#### SPECIAL FEATURE January 29, 2021 **OCOUPADIDAD OCOUPADIDAD OCOUPADIDAD**

## George Brown construction grad pivots to OH&S safety mentor, resource



SUBMITTED PHOTO

Alex Ewing has instructed over 3,000 George Brown students about construction safety practices in the school's construction engineering, civil engineering, building renovation and architectural technology programs.

#### DAN O'REILLY CORRESPONDENT

s a construction engineering technology student at George Brown College, Alex Ewing hoped he could someday teach there. In 2012, just two years after his graduation, that dream became a reality when was hired as a part-time instructor teaching construction safety practices.

Ewing estimates he has taught approximately 3,000 students in construction engineering, civil engineering, building renovation, and architectural technology programs, since then.

Comprised of a two-hour weekly session, the one-semester, 14-week-long program focuses on basic site hazards and prepares them to assess and control potential site hazards. Before the outbreak of COVID-19 they would visit actual construction sites and then write policies and management practices based on what they observed. Right now, that component of the program is conducted via telephone interviews, he says.

"My goal is to make them conscious leaders in the industry, regardless of the position they may hold. They will know what is

### Economic Snapshot Update on Ontario: a partially masked recovery



With record new cases of COVID-19 leading the government to adopt measures to limit the spread of the virus to almost the same degree of harshness as in March of last year, there is a real risk that the recently announced lockdowns will cause growth to stall in the first quarter of 2021. This prospect is exacerbated by the federal government's recent announcement that its already glacial pace of vaccine delivery will be further inter-

John Clinkard

rupted due to production problems at Pfizer-BioNTech's drug-making plant in Belgium. While this unexpected glitch in vaccine distribution does not extinguish the light at the end of the tunnel referred to in my recent Snapshot, *COVID-19 Vaccine Gives Big Boost to Global and National Outlook*, it certainly extends the length of the tunnel.

While the current wave of COVID is hitting the province and its major trading partners harder than earlier waves, in terms of hospitalizations and case counts, its impacts on the province's exports are likely to be smaller given that both foreign and domestic governments have income support programs in place and companies have acquired experience in managing their staff members remotely.

Looking beyond the first quarter of this year, the outlook for the economy brightens considerably due to the simultaneous positive impacts of increased vaccine distribution on economic activity in the United States (the market for three-quarters of the province's exports) and on consumer spending and business investment within the province.

President Joe Biden's fiscal stimulus package is unlikely to have an immediate positive impact on the U.S. economy. That said, some robust forward-looking indicators, including the *Institute for Supply Management's* Manufacturing and Services PMIs, together with the University of Michigan's Consumer Sentiment Index, suggest that U.S. economic strength will underpin the growth of Ontario's manufacturing exports through the second half of 2021 and into 2022.

Although employment retreated slightly in December and the

of a vaccine-fueled rebound in confidence and increased pent-up demand will provide a boost during the remainder of the year.

Against the headwind of measures to limit the spread of COVID-19 and a pronounced slowdown in permanent migration, sales of existing homes in the second half of 2020 shot up by 30% compared to the same period a year earlier. The key drivers of this surge in housing demand were extremely low-interest rates, a sharp rise in savings and a pronounced increase in the number of first-time buyers seeking more affordable single-family homes on the less-dense fringes of the province's larger census metro areas.

Looking forward, the pronounced drop in condo rental activity in the Greater Toronto Area suggests single-family house construction will outpace multiple-unit ground-breaking throughout most of this year and into 2022. Heading into 2022, we expect the combination of climbing prices, higher interest rates and a slowdown in net migration will dampen home sales and lead to a slower pace of new residential construction.

In contrast to the relatively strong pattern of residential construction, non-residential investment in Ontario, in the second half of 2020, was down by about -6%. This decline was very close to *Statistics Canada's revised capital spending* projection released in August of 2020. Spending in all of 2020, versus 2019, has been revised down from +4.1% to -6.5% due to the partial lockdown of much of the province's non-residential construction sector in March of last year. Although the province is likely to operate with significant excess capacity in the near term, based on the Bank of Canada's most recent *Business Outlook Survey*, non-res investment should exhibit moderate growth later this year and into 2022.

After posting growth of +2.1% in 2019, we estimate that the depressing impact of COVID caused Ontario's economy to contract by -5% to -6% in 2020. However, a vaccine-spurred increase in consumer spending, business investment and exports will combine to cause the province to expand by +5% to +6% this year and by +4% to +5% in 2022.

John Clinkard has over 35 years' experience as an economist in international, national and regional research and analysis with leading financial institutions and media cutlete in Canada

unsafe, how to protect themselves, and their rights and responsibilities."

Every project has a health and safety component and a major aim of the program is to demonstrate, "how not to things and how to do them right. On an unsafe job site budgets and schedules go out the window."

Ewing draws on his experience as senior partner at Aceis Group Ltd. which he co-founded with his father, Gord Ewing, when he was only 18.

"I am who I am today because of my dad."

As teenager Ewing worked summers and weekends for his father, who initially did small residential repair and renovation project, but later branched out into other work. When he was only 14 his father put him in charge of a school waterproofing project.

"He told everyone (visiting the site) I was the manager and they should speak to me. I thought it was joke, but it was an excellent opportunity to learn."

Two years later Ewing started his own company and, operating from a minivan, spent evenings, weekends, and summers renovating and repairing homes. But in 2007 he joined forces with his father and created Aceis Group as equal partners.

That was also the same year he entered George Brown and the combined weight of academic studies and running a business entailed 60-hour work weeks, he says.

"I just knew that I wanted to manage construction projects," says Ewing on his decision to enroll in the threeyear construction engineering technology program.

After graduating with an advanced diploma and directing all his energies on the company, he soon realized that some contractors didn't know to protect their workers. He convinced his father the company should pivot and focus on the delivery of safety programs instead.

"So, we hung up the tool belts and focused on our energy on supporting the folks that we had once competed with."

That required temporarily shutting down the company so he could acquire the knowledge and accreditations necessary for the transition. That wasn't easy.

"There is no direct route into construction health and safety," says Ewing, explaining he couldn't find an overall post-graduate educational program specifically targeted for construction industry members aiming for a safety management career.

To overcome that hurdle he enrolled in "countless courses" offered by a variety of associations and safety organizations and earned a number of professional designations.

There was also the financial stress of not having a steady income and he and his father were forced to live on their savings. "My father helped us get over the hump. I was living at home at the time and didn't have a mortgage at the time."

However, the transition of the Aceis Group was completed about six to seven months later. Offering services such as training, inspections, audits and program development, the business has had its share of ups and downs. It was initially difficult to attract clients and there were challenges and setbacks following his father's death in 2015 and Ewing's own bout of ill health for about two years.

Nevertheless, during this time, he successfully completed a correspondence course from the University of Bath in England, obtaining a Master's of Science in International Construction. His thesis was on the challenges of COR certification.

Since then the business has recovered, new employees have been added, and in 2020 the company had the distinction of becoming one of a small group of Approved Providers for WSIB's Health and Safety Excellence pro-

most recent labour stats have yet to reflect the impact of the Jan- and media outlets in Canada.

uary lockdown, the province has clawed back 76% of the jobs it lost as a result of the first COVID infection wave in March 2020. Across industries, hiring by firms in the accommodation and food services industry is up by +47% since February 2020. Solid jobs gains have also been recorded by manufacturing (+26%), information services (+20%), and construction (18%).

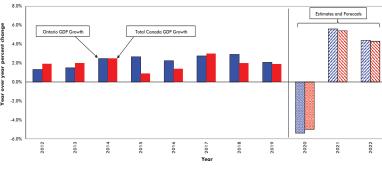
Driven by the combination of elevated pentup demand, the above-noted rebound in hiring, government income support programs, a big jump in personal savings and a steady rise in consumer confidence, Ontario retail sales are ahead by +60% since April 2020. This increase, second only to Quebec's gain, has been in large part caused by a surge in sales of motor vehicles, building materials, clothing, and home furnishings.

Just as it did in March of last year, the current lockdown will depress consumer spending in the first quarter of this year. However, the combination

### Construct connect.

Paal\* Gross Domostic Product (CP

### Real\* Gross Domestic Product (GDP) Growth – Ontario vs Canada



\* "Real" is after adjustment for inflation

Data Sources: Actuals — Statistics Canada; Forecasts — CanaData. Chart: ConstructConnect — CanaData.

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gram.

"We are now able to support businesses with more limited resources as they look to develop their health and safety management systems."

As for his entrance into teaching, that came about with the help of former instructor Doug LaPorte, who Ewing describes a mentor and "a favourite of most students for a couple of decades."

After learning from the now-retired LaPorte that a parttime position was open, he quickly applied.

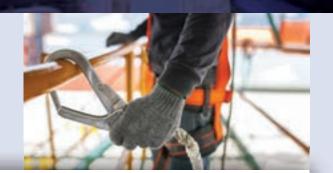
"I'm not one to let an opportunity to go by," says Ewing, adding that his first few days in the teaching role, "were a bit overwhelming as some of the students were older than me."

While believing his students have learned a considerable amount of safety, there has been a reciprocal benefit.

"My students have made me a much better manager and person. I have learned a great deal about interacting with people, and supporting individuals while achieving group goals. I have also learned far more about health and safety trying to answer their questions."



### Working at Heights training is not only legally mandated in Ontario, but new research confirms IT WORKS!



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## **IHSA COVID-19** risk guide meets industry demand for guidance

#### DAN O'REILLY CORRESPONDENT

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Judging by the more than 300 downloads for the online version, there is pent up demand for a COVID-19 risk assessment guide or 'tool' created and produced by the Infrastructure Health & Safety Association (IHSA).

"COVID-19 is another workplace hazard and each workplace is different based on the tasks, individuals and circumstances," Michelle Roberts IHSA

And that doesn't include direct mail out of approximately 133,000 copies which were included as a supplement in the association's quarterly magazine last summer.



Officially titled Risk Assessment COVID-19, the nine-page "step by step" guide highlights the signs for identifying the virus, the measures needed to control its spread, and the respective responsibilities of managers, supervisors, health and safety representatives, and workers.

"We wanted it to be in plain language and as simple as possible," says the association's stakeholder and client engagement director, Michelle Roberts.

It's not a document solely intended for high-level managers and a major objective is to emphasize that workers, managers, supervisors, health and safety representatives all have an important role in taking steps to reduce the spread of the virus, she says.

<sup>4</sup>COVID-19 is another workplace hazard and each workplace is different based on the tasks, individuals and circumstances, however the principle of managing hazards and risks is the same."

The process involves recognizing, assessing, and evaluating the risks, with the fourth and final step consisting of evaluating and reviewing the controls needed to eliminate, or at least, minimize the risks, she says.

With the use of an inverted pyramid-style image, the guide underscores the critical importance of a "hierarchy of controls" in which the most effective measure is controlling the virus at its source.

"It (the guide) evolved as we went through it," says Roberts, explaining IHSA has been conducting a series of COVID risk control initiatives since the first pandemic shutdown last March including publishing pamphlets and conducting webinars.

Asked why the association went to the next stage to produce the tool, she said the purpose was to create an easy-to-use guide



for its construction, electrical, and transportation industry sector clients across the province.

Identifying and controlling workplace hazards is required of all employers in Ontario under the Occupational Health and Safety Act and, if regulated by the federal government, under the Canada Labour Code and its regulations, says Roberts, who believes the guide will help industries comply with those regulations.

Work on the tool started in April 2020 with the goal of aligning it with the publication and distribution of the magazine in July. Although it only took about two weeks to prepare the content, distilling that content into an easy-to-follow process which can used across those multiple industry sectors took some time, says Roberts.

The content and format were primarily determined by Roberts and research and stakeholder & public coordinator Charlie Charalambous, but they were able to draw on the resources and assistance of other departments, she says.

A hundred and fifty copies were printed and the guide was also posted on social media platforms such as LinkedIn and Twitter. Initial feedback from the association's stakeholders has been very positive, says Roberts, pointing out it can be <u>easily</u> <u>downloaded at no charge</u>.

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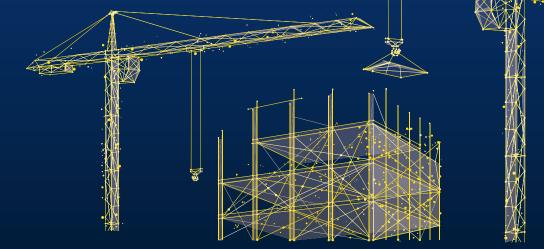
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# Has technology and innovation in construction made sites safer?

PETER CAULFIELD CORRESPONDENT

E veryone in construction knows that digital communication devices, and machinery that uses digital technology, are being used more and more in the industry.

It's also old news that they are affecting, directly and indirectly, the way buildings are designed and constructed.

Often overlooked, however, is that these same developments have had an impact on the health and safety of the people doing the work.

### "Off-site construction is synonymous with prefab and modular construction. Panelization and mass timber also fall under the umbrella,"

Craig Mitchell Black Box Modular Solutions

An increasing volume of construction is taking place off-site and then transported to and erected on the spot where the owner wants it.

"There is an accelerating trend around the world to offsite construction," Craig Mitchell, founder of Black Box Modular Solutions and former director of innovative solutions of now-defunct Metric Modular.

"Off-site construction is synonymous with prefab and modular construction. Panelization and mass timber also fall under the umbrella of offsite construction."

Mitchell says they all have in common that much of the work is performed in a climate-controlled, weather-protected factory and then brought to site in components or as modules and put together.

"They eliminate much of the risk of traditional construction," he said.

Off-site construction is better for worker safety in several significant ways, says Mitchell:

• It's easy to control the movement of workers in and out

of the factory. That, and the ability to monitor their health, is especially important during the current pandemic;

• Workstations can be set as far apart as necessary, for better control of social distancing;

• Better sanitary conditions than at traditional construction sites;

• More work is done at ground level rather than high above the ground; and

• In a factory, any roof work requires fall restraints.

Off-site construction is also a way of dealing with another problem that bedevils the construction industry.

"There's a shortage of skilled trades workers in not just B.C. and Canada, but around the world," said Mitchell. "In many countries young people are not interested in going into the trades."

Helen Goodland, head of research and innovation at SCIUS Advisory in Vancouver, says there is anecdotal evidence from some construction companies, especially the larger ones, that adoption of technology has made their operations safer.

"The big companies are the ones making the largest investments in innovation and technology, but so far it's hard to quantify their impact on health and safety," said Goodland.

Two technical innovations that will have an impact on construction health and safety in the future, she says, are wearable technologies and exoskeletons. Neither of them has arrived yet, but they're on their way, and will become used widely once they're understood and their price has come down, just like the other technologies that were once curiosities and are now taken for granted.

Construction wearables — worn on the body, clothing or personal protective equipment — collect and deliver data about the worker's environment, activities and biometric conditions.

The technology can detect and warn a worker of the potential for injury or reduce the seriousness of an injury when one occurs.

There are visual, tactile and sensing wearables:

• Visual wearables use optical aids in or on glasses, visors and hard hats that produce images that can be seen by the wearer or remote viewers.

• Sensing wearables can sense a worker's biological,

environmental and physical conditions. It can warn the employee of hazardous situations that can lead to an injury.Tactile wearables work as an exoskeleton to increase the user's strength and durability.

"The big companies are the ones making the largest investments in innovation and technology, but so far it's hard to quantify their impact on health and safety,"

Helen Goodland SCIUS Advisory

Exoskeletons, or exosuits, are metal frameworks fitted with motorized muscles. The frameworks are modeled on the wearer's internal skeletal structure.

Exosuits augment human motion to allow for more lifting strength and for improved performance of such repetitive tasks as squatting, bending or walking,

When used properly, they makes lifted objects feel lighter, reducing fatigue and injuries.

In addition to reducing deaths and injuries, innovation and technology that improves work site safety has other, less obvious benefits.

"Investment in technology should be considered strategically," said Goodland. "Although most companies appreciate the operational importance of safety — and how it can keep insurance claims down — there is no question that the industry's safety record is linked directly to its reputation."

Goodland says because safety is one of the elements of corporate social responsibility, which is important to young people, it can be used as a human resources management strategy for hiring, improving organizational commitment and retaining employees.

"Make it easier for construction to recruit young workers who are looking for a satisfying career in an industry they feel good about and they're proud to tell their friends about," said Goodland.



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## Making COVID-19 vaccinations mandatory raises a flurry of flags

IAN HARVEY

s COVID-19 vaccines roll out questions are forming around how far the government — or an employer can go to demand workers be inoculated before they report to the jobsite.

Vaccinations are unquestioningly prudent, says Mark Lewis, general counsel to the Carpenters' District Council of Ontario, adding the union has asked Ontario's COVID-19 response point man Ret. General Rick Hillier to make vaccinations available to construction workers a higher priority.

"The elderly and vulnerable and health care workers first, obviously," he says. "But construction workers have been working through the pandemic."

Whether the government or an employer can made inoculation mandatory are difficult questions, says Norm Keith, of Fasken, one of Ontario's leading lawyers in the field of occupational health and safety, because it crosses over not just into the area of workplace safety but into privacy rights and religious rights and raises the issue not of whether they can but whether they should.

"I had one client ask if they could incentivize their employees to get a vaccination," he says. "They meant, to pay them, and I advised against it for several reasons. Not a good idea."

Both Keith and Canadian Civil Liberties Association (CCLA) Cara Zwibel, fundamental freedoms program director, say there are two levels to address off the top.

The first is whether the province has the statutory authority to decree vaccinations for employees in the workplace or before being able to enter public spaces.

"So, yes, the government requires you have vaccinations before you immigrate to Canada, for example," Keith says and they can pass legislation either mandating vaccinations for all (with exceptions) or preventing people without proof of vaccination entering spaces or workplaces just as the federal government can stop people from flying or entering Canada without proof of inoculation.

Lewis says the Carpenters' are generally strongly in favour of vaccinations but would rather it be voluntary than compulsory, though there could be exceptions.

"Certain exception to vaccination in the care of allergies, pregnancy or religious reason, pending the best medical





advice at the time," he says. "If the government makes it mandatory we'd advise our members to follow the law."

However, employers should not mandate compulsory inoculations unless there are specific reasons, he says, and they do not have that unilateral right.

"For our members it would be on a case by case basis," he says. "If they are going into an LTC to carry out renovations and there will be a lot of that soon — then it is reasonable to require a vaccination because that virus just doesn't walk into those places by itself. Or, hypothetically, if you are working at a construction camp in an isolated area where an outbreak would be a disaster, a vaccination might be considered reasonable."

In the meantime, Lewis says, the Carpenters' have offered their facilities to the government as places to administer vaccinations in an effort to help the rapid rollout.

It stands to reason construction employers should strongly encourage their crews to get vaccinated, Keith says, because they're burdened with the duty of taking all reasonable steps to ensure their sites are save under the OHSA and the Criminal Code.

"But they have to respect any known disability, which if a known disability is a condition that reacts to the vaccine and would impose undue hardship then they have a duty to accommodate," he says.

Still, much of the anticipation around mandates and restrictions is premature, he adds, since the vaccines aren't widely available and won't be for sometime.

"I think employers should strongly recommend based on Health Canada approvals and the benefits," he says noting asking an employee whether they have been inoculated isn't



going too far in terms of privacy. "A simple proof of vaccination is not disclosure of a medical test or medical record."

The key, he says, is to take a reasonable approach and not overreact or overreach. While workplace safety is tantamount it must be balanced against the existing laws and regulations, any collective agreement wording and the Human Rights Code and Privacy legislation.

However, while construction sites haven't been a major source of infection, it happens. Crosslinx Transit Solutions announced in January that 28 people working on the Eglinton Crosstown LRT tested positive putting another 70 people into isolation.

Earlier, Ontario Health Minister Christine Elliott has already hinted that vaccinations may be required to enter some public spaces and a Campaign Research poll suggested more than half of 58 per cent of Canadians think people should be vaccinated while only 35 per cent didn't support making it mandatory.

Mandatory shots aside, the next question is how far restrictions on non vaccinated people could extend and there's already legislation which shows the authority is there in the form of the Immunization of School Pupils Act which bars children from attending school if they haven't been inoculated against basic diseases.

However, as Zwibel, notes, there are exceptions for those who cannot tolerate vaccines for medical reasons and those who have religious or cultural objections.

Also, in 2018, she notes, the Ontario Nurses' Association (ONA) won two decisions against the Toronto Academic Health Science Network which includes St. Michael's Hospital, Sinai Health System, Sunnybrook Health Sciences Centre, North York General Hospital, the Centre for Addiction and Mental Health, Michael Garron Hospital and Baycrest Health Sciences. An arbitrator struck down a policy which required nurses to either take a flu vaccination or wear a mask for their entire shift backing a similar arbitration decision in 2015 against other hospitals.

Perhaps somewhat ironically in light of the current pandemic response, the arbitrators found that evidence showed that masks "do not prevent the transmission of the influenza virus."

Andrew Pariser, vice-president at the Residential Construction Council of Ontario says there's already research that shows mandating vaccinations isn't effective because people tend to push back. "It's more effective to go to employees and explain it, that it's the right things to do as a team, which is way more effective than mandating it." While there is pressure to plan ahead it's moot because the vaccine isn't widely available and much more information is needed. So far, however, he says, the protocols put in place at construction sites have been effective. "I've been really impressed at how they've kept construction worksites safe," he says. "Looking at places like Texas and Los Angeles, we've done so much better." The CCLA's Zwibel Agrees saying forcing people into inoculations is going to have repercussions on several levels despite the overarching goal of the public good. "People don't want to be pushed into something so you want to establish a public trust through a voluntary stage where many people want the vaccine," she says.

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