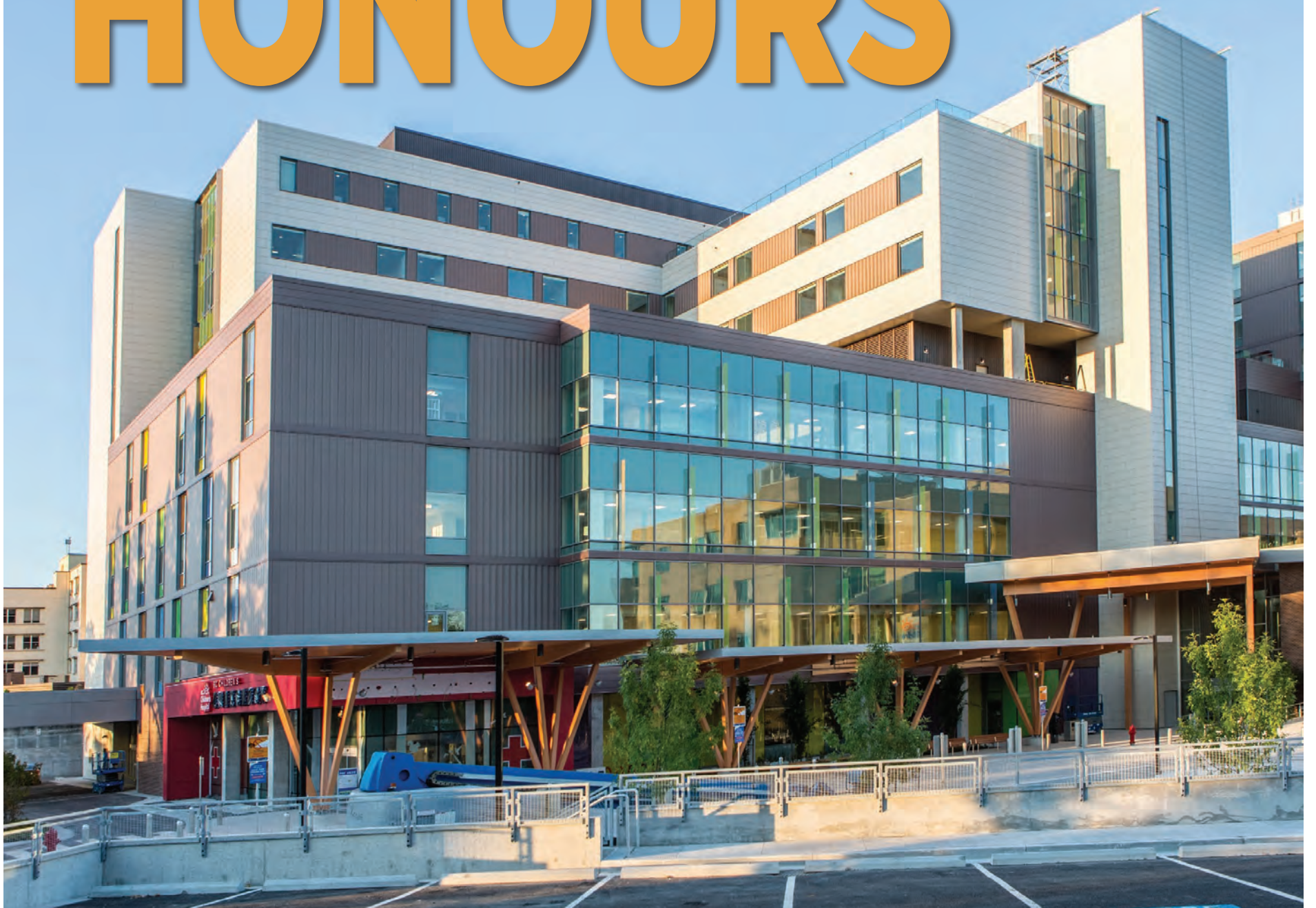


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TOP HONOURS

Innovative Teck Acute Care Centre at BC Children's Hospital earns gold award for Ledcor Construction Ltd. and Balfour Beatty Investments in the Vancouver Regional Construction Association's Awards of Excellence | [Page B2](#)



VANCOUVER REGIONAL CONSTRUCTION ASSOCIATION

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KUDOS: TECK ACUTE CARE CENTRE SHINES AT BC CHILDREN'S HOSPITAL

New state-of-the-art facility earned Ledcor, Balfour Beatty a VRCA Gold Award

BY PETER CAULFIELD

Ledcor Construction Ltd., in a joint venture with Balfour Beatty Investments, recently won the Vancouver Regional Construction Association's (VRCA) Awards of Excellence Gold Award in the category of General Contractors over \$50 Million.

Ledcor won for its part in the BC Children's and BC Women's Redevelopment Project Phase 2.

The Teck Acute Care Centre (TACC) is an eight-storey addition to the midtown Vancouver campus of the BC Children's Hospital and BC Women's Hospital + Health Centre.

The TACC replaces aging infrastructure and provides approximately 640,000 square feet of space for the larger care teams and new technologies required to treat chronic and complex illnesses.

The new facility provides private single-patient rooms with space for family members or caregivers to stay, natural light and access to outdoor green spaces.

The TACC is centrally located on the hospital campus, so that patients and staff can move easily between departments.

The centre has a new emergency department, with interactive virtual screens to provide comfort and inspiration to children and their families during their stay.

Other upgrades include 231 private in-patient rooms, a neonatal intensive care unit, transfusion medicine and medical imaging.

Each part of the building is modelled after a different region of B.C. The facilities were designed and built so that children, women and their families can feel at home and cared for.

Ledcor project manager **Stephanie Valentinuzzi** said, "I've spent almost four years working on the TACC project, and to win Gold at the VRCA awards was such a proud moment for myself and our team."

"To see the children, their parents, clinicians and staff using the facility has been truly amazing, and it put everything into perspective as to the importance of this facility. I'm honoured to have our company associated with the construction of the TACC."

Dana Buchart, Ledcor regional construction manager, remarked, "As I stood on stage and thanked ... the many, many people who invested their time and their hearts to building the Teck Acute Care Centre, I was extremely humbled to think that as I stood there, children were battling the battle, in the building we built."

And **Pat Duggan**, general manager, Affinity Partnerships, for Balfour Beatty Investments, said, "We are honoured to receive the prestigious VRCA Gold Award.... Our team did a phenomenal job of building a world-class healing environment that will forever improve the lives of children and women in British Columbia."

As the design-builder, Ledcor led the design and construction, including procurement of medical equipment and associated enhancements.

Ledcor had its hands full on the project.

It designed workshops with stakeholders, managed the design consultants, worked with city planners, met with the owner's clinical and technical compliance teams and liaised between 4,000 clinical users to achieve operating compliance.

The TACC project faced a number of challenges.

For example, construction took place in the middle of an operating hospital and adjacent to BC Women's Hospital's neonatal intensive care unit.

In addition, the work required extensive noise and vibration monitoring in and around the campus, with remote alarms installed to ensure a quick response.

A final challenge was co-ordinating the transfer of patients and equipment from the original facility to the new TACC, which included tagging all of the equipment in both facilities.

The Ledcor team overcame these challenges in a variety of ways. To cite just one example, before starting construction, Ledcor created a noise and vibration plan. Monitors were placed throughout the hospital with live tracking that would contact Ledcor if a certain threshold level was exceeded. And before starting any work that would produce unavoidable noise vibration, Ledcor performed tests to ensure none of the disruption was excessive.

The 2018 VRCA competition attracted 205 nominations worth more than \$2 billion. A total of 75 awards were presented, including 15 Gold Awards, 49 Silver Awards, nine Outstanding Achievement Awards, a Heritage Award and an Innovation Award.

"VRCA's Awards of Excellence showcase the best of the best," said VRCA president **Fiona Famulak**. "B.C.'s construction industry is the crown jewel in Canada's construction landscape. The awards contest allows VRCA to recognize the industry for the dedication and professionalism it brings to the construction of the complex state-of-the-art buildings and infrastructure that we use every day."



The new Teck Acute Care Centre provides 640,000 square feet of state-of-the-art medical facilities, with private single-patient rooms, natural light and access to outdoor green spaces | LEDCOR

CONSTRUCTIVE COMMENT

B3

Time to debunk myths to attract youth to construction careers

Making the industry attractive to young people is critical to solving looming skilled-labour shortage



The opportunity to pursue a financially rewarding career in construction fresh out of high school is real

BY FIONA FAMULAK

British Columbia's construction industry is at an interesting crossroads. With \$254 billion in proposed construction on the books, there's lots of work ahead, yet we're worried we won't have enough skilled labour as the number of retirements over the next decade will far outweigh the number of newcomers to our industry.

The industry is facing a skilled-labour shortage that is forecast to be approximately 12,000 construction jobs by 2027. It will be particularly challenging from 2019 through 2021 when demand for construction services peaks and demand for skilled workers exceeds supply.

It's with this in mind that we developed the theme for this edition of *Construction in Vancouver*: how to attract, train and retain talent from various demographic groups, especially youth.

It's ironic that the industry struggles to attract young talent even as it faces so much opportunity and relies on new technologies, innovation and best practices to deliver. Equally ironic is the fact that it's clear why.

For decades, construction has been plagued by a number of deep-seated myths, including the perception that a career in the skilled trades is a second-best choice, reserved for those students without the smarts to pursue a university degree.

The media perpetuates the myth as a matter of habit, often without questioning what's changed. Last fall, the *Vancouver Sun* published a story celebrating the 25th anniversary of B.C. biochemist **Michael Smith's** Nobel Prize win. The reporter wrote that Smith "narrowly missed being sent to work in the trades ... [and] escaped a life devoted to welding or stonemasonry," as if those outcomes would have been somehow a failure.



DINO OSMIC/SHUTTERSTOCK

However, we know Smith was schooled in England in the era when the 11-plus exam was the discriminatory fork in the road for students. Administered to 11- and 12-year-olds, the 11-plus exam identified the 20% of students who would pursue an academic path from the 80% who would not. Back then, trades weren't so much a choice as a direction handed to students because they weren't deemed smart enough.

Eighty years on, sadly, that perception remains.

And here's why. First, our industry has an image problem. We've all seen the stock photo of a construction worker on site wearing a hard hat and wielding a hammer on a rainy day. The picture is not appealing, nor does it fairly represent the industry.

While bad weather on site is inevitable, our industry is far more sophisticated and reliant on technology to drive innovation and productivity than is perhaps understood. In fact, trades professionals today require excellence in math, physics and technology to install state-of-the-art mechanical and electrical systems, operate equipment and keep multimillion-dollar projects on track.

Second, there's a perception that construction offers limited career opportunities. This is simply not true. Our industry is multi-faceted and allows apprentices to pursue their chosen trade for life or to be entrepreneurial and own their own business as early as their mid-30s. A skilled

trades professional can climb the corporate ladder toward a senior executive position and/or pursue rewarding career opportunities across the country or the world.

In addition, the industry is full of good-paying jobs. The average annual salary of a B.C. construction worker is \$57,647. Compare that with the \$35,000 average student debt in B.C. after a four-year degree – the highest in Canada – and it's easy to see the math works.

The opportunity to pursue a financially rewarding career in construction fresh out of high school is real. In fact, it represents the path chosen by many of the **Vancouver Regional Construction Association (VRCA)** Under-40 Network men and women who proudly own their businesses and homes.

It's why VRCA launched a school outreach program three years ago. Volunteers from our member companies engage teachers, counsellors and students through presentations at Lower Mainland schools to help them understand that construction offers an attractive and viable career path. Since 2015, we have partnered with 14 high schools and engaged more than 3,700 students.

Our school outreach program will not resolve the skilled-labour shortage immediately, but it has the potential to reduce the forecasted shortage in the years to come. Recent statistics suggest that the proportion of high school graduates entering a skilled

construction trade program within one year of graduation has improved from one in 70 to one in 45 over the last 12 months.

We don't take credit for that improvement; however, we do take satisfaction knowing that 34% of the students we have engaged who were initially opposed to or ambivalent about a career in construction want to learn more.

Today's youth have an essential role to play in the future of our industry to help it remain technologically smart, innovative, productive and competitive. That's why it's vital we debunk the myths about careers in construction so that the industry is recognized as an employer of choice, keen to attract a diverse, skilled and tech-savvy workforce. ■

Fiona Famulak is president of the Vancouver Regional Construction Association. VRCA is the largest regional construction association in British Columbia and fifth-largest in Canada, representing union and non-union general contractors, trade contractors, manufacturers, suppliers and professionals working in the industrial, commercial, institutional and highrise residential construction industry.

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TRAINING: VRCA RESPONDS TO DEMAND, ADDS NEW COURSES

Members to have more education they need in the format they want

BY PETER CAULFIELD

The Vancouver Regional Construction Association (VRCA) recently completed an education needs assessment for the construction industry.

VRCA president **Fiona Famulak** says the purpose of the study was to define an optimal suite of education offerings, structures and delivery formats so that B.C.'s architecture, engineering and construction sectors are able to take on the challenges resulting from the new policies, products and practices that are entering the market. Updating the education program is a strategic VRCA goal, set by its board of directors.

"The delivery of industry education is a core pillar of VRCA's member services," said Famulak. "Although our education programs and courses deliver business and project management skills, the nature of building design and construction is changing dramatically."

Famulak said it's time for the association to review its catalogue of programs and courses.

"The industry's future includes profound regulatory, technical, demographic, macroeconomic and consumer changes that will impact every aspect of construction," she said.

In late 2017, VRCA applied

for a grant from the **Real Estate Foundation of BC (REFBC)** to hire a consultant to perform an industry-wide education needs assessment.

In May 2018, the association selected Burnaby-based **RDH Building Science Inc.** to be its consultant partner on the project.

RDH presented the results of its research and analysis to VRCA in November, and the association published a public report last week.

"The survey had 149 respondents, most of whom were VRCA members," said RDH associate **Lorne Ricketts**. "In addition, 12 in-depth interviews provided a range of experiences and viewpoints."

Some of the interview questions – such as, "What are some of the trends and issues that you see affecting the industry right now?" – were "big picture."

Others, such as those asking about barriers to accessing training, dealt with specific educational wants.

The results of the study have prompted VRCA to add some new courses to its education program.

"My responsibility is to take the study's results and identify opportunities for new professional development courses, and then engage instructors who can deliver courses in those areas,"



The Vancouver Regional Construction Association's two-day Construction Leadership Forum, held annually in May at the Fairmont Chateau Whistler, is part of the association's professional development offering intended for middle managers | JOERN ROHDE/VRCA

said VRCA education manager **Andrea Ringrose**.

The education needs assessment enabled VRCA to identify unmet education topics and also provided information on how members would like to receive training.

"Much of the feedback related to a desire for flexibility in courses, such as less time in the classroom and on-demand, self-paced training," said Ringrose.

VRCA members who were

interviewed said they wanted courses that appealed to a broad range of construction personnel, including managers, supervisors, foremen and owners.

They also identified a need for more in-depth skill-set professional development on a specific role or theme.

Ringrose said some of the most in-demand education topics are people management, business management, lean construction, green building standards and

building information modelling for project managers.

"New courses based on the results of the education needs assessment are being added to VRCA's education calendar," said Ringrose.

The first two new classroom courses are Lean Project Delivery Boot Camp and Planning for Foremen, both of which sold out.

Planning for Foremen provides foremen with skills in practical task planning. Hands-on activities and practical exercises combine to deliver a complete activity plan.

REFBC, which funded the education needs assessment, is a philanthropic organization that promotes sustainable land use and real estate practices in British Columbia.

"The foundation has a strong interest in education, and the VRCA's study is timely and relevant," said REFBC grants program manager **Hedy Rubin**.

"Since launching our grants program in 1988, we have approved more than \$80 million in funding to support real estate and land-use projects across the province. Our grants fund research, education, policy analysis and other projects for the public or professional good." ■

TRAINING: INDUSTRY EMBRACES LEAN PROJECT DELIVERY

New boot camp seeks to help meet important educational needs: VRCA

BY PETER CAULFIELD

As part of its ongoing education program, the Vancouver Regional Construction Association (VRCA) held a one-day boot camp/workshop on lean project delivery in December.

This class featured a hands-on simulation using Lego, in which the 12 participants constructed buildings in two ways. The first exercise used traditional delivery methods.

This was followed by a second simulation that used the Last Planner lean delivery system to construct the same buildings. Finally, the differences in efficiency and results were measured.

"This is the first time we've run the lean delivery workshop," said VRCA education manager **Andrea Ringrose**. "Lean delivery had been identified by association members in our recently completed education needs assessment as a high-priority unmet educational need."

Margaret Thompson, interior construction consultant with **DIRTT Environmental Solutions**,

attended the boot camp.

"Learning by doing was very effective," said Thompson. "In the first exercise, in which we built with traditional methods, there were plenty of errors and wasted time. But in the second simulation we worked collaboratively, planning out in advance what we needed to do. The simulations certainly proved the value of lean delivery."

According to the **Lean Construction Institute (LCI)**, lean construction is a new way to define, design and build, and it can be applied on any project with any project delivery model.

First used in production and manufacturing, lean delivery applies the same principles to improve productivity in construction.

According to LCI, some of the features of lean construction are:

- maximizing project value and minimizing waste;
- designing and building at the same time, instead of sequentially;
- decentralizing decision-

making; and

- emphasizing reliability and speed.

Lean delivery challenges the generally accepted belief that there is always a trade-off between time, cost, quality and safety, according to LCI.

A Lower Mainland practitioner of lean delivery is **Pitt Meadows Plumbing and Mechanical Systems Ltd.** Chief administrative officer **James Zelinski** says the company has been practising lean project delivery in a number of different ways for five years.

"We employ a continuous improvement co-ordinator, **Barry Waterman**, who works with our site teams to improve not only what we do, but how we do it," said Zelinski.

Pitt Meadows Plumbing is "constantly reviewing" its processes on site, in its shops and in its offices, to make sure it is being as efficient as possible.

"We have employed a BIM [building information modelling] team to model almost everything we build," Zelinski said. "We build mock-ups of the suites and



Participants use Lego to construct buildings in a hands-on simulation at a lean project delivery boot camp held in December by the Vancouver Regional Construction Association | ANDREA RINGROSE/VRCA

rooms that we build, to identify and fix problems before we begin construction. And we prefabricate as much as we can in our shop and then install it on site."

Some of the benefits Pitt Meadows Plumbing sees from lean project delivery are increased efficiency, fewer errors and higher quality.

Zelinski said Pitt Meadows Plumbing has a few words of counsel for any B.C. company that has been thinking about going lean.

"Our advice is simple," he said. "Don't wait. Embrace lean now."

Art Winslow, director of green and integrated project delivery at **Graham Construction Ltd.**, says lean delivery is multi-faceted.

"For one thing, it's cultural, with a mission of continuous improvement," Winslow said. "And on site, there are tools such as automated scheduling systems that set out milestones of what has to be done. That enables us to think backward from the outcomes to what we need to do to accomplish them. That's different from traditional planning." ■

TECH: 3D MODELLING BECOMING INDUSTRY BEST PRACTICE

BIM leads to better collaboration, reduces costs

BY BRIGITTE PETERSEN

The growing use of building information modelling (BIM) tools in the construction industry over the past decade demonstrates one key way technology is transforming the sector, according to two business leaders.

Created on a virtual platform, BIM involves making highly detailed 3D models to study the cost, constructability and logistics of a project. Data is used to manage interferences, plan and assemble buildings during construction across the supply chain, and it can later be used as a tool for facility management and operations. Benefits of BIM include fewer errors and omissions, less rework and lower costs.

EllisDon has been actively using 3D modelling over the past decade. Using BIM has increased productivity and accuracy when it comes to detecting mechanical and electrical clashes ahead of time, according to **Hammad Chaudhry**, EllisDon's virtual design and construction (VDC) manager for Western Canada. In the past year, the company found up to 50,000 clashes in its Canadian projects through the modelling process.

"We can look at any conflicts ahead of time and remedy them," said Chaudhry.

Along with general contractor **Tishman**, EllisDon managed construction of the new **Parq Vancouver** resort and casino. A constructability analysis was conducted, and BIM helped make the project constructible from design to production. EllisDon used Revit, Navisworks and Assemble Systems software for the Parq project.

EllisDon's VDC team consolidated architectural and structural 3D models for clash detection.

Various tradespeople used electronic drawings and BIM in the field daily to co-ordinate installations. Through collaboration, subcontractors used BIM as their main problem-solving tool, reducing costs, delays and risk.

"We were able to flush out a lot of issues that involved clashes and came up with a model that we could build," explained Chaudhry.

BIM was also a time saver, enabling building of the structure virtually before construction began.

"It helped streamline the construction process; we had better quality control and a safer work environment," said Chaudhry.

BIM also helped construction staff visualize installation of prefabricated building modules. Collaborating tradespeople used BIM to prebuild Parq's mechanical room off site. The 14,000-square-foot room was later installed on site over a weekend, saving time and materials.

"Everything came together like Lego," said Chaudhry.

Quantity takeoff control detailing how much concrete was needed was also made more accurate with BIM.

BIM helps companies meet tight timelines, as **Dinos Hadjiloizou**, **Division 15 Mechanical Ltd.**'s vice-president and general manager, found when working on **Simon Fraser University's** new Sustainable Energy Engineering building in Surrey. The company used Revit for 3D modelling and Autodesk BIM 360 Glue to share information with teams.

Due to the tight schedule, mechanical rooms were modelled and built off site for this project before being physically added to the structure.

"That was critical to being able to deliver this building on time,"

said Hadjiloizou.

Through clash detection, BIM helps identify problems before work takes place on site and reduces workplace accidents that can occur under tight timelines, according to Hadjiloizou.

"It reduces our risk of failure because we make fewer mistakes and we can control the risk of cost overruns," he said. "By modelling and prefabricating off site, we managed to reduce risk and produce a consistent product on time."

Keeping up with technology

With more technology-savvy clients mandating the use of BIM, construction companies will continue to expand its use, according to Chaudhry, who said the industry is at a crossroads where the more traditional knowledge of baby boomer construction workers is converging with the technological skills of the millennial generation. Challenges around using BIM include finding the right staff to leverage the tools of technology.

"BIM is not just a 3D model," explained Chaudhry. "It's the people, the process and the technology coming together. It's going to become, very quickly, the



EllisDon used 3D modelling for the Parq Vancouver resort and casino project | ELLISDON

best practice for how we build anything now."

With artificial intelligence on the horizon, Chaudhry predicts these new technologies will "enhance" the use of BIM through increased automation and supply chain improvements.

Hadjiloizou acknowledges that some in the construction

industry "fear the unknown" when it comes to learning BIM and other new technologies, stressing that marrying a variety of new skills and know-how is a necessary step in the sector's evolution.

"Some people embrace it, some people resist it," he said. "[BIM] is part of our DNA now." ■

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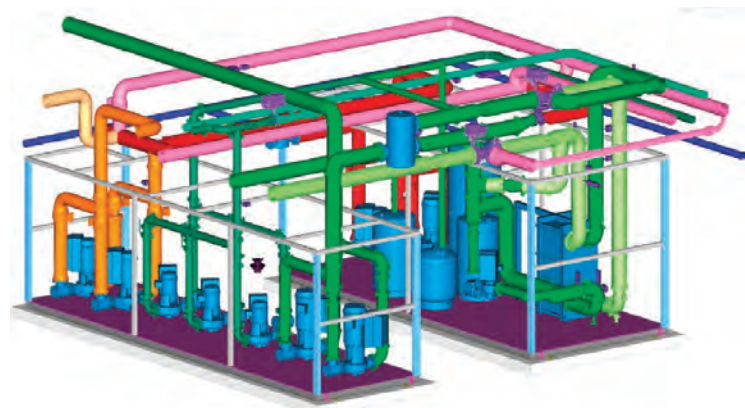
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An example of skid-mounted prefabrication of the mechanical room for Simon Fraser University's new Sustainable Energy Engineering building in Surrey through the use of BIM | DIVISION 15 MECHANICAL

HAMMAD CHAUDHRY VIRTUAL DESIGN AND CONSTRUCTION MANAGER, WESTERN CANADA, ELLISDON

Everything came together like Lego

Federal Skilled Trades Program offers employers alternative for hiring foreign workers

Program is designed to assist skilled trades workers to immigrate to Canada as permanent residents



Employers could create a road map to assist potential employees to become stronger candidates for the Federal Skilled Trades Program by first assisting them to obtain a temporary work permit and obtaining relevant work experience in Canada

BY DANIEL LEE

In recent years, the **BC Construction Association** and the **Government of British Columbia** have increased their efforts to attract new workers to the construction industry through the Skilled Trades Employment Program (STEP) by pairing candidates with potential employers and providing financial supports to participants of apprenticeships. However, there remains a large shortage of available skilled trades workers in British Columbia.

Accordingly, companies are starting to evaluate whether or not hiring foreign workers from outside of Canada could be a strategy to address their existing labour challenges.

This article provides an introduction on how companies can hire foreign workers for construction occupations and how companies can assist foreign workers to become permanent residents of Canada through the Federal Skilled Trades Program.

Work permit options

From an immigration perspective, after finding the right candidate for a vacant position, the employer must consider whether or not the individual is authorized to work in Canada. If the candidate is not a Canadian citizen or a permanent resident, then the employer may need to assist the candidate in obtaining a temporary work permit.

An employer should first assess whether or not the foreign worker will be eligible to apply for a work permit under one of the Labour Market Impact Assessment-exempt (LMIA-exempt) work permit categories, which include the North American Free Trade Agreement intra-company transferee category and the International Experience Canada (working holiday) category. If the foreign worker is eligible to apply for a work permit under one of the LMIA-exempt categories,

then the employer can assist the foreign worker to apply for a work permit without completing an LMIA.

However, if the foreign worker is not eligible for an LMIA-exempt work permit, the employer will need to apply for an LMIA. The LMIA is a labour market verification process whereby **Employment and Social Development Canada** assesses an offer of employment to ensure that employing a foreign worker will not have a negative impact on the Canadian labour market.

The employer will be required to advertise the position in a prescribed manner for a continuous period of four weeks. Moreover, the employer is required to demonstrate that there are no qualified candidates in Canada for the position and that the foreign worker is the most qualified candidate for the position.

From our experience, most employers are willing to assist foreign workers to obtain an LMIA-exempt work permit. This is because the employer will not have to go through the onerous LMIA process, which may take up to six months to complete. However, if a foreign worker does not qualify for an LMIA-exempt work permit, then the LMIA is a mandatory requirement of obtaining a work permit.

As a result, some employers are searching for alternative immigration programs that can assist foreign workers to become permanent residents immediately. The Federal Skilled Trades Program is one such option.

Federal Skilled Trades Program

This program is designed to assist skilled trades workers to immigrate to Canada as permanent residents along with their spouses and dependent children. Qualified skilled trades workers, such as welders, boilermakers, electricians, plumbers, carpenters and roofers (this is a non-exclusive list), may be eligible to apply

for permanent residency if they meet the following requirements for the Federal Skilled Trades Program:

- **Language:** complete an approved language test in English or French and score Canadian Language Benchmark (CLB) Level 5 in speaking and listening and CLB 4 in reading and writing. The language requirement is equivalent to a beginning-intermediate level. The test must be completed even if the applicant's mother tongue is English or French.
- **Skilled work experience:** have at least two years of full-time or equivalent amount of part-time work experience in a skilled trade within the preceding five years.
- **Qualified in a skilled trade:** meet the job requirement for the skilled trade as outlined in the National Occupational Classification.
- **Job offer:** receive a valid job offer of full-time employment for at least one year from an employer in Canada or have a certificate of qualification in the skilled trade issued by a Canadian provincial, territorial or federal authority.

Express Entry

One of the concerns regarding the Federal Skilled Trades Program was the lengthy processing time of up to 48 months. Employers will be glad to learn that as of January 1, 2015, this concern was addressed by introducing the new Express Entry system, with a processing time of six to seven months. This makes the Federal Skilled Trades Program more attractive to both employers and foreign workers.

Express Entry is an online immigration application system that grants candidates points based on their personal characteristics. Candidates with the highest point scores may receive an invitation to submit a permanent residence application. In 2018, the minimum required to receive an

invitation to apply was between 439 and 456 points. Further, in the past, there were usually two rounds of invitations reserved for the Federal Skilled Trades Program where the minimum was between 284 and 288 points.

Strategic road map

Not all foreign workers will meet the minimum requirements for the Federal Skilled Trades Program. This does not mean the program may not be applicable for the foreign worker in the future. From our experience, employers could create a road map to assist potential employees living outside Canada to become stronger candidates for the Federal Skilled Trades Program by first assisting them to obtain a temporary work permit and obtaining relevant work experience in Canada. Once the employees are in Canada, they can increase their points scores for Express Entry purposes with various strategies, including:

- gaining paid Canadian work experience in the skilled trade;
- obtaining a Certificate of Qualification from the Industry Training Authority;
- improving language proficiency in English and/or French; and
- receiving an arranged employment offer from an employer in Canada.

A number of different strategies can be applied to bring a foreign worker into Canada; however, the same program will not work for all applicants. Accordingly, it is necessary to take an individualistic approach to assess which immigration programs provide the most effective method of obtaining status in Canada.

Daniel Lee is an associate at Alexander Holburn Beaudin + Lang LLP and a member of the law firm's immigration, business law, labour and employment and cannabis practice groups. The content of this article is intended to provide a general guide to the subject matter. Specialist advice should be sought about specific circumstances.

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HUMAN RESOURCES

B7

Diversity and top talent are one and the same for YVR

Vancouver Airport Authority committed to improving representation for under-represented groups



The more diverse we are as an organization, the more successful we are as an airport

BY CRAIG RICHMOND

I have the fortunate position to lead the team that oversees Vancouver International Airport (YVR). As an economic generator, YVR plays a significant role in the economy, supporting more than 24,000 jobs on Sea Island, where the airport is located, and more than 100,000 jobs across B.C. When it comes to hiring and retaining employees, diversity and top talent are one and the same for YVR: the more diverse we are as an organization, the more successful we are as an airport. We're proud to be recognized as one of Canada's Best Diversity Employers and one of B.C.'s Top Employers. Yet one issue we're still tackling is fulfilling the employment needs of Sea Island. There is a massive labour shortage in our province, and this impacts our airport.

Through my work on the **Presidents Group**, we're championing more accessible, inclusive workplaces. The B.C. business leaders I work with represent

organizations of all sizes, in a range of industries, yet we face the same problem. By 2025, employers in our province will need to fill an estimated one million job openings. So where can we find the talent to fill these roles?

I encourage you to look at groups of individuals that are largely untapped. Did you know that there are currently more than 600,000 people in British Columbia living with a disability? That is 20% of the population of our province. And yet they are massively under-represented in our workforce. Individuals with a disability are three times more likely to stay at your organization long-term, and research shows that they increase productivity.

This difficulty in finding skilled workers rings even more true for the construction industry. The projects keep coming – look at the \$40 billion LNG Canada project. And if you've been to the airport recently, you've seen that several capital construction projects are underway to address the growth we're experiencing.

We're investing more than \$9.1 billion over 20 years, with \$1.7 billion being spent in the next three years alone. The projects we've embarked on supported nearly 2,500 more jobs on site in 2018 and hundreds more off site – and this will only continue to increase over the next three years. In 2018, YVR had more than 745,000 contractor person-hours on construction capital projects. That is the equivalent of approximately eight people working 40 hours a week for their entire working lives (age 20 to 65). So, as you can imagine, we need more people – and fast. Our key takeaway from all this is that we need to look at this group of untapped individuals.

At **Vancouver Airport Authority**, we're committed to improving representation for four designated groups: visible minorities, Indigenous peoples, persons with disabilities and women. And we encourage the same from our partners. From our board of directors to our management team, you'll see a

diverse makeup. Women make up 43% of our workforce, 50% of our board and 60% of our senior management team. Specifically looking at our engineering team, we have almost 70 engineers and related professionals who oversee all construction projects, with many of them being women in a predominantly male industry. And I have seen first-hand the creativity this brings to our expansion projects, which is crucial.

We're investing in a better airport – a thriving community asset that creates jobs, gives back and makes us all proud. Who wouldn't want to be a part of that? ■

Craig Richmond is president and CEO of Vancouver Airport Authority, the community-focused organization that manages Vancouver International Airport. To learn more about team YVR and current opportunities, visit YVR's careers page at yvr.ca/careers. For more information about the various construction projects at YVR, check out yvr.ca/construction.

KUDOS: COMPANY'S MENTAL HEALTH PROGRAM EARNS PRAISE

Scott Construction Group takes a proactive approach to support mental wellness at work

BY BRIGITTE PETERSEN

Mike Haley struggled with depression for years, fending off thoughts of suicide, before seeking help through the employee family assistance program at work.

"My father used to say, 'Just suck it up,' and I did that for years," said **Scott Construction Group's** manager of program services.

When his workplace formed a mental health committee in 2016, Haley joined to learn more about mental health issues to help himself and others.

"I didn't know anything about depression," he said. "I was tired of being sad and I wanted to be happy."

Today, with the help of the committee, counselling and the herbal supplement St. John's wort, Haley is happier, healthier and more sociable, and he no longer finds it difficult to talk about how he's feeling.

"Knowing that I'm not alone helps a lot," he said. "The biggest thing is that I'm not shy to talk about it anymore."

Haley, along with other Scott Construction staff members, participates in daily morning meditation, tai chi and other practices organized by the committee to kick-start his day in a healthy direction. He's even participated in



Donna Grant, Scott Construction Group marketing manager, says job sites can be the front lines for suicide prevention | SUBMITTED

"laughter yoga."

"It was different," the 60-year-old Squamish resident said – with a laugh. "It was fun."

The program also involves committee members going on site visits to reach out to construction staff where they work.

Haley encourages all construction firms to set up mental health committees to support employees and contractors.

"The productivity of your staff is going to improve, and it shows



Mike Haley, manager of program services for Scott Construction Group, encourages all construction firms to set up mental health committees to support employees and contractors | SUBMITTED

that the company cares," he said.

And for construction staff who are struggling with mental health issues, Haley has two words of advice: "Get involved."

Scott Construction's marketing manager, **Donna Grant**, said the Vancouver-based company formed its mental health committee to take a proactive approach to support mental wellness at work instead of waiting

for a crisis to occur.

"It's a male-dominated industry, and men are less likely to reach out for [help with] mental health issues," said Grant. "There's still a significant stigma."

Removing that stigma is vital to encourage people to speak up and seek help when they need it, Grant said.

Some of the stressors leading to a high suicide rate in the industry include long work hours, physical labour and the feast-or-famine nature of contract work.

"Substance abuse is high in our industry, and that raises the risk of suicide as well," Grant said.

The committee took root in 2016, when Grant and 11 other employees began meeting regularly to create a mental health program. The program won two awards in 2018: North American Occupational Safety and Health Week (NAOSH) Safety and Health Team Champion, and NAOSH B.C. Overall Champion – Construction Division.

The committee meets quarterly to organize various events, such as lunch-and-learns, guest speaker events and job site visits, to discuss topics like seasonal affective disorder, depression, suicide prevention, grief counselling and holistic nutrition. All committee members are certified

Information session

The **Vancouver Regional Construction Association** and **BC Construction Safety Alliance** are co-hosting an information session on January 30, entitled **Mental Health & the Construction Industry**, which will feature **Donna Grant** from **Scott Construction** and **Shae Emry** as keynote speakers. Information about the event and registration can be found at www.bccsa.ca

in the Mental Health First Aid program.

Grant, a current committee member and past chair, said job sites can be the front lines for suicide prevention.

"We're one of the first construction companies in Canada to do this," she said. "The feedback has been absolutely tremendous, and participation is excellent."

Grant, director of community for **Canadian Construction Women**, presented on suicide and the construction industry at the **BC Construction Safety Alliance's** 13th annual Bridging the Gap Construction Safety Conference in Vancouver in October 2018.

"This is an industry-wide problem, and we want to make sure it's shared." ■

Integrated project delivery emphasizes collaboration and mutual benefit

New standard contract aims to move construction industry to a different model of risk allocation



BY NORM STREU AND
CHRISTOPHER HIRST

There is exciting news in the world of standard-form construction contracts. Yes, you read that right. A new standard-form document aims to provide an option for a different model of risk allocation.

The **Canadian Construction Documents Committee (CCDC)** is introducing a new standard-form construction contract, called *CCDC 30: Integrated Project Delivery Contract*, which aims to move the construction industry away from the traditional risk-allocation model and toward integrated project delivery (IPD).

Historically, construction industry contracts have emphasized risk allocation between parties. The result of this risk-allocation model is the legitimate perception that construction contracts are, in essence, a zero-sum game. Some argue that this model actually inhibits productivity, which in turn leads to increased costs on construction projects.

A study conducted by the U.S. Department of Commerce found

that the construction industry was the only major American industry that was still actively experiencing declines in productivity. A Canadian study reported that contract prices were impacted by 8% to 20% as a result of contractors placing premiums on exclusion and disclaimer clauses in standard construction agreements.

In recent years, the traditional model's focus on profit and gain has been heavily criticized. Critics have identified four systemic problems with the risk-allocation contract model:

- a lack of innovation and information sharing;
- the placement of artificial limits on co-operation;
- an inability to co-ordinate; and
- the "zero-sum" perception of construction industry participants.

IPD tackles these systemic problems by recrafting the traditional construction contract into one that emphasizes collaboration and mutual benefit. The IPD contract model incorporates two new aspects that starkly contrast the historical risk-allocation model:

- a mechanism by which participants share in both the risks and the gains of the project; and
- a waiver of most claims each party can make against the other.

These mechanisms are designed to erase the zero-sum mindset of traditional construction contracts and encourage contracting parties to collaborate rather than compete.

There are four phases to the IPD contract, each of which emphasizes trust, communication and collaboration:

- (1) a validation phase, during which the contracting parties discuss their objectives, their initial cost target and the "risk pool" that constitutes the profit to be shared by the parties on completion of the project;
- (2) a design/procurement phase, during which the cost target is finalized, a project schedule is created and the necessary pieces are put in place for construction to begin;
- (3) a construction phase, during which construction occurs; and finally
- (4) a warranty phase, during which the parties review the project and distribute the risk pool.

Additionally, this contract model will generally provide for the parties to mutually appoint a project management team, a senior management team and a project implementation team to oversee each phase of the project. These teams create space for collective problem solving and help reduce conflict among parties.

IPD contracts have not been widely used in Canada to date, but the hope is that the *CCDC 30* contract will gain acceptance as a legitimate alternative to the traditional construction contract model.

If the new IPD model gains widespread acceptance, its proponents believe it has the potential to significantly increase the construction industry's productivity, efficiency and cost-effectiveness.

And that is indeed exciting news. ■

Norm Streu is president and chief operating officer of the LMS Reinforcing Steel Group. Christopher Hirst is a partner and the leader of the construction and engineering group at Alexander Holburn Beaudin + Lang LLP. This article was drafted with the assistance of Jayde Jessome, articling student.

Historically, construction industry contracts have emphasized risk allocation between parties

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