and quantified inside the model;
- Simple export or direct connections to other management systems.

Assets Management
Challenge

- Cataloging building assts takes a lot of time;
- Not all of the right information is gathered.

Solution

- Catalog information about assets as the building is designed;
- Reduce regulatory concerns by having data continuous from installation, and
- Work with the Owner to determine what they really need.

Work Orders
Challenge:

- Current information is scattered, incomplete and inaccurate; and
- Finding the right data to complete a work order can require multiple trips to the work site.

Solution

- BIMs can be the starting point for consolidating current data about a building; and
- By keeping the graphic and non-graphic data up to date, you streamline processes and simplify.

The Glass Association of North America is also working toward developing a BIM resource. The group's Building Envelope Contractors division technical committee is working on a glass informational bulletin designed to educate those new to BIM about what it is, while also delving into the various types of users and how they would utilize BIM. It covers the various types and products into which BIM is integrated for design use. The group will next meet during the GANA Fall Conference, October 12-16, 2015 in San Antonio.

LEGAL MATTERS

Interpretation Saves Contract From Penalty Doctrine

Sourced from: http://www.constructionlawcanada.com/building-contracts/interpretation-saves-contract-from-penalty-doctrine/

Contract law contains a fundamental rule: penalty clauses are prohibited and liquidated damage clauses are permitted. But in its recent decision in Ottawa Community Housing Corp. V. Foustanellas, the Ontario Court of Appeal held that there is another way to look at this rule. The clause is valid if, properly interpreted, the clause delays, but does not permanently affect, the exercise of the contractor's rights. In this case, the clause is not a penalty or liquidated damages clause at all. Parties about to enter into a building contract should examine this decision to see if there are ways to draft the contract to avoid the penalty doctrine but achieve much of the desired result.

Background
Ottawa Community Housing Corp. (OCHC) entered into a contract with Argos Carpets, of which Foustanellas was the principal. OCHC later determined that Argos was overbilling OCHC. OCHC then notified Argos that it was withdrawing the remaining work under the contract and withholding payment of the past amount due under the contract. At trial, Arogos argued that the contractual provision in question amounted to a liquidated damages clause and limited, to the withheld payment, the amount which OCHC could recover against it.

Clause 1.6.1 of the contract entitled OCH, in certain circumstances, to "take the whole operation, or

any part of the operation out of the hands of the Contractor." The owner relied upon that clause to take the remaining work out of Argos' hands.

Clause 1.6.3 stated that:

"…where any or all of the work has been taken out of the hands of the Contractor, the Contractor will not be entitled to any further payment, including payments then due and payable but not yet paid. The obligation of the Owner to make payments will cease, and the Contractor will be liable upon demand to pay the Owner an amount equal to all of the losses and damages incurred by the Owner for the non-completion of the work."

Decision of the Ontario Court of Appeal

The Court of Appeal held that clause 1.6.1 entitled the Owner to terminate the contract on the happening of events which triggered that clause. If that occurred, the courts said, then the owner was entitled to invoke Clause 1.6.3. The Court of Appeal agreed with the trial judge that clause 1.6.3 was neither a penalty clause nor a liquidated damages clause as recognized in established contract case law. Rather, clause 1.6.3 had two effects:

" First, it relieves the owner (OCHC) from any obligation to make payments to the contractor, including in respect of unpaid receivables, pending determination of the owner's losses and damages arising from the contractor's non-compliance with the carpet contract. Second, it establishes the contractor's (Argos') liability to the owner (OCHC) for an amount equal to the owner's losses and damages occasioned by the contractor's non-completion of the work provided for under the carpet contract.

Thus, properly interpreted, Clause 1.6.3 functions as a "stop payment" provision. It is designed to halt the owner's contractual obligation to make any payments to the contractor pending the determination of the owner's losses and damages arising from the contractor's breach of contract."

The Court of Appeal found that several ingredients of the contract supported its interpretation of Clause 1.6.3.

First, the clause did not state a specific amount which was recoverable by the owner, such as one would expect to find in a penalty or liquidated damages clause.

Second, the amount due to the contractor could vary widely from job to job, making the clause a sensible delay of the rights of the contractor on all jobs until the owner's damages could be assessed.

Third, the fact that the Clause gives the owner the right to set off its claims against the contractor's entitlement to payment for work "does not convert Clause 1.6.3 into a penalty or liquidated damages provision."

Discussion

Clause 1.6.3 might have been held to be an unenforceable penalty clause if its effect was to forfeit the monies due to the contractor when the balance of the contract work was taken out of its hands. Or, if the amount of the forfeiture was a reasonable estimation of the owner's damages – an apparently unlikely scenario – the clause might have been held to be effective as a liquidated damages clause which set the amount of the owner's maximum entitlement as the amount owed to the contractor when the work was taken out of its hands, as the contractor argued. Instead of determining the dispute according to the traditional penalty/liquidated damages debate, the trial and

appeal court took the debate to an entirely different debate – one about the proper interpretation of the contract. And they found that all the clause did was defer the contractor's right to enforce its claim to monies due until the owner's claim for damages was determined.

This decision is a good example of the rule of contract interpretation known by its Latin name: ut res magis valeat quam pereat: or, that the thing shall have effect rather than perish. In other words, if there is an interpretation that saves the validity of the contractual provision, it should be preferred over one that would cause it to perish. In this case, interpreting the clause to delay the rights of the contractor gave force and effect to the clause which might otherwise have been an ineffective penalty clause.

A party negotiating a building contract should consider this decision when deciding what remedies it really wants in the event of a breach of the contract by the other party. If the party really wants a definitive fixing of the amount due by the wrongful party, then this decision will not help it. In that situation it will have to face up to the penalty/liquidated damages rule and all the perils that the rule involves. If the amount fixed is later considered by the court to be an unrealistic estimation of the damages flowing from the breach, then the clause may be struck down as a penalty clause.

But if the party really wants a means to forestall the other party from collecting monies due under the contract until its own damages are determined, then this decision offers a way to accomplish that result.

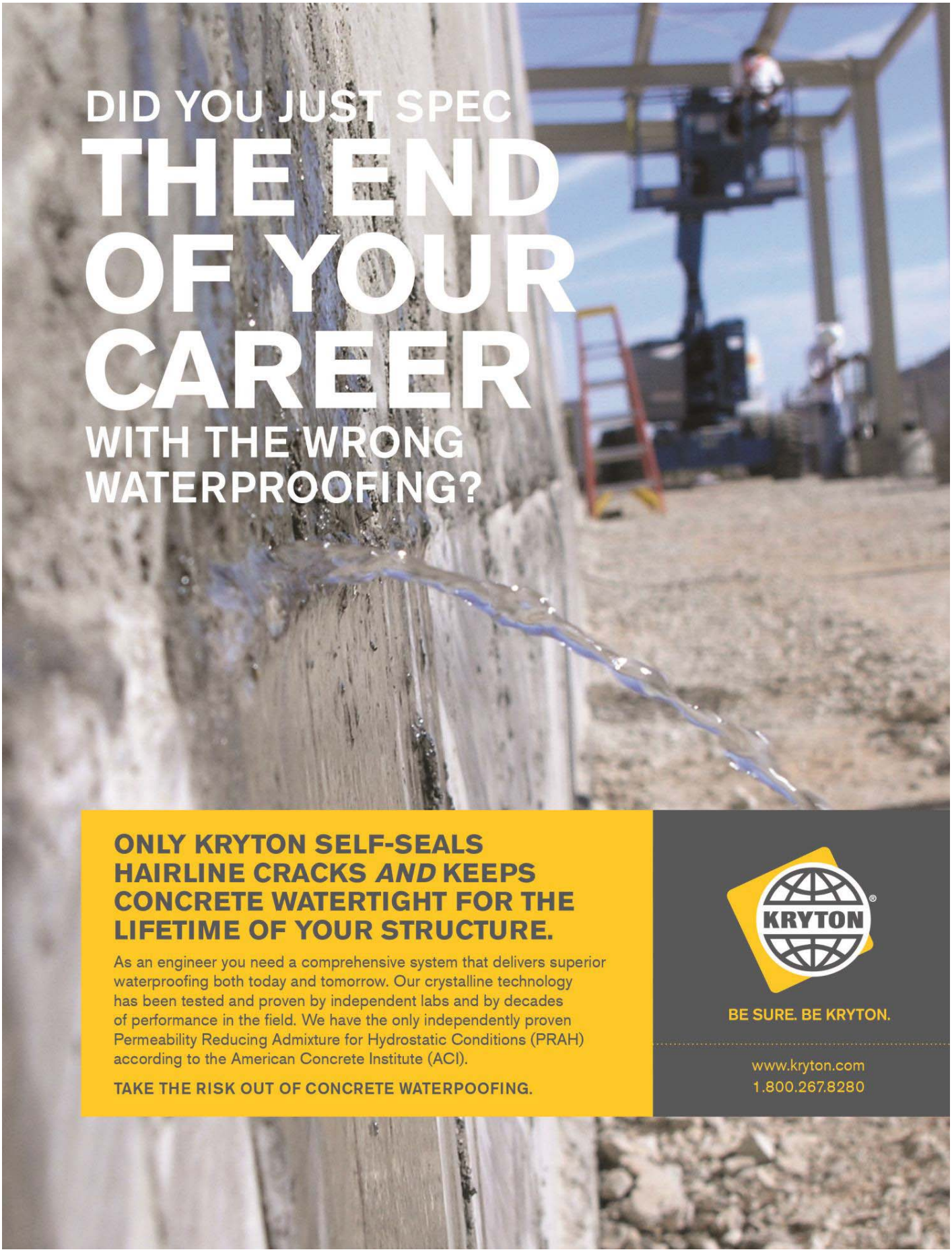
Where did the Construction Boom Go? Moderate Housing Market / Tightening Non-Residential Construction

(Sourced http://www.constructioncanada.net/moderate-housing-market-tightening-non-residential-construction/?en_click=1

The Conference Board of Canada published updated reports for the national construction industries.

The "Canada's Residential Construction Industry" report states the Canadian housing market continued to grow moderately in the first half of 2015 despite the soft economy. Housing starts rebounded to an annual rate of more than 193,000 units in the second quarter compared to 175,000 units in the first. These rates were driven by another round of interest rate cuts by the Bank of Canada that pushed mortgage rates to historical lows. The Conference Board of Canada expects to see a moderate decline in the housing market in the near future from signs, such as rising risks of market saturation and overvaluation in the Toronto market, which indicates it is in need of a correction.

In the report, "Canada's Non-residential Construction Industry," the Conference Board says non-residential construction activity is expected to contract this year; due to school and hospital projects, the government and institution segments are the only ones expected to experience growth. The contraction could be explained by the signs of saturation shown in the office space segment – the unused office space share is approaching 10 percent, the highest it has been in a decade. The commercial real-estate market is also suffering. Several long-established retail chains have either gone out of business or are in the restructuring process, which leads to store closures. Prime locations are picked up quickly, but many locations will be left empty. The board says business newcomers are a lot more cautious about expansion than their predecessors.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ENGINEERS EXPLAINED

People who work in the fields of science and technology are not like other people. This can be frustrating to the nontechnical people who have to deal with them. The secret to coping with technology-oriented people is to understand their motivations. This will teach you everything you need to know. I learned their customs and mannerisms by observing them, much the way Jane Goodall learned about the great apes, but without the hassle of grooming. Engineering is so trendy these days that everybody wants to be one. The word "engineer" is greatly overused. If there's somebody who you think is trying to pass as an engineer, give him this test to discern the truth.

ENGINEER IDENTIFICATION TEST

You walk into a room and notice that a picture is hanging crooked. You...

A. Straighten it.
B. Ignore it.
C. Buy a CAD system and spend the next six months designing a solar-powered, self-adjusting picture frame while often stating aloud your belief that the inventor of the nail was a total moron.

The correct answer is "C" but partial credit can be given to anybody who writes "It depends" in the margin of the test or simply blames the whole stupid thing on "Marketing."

SOCIAL SKILLS

Engineers have different objectives when it comes to social interaction. "Normal" people expect to accomplish several unrealistic things from social interaction: Stimulating and thought-provoking conversation; important social contacts; and a feeling of connectedness with other humans. In contrast to "normal" people, engineers have rational objectives for social interactions: get it over with as soon as possible; Avoid getting invited to something unpleasant; demonstrate mental superiority and mastery of all subjects.

FASCINATION WITH GADGETS

To the engineer, all matter in the universe can be placed into one of two categories: things that need to be fixed and things that will need to be fixed after you've had a few minutes to play with them. Engineers like to solve problems. If there are no problems handily available, they will create their own problems. Normal people don't understand this concept; they believe that if it ain't broke, don't fix it. Engineers believe that if it ain't broke, it doesn't have enough features yet. No engineer looks at a television remote control without wondering what it would take to turn it into a stun gun. No engineer can take a shower without wondering if some sort of Teflon coating would make showering unnecessary. To the engineer, the world is a toy box full of sub-optimized and feature-poor toys.

FASHION AND APPEARANCE

Clothes are the lowest priority for an engineer, assuming the basic thresholds for temperature and decency have been satisfied. If no appendages are freezing or sticking together, and if no genitalia or mammary glands are swinging around in plain view, then the objective of clothing has been met. Anything else is a waste.

LOVE OF "STAR TREK"

Engineers love all of the "Star Trek" television shows and movies. It's a small wonder, since the engineers on the Starship Enterprise are portrayed as heroes, occasionally even having sex with

aliens. This is much more glamorous than the real life of an engineer, which consists of hiding from the universe and having sex without the participation of other life forms.

DATING AND SOCIAL LIFE

Dating is never easy for engineers. A normal person will employ various indirect and duplicitous methods to create a false impression of attractiveness. Engineers are incapable of placing appearance above function. Fortunately, engineers have an ace in the hole. They are widely recognized as superior marriage material: intelligent, dependable, employed, honest, and handy around the house. While it's true that many normal people would prefer not to date an engineer, most normal people harbor an intense desire to mate with them, thus producing engineer-like children who will have high-paying jobs long before losing their virginity.

Male engineers reach their peak of sexual attractiveness later than normal men, becoming irresistible erotic dynamos in their mid thirties to late forties. Just look at these examples of sexually irresistible men in technical professions: Bill Gates; MacGyver; etc. Female engineers become irresistible at the age of consent and remain that way until about thirty minutes after their clinical death. Longer if it's a warm day.

HONESTY

Engineers are always honest in matters of technology and human relationships. That's why it's a good idea to keep engineers away from customers, romantic interests, and other people who can't handle the truth. Engineers sometimes bend the truth to avoid work. They say things that sound like lies but technically are not because nobody could be expected to believe them. The complete list of engineer lies is listed below.

"I won't change anything without asking you first."
"I'll return your hard-to-find cable tomorrow."
"I have to have new equipment to do my job."
"I'm not jealous of your new computer."

FRUGALITY

Engineers are notoriously frugal. This is not because of cheapness or mean spirit; it is simply because every spending situation is simply a problem in optimization, that is, "How can I escape this situation while retaining the greatest amount of cash?"

POWERS OF CONCENTRATION

If there is one trait that best defines an engineer it is the ability to concentrate on one subject to the complete exclusion of everything else in the environment. This sometimes causes engineers to be pronounced dead prematurely. Some funeral homes in high-tech areas have started checking resumes before processing the bodies. Anybody with a degree in electrical engineering or experience in computer programming is propped up in the lounge for a few days just to see if he or she snaps out of it.

RISK

Engineers hate risk. They try to eliminate it whenever they can. This is understandable, given that when an engineer makes one little mistake, the media will treat it like it's a big deal or something.

EXAMPLES OF BAD PRESS FOR ENGINEERS

* Hindenberg.
* Space Shuttle Challenger.

* SPANet(tm)
* Hubble space telescope.
* Apollo 13.
* Titanic.
* Ford Pinto.
* Corvair.

The risk/reward calculation for engineers looks something like this:

RISK: Public humiliation and the death of thousands of innocent people.
REWARD: A certificate of appreciation in a handsome plastic frame.

Being practical people, engineers evaluate this balance of risks and rewards and decide that risk is not a good thing. The best way to avoid risk is by advising that any activity is technically impossible for reasons that are far too complicated to explain. If that approach is not sufficient to halt a project, then the engineer will fall back to a second line of defense: "It's technically possible but it will cost too much."

EGO

Ego-wise, two things are important to engineers:

* How smart they are.
* How many cool devices they own.

The fastest way to get an engineer to solve a problem is to declare that the problem is unsolvable. No engineer can walk away from an unsolvable problem until it's solved. No illness or distraction is sufficient to get the engineer off the case. These types of challenges quickly become personal -- a battle between the engineer and the laws of nature.

Engineers will go without food and hygiene for days to solve a problem (other times just because they forgot). And when they succeed in solving the problem they will experience an ego rush that is better than sex--and I'm including the kind of sex where other people are involved.

Nothing is more threatening to the engineer than the suggestion that somebody has more technical skill. Normal people sometimes use that knowledge as a lever to extract more work from the engineer. When an engineer says that something can't be done (a code phrase that means it's not fun to do), some clever normal people have learned to glance at the engineer with a look of compassion and pity and say something along these lines: "I'll ask Bob to figure it out. He knows how to solve difficult technical problems."

At that point it is a good idea for the normal person to not stand between the engineer and the problem. The engineer will set upon the problem like a starved Chihuahua on a pork chop.

ASSOCIATION LINKS **Important URL Links**

- **Alberta Construction Safety Association (ACSA)** **www.acsa-safety.org**
- **BuildingSMART Alliance** (North American Chapter of BuildingSMART): www.buildingsmartalliance.com
- **BuildingSMART International (formerly IAI)** www.buildingsmart.com
- **Biomimicry Guild** www.biomimicryguild.com
- **Canadian Green Building Council (CaGBC)** www.cagbc.org
- **CCDC Documents** www.ccdc.org/home.html
- **Construction Specifications Institute (CSI)** www.csinet.org
- **International Construction Information Society (ICIS)** www.icis.org
- **OmniClass** www.omniclass.ca www.omniclass.org
- **Uniformat** www.csinet.org/uniformat
- **Architecture 2030** www.architecture2030.org
- **Building Information Modeling (BIM) Forum** www.insightinfo.com/bimforum
- **Biomimicry Institute** www.biomimicryinstitute.org
- **Canada BIM Council** www.canbim.com
- **Canadian Green Building Council (CaGBC) – Alberta Chapter:** www.cagbc/chapters/alberta
- **Construction Specifications Canada (CSC)** www.csc-dcc.ca
- **IFD Library** www.ifd-library.org
- **MasterFormat 2012** (Free downloadable PDF on Spex.ca Free page)
- **Spex.ca** www.spex.ca

ASSOCIATION LIAISON **Important URL Links**

Alberta Association of Architects (AAA)
http://www.aaa.ab.ca/

Alberta Painting Contractors Association (APCA)
www.apca.ca

Alberta Roofing Contractors Association (ARCA)
http://www.arcaonline.ca
info@arcaonline.ca

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
http://www.ashrae.org/ / ashrae@ashrae.org

The Canadian Wood Council (CWC)
http://www.cwc.ca
info@cwc.ca

Portland Cement Association
ConcreteTechnology@cement.org

Interior Designers of Alberta
www.interiordesignalberta.com

Alberta Painting Contractors Association (APCA)
www.apca.ca

Association of Professional Engineers, Geologists, and Geophysicists of Alberta (APEGGA)
http://www.apegga.org/ dward@apegga.org

Association of Science and Engineering Technology Professionals of Alberta (ASET)
http://www.aset.ab.ca/
Russ Medvedev, russm@aset.ab.ca

Building Owners and Managers Association (BOMA)
http://www.bomaedmonton.org/ / edmonton@boma.ca

Consulting Engineers of Alberta (CEA)
http://www.cea.ca/ info@cea.ca

Edmonton Construction Association
www.edmca/.com contact@edmca.com

Terrazzo, Tile & Marble Association of Canada (TTMAC)
http://www.ttmac.com/
association@ttmac.com

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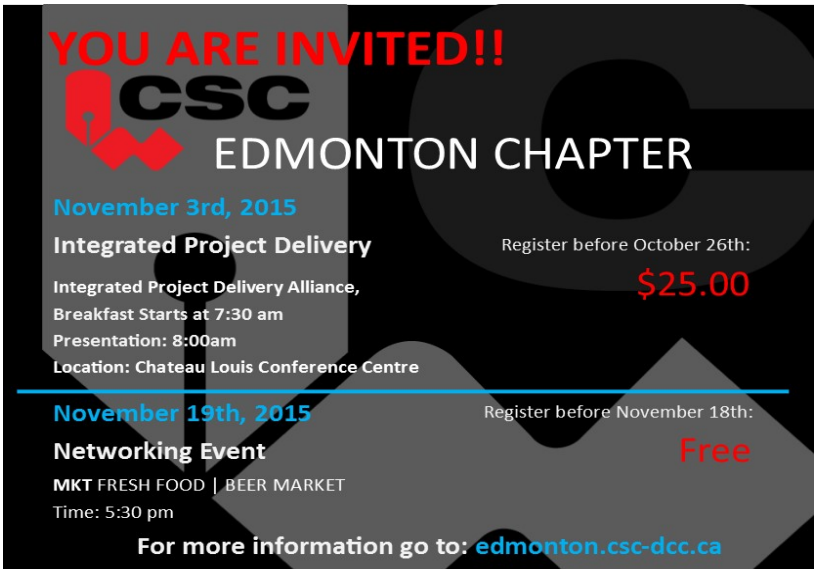
This is your opportunity to announce job postings, events, and other items going on in Edmonton and surrounding areas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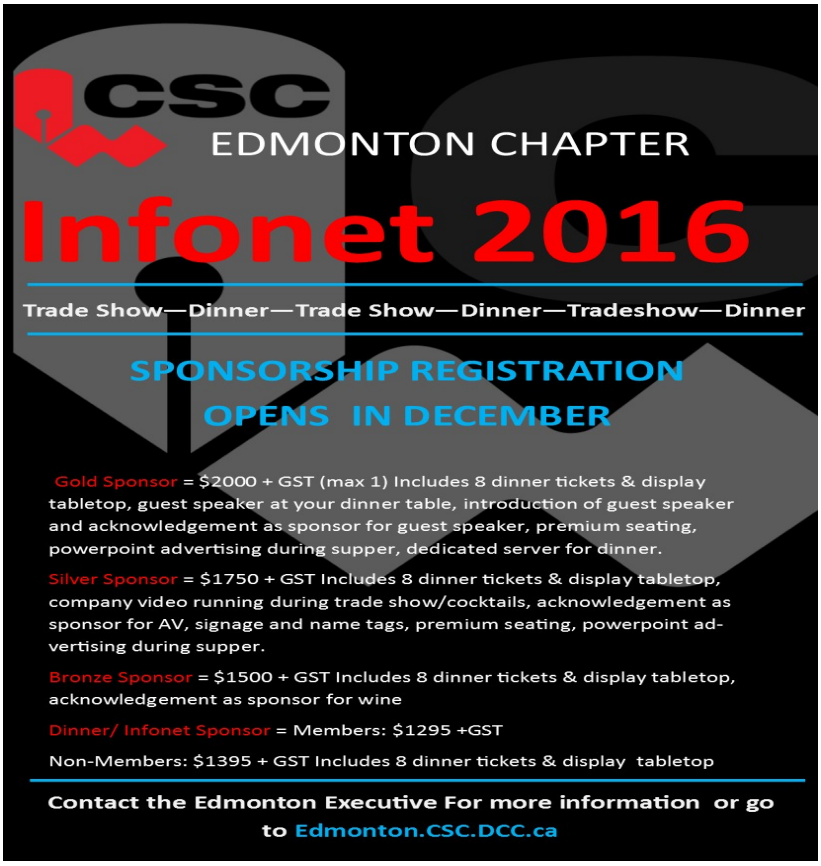
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