

CONSTRUCTION ECONOMIST

The Journal of the
Canadian Institute of
Quantity Surveyors

Le Journal de l'Institut
canadien des économistes
en construction

SUMMER 2021

Introduction of
Management System

Continuing
Gold Seal
Collaboration

Cost
Fluctuation
Concerns

Analysis of
Federal Budget

Thought Leadership in Action



Canadian Institute of
Quantity Surveyors

ciqs.org

Institut canadien des
économistes en construction

Canada's
Leading Journal in
Construction Economics





TRAINING THAT DELIVERS CONCRETE RESULTS

Continuing Education at George Brown College

Discover our courses and programs in construction, estimating, quantity surveying and Ontario's Building Code. Taught by industry professionals using the latest tools and standards, our courses provide you with the skills to succeed. Develop your knowledge with our series of Canadian Institute of Quantity Surveyors (CIQS) accredited courses. Expand your career potential by completing a program and achieving a credential from George Brown College. Learn from home with our online courses.

Programs

- Building Officials Fundamentals Program
- Construction Estimating Program
- Construction Project Management Program
- Construction Superintendent Program
- Electrical Estimating Program
- Mechanical Estimating Program

We also offer Canadian Construction Association (CCA) Gold Seal credit courses that you can apply towards your Gold Seal Certified (GSC) designation.

coned.georgebrown.ca/construction
Register now!

For more information, contact us at cetechnology@georgebrown.ca.

Education That Fits You

With online classes starting throughout the year, we make it simple to fit learning into your schedule. Select individual courses best suited to your interests, or register for those courses that make up a certificate or designation requirement. You can work toward a program at your own pace – you register (and pay) on a course-by-course basis.

ASSOCIATE LEVEL OPPORTUNITY

Pelican Woodcliff is looking for a Senior Consultant to take a leading role in our Project Monitoring department. This is an Associate Level position reporting directly to our company principals.

Candidates must have a minimum of ten (10) years of experience in the Canadian project monitoring field and possess an appropriate professional accreditation.

The successful candidate will be offered a compensation package reflective of your professional experience, unique skill sets and a leadership role in our organization.

To pursue this opportunity please forward your resume in strictest confidence to:

E-mail: Donny@pelicanwoodcliff.com

Donny Afonso, Principal of Pelican Woodcliff



100 York Blvd., Suite 608, Richmond Hill, ON L4B 1J8 Tel 905.889.9996
www.pelicanwoodcliff.com



QUANTITY SURVEYORS, ESTIMATORS, PLANNERS

A leading Cost Consulting and Project Management firm requires the following candidates for its Montreal and Ottawa offices:

Junior, intermediate and senior level Q.S.'s, Estimators and Planners with experience on:

- Commercial and institutional projects
- Industrial projects (oil/gas, refineries, mining, metallurgical).

We offer competitive salaries, benefits, training and potential for growth. Relocation assistance will be provided.

We sincerely thank all applicants, but only those candidates which meet our requirements will be contacted.

Please send resume in strictest confidence to: **LCO - Construction and Management Consultants Inc.**

Fax: 514-846-8913 | Phone: 514-846-8914 | E-Mail: MONTREAL@LCOGROUP.COM

Lakeland Consulting Inc. provides commercial management expertise to Developers, Owners, General Contractors, Trade Contractors, Suppliers, Insurers, Lawyers and other professionals. Typical mandates include providing expertise to:



Review | Implement | Deliver



- **Review** records & establish entitlement
- **Develop** strategy for resolution
- **Analyze** delay & establish responsibility
- **Establish** extensions of time
- **Quantify** claimable amounts & damages
- **Assess** site indirects & head office overheads
- **Establish** disruption & out of sequence work
- **Determine** planned sequence & impacts
- **Submit** high-quality pursuit & defense reports

We have successfully supported our clients during the process of negotiation, mediation, adjudication, arbitration and litigation on construction and civil engineering projects across Canada.

Daniel Josiah BSc (Hons), PQS, MRICS, MCI Arb
Director, Contracts & Commercial
dj@lakelandconsulting.com
647.637.1449

Richard Fogarasi MBA, BAsC (Hons), P.Eng
Senior Vice President
rf@lakelandconsulting.com
416.456.6446

Ricardo Raymond BSc (Hons), Dip. C.E.T
Associate Director, Contracts & Commercial
rraymond@lakelandconsulting.com
647.294.7136



Canadian Institute of
Quantity Surveyors

Institut canadien des
économistes en construction

The mission of CIQS is to promote and advance professional quantity surveying and construction estimating; to establish and maintain national standards; to recruit, educate and support our members.

Canadian Institute of Quantity Surveyors

90 Nolan Court, Unit 19, Markham, ON L3R 4L9

t. 905/477.0008 f. 905/477.6774

toll free. +1 866/345.1168

e.info@ciqs.org

www.ciqs.org

Chief Executive Officer

Sheila Lennon, CAE ceo@ciqs.org

Managing Editor

Arif Ghaffur, PQS(F) editor@ciqs.org

Assistants to Editor

Shane McKernan, PQS

Ajibola Soboyejo, PQS

Carl Pedersen, PQS

Send Change of Address to:

Canadian Institute of Quantity Surveyors

90 Nolan Court, Unit 19, Markham, Ontario L3R 4L9

CIQS Board

Chair:

Erin Brownlow, PQS

Vice-Chair:

Arif Ghaffur, PQS(F)

Past Chair:

David Dooks, PQS(F)

Education Director:

Adam Ding, PQS

Director:

Hiran Dassoruth, PQS

Director:

Jack Chen, PQS

Director:

Jerry Crawford, PQS

Director:

Roger Ward, PQS(F)

Director:

Tammy Stockley, PQS

Statements of fact and opinion contained within this journal are those of the authors, including subject matter experts. CIQS assumes no responsibility or liability for the content of such fact and opinion, nor do they represent the official policy of CIQS.

Published four times a year on behalf of the
Canadian Institute of Quantity Surveyors by



Third Floor - 2020 Portage Avenue

Winnipeg, Manitoba R3J 0K4

Tel: 866-985-9780 Fax: 866-985-9799

info@kelman.ca www.kelman.ca

Managing Editor Chris Kelman and
Katie Woychysyn

Art Design/Production Jackie Magat

Advertising Coordinator Stefanie Hagidiakow

Marketing Manager Jeff Kutny
jeff@kelman.ca 866-985-9789

Publication Mails Agreement #40065075

Send undeliverable addresses to:

lauren@kelman.ca

CONSTRUCTION ECONOMIST

SUMMER 2021

The Journal of the Canadian Institute of Quantity Surveyors
Le Journal de l'Institut canadien des économistes en construction

Features

Summer 2021 events summary 26

CIQS and CCA re-affirm joint dedication
to Inspire Canada's quantity surveyors. 27

Budget 2021: Long-term environmental
strategy over short-term action. 28

Trends in construction costs in British Columbia 30

Sitting on all sides of the table
– A perspective 32

Building schools for children
in Honduras and Ecuador 34

In memoriam – Alexander John Cosway 37



Corners

Congratulations Corner 11

Legal Corner 17

Education Corner 21

Young Quantity Surveyor Corner. . . 24

Messages

Chair's Message 6

CEO's Message 9

Managing Editor's Message. 12

Prompt Payment 22

OUR CONCERN FOR THE
ENVIRONMENT IS MORE THAN JUST TALK

This document is printed on paper certified to the standards
of the Forest Stewardship Council® (FSC®).

THINK GREEN





Erin Brownlow, PQS

The value of volunteering

often get asked why I volunteer with the CIQS. The passion I have for my work is what drives me.

The work I do is like a hobby, it is what I choose to do in my spare time and as my career – and I really do enjoy it! The mental visualization of projects and communicating those projects as numbers and values to clients and owners, or even family members who need assistance in their projects at home, often feels like solving mysteries!

That there are so many different career avenue options as a Professional Quantity Surveyor or Construction Estimator Certified is what makes it so interesting. We have professionals in so many different types of organizations doing many different jobs, with one thing in common: clear knowledge and understanding of construction economics and how to apply those skills to projects. I have met peers from around the world who do what we do, and we all have similar stories. I find this so fascinating! Honestly, the volunteer work that I do with the CIQS rarely feels like work, and I suspect this may be why I continue to volunteer.

I also want to thank the volunteers who have been working toward the goals of the CIQS. To those who will complete their terms this summer, your dedication and commitment has been greatly appreciated. I certainly hope you have been as satisfied with contributing as I have been. While COVID-19 has changed how we work and interact in our daily work, it has also changed what we do as volunteers of the CIQS. Please remember to take breaks, breathe the fresh air, and spend time with loved ones.

As we look to the future of growth, our volunteers will continue to play an important and valuable part of this process.

Transitioning of the Board

In the spring issue, I wrote about the “Vision of the Board of the CIQS” and the importance of ensuring we have clear direction, communication, policies, and planning in place, to support future growth.

The CIQS Board has been a managing board. The Directors of the Board have been active managers and doers of the CIQS, and hired resources were limited. This is typical of small associations and an important factor in the early stages.

Our growth has been steady for several years, and it is time to increase awareness, CPD opportunities, membership programs, and to build valuable relationships to support our membership demands. To do this, we can no longer depend solely on volunteers and require staff and contractors to support our initiatives. This removes tasks from volunteers, allowing them to focus on areas in which they want to contribute – whether they are individuals dedicated to research and information gathering for recommendations, or knowledgeable ambassadors and spokespersons for events and meetings.

As we look to the future, we need to transition to a strategic board. This has been discussed for years, and it is time to start this transition in a more defined way.

This means that decisions on items such as long-term planning, risk management, budget, education, best

practices, governance, and chapters will be made at the Board level. The management of the organization and the implementation of the strategic plan will be the focus of the CEO, monitored by the Board. With this format, the CIQS Board and CEO will work together as partners, keeping the best interests of the CIQS as their focus.

The Board and CEO will lean on committees to gather information and make recommendations. The committees will consist of volunteers, Directors, and staff, like the current structure, but more robust. There will be future calls for additional committed members on committees so, if you are interested in volunteering, keep an eye out for these!

During the last session of meetings, a vision statement for the Board was agreed:

“The CIQS Board of Directors is responsible for establishing governance and strategic focus, and monitoring of the institute in collaboration with the CEO. Each Director of the Board is required to uphold their fiduciary duty.”

We also developed transition road maps for both the Board and the CEO to determine additional steps to be taken and to set goals for this fiscal year.

It will take some time and dedication, but I know we have the right people to get it done.

Stay Safe, Healthy and Happy!

Erin Brownlow
Professional Quantity Surveyor
Chair, CIQS Board of Directors

La valeur du bénévolat

On me demande souvent pourquoi je suis bénévole au sein de l'ICÉC. Je suis motivée par la passion que j'éprouve pour mon travail. Je considère le travail que je fais comme un loisir, c'est ce que je choisis de faire pendant mon temps libre et c'est également la carrière que j'ai choisie, et j'aime vraiment ça! La visualisation mentale des projets et la communication de ces projets sous forme de chiffres et de valeurs aux clients et aux propriétaires, ou même aux membres de la famille qui ont besoin d'aide pour leurs projets à la maison, ressemblent souvent à la résolution de mystères!

Le fait qu'il y ait tant d'options de carrière différentes en tant qu'économiste en construction agréé ou estimateur en construction certifié est ce qui rend ce métier si intéressant. Nous avons des professionnels dans de nombreux types d'organisations différentes qui font de nombreux travaux différents, avec une chose en commun : une connaissance et une compréhension claires de l'économie de la construction et de la manière d'appliquer ces compétences aux projets. J'ai rencontré des collègues du monde entier qui font ce que nous faisons, et nous avons tous des histoires similaires. Je trouve cela vraiment fascinant! Honnêtement, le travail bénévole que je fais auprès de l'ICÉC ressemble rarement à du travail, et je pense que c'est peut-être la raison pour laquelle je continue à faire du bénévolat.

Je tiens également à remercier les bénévoles qui ont travaillé à la réalisation des objectifs de l'ICÉC. À celles et ceux qui termineront leur

mandat cet été, votre dévouement et votre engagement ont été vivement appréciés. J'espère que vous avez été aussi satisfaits que moi de votre contribution. Si la COVID-19 a changé notre façon de travailler et d'interagir dans notre travail quotidien, elle a également changé ce que nous faisons en tant que bénévoles auprès de l'ICÉC. N'oubliez pas de faire des pauses, de respirer l'air frais et de passer du temps avec vos proches.

Alors que nous nous tournons vers la croissance à venir, nos bénévoles continueront à jouer un rôle important et précieux dans ce processus.

Transition du conseil d'administration

Dans le numéro du printemps, j'ai parlé de la « vision du conseil d'administration de l'ICÉC » et de l'importance de s'assurer que nous avons une direction, une communication, des politiques et une planification claires en place, pour soutenir la croissance future.

Jusqu'ici, le conseil d'administration de l'ICÉC était un conseil de gestion. Les administrateurs du conseil étaient des gestionnaires et des exécutants actifs de l'ICÉC, et les ressources engagées étaient limitées. Cette situation est typique des petites associations et constitue un facteur important dans les premiers temps.

Notre croissance est régulière depuis plusieurs années, et il est temps d'accroître la sensibilisation, les opportunités de DPC et les programmes d'adhésion et de construire des relations précieuses pour soutenir les demandes de nos membres. Pour ce faire, nous ne pouvons plus dépendre uniquement des bénévoles et avons besoin de personnel

et de contractants pour soutenir nos initiatives. Les volontaires seront ainsi déchargés de certaines tâches, ce qui leur permettra de se concentrer sur les domaines dans lesquels ils souhaitent apporter leur contribution, qu'il s'agisse de personnes se consacrant à la recherche et à la collecte d'informations en vue de l'élaboration de recommandations ou d'ambassadeurs et de porte-parole compétents pour les événements et les réunions.

Pour l'avenir, nous devons passer à un conseil stratégique. Cela fait des années que l'on en parle et il est temps de commencer cette transition de manière plus définie.

Cela signifie que les décisions sur des sujets tels que la planification à long terme, la gestion des risques, le budget, l'éducation, les meilleures pratiques, la gouvernance et les chapitres seront prises au niveau du conseil. La gestion de l'organisation et la mise en œuvre du plan stratégique seront l'affaire du directeur général, sous la supervision du conseil. Avec ce format, le conseil et le directeur général de l'ICÉC travailleront ensemble comme des partenaires, en gardant à l'esprit les meilleurs intérêts de l'ICÉC.

Le conseil et le directeur général s'appuieront sur des comités pour recueillir des informations et formuler des recommandations. Les comités seront composés de bénévoles, d'administrateurs et d'employés, comme la structure actuelle, mais de manière plus soutenue. Des appels seront lancés à l'avenir pour recruter de nouveaux membres engagés dans les comités. Si vous souhaitez vous porter volontaire, gardez un œil sur ces appels!

« Le conseil d'administration de l'ICÉC est chargé d'établir la gouvernance, l'orientation stratégique et le suivi de l'institut en collaboration avec le directeur général. Chaque administrateur du Conseil est tenu de respecter son devoir fiduciaire. »

Au cours de la dernière séance de réunions, un énoncé de vision pour le conseil a été adopté :

« Le conseil d'administration de l'ICÉC est chargé d'établir la gouvernance, l'orientation stratégique et le suivi de l'institut en collaboration avec le directeur général. Chaque administrateur du Conseil est tenu de respecter son devoir fiduciaire. »

Nous avons également élaboré des feuilles de route de transition, tant pour le conseil que pour le directeur

général, afin de déterminer les mesures supplémentaires à prendre et de fixer des objectifs pour cet exercice.

Cela prendra du temps et du dévouement, mais je sais que nous avons les bonnes personnes pour mettre les choses en place.

En vous souhaitant la santé et le bonheur,
Erin Brownlow,
économiste en construction agréé
Présidente du conseil d'administration
de l'ICÉC 🇻🇪

NO MORE HEADACHES



All About Designations

In 1988, CIQS obtained the marks PQS (Professional Quantity Surveyor) and the French equivalent ECA (Économistes en Construction Agréé). These designations replaced MCIQS. Later, CIQS also obtained the official marks CEC (Construction Estimator Certified) and the French equivalent ECC (Estimateur en Construction Certifié). CIQS grants Members a license to use these designations provided they are qualified and in good standing. Here is a list of acceptable (provided you are a qualified member of CIQS and in good standing) and unacceptable designations:



Acceptable	
✓	Professional Quantity Surveyor
✓	PQS
✓	Construction Estimator Certified
✓	CEC
✓	Économistes en Construction Agréé
✓	ECA
✓	Estimateur en Construction Certifié
✓	ECC
✓	Professional Quantity Surveyor (Fellow)
✓	PQS(F)
✓	Économistes en Construction Agréé(F)
✓	ECA(F)
Unacceptable	
✗	MCIQS
✗	AQS
✗	ACIQS
✗	PQS (In training)
✗	PQS(R)
✗	PQS (Intern)



Sheila Lennon, CAE

A new customer experience coming to CIQS in July 2021

One of the pillars of the current strategic plan focuses on identifying and upgrading technological shortfalls within the CIQS. A thorough review of current financial procedures, membership database, and website revealed deficiencies within all three areas.

This prompted an in-depth and meticulous search for an association management system that will function as a financial software, membership database platform, content management system, and reporting centre.

For the last five months, the CIQS has been working with Advanced Solutions International (ASI) to build an integrated, cloud-based association management system, known as iMIS. As one of the top, full-service, database platforms for the non-profit industry, the system offers add-on apps and widgets, as well as increased database capacity based on our needs. This means that as the CIQS's membership grows, the database can be expanded to continuously meet our needs.

One exciting function of this system is the new, interactive member portal we are building to create a more personalized customer experience for our members. A member will log in from the public website, similarly to how they access the current members-only section from ciqs.org. The new member portal is designed to produce a user-friendly interface offering a member's personal information (such as name, address, member status, upcoming events, invoices and volunteering/engagement details) up-front and centre. This portal allows members to upload a photo, brief bio, and social media links, offers member-based discussion forums, access to member-specific information, and



the ability to pay for member renewals, online store products and events directly from one convenient space. It will also feature a certification module for those individuals who are going through the TPE process.

CIQS website given a facelift

The beauty of the management software that was chosen is that it is a fully integrated content management system, which means that all data is shared on one platform, including the website design and functionality. By adding the RISE platform, we have been able to redesign our public website so that it integrates seamlessly with the member portal and administrative database. The new public website is designed with user-experience at the forefront. Information has been laid out to make it easy to navigate to a desired section with a few clicks as possible. If you cannot find what you seeking, you can search for it using the search button.

If you are anything like I, you browse an online store, make your selections, and get called away from the computer before you can complete the purchase. Through the new system, you will be able to log in using your member portal details and save your purchase in the shopping cart until you are ready to check out.

I am proud of how the CIQS team worked together to hit every milestone on this project's critical path while maintaining all other projects and administrative tasks on track. Completing the database migration and website design was months of hard work but I am extremely pleased with the final result.

Stay tuned for an announcement about our website going live in the coming months. I encourage our readers to visit the new website at that time and I hope that the website and member portal provides as pleasing an experience to you as the administrative site does to everyone on the CIQS team. 🇻🇪

Une nouvelle expérience client à partir au CIQS de juillet 2021

un des piliers du plan stratégique actuel porte sur l'identification et la mise à niveau des lacunes technologiques au sein de l'ICÉC. Un examen approfondi des procédures financières actuelles, de la base de données des membres et du site Web a révélé des carences dans ces trois domaines.

Nous avons donc lancé une recherche approfondie et méticuleuse d'un système de gestion d'association qui servira de logiciel financier, de plateforme de base de données des membres, de système de gestion de contenu et de centre de rapports.

Au cours des cinq derniers mois, l'ICÉC a travaillé avec Advanced Solutions International (ASI) pour mettre en place

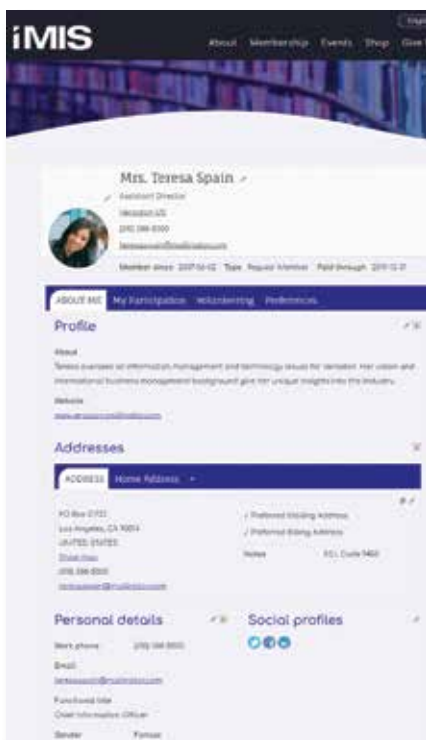
un système de gestion d'association intégré dans le nuage, connu sous le nom d'iMIS. Le système, qui est l'une des principales plateformes de base de données à service complet pour le secteur non lucratif, propose des applications et des widgets supplémentaires, ainsi qu'une capacité de base de données accrue en fonction de nos besoins. Cela signifie qu'au fur et à mesure que le nombre de membres de l'ICÉC augmente, la base de données peut être élargie pour répondre continuellement à nos besoins.

L'une des fonctions intéressantes de ce système est le nouveau portail interactif pour les membres que nous sommes en train de mettre en place afin de créer une expérience client plus personnalisée pour nos membres. Les membres se connecteront à partir du site Web public, de la même manière qu'ils accèdent à la section réservée aux membres sur ciqs.org. Le nouveau portail des membres est conçu pour fournir une interface conviviale offrant les informations personnelles du membre (telles que le nom, l'adresse, le statut de membre, les événements à venir, les factures et les détails relatifs au bénévolat et à l'engagement) au premier plan. Ce portail permet aux membres de télécharger une photo, une brève

biographie et des liens vers des médias sociaux, offre des forums de discussion, un accès à des informations spécifiques aux membres et la possibilité de payer le renouvellement de leur adhésion, les produits de la boutique en ligne et les événements directement à partir d'un seul et même espace pratique. Il comprendra également un module de certification pour les personnes qui passent par le processus TEP.

Le site Web de l'ICÉC fait peau neuve

La beauté du logiciel de gestion choisi est qu'il s'agit d'un système de gestion de contenu entièrement intégré, ce qui signifie que toutes les données sont partagées sur une seule plateforme, y compris la conception et la fonctionnalité du site Web. Grâce à l'ajout de la plateforme RISE, nous avons pu remanier notre site Web public afin qu'il s'intègre parfaitement au portail des membres et à la base de données administrative. Le nouveau site Web public a été conçu en mettant l'accent sur l'expérience des utilisateurs. Les informations ont été présentées de manière à faciliter la navigation vers la section souhaitée en un minimum de clics. Si vous ne trouvez pas ce que vous cherchez, vous pouvez le rechercher à l'aide du bouton Recherche.



« Je suis fier de la façon dont l'équipe de l'ICÉC a travaillé ensemble pour atteindre chaque étape du chemin critique de ce projet tout en continuant à fournir tous les autres projets et tâches administratives dans les délais. »

Si vous êtes comme moi, vous parcourez un magasin en ligne, vous faites votre choix, et vous devez quitter l'ordinateur avant de pouvoir terminer votre achat. Grâce au nouveau système, vous pourrez vous connecter à l'aide de vos coordonnées sur le portail des membres et sauvegarder vos achats dans le panier jusqu'à ce que vous soyez prêt à passer à la caisse.

Je suis fière de la façon dont l'équipe de l'ICÉC a travaillé ensemble pour atteindre chaque étape du chemin critique de ce projet tout en continuant à fournir tous les autres projets et tâches administratives dans les délais. La migration de la base de données et la conception du site Web ont nécessité des mois de travail acharné, mais je suis extrêmement satisfaite du résultat final.

Restez à l'écoute pour une annonce concernant la mise en ligne de notre site Web dans les mois à venir. J'encourage nos lecteurs à visiter le nouveau site Web à ce moment-là et j'espère que le site Web et le portail des membres vous offriront une expérience aussi agréable que le site administratif le fait pour tous les membres de l'équipe de l'ICÉC. 🇻🇪



Congratulations Corner

Congratulations to the following CIQS members who have qualified as a PQS or CEC (including reinstatements).

CIQS – British Columbia

Deniz Caglar, PQS
Lai Kwok Chung, PQS
Graham Johnson, CEC
Clay Nelson, PQS
Jacqueline Morgan, PQS
Ivan Shi, CEC
Taranjit Singh Binning, PQS

CIQS – Prairies & NWT

Ian Hodgkinson, CEC
Jon MacDonald, CEC
John McAllister, PQS
Gary Vilches, CEC

CIQS – Québec

Jean-Francois Desgagnes, CEC
Raj Binaye Kheddoo, CEC
Faisal Morshed, CEC

CIQS – Ontario

Damilare Allison, CEC
Luis Castillo, CEC
Mathew Koshy, CEC
Steve Melia, CEC
Flordeliza Moton, PQS
Jon Ormrod, PQS
Ahmad Radwan, PQS
Vanessa Vachon, PQS
Sarah Walden, PQS

CIQS – Members at Large

Victor Adeniji, PQS
Omobolanle Oluwatoyin Adeyemo, PQS
Tersoo Awuho, PQS
Chan Chi Chung, PQS
Wong Siu Hang, PQS
Chan Cheuk Lam Gloria, PQS
Shivam Gupta, PQS
Eronmosele Justus, PQS
Anvear Seyad Mohamed, CEC
Andries Butso Mthombeni, PQS
Afolabi Ojo, PQS
Olayinka Omoboye, PQS
Ying Kei Ng, PQS
Janakan Vallipuram, PQS
Sisil Warnapura, PQS



Arif Ghaffur, PQS(F)

Resource cost fluctuations continue to cause havoc

Since the start of the COVID-19 pandemic, unprecedented changes have been thrust upon the construction industry. These changes have impacted a range of areas from fiscal measures to the means and methods of how physical construction work is carried out. Rewind to March 2020 when the World Health Organization declared a global pandemic,¹ and you will be hard pressed to find anyone who could predict with any reasonable degree of certainty the impacts and outcomes that would occur over the next 12 months and beyond.

We are now over a year into the pandemic and there are trends that have occurred along with many associated impacts and consequences. Whilst the uncertainty continues, there is a deeper understanding of what appeared to be immediate impacts are in fact of long-term consequence for the whole construction industry, as quoted in this article by a number of senior level Professional Quantity Surveyors (PQSs). In my editorial, I explore the causes, impacts, consequences, behaviours, and the role that we have to play in this situation.

Causes

All construction projects are driven by the need for resources, with such resources typically being made up in varying configurations of labour, materials, equipment, supervision, and management. These resources come at a cost and are typically subject to risks associated with multiple commercial, economic, and supply chain factors that form construction estimates.

COVID-19 has directly impacted the normal forces of supply and demand and price elasticity, causing resource cost fluctuations (sometimes erratic) and cost uncertainty. Taking lumber as an example, prices were subject to increases as a result of reduced supply caused by logistical challenges, COVID-19 physical distancing, and hygiene measures implemented at lumber mills that, understandably, scaled back operations.

Conversely, high demand has been and continues to be stoked by an increase in home renovation projects,² recognizing that large numbers of the Canadian population were now being asked to work remotely, with homeowners reconfiguring spaces internally and externally to suit life working from home.

Couple this with the low interest rates and a housing shortage driving new, timber-framed housing developments, it is easy to see why lumber prices have seen a significant increase with no immediate end in sight. In fact, many by-products of pulp have seen a spike in prices that continue to have an upward trajectory.



"Commodity hikes in steel and uPVC, compounded by eye watering increases in the lumber sector, are proving to be concerning. The knock-on effect from a cost and supply perspective to the supply chain cannot be understated. Project cost risk mitigation and management remain of critical importance for all Quantity Surveyors."

– Mark Russell, PQS(F), Partner, LEC Group

There are many other extenuating factors in play, for example, the Suez Canal blockage in March this year caused delays to shipments, including construction materials coming to Canada from Asia, and caused disruption to Canadian shipping ports as an aftermath.

Also, earlier this year, the state of Texas experienced unseasonal weather, and a lengthy power outage caused delays in imports, including construction materials, to Canada. The disruptions caused by COVID-19 – and to a differing extent, the Suez Canal blockage and the recent power outages experienced in Texas – have further exposed the fragility of the local and global supply chains.

Impacts

Lumber is not the only commodity that has been impacted; it is evident that there have been increases in other commodities including steel, glass, drywall, and roofing. A shortage in the supply of materials requires contractors to



"With cost trend going in one direction, drastic spikes in construction material prices like lumber, steel, and concrete in the wake of the COVID-19 pandemic presents contracting companies and construction professionals with the opportunity for creative strategies in lowering costs by trying new materials as substitutes like OSB vs. plywood, shortening project schedules, and considering contractual changes for material cost increase contingencies."

– Edward Traore, PQS(F), President
TDI Global Services Synergy Ltd.



take a different course of action, including the sourcing of suitable alternative materials or waiting until the specified material is supplied. The action taken is often a function of the criticality of achieving project completion timelines and nuances contained within contractual agreements.

Add to this the mandated COVID-19 physical distancing and hygiene requirements for contractor personnel and you have work being carried out in a less efficient and more disruptive manner than in pre-pandemic times. Longer leads in supplies of materials, the use of substitute materials, and a scaled down labour force have in turn caused delays to projects. This raises questions as to whether quality and value parameters established at the outset of a project are in fact achievable.

This uncertainty is particularly compounded where the demand for materials is high, leading to increased costs as the supply (sometimes desperately) seeks to meet demand expectations. The impacts of material price volatility and less-than-ideal labour conditions mean that projects will be disrupted, be subject to quality issues, take longer, and ultimately cost more.

Consequences

The impacts resulting from resource cost fluctuations have consequences on projects at all phases, including the feasibility phase, prior to procurement, projects where the procurement phase is underway, projects that are contracted and underway, projects that are post-contract, and projects that have transitioned to operations.

For owners, general contractors, specialist trades and suppliers, this places a considerable emphasis on uncertain risks. An example of this playing out in reality with market



"We are currently experiencing unprecedented times in the construction industry, both in activity and sharply risen material costs on various major commodities such as lumber, steel, copper and concrete, as a result of shortage of supply due to disrupted supply chains. This calls for especially close monitoring of construction budgets."

– **Glenn Hultzer**, PQS, Partner, A.W. Hooker Associates Ltd.

uncertainty continuing is that contractors have indicated that they are choosing to bid on fewer projects, reducing margins, and constraining price increases.³ To further complicate matters, often some projects are deemed essential and others that are not.

Implications

The implications are wide-ranging and will largely depend on where the project is in its lifecycle. For projects on which the contract has been awarded, owners, general contractors, specialist trades, and suppliers are asking the same question: "*Who is going to pay for resource cost fluctuations?*"

The answer to this question, of course, will largely depend on the terms of the relevant contractual agreement between the impacted parties. Contract provisions such as force majeure and language used for Government stop-work orders and changes to statutes may be unclear or silent on a pandemic, which in turn may lead to the courts answering this question on behalf of construction industry stakeholders.

In parallel, general contractors, specialist trades, and suppliers are continuing to factor in commodity price fluctuations, physical distancing measures, and hygiene requirements when pricing potential projects. This will continue whilst the uncertainty of the pandemic remains with no immediate end in sight.



"Fluctuations in construction material prices are now sometimes erratic. Therefore, those preparing construction estimates need to be extra vigilant to consider what the actual cost would be of construction materials at the time of purchase."

– **Ian Duncan**, PQS(F), Principal, Atrium Consultants

“It will no longer be sufficient to wholly rely on outdated price books, historical benchmarks and traditional pricing resources...”

Behaviours

This begs the next question: *how does the Canadian construction industry deal with resource cost fluctuations?* The Canadian construction industry is colossal, generating approximately \$141 billion to the economy annually, which makes up 7.5% of Canada's gross domestic product,⁴ and is made up of many stakeholders.

Recognizing the size and status of the construction industry, it is of paramount importance that stakeholders within the industry attempt a consensual and amicable approach to address



"The impact of several macroeconomic factors, coupled with shortage of skilled labour, rising material prices and a deeply disrupted global supply chain, have wreaked havoc on building costs and construction timelines."

– **Darren Cash, PQS, Director, Turner & Townsend**

the impacts of resource cost fluctuations and the resulting consequences, mitigating implications in the process, to the best extent possible.

It will no longer be sufficient to wholly rely on outdated price books, historical benchmarks and traditional pricing resources that are simply outdated, and sometimes simply not relevant to the current scenario of developing estimates based on risk-based estimating.

This is a concept that I explored in my article in *On-Site Magazine* on May 13, 2020 titled *From crisis to recovery: The emerging landscape for estimating, budgets and outcome construction costs*, available at www.on-sitemag.com/construction/from-crisis-to-recovery-the-emerging-landscape-for-estimating-budgets-and-outcome-construction-costs/1003968250.

Role of the Construction Economist

As construction economists, we have an important role to play in providing advice to our customers who represent all levels of the construction pyramid. This will include continuing to advice on the cost to construct, monitoring of construction costs, reporting on costs vs. budget, and advise on the impacts in our everchanging economy in the face of uncertainty. Therefore, as quantity surveyors and estimators we should seek to develop best practices including:

- 1. Baseline Requirements:** Ensure that the requirement for resources has been established at the outset.
- 2. Current Situation:** Establish the current status of the Baseline Requirements in respect of progress.

- 3. Proactively Expedite:** Establish the status of supply, including the expediting status of all long lead materials.
 - 4. Mitigation Measures:** Establish resources of particular concerns and develop a mitigation plan to reduce costs and increase uncertainty.
 - 5. Impact Assessment:** Assess the impacts from potential cost and schedule implications coming out of Proactively Expediting resources and Mitigation Measures.
 - 6. Contractually Regularise:** Address any contractual issues and ramifications from the Impact Assessment.
 - 7. Continued Collaboration:** Communicate throughout the above process with all stakeholders in seeking a collaborative process.
- In conclusion, we are over a year into the pandemic, and it is likely that resource cost fluctuations will continue to cause havoc on the construction industry. Whilst the full extent of the implications on the construction industry is not known at this time, it is evident that the known impacts, consequences, and implications will be present for the foreseeable future. That said, our roles as construction economists allow us to be a part of a team led solution that seeks to navigate the tide caused by recent events.

Thank you for your support and contributions to *Construction Economist*. I wish you and your families a safe summer, and all the best for the balance of 2021. If you have any feedback, suggestions and, of course, any articles that you would like to have considered for publication, please email editor@ciqs.org or ceo@ciqs.org. 🇨🇦

Endnotes

- ¹ WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020
- ² Statistics Canada - Building construction price indexes, third quarter 2020
- ³ Statistics Canada - *Building construction price indexes, third quarter 2020*
- ⁴ Canadian Construction Association - *The impact of the construction industry is everywhere*

CONSTRUCTION ECONOMIST Appointment of Assistant to Editor

CIQS is delighted to confirm the appointment of Ajibola Soboyejo, PQS, consultant with Altus Group in Vancouver, BC, as an Assistant to the Editor of *Construction Economist*.

Ajibola is a professional quantity surveyor specializing in project estimation, BIM estimating, cost planning, and project cost management. Ajibola possesses both MSc and BSc degrees in Quantity Surveying from the University of Salford in the UK and University of Lagos, Nigeria, respectively.

Sheila Lennon, CAE, CEO of CIQS said, "We are pleased that Ajibola will bring her experience to the *Construction Economist*, which continues to provide a platform for knowledge share and thought leadership."



The western Canadian petroleum dilemma

Dear Managing Editor,

I first moved to Alberta in 2013 at the apex of the Canadian energy sector's latest boom. By the fall of 2014, that apex position started to shift into a long, gradual, precipitous decline lasting almost seven years, until the recent 2021 mild rebound in global commodity prices. How did this happen? Why was this downturn not predicted? What were the triggers? How could we have acted differently to avoid this economic carnage? Where is this industry headed?

Having a passion for history, my reading generally runs along the lines of financial commerce, technology developments, human behaviour, and military conflict. Often, the subjects and cast of characters are so intertwined it can be almost indistinguishable as to who is getting or betting their interests will be best served out of the latest economic and military prognostication.

To list a few commodity or economic crashes in the last 400 years; the Dutch Tulip mania in 1637, the 1719 South Sea Company crash, the cotton panic crash of 1837, the American Railroad bust of 1873, the 1929 Stock Market Crash, the 2008 US housing bubble collapse, and now the recent ongoing current crash in global energy prices.

A confluence of trends may well have contributed to the latest historic energy crash. Pre-2008 predictions at the turn of century indicated rosy projections for growth in commodities due to the emergence of the BRIC countries. Corporate executives emboldened by glossy growth charts—and exorbitant global demand graphs depicting widespread looming commodity shortages—proceeded to embark on CAPEX spending investments, introducing an overabundance of new sources of feedstock around the planet.

How the oil price managed to move from \$90 to \$147 a barrel in the span of six months in 2008, only to come crashing back down to \$43/barrel in February 2009, was largely the result of perceived financial market fundamentals and rampant speculation. The excess new sources of feedstock, partially brought on by technology advances in shale fracking with hedge fund backing, have further led to global surpluses resulting in the current round of depressed prices for the Western Canadian Oil Patch.

Why this extended downturn was not foreseen probably has more to do with human nature than human planning. Supply-and-demand cycle concepts are reasonably well understood economic self-correcting market balancing principles. The maxim, “the cure for high energy prices is high energy prices” goes without saying. What human nature outside the financial inhabitants in the canyons of Wall Street fails to understand is that as the US Federal Reserve and Treasury Department bankrolls and indulges their latest investment gambling penchants (be they green energy, technology, or commodities trading through quantitative easing monetary policies), the true



supply and demand commodity sector marketplace equation is distorted in both directions. Since February 2020, the US has pumped over \$6 trillion into the economy.

What was the medley of triggers, some known some unknown, beyond the marketplace financial speculative excesses that further exacerbated the prolonged downturn prices, resulting in Western crude production being constrained and contained? Was it the 36% global efficiency improvement (TES/GDP) of intensive energy used to generate a unit of GDP growth, anti-pipeline green energy politics by Greta & Co., disinvestment by the sovereign wealth funds, or just poor marketing of the Canadian ESG track record, now rated to be the best global leader in this KPI category?

Who could have acted differently and who should be acting or at least be thinking differently to rebalance the current dilemma? It requires tradeoffs, awareness messaging, and sound, rational decisions. A certain amount of complacency always creeps into any business culture of producers when commodity prices are booming, and the next quarter profits are the only true measure of success figures to be reported as fully aligned with analyst and shareholder expectations. Taking the longer and broader lateral stakeholder view, other than the company bottom-line results, with a focus on educating the consumer public with aggressive practical marketing realities regarding the current \$95 million barrel-a-day global production, of which Alberta is about 5%, is not an option; however, it's a position that the Canadian energy industry has been working hard to overcome. The big three auto sector producers suffered the same business complacency prior to 1980, until they realized the 'same-old, same-old' was not a tried-and-true recipe for future success.

Letter to the Managing Editor

While the destiny and direction of the petroleum and gas industry after recent rationalization, layoffs, carbon taxes, and bankruptcies are still an uncertain backdrop in the current climate, all indications are that the industry is headed for a commodity price rebound over the next two years. The consumers and politicians who rely on and benefit from wealth transfer payments generated by the Canadian energy sector, however environmentally conscious their leanings may be, should take some time to carefully examine Canada's oil and gas sector environmental and regulation track record of facts to realize that we can contribute a healthy technology global solution on the world stage in the effort to achieve zero carbon emissions by 2050.

In the interim, a parting thought to consider is that the US Energy Information Administration projects nearly a 50% increase in world energy usage by 2050, led by Asia. How much oil should Canada import in the next 30 years to satisfy their demands and keep Canadian producers precluded and shut out? 🇨🇦

About the author



Jerry Crawford PMP, PQS, GSC, is the founder and principal director of KGC Consulting Services Ltd. working with clients to provide construction dispute litigation support on transportation, energy, commercial, industrial, multi-family residential, civil, and building infrastructure projects.



Request for expressions of interest Editor, *Construction Economist*



A publication that has been in existence for over 30 years, *Construction Economist* is the official journal of the Canadian

Institute of Quantity Surveyors (CIQS). The journal has earned a growing reputation for sharing knowledge and expounding thought leadership, as it strives towards becoming a best-in-class publication.

The CIQS is inviting applications for the prestigious role of Editor of the *Construction Economist*, reporting to the Managing Editor (a position that is being assumed by the current Editor). The role will require the incumbent to fulfill the following tasks:

- Ensure progress of the journal in accordance with the publication schedule.
- Review incoming content to ensure alignment with CIQS strategy.
- Work closely with the CIQS national office to coordinate the following:
 - Incoming content from members and other industry professionals.
 - Review of subject matter and proof-reading of articles.
 - Dialogue with the publisher in respect of content and timelines.

- Reach out to members and potential contributors of subject matters.
 - Prepare an "Editor's Message" to reflect current and topical issues.
 - Prepare regular reports for the Managing Editor.
- This is a voluntary position that typically requires approximately 30 hours per edition from the Editor, excluding input from the Assistants to Editor and assistance from the CIQS national office.

The Editor is required to be a Professional Quantity Surveyor (PQS) or Construction Certified Estimator (CEC) with demonstrable skills and references in receiving, developing, and publishing subject matter content. The incumbent will be dedicated to personal and continuing professional development.

The transition into the role will require the incoming Editor to shadow the current Editor over the forthcoming Fall 2021 edition, thereafter formally assuming the role of Editor for the Winter 2021 edition, and onward.

If you are interested in this role, please submit your photo and bio, accompanied by a statement not exceeding 300 words setting out why you consider yourself to be suitable for the role of Editor, and how you would further develop the *Construction Economist*.

All expressions of interest should be submitted to Sheila Lennon, Chief Executive Officer of the CIQS (ceo@ciqs.org). The deadline for receipt of expressions of interest from interested individuals is July 30, 2021.



Canadian Institute of
Quantity Surveyors

Institut canadien des
économistes en construction

- Quarterly Publications
- Readership of 7,000+

- Paper & Digital Versions
- National Distribution

- Project Profiles & Updates
- Subject Matter Experts

- Leadership Interviews
- Thought Leadership



Ethan McCarthy



Lia Bruschetta

Adoption of new technologies and innovation in the construction industry: A legal perspective

The construction industry has endured unprecedented times since the onset of COVID-19. Every stakeholder in the construction pyramid has been forced to adapt to new challenges resulting from the changing landscape. COVID-19 has also highlighted and accelerated the need for participants – in what many believe to be a traditionally slow to change industry – to examine, adopt, and integrate new technologies and innovation into their projects and businesses. In this legal corner, we share some of our early insights on how we think parties may approach and embrace new technologies, and the legal considerations that we hope will assist you as you navigate adopting and implementing these innovations.

Intelligent collection and use of data

Evolving technologies around the collection and use of data are expected to have a considerable impact on how construction and infrastructure projects are designed, constructed, operated, and maintained. It is no secret that engineers, architects, general contractors, subcontractors, suppliers, operators, quantity surveyors and owners create vast quantities of data during the lifecycle of a project. Not surprisingly, recent innovations aim to harness the swaths of data from the design and construction phases to optimize outcomes in the operation and maintenance phases, and vice versa.

Some of the more ambitious pilot technologies use artificial intelligence to process large data sets derived from building information modelling (BIM) on past construction projects to create value engineering, constructability, operation,



and maintenance cost efficiencies on future construction projects. For example, we are aware of technologies that are capable of automating sustainability analysis by integrating BIM data and green building certification systems to calculate the potential credits a proposed building could earn during its design phase, and technologies capable of developing a digital replica of a completed project containing all information required for its operation, which ultimately connects to a building automation system for use in managing the asset and enhancing the user experience.

As data-driven technologies take hold in the industry more broadly,

parties and their legal advisors will need to engage in proactive dialogue to mitigate the legal risks that commonly arise with their use. For example, ownership and intellectual property rights associated with BIM models, data sets, and any derived data sets must be clearly established. The protection of the privacy rights of users and the mitigation of significant cyber security risks must also be considered. Another overarching legal issue that project participants will have to grapple with is the allocation of liability arising from non-compliant design, design errors, data misuse, transition errors, or losses of data. In our experience, it is crucial

“ When assessing new construction technologies and innovations, it is critical to distinguish between hype and reality. Only time will tell if all of these emerging technologies can deliver on their promise. ”

for a project's entire suite of contracts and subcontracts, including software service contracts, to be internally aligned. While some may opt for the status quo, we believe the “new normal” will be industry participants giving specific thought as to how emerging technologies, and the data they rely upon, are addressed in their respective agreements.

Streamlining processes and improving strategies

While innovation in the construction industry in relation to the use and collection of data is a hot button topic, other disruptive technologies are poised for increased adoption in the near future. Recent attention has focused on how emerging technologies, like 3D printing, unmanned aerial vehicles (drones), wearable technologies, and smart contracts (using blockchain technology), have the potential to improve the speed, efficiency, and

accuracy of traditional building strategies and streamline onsite, back-office and administrative processes, all while reducing waste generation, labour resources and human error. Each of these emerging technologies presents their own unique legal issues. Project participants and their legal advisors can expect to contend with a number of legal concerns that they would not have typically faced a decade ago, including relating to intellectual property and product liability (3D printing); privacy, trespass, and nuisance (drones and wearable technology); and enforceability and developer liability (smart contracts).

Managing and harnessing data and predictive analytics in dispute resolution

While the intelligent collection and use of data is likely to help solve business problems and to provide critical, informed insight for future activities, when it comes to dispute resolution, the amount of project data available for

collecting, processing, and managing can be overwhelming and costly.

Technology solutions and innovative platforms are becoming more widely used, which not only allow for the secure collection and management of project data but also utilize machine learning, analytics, and visualizations to harness this data – creating efficiencies at all stages of dispute resolution and opening up the potential for presenting data to a court or decision-maker in new and innovative ways. For these technologies to be most impactful, however, standardization and digitization at all stages of a project is critical. A lack of digitization and mismanaged paper trails often means that parties are operating from a different understanding of the facts, which can in turn bring on or aggravate disputes. As digitization increases, it may be that parties are able to spend less time arguing over the who, what, where and why of disputes, and



Andrew Heal J.D., LL.M.
Partner
*Certified Specialist
Construction Law*



Catherine DiMarco LL.B.
Partner
*Certified Specialist
Construction Law*



Damon Stoddard
LL.B., LL.M.
Partner

Assisting clients in the built environment

Solid. Legal. Advice.



Heal & Co. LLP
CONSTRUCTION LAWYERS

www.healandco.com
PHONE: 416.583.5900

instead focus on how to negotiate or solve issues at an earlier stage.

With the growth of online databases where court decisions are easily and electronically accessible, there has also been growth in recent years of predictive analytic-based software tools that are capable of mining, classifying, and annotating legal research and prior decisions to assist with early case assessment, and to identify patterns that might impact risk-assessment and settlement. With a flood of claims relating to delays, cost overruns, and other COVID-19 related issues almost inevitable in the wake of the pandemic, technologies like these that create efficiencies in managing complex disputes – and that may potentially lead to resolution of claims at an earlier stage – are likely to be a welcome complement to traditional dispute resolution strategies.

A final word of caution

When assessing new construction technologies and innovations, it is critical to distinguish between hype and reality. Only time will tell if all of these emerging technologies can deliver on their promise. Quantity surveyors should expect the data they generate through their cost estimating and forecasting roles to gain increased relevance as these technologies and innovations gain traction. From a legal perspective, however, it is important to keep in mind that there remain a number of unexamined risks and pitfalls arising from a lack of regulation and slowly developing operational experience. 🇨🇦

About the authors

Ethan McCarthy is a front-end lawyer in the Chambers Band 1-rated Construction & Infrastructure Group at Osler, Hoskin & Harcourt LLP.

Lia Bruschetta is a litigator at Osler, Hoskin & Harcourt LLP whose practice focuses on the resolution of disputes arising out of construction and infrastructure projects.

Our concern for the environment is more than just talk

This publication is printed on Forest Stewardship Council® (FSC®) certified paper with vegetable oil-based inks. Please do your part for the environment by reusing and recycling.



New technology brings new challenges

Data driven and emerging technologies open up many opportunities in the construction industry, but they also present unique legal issues due to a lack of regulation and limited operational experience. Effectively managing and leveraging data is becoming increasingly important from a contractual and dispute resolution perspective.

Osler's National Construction team can help you navigate these challenges and work through the legal considerations. For more information, read our article "Adoption of new technologies and innovation in the construction industry – A legal perspective" in this edition of the *Construction Economist* or contact the authors below.



Lia Bruschetta
Associate,
Construction Litigation
lbruschetta@osler.com
416.862.4263



Ethan McCarthy
Associate,
Construction Law
emccarthy@osler.com
416.862.6752

Osler, Hoskin & Harcourt LLP
Toronto Montréal Calgary
Ottawa Vancouver New York
osler.com/construction

OSLER



CB Ross Partners have job opportunities in our Project Monitoring department for Assistant Cost Consultants, Cost Consultants and Senior Cost Consultants.

Candidates must have:-

- ◆ Relevant Experience in project monitoring relative to the position
- ◆ Strong communications skills
- ◆ Time management skills
- ◆ Be working towards (or have interest in) RICS and CIQS memberships
- ◆ Working understanding of procurement methods

We offer a benefits package commensurate with expertise, qualifications, skills and potential for growth.

If you are interested, please submit your resume:-

- ◆ By email: mail@cbross.ca
- ◆ By fax: 416-487-3017

Only select candidates whose resumes best match our requirements will be contacted.



Adam Ding, PQS

Unique value of QS training

After 20+ years into the new century, although we are still receiving random inquiries like, “What is Quantity Surveying?” from time to time, more of us are proving our values to our employers as a Professional Quantity Surveyor (PQS) and/or Construction Estimator Certified (CEC). Even with the current pandemic, our continuing work in the construction industry is another good testimony of what we can contribute to the sustainable growth of general society during challenging times.

Now, the “new normal” of online/distance education seems to make knowledge readily available. People might wonder, “What is the advantage of having quantity surveying credentials vs. just general education?” We recently conducted a reflection of the CIQS syllabus (available from CIQS website), imagining what a potential employer would find in a new graduate’s resume containing the following:

- Full exposure to building/civil construction means and methods.
- Comprehensive understanding of architectural, mechanical, electrical, and civil designs.
- Detailed knowledge of construction drawings, specifications, and contract documents.
- Numerical intelligence with measurements, estimates, cost planning/analysis. and database management using the latest technologies.
- Hands-on experience with contract negotiation, award, and administration.
- Competent management of construction and development

“With the lingering effects of pandemic, more windows are open for people who want to move into or move higher in the industry by pursuing self-directed learning and certification. When education counts, count on us too!”

projects through processing contracts and sub-contracts, progress tracking, work measurements, change valuation, payment verification, financial forecasts, etc.

- Thorough familiarity with contract law, building codes, and accounting regulations to provide support in arbitration, court hearings, and dispute resolution.
- Fast learner and critical thinker who is ethical, detail-oriented, super-organized, patient, creative yet practical, performs well under pressure, and has good time-management skills.

Look no further! When details count, count on us. We are members of the largest professional quantity surveying association in Canada. But do you realize CIQS is also one of the few organizations

in the construction industry that offers a *structured education program*? By taking the required comprehensive training program, each certified PQS/CEC member gains the practical skills that meet (or even exceed) the demands of employers.

We recently reached the final stage of conversation with Canadian Construction Association to renew the reciprocity agreement on mutual credential recognition between PQS/CEC and Gold Seal Certified Estimators. We will also continue the accreditation of tech programs at regional colleges. With the lingering effects of pandemic, more windows are open for people who want to move into or move higher in the industry by pursuing self-directed learning and certification. When education counts, count on us too! 🇨🇦



Journal Online

- The *Construction Economist* is also available in electronic format.
- Please visit the CIQS website www.ciqs.org and press the *Publications* tab.
- The above link also provides access to previous editions.

Adjudication Process under the *Construction Act* in the Province Ontario



Sahil Shoor

This is the second article in the Prompt Payment/Adjudication series. This article focuses on the Adjudication Process in the Province of Ontario. Subsequent editions of the Construction Economist will explore other aspects of prompt payment and adjudication across Canada and other jurisdictions, as relevant.

The adjudication provisions under Part II.1 of the *Construction Act* (the “Act”) came into force on October 1, 2019 and were developed to ensure continuity of work on jobsites, and cash flow through the construction pyramid.

Adjudication is available where both the procurement process (if any) has started and the contract has been executed, after October 1, 2019. It is unavailable in situations where the contract may have been executed after October 1, 2019 but the procurement process was commenced prior to that date. In other words, the procurement process (if any) must have commenced after October 1, 2019 and the contract must have been formalized after October 1, 2019 for adjudication to be an option.

1. Notice of Adjudication

The Claimant must concisely describe the dispute in 250 words or less. In addition, it must include: (i) the Claimant’s suggested adjudicator; and (ii) the suggested procedure for conducting the adjudication.

Selecting an Adjudicator: You can either select an adjudicator from the Ontario Dispute Adjudication for

Construction Contracts (“ODACC”) registry of adjudicators or you can choose an adjudicator based on other recommendations. It is not required that an individual be a licensed lawyer in Ontario to be certified as an adjudicator. Many are accountants, project managers, architects, quantity surveyors, or engineers. If the parties cannot agree to an adjudicator, one will be assigned by ODACC. Section 13.12(5) of the Act also provides an adjudicator the ability to request the participation of an independent assistant.

Selecting an Adjudication Procedure:

ODACC’s website provides four “pre-designed” options for conducting an adjudication. The first three options are strictly in writing, where the parties exchange written materials of varying lengths. The fourth option involves a 30-minute oral presentation by each party. If none of the four pre-designed procedures fits the needs of the parties, a fifth option is for the parties, with input from the adjudicator, to develop a customized process. The adjudicator must approve the selected procedure for conducting the adjudication. The Claimant and Respondent each pay

50% of the adjudicator’s fee and are expected to cover their own legal costs unless the adjudicator determines otherwise.

2. Supporting Documents

Once the notice of adjudication is filed, the Claimant will receive a confirmation of the adjudicator’s approval to hear the matter. The Claimant will have five days to submit all of the supporting documents. As an example, this may include: contracts, invoices, emails, notices under the contract, etc. Section 13.12(1) of the Act gives the adjudicator significant flexibility in overseeing the conduct of the adjudication. The Respondent will have five days to submit its Response (including its supporting documents) and the Claimant may have an opportunity to submit a Reply.

3. Determination

Pursuant to section 13.13(1) of the Act, the adjudicator is required to render a determination within 30 days of receiving all documents. ODACC uploads the final determination with written reasons to its online portal and a certified copy of the determination is uploaded to the online portal shortly thereafter.

4. Enforcement

As soon as the certified copy of the determination is received, it can be filed with the court under section 13.20 of the Act, thus making it as enforceable as any other court order. The determination of an adjudicator is the equivalent of an interim order. It is binding on the parties until a later determination by a court or arbitrator or until the parties enter into a written agreement respecting the adjudicator's decision.

A party that disagrees with the outcome of an adjudication has the option of seeking judicial review of the decision, with leave of the Divisional Court, as prescribed in section 13.18(1) of the Act.

5. Parallel Proceedings

Notwithstanding the decision to pursue adjudication, an important

practice tip is to ensure that any claim for lien is properly preserved and perfected under the Act. It is prudent to protect your lien rights in the event the lien remains the only viable method of enforcement.

Adjudication has the potential to save costs and maintain the focus on bringing projects to completion. I look forward to sharing further aspects of Prompt Payment and Adjudication in the fall edition of the *Construction Economist*. 

About the author

Sahil Shoor is a Partner with Gowling WLG (Canada) LLP. He is called to the Bar in both Ontario and British Columbia. His national practice is focused on complex litigation and dispute resolution in the sectors that drive Canada's economic development, including commercial construction, real estate development, infrastructure and civil works, power and energy (nuclear, hydro-electric and power generating stations), and transit/transportation (P3). Most recently, Sahil was recognized by *The Legal 500 Canada 2021* as Rising Star in Dispute Resolution in ON.

Sahil brings a wealth of experience in helping clients ensure projects are put and stay on track and, where disputes are unavoidable, in the conduct of formal and informal dispute resolution proceedings. Sahil is intimate with the industry changes effected by Ontario's new *Construction Act* and has a record of effective advocacy as counsel before courts in ON, SK, and BC.



Want to help shape the future of the built environment?

RLB's Toronto office is growing and has immediate openings.

Visit **RLB.com** and click on **Careers** to learn more and apply.



Soft skills with Herb Maretz, VP Construction for Landa Global Properties



Shane McKernan, PQS

In the last 15 months, COVID-19 has forced us to re-evaluate how we conduct our work and interact with clients and other construction professionals. Importance has always been placed on “soft skills” (personal attributes that influence how well you can work or interact with others), but recently this topic has been garnering more attention as we see a demographic shift in our industry. Personally, these soft skills came to me through field experience; as I transitioned into quantity surveying and project management work, they developed further. These skills were often gained through hard and sometimes expensive life lessons. I can say with certainty, however, that superior soft skills translate into strong working relationships which, in turn, lead to successful projects.

For this edition of the YQS corner, I sat down with the Vice President of Construction for Landa Global Properties, Herb Maretz, to discuss soft skills and their importance. An industry veteran with 40 years of experience, Herb is responsible for the strategic direction and overall execution of all construction activities within Landa Global Properties. Our questions and answers are from the perspective of the contracting/development side of the industry, but are directly relatable to the QS field.

Q: When a student or young person enters the construction industry, what can they expect as they begin their job and career?

A: A new hire usually expects to perform work that is based on the technical skills they have been taught in school such as estimating, contract review, scheduling, drafting, and perhaps other computer-

related tasks. They discover very quickly that the work is often integrated with many unique individuals, all with different perspectives and objectives. Typically, they are bombarded with meetings, negotiations, and conflict resolution. It is understandable that they sometimes feel lost or underqualified and even wonder if they have chosen the right career. They have not been prepared for this aspect of the industry and are not sure they can ask for help. Many young professionals struggle through problems and conflicts with marginal success. This is where understanding the importance of soft skills and intangibles can help someone adjust into the industry and ensure a long career of building good working relationships and managing teams.

The “intangibles” to which I refer are things like someone’s work ethics/habits, personality, and the ability to collaborate. It is extremely important to an employer to identify if you are reliable, how you function in a team environment, how you deal with success and failure, how you perform under pressure, and how well you “fit” into an organization.

Q: Why are soft skills so important?

A: I believe the construction industry is a “people” industry. A successful project is the by-product of successful and healthy work relationships. You will find that problematic projects usually have a number of toxic or troublesome working relationships. I am not saying that successful projects are problem

“Having a foundational framework and basic understanding of soft skills at an earlier phase of your career helps provide better habits and ensure stronger relationships within and outside your organization.”

Q: What are soft skills and intangibles?

A: Soft skills are also referred to as “human skills” and focus primarily on oral and written communication skills, the ability to negotiate, and the skill required to navigate and resolve conflicts. It amazes me how many people (of all ages) are uncomfortable in picking up the phone and calling someone to discuss a problem or solve a difficult issue. Instead, they prefer to send an email which is far less effective at resolving a problem in an amicable way.

free, or that everyone gets along without any issues. What I am saying is that the successful working relationships are founded on integrity, keeping your promises, being accountable, communicating clearly and professionally, and solving problems in a cooperative and collaborative way. Having a foundational framework and basic understanding of soft skills at an earlier phase of your career helps provide better habits and ensure stronger relationships within and outside your organization.

“ I would highly recommend getting a seasoned mentor who would be willing to share experience and help identify areas of weakness in your soft skills, and ways to improve them.”

Q: What are some examples of using soft skills in the workplace?

A: This is a common example: A contractor over-bills on a progress claim. Upon receiving the claim, you ignore it for a few days and then email a response saying the claim is too high (or worse, you wait a few weeks before responding). The contractor emails back disputing your assessment. Both parties send multiple emails back and forth over the next few days with every email becoming more and more combative. Finally, you receive a call from a very agitated contractor threatening legal action or removing their manpower from site. At this point, it is hard for you to settle the dispute amicably and a supervisor has to step in and try to sort out the problem.

A better approach is to immediately call the contractor and explain why over-billing is not acceptable. It may require a couple of calls to get clarification from field personnel, but you agree to discuss and resolve it quickly. Both parties may have to compromise somewhat but the problem is resolved. In addition, greater respect and trust is developed because of your direct and honest approach in dealing with an important problem.

I mention this example because it is not only a common problem, but it really

highlights the fact that people do not like conflict and tend to avoid it, instead of dealing with it directly.

Q: What are some things that students and new hires can do to get better at acquiring soft skills?

A: There are not many dedicated courses that cater to the construction industry with respect to soft skills; however, there are various programs/institutions that offer courses on written communication, conflict resolution, and basics of negotiation. In reality, most soft skills are learned and developed through experience that comes from “on the job situations”. I would highly recommend getting a seasoned mentor who would be willing to share experience and help identify areas of weakness in your soft skills, and ways to improve them. In addition, I would seek out whatever industry courses and seminars may be offered on soft skills, regardless of the program.

Q: Any final comments on soft skills?

A: Several years ago, I had the privilege of teaching at BCIT in the architectural and building technology program. Regardless of the syllabus or course subject, I would always carve

out time to teach the importance of soft skills such as writing effective emails, dealing with conflict, negotiating successfully, and how to run proper meetings, etc. Years later, I would bump into students who were settled into their careers in the construction industry and would hear that the soft skills component was always the topic that stayed with them as they advanced. It just confirmed to me how powerful these skills are to a successful career. ▮

About the author

Shane McKernan, PQS, is a project manager and estimator for Landa Global Properties, based out of Vancouver, BC. With over 14 years of experience in the construction sector, Shane's experience includes estimating, cost consulting, project loan monitoring, and project and construction management. Shane is the current President of the CIQS – BC Chapter, where he joined as the board's first-ever student member in 2013. Shane also sits on the CIQS National Council as the YQS Observer and is an Assistant to the Editor for the *Construction Economist*.

The *Construction Economist* is also available in electronic format. Please visit the CIQS website www.ciqs.org and press the “Publications” tab.



Summer 2021 events summary

The CIQS continues to offer educational webinars to our membership ranging from industry topics to professional development. While nothing will replace the engagement of in-person events, the CIQS is proud to introduce virtual networking events in the form of chapter chats and YQS coffee talks.

Upcoming events

- CIQS Virtual Congress (Tuesday, June 15 to Thursday, June 17)
- YQS Series #4: “Leading others – How to lead and influence the teams around us – Having difficult conversations” featuring Craig Woodall (Owner, Byng Leadership) and a special guest (Thursday, June 24, 2021)

Past webinar and virtual networking events (February to June 2021)

YQS Coffee Chat

(Thursday, March 25, 2021)

The CIQS held its inaugural virtual networking event with the YQS group. The event, moderated by Amanda White (PQS) provided opportunities for program participants to foster new relationships, knowledge share and have fun in a 60-minute online event (using the Zoom platform).

YQS Webinar Series #3

(Thursday, April 15, 2021)

Craig Woodall (Owner, Byng Leadership) continued to engage YQS program participants in this lively webinar topic: *“Dealing with change – How to overcome resistance and drive change”* featuring special guest Scott Patterson (Senior Director, Facilities Planning and Development at Mount Sinai Hospital.) This seminar featured an in-depth discussion on how change can make you a better leader.



Certification Conundrum (Thursday, April 29, 2021)

Construction projects can be complicated but understanding payment certification doesn't have to be! Brian Shedden (Principal, Entuitive) and Heather Elliot (Associate, Entuitive) gave a powerful presentation on how deficiencies put payment certification at risk. Thank you to the Ontario chapter for hosting this engaging event.

Prairies & NWT Annual Chapter Meeting (ACM) and Webinar (Thursday May 6, 2021)

The Prairies & NWT Chapter held a members-only event that included an overview of chapter highlights, followed by an insightful presentation on public projects in Alberta with industry experts Kirk Mason and Taylor Hudson from HMC Lawyers.

Other recent events:

- BC Annual Chapter Meeting and Chapter Chat (Thursday, May 13, 2021)
- Ontario Chapter Chat (Thursday, May 13, 2021)
- YQS Coffee Talk (Friday, May 14, 2021)
- “Prompt Payment and Adjudication – What can we learn from the past” featuring Ali Fard, PQS (Thursday, May 20, 2021)
- “The Changing ‘FACE’ of building Façades” featuring Nick Charlton, PQS (Thursday, May 27, 2021)

Thank you to all the sponsors this quarter who have helped make our webinars a success!

- Advicas Group Consulting
- Adjudico Expert Services
- A.W Hooker Quantity Surveyors

For more information on our webinars, please contact Sharon Lui at events@ciqs.org 🇨🇦



Prepared by
Sharon Lui,
EA/Events Specialist.

CIQS and CCA re-affirm joint dedication to Inspire Canada's quantity surveyors to greatness

On April 29, 2021, the Canadian Institute of Quantity Surveyors (CIQS) and the Canadian Construction Association's (CCA) Gold Seal Certification program signed a renewed reciprocity agreement. This recommitment enables CIQS members holding the Construction Estimator Certified (CEC) and Professional Quantity Surveyor (PQS) designations to be automatically accepted into the Gold Seal Certification program. Upon applying for the GSC, CEC members will be required

to challenge the Gold Seal exam for estimators, whereas PQS designates will be accepted as GSC Estimators without any additional testing or experience requirements.

The Gold Seal Certification program offers a national standard for construction management and is managed by the Canadian Construction Association. Eligible applicants must meet specific experience and training criteria in order to be approved to challenge the Gold Seal exam which requires individuals to prove having essential competencies regardless of company field, size or location.

"CIQS and CCA share a vision to enable our members to get the recognition they deserve for their commitment to professional excellence," said Mary Van Buren, CCA president. "Our renewed agreement will continue to open doors for more people."

Similarly, CCA members who are Gold Seal Certified Estimators will have their CEC designation applications automatically accepted without the requirement of additional testing. Should they wish to go further and gain their PQS designation, they can become direct finalists by having most educational subjects and diaries exempted.

The Construction Estimator Certified (CEC) and Professional Quantity Surveyor (PQS) designations are managed by the CIQS and uphold the ethics and standards for construction and infrastructure economics in Canada. To gain a CIQS designation, applicants

must successfully complete the Test of Professional Experience (TPE), which may include various stages of exams, structured training, and a professional interview.

When asked how she felt this agreement would benefit the profession, CIQS CEO Sheila Lennon said, "I am excited to be working with the team at CCA to promote a unified standard for construction economics in Canada through the re-signing of this agreement. Allowing our designated members to more easily take advantage of each others' certifications makes our profession a whole stronger, and more resilient. While others dream about building great things, the GSC, CEC and PQS make that dream a reality by always keeping fiscal responsibility top of mind."

To learn more about the Gold Seal Certification program, visit www.cca-acc.com/workforce-excellence/gold-seal. For information about the CEC designation, contact Sophia Chin You, CIQS Membership Manager, at membership@ciqs.org.

About the author



Alexandra Parliament is a Marketing and Communications Consultant with over 20 years of experience. She has a formal

education in print journalism and has worked in the marketing and communications departments of a PR Agency, a major Marketing Agency, a national magazine, an annual three-day festival, provincial and national non-profit organizations and one of the largest loyalty programs in Canada. She has been published in a variety of magazines and online publications. Alexandra has been working with the CIQS in a PR/Marketing capacity since November 2018.



Budget 2021: Long-term environmental strategy over short-term action

On April 19, Minister of Finance Chrystia Freeland unveiled the federal government's first budget in over two years. Amid a historic deficit, the budget promised to provide additional support to some of Canada's hardest hit sectors through a social and environmental policy lens. Proposing over \$100 billion in stimulus spending across various programs, investment in Canadian infrastructure took on a long-term approach to some areas but missed the mark for many concerned industry stakeholders as it failed to address immediate infrastructure needs. The investment strategy left out the support many hoped would maximize the impact of infrastructure in stimulating the economy. Many key players in the industry, including the Canadian Institute of Quantity Surveyors (CIQS), have called for the government to bring forward funding committed under programs such as the *Investing in Canada Plan* to boost the economy in the short and long-term. Instead, Budget 2021 set the stage to deliver on a number of the Liberal's policy goals, including reaching net-zero emissions by 2050. While these goals are laudable and supported by the CIQS, they do not address the immediate needs in the industry, nor do they adequately speed up current investments that would contribute greatly to stimulating the Canadian economy to rebuild from the pandemic.

When Minister of Infrastructure Catherine McKenna launched the National Infrastructure Assessment at a Canadian Club of Ottawa event on March 16, it was clear that the Liberal's strategy would take advantage of the Minister's previous role of leading the

environment portfolio. Stakeholders are invited to respond to the engagement paper, *"Building the Canada We Want in 2050"*, the initial consultation period of which focuses on Canada's commitment to investing in low and zero-carbon infrastructure. For instance, the paper notes that, "Decarbonizing our infrastructure has to be an underlying principle in all future infrastructure investments." Budget 2021 earmarked \$22.6 million over four years, starting in 2021-22, to help conduct the assessment. The Canadian Institute of Quantity Surveyors has already provided early feedback on the development of the assessment to Infrastructure Canada and is aiming to provide strategic recommendations for the development of the assessment during the ongoing consultation period, which runs until June 30, 2021.

Looking to the main items for which funding was proposed in Budget 2021, green infrastructure carries on as a central tenet in infrastructure investments. As Canada moves beyond the COVID-19 pandemic, the federal government wants to change the way infrastructure projects are planned, funded, and coordinated across the public and private sectors. In an effort to help spur this change, the budget proposed to fund \$200 million over three years, starting in 2021-22, to Infrastructure Canada to establish a natural infrastructure fund to support natural and hybrid infrastructure projects. Details on this fund and the types of projects it could support remain in development, following the budget announcement.

One of the largest funding proposals came from the announcement that the federal government will be publishing a green bond framework in the coming months in advance of issuing its inaugural federal green bond in 2021-22. With an issuance target of \$5 billion, the federal government hopes the bonds will fund green infrastructure, clean technology innovations, nature conservation, and other efforts to address climate change and protect the environment. With green bonds, there is another paradigm shift being signalled to industry, which essentially states that

future large-scale projects will require a clear environmental value add and contribute to the government's aims on sustainable infrastructure.

More funding under Budget 2021 was also proposed in the form of \$1.9 billion over four years to recapitalize the National Trade Corridors Fund. The budget states that this funding could attract approximately \$2.7 billion from private and other public sector partners, resulting in total investments of \$4.6 billion. An investment of \$500 million over two years was also proposed for community infrastructure. Starting in 2021-22, this funding would be provided to regional development agencies to support community infrastructure across Canada.

Although the proposed funding for infrastructure throughout Budget 2021 is welcome, it does not alleviate the immediate concerns of the construction sector with regards to declining revenue as a result of COVID-19 complications. Infrastructure Canada has previously committed \$57 billion, under which 17,000 projects have been approved. Of these 17,000 projects, the Parliamentary Budget Officer testified that the federal government cannot account for almost 9,000 of these projects. The government has yet to accelerate funding timelines despite the recent Auditor General report also noting that investments in large-scale programs like the *Investing in Canada Plan* are already behind. In *Report 9 – Investing in Canada Plan*, the Auditor General found that the reallocation of unspent funds was not being tracked and that increased delays risk jeopardizing the Plan's objectives for 2027-28. Our current economic conditions – paired with the largest portions of the funding already back-loaded into the latter years of the program – means that the federal government must immediately prioritize moving funding to earlier years to stimulate the economy. While Budget 2021 makes some new infrastructure investments, this is where the government's plan for infrastructure still misses the mark.

While Budget 2021 takes some focused steps in certain areas of infrastructure investment, it is largely



a forward-looking plan for the Liberal government's green infrastructure vision. The proposed funding outlined in the budget has great potential to form the basis of the Liberal platform in the next federal election and, for that reason, it provides insights into their long-term vision and plan. With the lack of measures to accelerate infrastructure funding in Budget 2021 and continued focus on infrastructure that contributes to net-zero emissions, the federal government is sending a clear message on how its infrastructure priorities and strategies will be framed into the future. At the CIQS, we will continue to work with the federal government to advocate for the acceleration of current infrastructure investments, while also collaborating with the government to shape the new programs announced in Budget 2021. 🇨🇦

About the author



Kayode Southwood is a Public Affairs Associate with Impact Public Affairs in Ottawa, ON. Kayode works with a variety of clients to engage government on Canadian infrastructure issues, including the Canadian Institute of Quantity Surveyors.

Trends in construction costs in British Columbia

Construction costs in BC have continued their upward trend throughout the COVID-19 pandemic, although at a more subdued pace than before March 2020. Following the quarterly trends, the provincial industry is touted to experience a more rapid increase this coming quarter. Recent market incidents including pandemic-influenced economic fluctuations, eye-watering spikes in lumber rates, and increases in cost of steel (members and rebar) have been the big contributors to the rise in the cost of construction in BC in the past two years.

As shown in Figure 1, there was an initial general spike in construction costs of all asset classes from 2019, which eventually stabilized relatively in 2020, however, the industry has seen a more rapid pace of increases in the first two quarters of 2021, especially for wood framed buildings.

The direct impact of COVID-19 related measures has not been as significant as initially feared; however, the recent continued increase in lumber pricing has been responsible for significant increase in construction cost in BC and beyond, and continues to drive associated costs such as formwork in concrete-framed projects. Currently construction costs for wood-framed buildings are comparatively close to concrete, thereby also pushing costs

of mass timber projects out of reach for many design teams and clients, since raw materials are becoming so expensive. According to cost data from the British Columbia Forest Product Prices, the average lumber and panel prices have more than doubled over the average of the previous year, with no signs of stabilizing soon. In fact, cost data from the BC Forest Product Prices suggest the market is currently experiencing an increase of approximately 9% per week. While there have been no single factors that can be attributed to causing this increase, there has been speculation on the increase in demand for wood for both construction and renovation of wood buildings versus the limited supply in the market. How high can these prices go? Time, and lumber suppliers, will tell.

Steel is another commodity material with a volatile market currently driving increases in the rebar and Division 5 portions of construction budgets. Steel prices, though somewhat steady for a few years with demand dropping in 2020, shocked the economy once again with a noticeable increase in 2021. This spike has been attributed to a recent increase in the demand for steel as the global economy recovers from COVID-19 amidst supply shortage. According to the World Steel April 2021 outlook, steel demand will grow by 5.8%

Figure 1 - Construction Cost (\$/sft) trend in BC (2019-2021)

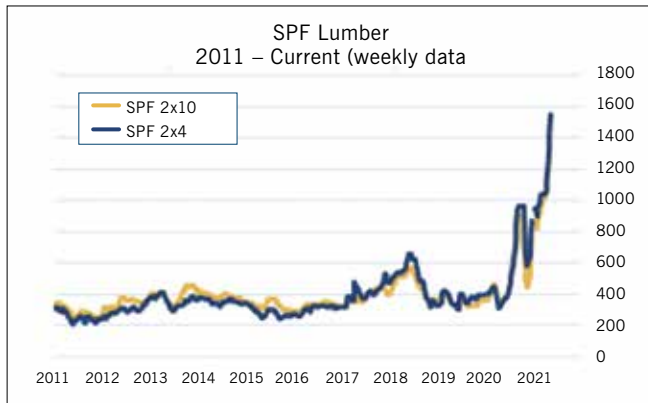


Table 1: Average Wood Product Prices (2019-2021)

Product	YTD Avg 2021	Average 2020	Average 2019
SPF 2X4 (US\$)	1150	570	372
SPF Stud (US\$)	1112	505	272
SPF 2X10 (US\$)	1107	528	350
Cedar 2X4 (US\$)	1730	1509	1386
Plywood (CDN\$)	1122	548	423
OSB (CDN\$)	1122	569	262

Source: Bautista L., (2021, May 7). British Columbia Forest Product Prices.

Figure 2: SPF Lumber Prices 2011- Current (weekly data)



Source: Bautista L., (2021, May 7). *British Columbia Forest Product Prices*

in 2021, after declining by 0.2% in 2020, and see further growth of 2.7% in demand.

In addition to struggling supply is the cost of offsetting the environmental impacts of steel, which has also been highlighted as a contributing factor to higher material costs. China, the world's largest producer of steel, planned to reduce its crude steel production in 2021 to curb carbon emissions. While the plan and the shutdown of steel mills due to pandemic have been reported to have contributed to reduction in steel supply, it is possible that China's objective to reduce carbon emissions could be challenged by the high steel prices and the soaring demand for steel, even in China.

Overall, construction budgets for projects in BC are experiencing increases regardless of their structural frame options. For more data and analysis on past trends and future trends of construction costs, the Altus Group Escalation Guides aim to bring some clarity and insight to a volatile, but critical, development topic. 🇨🇦

About the authors



Ross White, B.Sc. (Hons), MRICS, PQS is an Associate Director at Altus Group. He is an experienced cost manager with over 10 years of experience in construction cost and project management. Ross is skilled in cost planning, project monitoring, lender developer services, value engineering, change management, risk management, expert witness roles, and contractor management.



Ajibola Soboyejo, MRICS, PQS, CAPM is a consultant at Altus Group Vancouver. She is a QS with over four years of experience. Ajibola specializes in project estimation, BIM estimating, cost planning, value engineering, and project cost management. She possesses both MSc and BSc degrees in Quantity Surveying from the University of Salford UK, and University of Lagos, respectively.

QSM

MECHANICAL AND ELECTRICAL COST CONSULTING



Dennis M. Smith PQS

dennis@qsmconstructors.ca **CELL** 416-949-8540
 www.qsmconstructors.ca **OFFICE** 905-649-8540

Let QSM bring its experience to your next project!

ENVISTA

FORENSICS

Construction Claims & Dispute Resolution

CAUSE • EFFECT • ENTITLEMENT
SUBSTANTIATION

- SCHEDULE DELAY AND DISRUPTION
- LOSS OF PRODUCTIVITY / EARNED VALUE
- CUMULATIVE IMPACT OF CHANGE
- DAMAGES QUANTIFICATION
- PROJECT ADVISORY

DORIS MARSHALL, CEC | Practice Leader, Construction Claims
 doris.marshall@envistaforensics.com

© 2021 Envista Forensics



Sitting on **all sides** of the table *A Perspective*

Toward the completion of a construction contract, it is not uncommon for stakeholders to reflect on the approaches and expertise utilised at various stages of the project life cycle including project inception, procurement, formation of contract, planning requirements, design constraints/development, execution, handover, and closeout. It is at this late stage that stakeholders consider whether they may have overlooked or neglected specific aspects. In hindsight, the appropriate attention if applied earlier may have resulted in a better outcome in terms of cost, schedule, or quality.

During my career, I have had the opportunity to sit across all sides of the table which has enabled me to appreciate the importance of each discipline relevant to each stage of the project life cycle, from cradle-to-grave.” My experience includes working as a quantity surveyor, engineer, consultant, contractor, and client representative. The purpose of this article is to shed light on the experiences that I have garnered during my time in these roles and to provide insight from all sides of the table.

Quantity surveyor's perspective

As a quantity surveyor, the aim is to provide an estimate that is accurate, commensurate with the level of detail, classification of estimate, and relevant factors/considerations requested by

a client. Prior to the engagement of a quantity surveyor, a client may have established a rough ballpark budget as to how much they intend to spend, therefore, this is perhaps the most critical stage for a client. In instances when a quantity surveyor prepares an estimate that is higher than a client's budget, the project may be subject to delays while the client left to consider the following options:

1. Secure additional funds to pursue the project as initially intended.
2. Reduce the project scope and the associated cost.
3. Postpone or cancel the project.

Where a quantity surveyor assists a client in adjusting certain divisions/items of the estimate to reduce costs, care should be taken in ensuring essential components are not excluded, as doing so may result in impacts to the clients intended use, the project contingency plan, or reduce the client's ability to cover the shortfall of costs. Where a client wishes to continue a project without compromising the scope, it is recommended that the client engages a consultant at the earliest opportunity.

Consultant's perspective

A consultant that is engaged at the early stages of a project may assist in facilitating discussions between a client and quantity surveyor to ensure no essential components are omitted for

the sake of cost reductions. The cost associated with a client involving a consultant at an early stage of a project may outweigh the impacts of issues that would otherwise be realized later in the project. Also, consultants provide collaborative and interdepartmental input beyond the initial stages of a project from the feasibility stage through the evolution of design development.

In part, consultants facilitate client requests through their knowledge of the industry. For example, a consultant may suggest the involvement of engineers for design development and subject matter experts to help in formalizing contract documents. It is of the utmost importance that consultants prepare thorough and complete contract documents clearly indicating the requirements set out by the client. This includes defining which parties are obliged to do what, the timing of such obligations, and the consideration to carry out such obligations.

Thereafter, the client needs to decide on whether it wishes to proceed with the project or shelve the project for future reconsideration. If the client decides to postpone the project, upon reconsideration the consultant should reevaluate the relevant factors/considerations and apply any necessary changes to the contract documents to ensure that the contract documents are current recognizing the everchanging nature of the construction industry.

Engineer's perspective

Before the commencement of a project, and during the early feasibility stages, a client is recommended to always seek a comprehensive review from an engineer. During this review, the engineer will apply subject matter expertise to benchmark the specifications, conditions, unique factors, and deliverables to ensure that there is a balance between the clients' wants and needs. A client should not initiate a project solely on the basis of comparing it to a previously completed project that is of exact or similar nature without obtaining an engineer's evaluation and feedback. This is because every project is unique (e.g., location, time of execution, duration, geological conditions, terrain, site access, permits, and required skills available).

Contractor's perspective

One of the main goals for a contractor on a construction project is to be profitable. If a contractor envisions a way where things can be done more effectively, this should be discussed with the relevant stakeholders and approval sought, such that the best outcome can be achieved. A contractor that demonstrates a competent level of experience and professionalism will help the contractor build a reputation where clients specifically invite them to bid on more projects. Furthermore, some stakeholder agreements offer compensation to a contractor if they assist in providing project savings. A contractor can apply its expertise for its benefit (and potentially the benefit of a project) by suggesting:

1. **Efficiency:** Where an aspect of the project can be completed more efficiently.
2. **Value Engineering:** Where an aspect of the project can be completed whilst maintaining the same quality and standards, but for a lower price or shorter duration.
3. **Better Result:** Where the success of an aspect of the project can benefit from additional compensation or longer duration.

Client representative's perspective

As a client representative, it is essential to prioritize the client's interests at all stages of the project. I think of the

client representative as the maestro in an orchestra where all stakeholders and disciplines need to work in harmony to ensure the smooth transition and delivery of different stages of the project. The critical roles of a client representative are as follows:

A. Client Requirements:

Through various brainstorming sessions with the client, the client representative should gain a thorough understanding of the client's vision and expectations for the intended project.

B. Engaging a Consultant:

Depending on the client's procurement policies, the consultant can be engaged in-house, outsourced through a preferred list, existing master service agreement, or competitive bidding process. The client representative should ensure that the terms of reference pertaining to the engagement of the consultant are captured in the request for quotation to avoid any future additional costs or disputes. Examples include:

- Identifying the quantity of shop drawing reviews and checkpoints
- The date for when the contract documents should be formalized
- The review of the contractors' bids, recommendation, and award
- Frequency of site visits
- The ability to carry out the role of a contract administrator and payment certification following the contractor's appointment

C. Engaging a Quantity Surveyor:

The quantity surveyor can be engaged directly by the client or via the consultant depending on the nature and complexity of the project.

D. Engaging the Contractor:

The contractor can be engaged through a preferred list, existing master service agreement, or competitive bidding process. Upon receipt of the contractors' bids, the client representative and consultant should evaluate the technical and financial submissions against the evaluation criteria. Once complete, the client should be made aware of the bid results to enable the client and preferred contractor to enter into contractual relations.

E. Monthly Monitoring and Control:

The client representative should carry out the following tasks throughout the project:

- Establish a cashflow forecast
- Maintain a schedule of values against the estimate for each division and corresponding schedule task
- Monitor the progress of work monthly and compare it with the cashflow forecast to ensure that both cost and schedule are on track
- Secure funds and issue change orders where necessary

F. Hand Over and Close Out:

Towards the end of a project, the client representative should ensure that technical information is closed out and the final account is in the process of being agreed upon. This includes arranging the relevant inspections, certifications, warranties, manuals, and training.

In conclusion, the function of all disciplines in the construction industry is vital in the success of any project. If certain expertise is overlooked or neglected from the outset, then this may have financial implications down the line that can prove to be quite difficult for a client to remedy especially those clients that are already on a tight budget. Therefore, stakeholders should seek to get the most out of their project team through clear communication, collaboration, and transparency. ▼

About the author



Usama Nader, P.Eng., PMP, PQS, LEED AP is a Director with BGIS with over 18 years of experience. He graduated from the University of Missouri in 2002 and started an eventful career in both the construction and consultancy industry. Usama provides corporate guidance & support to ensure best practice project management from "cradle to grave". Usama manages the following project delivery services teams: BELL, ROGERS, CIBC, CBC, & BMO

Building schools for children

IN HONDURAS AND ECUADOR

Canadian Volunteer Charity Making a Difference



Only 15 years ago, two prominent Canadian architects, Doug Allen and Ron McKnight, travelled to Honduras to investigate the possibilities of constructing schools in places where there were none. They found that in this poor country the opportunities for children to acquire some education were minimal in the cities and almost non-existent in the countryside. Not to be dissuaded by this monumental fact, Doug and Ron, men of action, began making acquaintances with a variety of Hondurans who shared the same vital interest to build schools. They were taken to a site that was already under

construction to witness firsthand some of the hurdles ahead of them. Getting to the site was an experience they retold many times. Two beaten up pick-up trucks with winches front and back were the mode of transportation. The need for the winches soon became evident as one truck would winch the other truck through rivers and washed-out roads. Once on-site, Doug and Ron pitched in carrying rudimentary blocks, made down by a river, up to the building site to bake in the sun. They immediately recognized that without Portland cement, the essential ingredient of concrete, these blocks wouldn't last very long. Somehow, they made arrangements to get Portland cement to the site and were able to teach the locals

how to make a decent building block. This was a beautiful moment in the budding relationship of these two men and the people of Honduras. It was literally and figuratively the first building block in what has now become an extremely successful program that has seen 26 schools built in Honduras and five in Ecuador.

Back home in Ontario, Doug and Ron worked tirelessly with friends and acquaintances to build interest in their desire to make change. Several people joined the infant Board of Directors and some made contributions – Schools for Children of the World Canada (SCWC) was born.

The next essential piece was to identify a person in Honduras who could put together a team and oversee the search for communities who were desperate for a school and then to become the project manager on the actual construction. On the agenda for their next trip, they scheduled interviews with young architectural students in San Pedro Sula, the second largest city in Honduras. A young lady by the name of Alejandra surfaced as the perfect candidate to fit the bill.

Money is key to the success of such an ambitious charitable endeavor and the novice Board of Directors tried a variety of events to entice folks to become donors and/or supporters. Although these gifts and donations were very much appreciated, they needed much more to make an impact.

The Directors on the Board hit on an idea that was, in reality, right before their eyes. They were all involved in some aspect of the construction industry and had many contacts, from builders to architects and engineers, from school



Doug in white shirt sitting talking construction methods.



board personnel to designers. A golf day would be held and all these contacts would be invited. Of course, a lot of them knew each other and appreciated the opportunity to have some down time with their peers and to help such an excellent cause.

I cannot stress enough that SCWC is one of the rare charities that is completely volunteer driven. Every dollar donated goes directly to the building of schools. The board directors do not receive any money; in fact, they pay for their own expenses and contribute freely of their own time. There are no middlemen involved. These funds that are given so generously are coveted and protected so that they reach the final destination: a school in a village in a mountain where there was no school before.

The annual golf tournament is a great success that sells out in half a day. Nobleton Lakes Golf Club is our host and they put on a great day of golf on their beautiful course followed with a wonderful buffet dinner. A quality prize table and raffles are but secondary to the feeling we all have about doing something so meaningful in our troubled world.

The diners are treated to a short video presentation of one of our most recent schools being built or being dedicated. The happiness on the kids' and villagers' faces is the greatest thing to witness. The entire village comes out and the kids put on plays, musical performances, and folkloric dances.

Up to a couple of years ago, our work has been building elementary schools grades one to six, and kindergartens. This presented a significant problem. After grade six, when the kids are 11 or 12, they had nowhere to go to



This house was used temporarily for a school room. Although it was a demanding mountainous site with steep hills and water runoff issues we constructed a wonderful kindergarten and a two classroom elementary school.

continue their education unless they found a way to go to one of the Honduran cities. A virtual impossibility.

In 2017 an extensive search was undertaken to find the right place to build a high school. By this time Alejandra had moved to Barbados and another young lady by the name of Karina took over the duties. On one of his many

trips to Honduras SCWC director Don Pocock, author of this article, found the perfect site. It is in the town of Las Lajas, which is surrounded by several villages. Las Lajas and vicinity has about 800 kids of high school age with no further educational hope in their future. The local Mayor, along with Karina and Don, created a rudimentary plan



A panorama of a recently completed school celebrating their dedication. Washrooms are part of our plan and our logo with the Canadian flag can be seen on the wall of the school. A playground made from recycled things to create swings, hop scotch, and other kid games.

that would be presented to the SCWC Board of Directors. Don requested and was given the naming rights of this school. It will be named after one of our founders Mr. Doug Allen and will consist of instruction in the trades, a wish that Doug constantly expressed.

The first phase of this High School, the Instituto Doug Allen, is currently under construction. The global COVID-19 pandemic hit poorer nations the hardest. Adding to that, Central America suffered from two hurricanes in 2020 that made the roads impassable. Still, work is progressing at a slow pace and may reach completion in the fall of 2021. The other three phases will be done as money, supplies, labour, and need demonstrate.

Sadly, Doug passed away in 2020, but he was well aware that this school was being built to honour the work he has done for so many underprivileged kids.

SCWC graciously accepts any help that is offered. Sometimes an interested person comes to one of our Board meetings and finds a way to fit their talents to our overarching objectives, or a company would enter a foursome in our golf tournament. The following year that company might sponsor a hole and the following year fund the après golf cocktails. There is a plethora of ways to help.

You can become part of this dream. You could visit our website (www.scwcanada.ca) or speak to the author;

we are always interested in new ideas or ways to improve. You could come and golf with us.

Our world is full of refugees fleeing their own countries. Honduras is no different. I share this most obvious observation: No one wants to leave their home country and if things were better they never would. Honduras is a beautiful country full of mountains, rivers, lush forests, and bustling cities. The Honduran people are welcoming and warm. They laugh easily and enjoy their families and friends. There are many problems but education is a key part of the solution. 🇻🇪

About the author



Don Pocock is in his late 70s and leads a full life devoted to this cause and many activities such as squash, golf, woodworking, building, real estate agency, piano, a trust fund at York University in the name of his late daughter Adrienne, Grandfather of two boys. Don retired from the Province of Ontario at age of 50. He was a Commissioner of what is now called MPAC. Email him at donpocock@rogers.com.





In memoriam



Alexander John Cosway, PQS(F), Honorary Life Member CIQS Founding Father



March 20, 1928
(Toronto, ON) -
May 14, 2021
(Cochrane, AB)
Alexander (Alex)
John Cosway,
beloved husband

of the late Irene Cosway (nee Clark),
passed away peacefully at home with
his family on Friday, May 14, 2021 at
the age of 93.

Alex was born on March 20,
1928 in Toronto, ON, to William
and Elizabeth Cosway (nee Sunter).
He grew up in Toronto with brother
William and graduated from Western
Technical-Commercial School.
At the age of 15, he met Irene
Louise Clark and on September 10,
1949 they began their 71 years of
marriage together. They spent most
of their married life in Toronto raising
their three daughters there. Their
second home was "Gar-Vel House" in
Muskoka, ON, where Alex helped out
at his Aunt's summer guest house.
It was everyone's favourite place.
Alex and Irene explored all 10
provinces, deepening their love of
Canada. In 1994, they built their
dream home in Muskoka where they
enjoyed gardening, exploring the
lakes, and watching birds and wildlife.
In 2003, they moved from their home
in Muskoka to Calgary, eventually
moving in 2017 to their favourite
Alberta town, Cochrane.

One of Alex and Irene's favourite
activities was driving out to the
mountains for a picnic lunch. Their
70th anniversary was celebrated at
Lake Louise, a very special place for

them. Alex loved the quote "the mountains
shall bring peace to the people."

Among Alex's early work experiences
was at age 15 with the Ontario Farm
Services Force in southern Ontario,
harvesting acres of asparagus to support
the war effort. After high school, unable
to attend university due to the influx of
returning servicemen, he apprenticed
as a Quantity Surveyor with several
architectural firms, becoming highly
experienced and respected. A two week
temporary position in 1951 with Toronto
architects Marani and Morris turned into
a forty year career. In 1959, Alex was
one of the thirteen founding members
of the Canadian Institute of Quantity
Surveyors and the only Canadian. Of
this, he was very proud.

Alex embraced life and brought joy
into the lives of everyone. He was a true
gentleman; a patient, kind, generous,
giving and loving man. He had the
ability to lighten up any situation with
his great sense of humour and gracious
manner. He loved people and enjoyed
meeting people from all over the world.
Family meant everything to Alex. He
loved visits from family, especially his
grandchildren. From the very first day of
the COVID-19 lockdown in March 2020
he began calling his daughters at the
same time every single night, a practice
he continued until his death.

Alex loved gardening, woodworking,
building, boating, fishing, feeding, and
watching the wild birds. He respected
and appreciated the beauty of nature. He
loved all animals. He equally appreciated
big band jazz and classical music. He
loved exploring the back roads of Ontario
and Alberta. He was an accomplished

builder and renovator, building their
first house in Toronto, renovating their
second, and eventually designing and
building their Muskoka home. Alex
was one of the pioneers of the Toronto
recycling movement. Up until his
death, Alex had a memory that put
most of ours to shame. He loved to
handwrite letters, which he freely sent
out to any person or institution meriting
compliment, criticism, or correction. He
was a lifelong learner, signing up for his
first online course at the age of 92 to
study the wild birds.

The family would like to thank the
amazing Cochrane Home Care team
for their loving care of Alex during his
stay at Grande Avenue Village and at
his Cochrane home. Thank you Marilyn,
for your loving 24/7 care of Dad so he
could be at home.

Left to mourn Alex's passing are
his daughters, Marilyn Cosway, Joan
Cosway-Hayes, Linda Cosway; son-
in-law William Hayes; grandchildren,
Awun Bell, Jesse Porter, Matthew
Hayes, and Erin Porter; and many
nieces and nephews. Alex was
predeceased by his beloved wife Irene
on March 16, 2021, and by his brother
William A. Cosway in 2018.

Please, no flowers. To honour Alex
you could explore a back road, spend
time in the mountains, get to know
a stranger, study the birds, and live
your life spreading kindness and joy.
A donation to the Cochrane Humane
Society, 62 Griffin Industrial Pointe,
Cochrane, AB, T4C 0A3, 403-932-2072,
www.cochranehumane.ca) or to your
local food bank would be appreciated
by Alex. 🇩🇪



ADVERTISER PRODUCT & SERVICE CENTER

Construction Economist is made possible by the companies below who convey their important messages on our pages. We thank them for their support of the Canadian Institute of Quantity Surveyors and its publication and encourage you to contact them when making your purchasing decisions. To make it easier to contact these companies, we have included the page number of their advertisement, their phone number, and, where applicable, their website.

Company	Page	Phone #	Website
Altus Group	40	416-641-9703	www.altusgroup.com
CB Ross Partners	20	416-487-3330	www.cbross.ca
ConEcon Consultants	8	604-522-8970	www.conecon.ca
Envista Forensics	31	416-268-9677	www.envistaforensics.com/services/construction-consulting
George Brown College	2	800-265-2002	www.coned.georgebrown.ca
Heal & Co. LLP	18	416-583-5900	www.healandco.com
Lakeland Consulting Inc.	4	905 829 4000	www.lakelandconsulting.com
LCO Construction and Management	3	514-846-8914	www.lcogroup.com
Marco Group	39	709-754-3737	www.marcogroup.ca
Osler, Hoskin & Harcourt LLP	19	416-362-2111 (Toronto Office)	www.osler.com
Pelican Woodcliff Inc.	3	905-889-9996	www.pelicanwoodcliff.com
QS Online Cost Consultants Inc.	37	902-405-1504	www.qsmconstructors.ca
QSM – Mechanical Quantity Surveying	31	416-949-8540	www.qsmcon.ca
Rider Levett Bucknall	23	905-827-8218	www.rlb.com
TD Insurance	39	866-269-1371	www.melochemonnex.com

Please support these advertisers who help make *Construction Economist* possible.

CONSTRUCTION ECONOMIST

“ This is one way of advertising in a national publication while also showing our gratitude to fellow professionals.”

The *Construction Economist* enables us to increase our brand recognition in a national publication and also show our support for our profession and the Canadian Institute of Quantity Surveyors. We have found the publisher of *Construction Economist* to be timely and efficient in ensuring that all advertisers are provided an equal platform to showcase their skills and requirements in a respected industry publication.

Daniel Josiah, PQS Director, Contracts & Commercial,
Lakeland Consulting Inc.

To reach construction and quantity surveying professionals through *Construction Economist* and its targeted readership, contact Jeff at your earliest convenience to discuss your company's promotional plans.

Jeff Kutny, Marketing Manager
jeff@kelman.ca | 866-985-9789



TD Insurance
Meloche Monnex

**See how much
you could save
with preferred
rates.**

Get a quote



**Rewarding job, great team,
fantastic benefits.**

You can quote us.

We're looking for an Estimator.

Learn more about the position
at marcogroup.ca/careers

MARCO
BUILDERS OF ATLANTIC CANADA





AltusGroup

See your real estate world with clarity, perspective and value-added insight

Powered by market-leading software and data analytics, our team of 175+ Cost & project management professionals across Canada advise developers and owners to make timely, confident decisions at every phase of the development and infrastructure lifecycle.

Read our latest insights at
altusgroup.com/services/insights