



SPECIAL FEATURE

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# SKILLS TRAINING & CONTINUING EDUCATION

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# Mohawk College mobilizes to deliver new elevator trade programs

DAN O'REILLY  
CORRESPONDENT

In his 2018 study on the state of the elevator industry in Ontario, retired Justice Douglas Cunningham issued what might be considered a damning report.

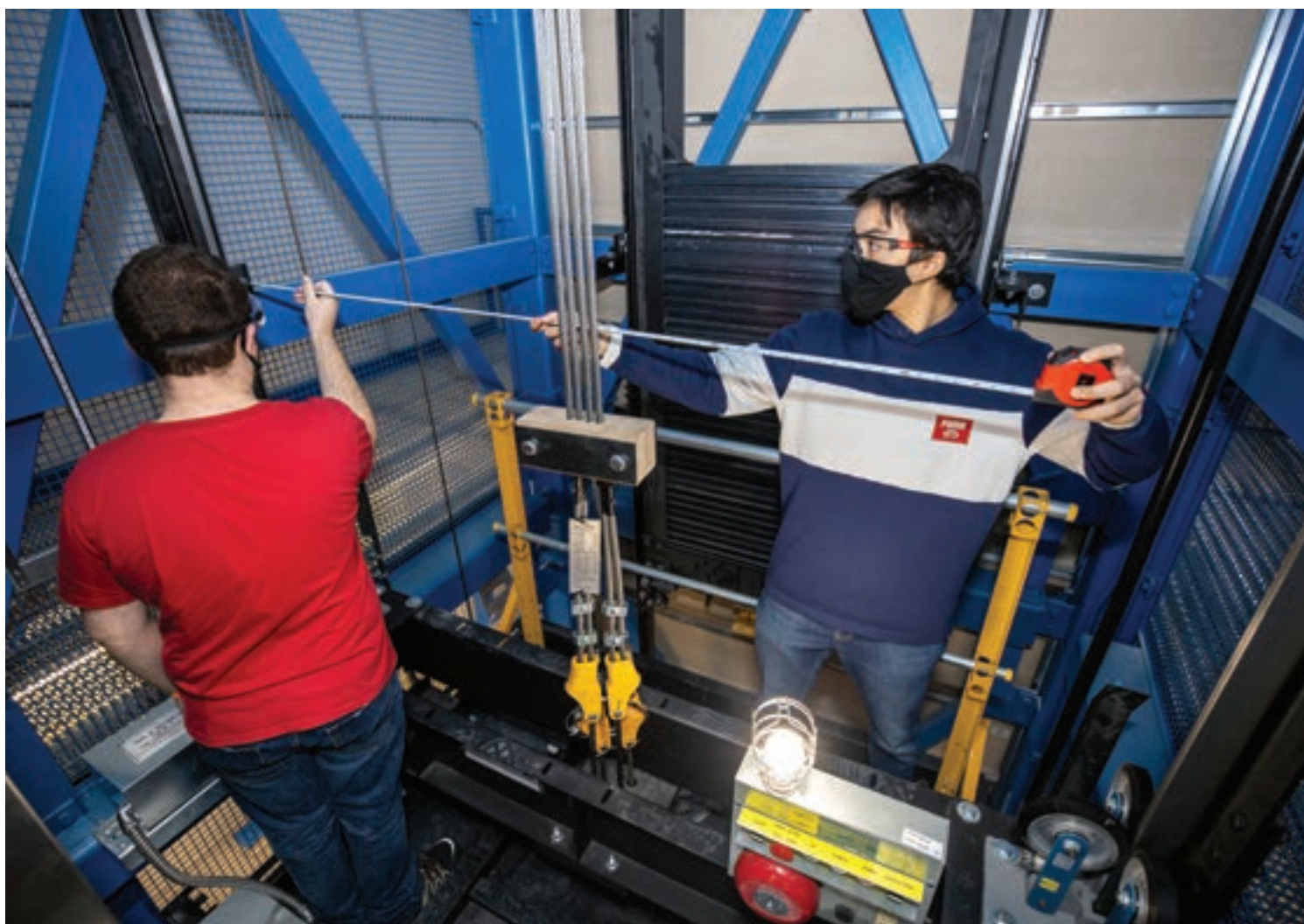
Conducted on behalf of the non-profit Technical Standards and Safety Authority (TSSA) and the Ministry of Government and Consumer Services, the independent study exposed many deficiencies, including an inadequate number of qualified elevator technicians, along with a poor maintenance and safety record.

In response to that report, Mohawk College and its industry partners moved quickly to address that shortage by creating two programs to teach apprentices and students how to install, maintain, and service elevating devices in accordance with government regulations and safe industry best practices. Offered at the Marshall School of Skilled Trades & Apprenticeship in Stony Creek, Ont., they include the Elevating Devices Mechanic apprenticeship (636-E).

Mohawk is one of only two approved non-union delivery agents for this apprenticeship program in Canada which got underway in August 2019 with a first cohort of 28 apprentices.

Similar to other trade apprenticeships, the Elevating Devices Mechanic apprenticeship covers the required in-class training for the elevating devices mechanic trade.

Apprentices who have found an employer or sponsor and who are registered with the Ministry of Labour, Training and Skills Development (MLTSD) must complete 8,000 hours consisting of 7,280 hours of on-the-job work experience and 720



JOSHUA MCGURK/MOHAWK COLLEGE

**Mohawk College and its industry partners recently created two programs to teach apprentices and students how to install, maintain, and service elevating devices.**

hours of in-school training, divided into three 240-hour blocks, says Angelo Cosco, associate dean with the Construction and Building Systems department.

Comprised of eight weeks of learning every year during the three-level apprenticeship, the in-school portion includes subjects such as basic hydraulics, mechanical print reading, rigging and hoisting, and elevator car equipment maintenance.

Also offered is a part-time module where apprentices attend the college one day a week over the duration of their apprenticeship, which can last from three to five years, depending on an apprentice's progress in acquiring the necessary skills, he says.

Not everyone can find an employer or sponsor and many employers do prefer apprentices with some prior knowledge and training, says Cosco, in underlining the importance of the second program.

Just launched this fall with a first wave of 37 students, the two-year Mechanical Technician Elevating Devices (484-684) diploma program is the first of its kind in Canada.

Intended to develop an understanding of elevating device electrical, mechanical and hydraulics systems, the diploma program will give graduates: "an edge and they can hit the ground with boots on (at graduation)."

Embedded with the four-semester program are same 25 reportable modules of

the apprenticeship program and students must successfully complete the modules assigned in their particular level before they can advance to their next block, he says.

A major feature of the diploma program is an optional one-year co-op which would commence after the third semester. Once the co-op is complete, students would return to Mohawk for the fourth final semester.

Graduates will still need to be hired and registered as apprentices through the MLTSD, says Cosco, stressing the college will be actively pursuing both co-op placements and permanent positions for the students.

Both the apprentice and diploma programs are following the exact same curriculum set by the College of Trades and TSSA, he says.

"There is a desperate need for this training. Our industry partners are very excited to see it begin."

A "second to none" 557-square-metre (6,000-square-foot) elevator laboratory built with the assistance of Delta Elevator and Brock Elevator and just opened this past September, is the training facility for both the apprentices and the two-year students.

Erected by TRP Construction General Contractors in a new general purpose building with "great heights", it houses two separate construction shafts, one traction

and the second hydraulic, and two fully functioning elevators.

"By installing two separate construction shafts, students can learn and experience the installation of both technologies. The purpose of the elevators is to teach the service, maintenance and troubleshooting side of the business."

Having the two separate shafts was the one of the many recommendations of an industry program advisory committee which Mohawk established with the assistance of the Canadian Elevator Contractors Association.

A confluence of events led to the creation of that committee and subsequently the two training programs, says Cosco.

"For many years we (the college) received inquiries regarding elevator mechanic programs from students and parents and that was especially the case at our 2017 open house."

But the need for a formal training program was dramatically highlighted in Justice Cunningham's study, he says.

Key findings in that report combined with continuous inquiries from students and parents, the support of the building industry identifying the need for certified journeypersons, plus the fact that Mohawk was willing to build a training facility and its reputation as leader in skilled trades and apprenticeship training, all contributed to its successful MLTSD application to deliver the programs, he says.



JOSHUA MCGURK/MOHAWK COLLEGE

**An elevator laboratory housing two separate shafts, one traction, the other hydraulic, and two functioning elevators is used in the program to assist with teaching troubleshooting.**

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# George Brown site tours deliver unique, first-hand experiences for students

DAN O'REILLY  
CORRESPONDENT

Drawing on his extensive contacts in the residential building industry, George Brown College professor Bill Hawryschuk has been giving his students real life exposure to construction sites for the past several years.

A teacher in the Angelo DelZotto School of Construction Management, he plans and leads educational tours of residential and high-rise residential projects through the support of RESCON (Residential Construction Council of Ontario) and its member firms.

His students are graduates of either the three-year Construction Engineering Technology or Civil Engineering Technology programs who have enrolled in the Residential Construction Management Program (Postgraduate).

**"They notice the importance of courtesy, teamwork, and effective verbal communication,"**

Bill Hawryschuk  
George Brown College

Consisting of four months of instruction in subjects such as high-rise construction and purchasing and bid processes, followed by a four-month-long co-op placement, the program was created and is specifically designed to help them enter the residential construction field. RESCON worked with the college to launch the program including contributing funding and its members provide all of the student placements.

"Builders expect to give them further training," says Hawryschuk, explaining operating procedures in the residential field can differ from those in the commercial sector.

Securing positions as site coordinators or junior estimators are the students' career goals and from there they can aspire to work as project managers, estimators, or site superintendents, he says.

Lasting about two hours, the visits take place during the academic session which normally runs from May to August but is currently operating from September to December because of the complications created by COVID-19.

Usually, there are six tours each session and that sequencing is intended to provide them with an upfront view of construction occurring at different stages, whether it is a foundation being excavated, a roof being sealed, or an elevator shaft being installed, he says.

Depending on what phase of erection a new building has reached, an occasion-



GEORGE BROWN COLLEGE

**Residential construction management program students from George Brown participated in a site visit at The Daniels Corporation Waterfront project in Toronto.**

al visitor on the tours is Professor Bogdan Strafalogea. An instructor on mechanical and electrical systems in the High Rise Construction course, he discusses those systems and their application to construction, says Hawryschuk.

Arranged with the support of RESCON partners such as The Daniels Corporation, Tribute Communities, and Arista Homes, the tours give students the opportunity to listen and pose questions to construction vice presidents, site superintendents or safety managers representing the firms. Often their hosts are the same individuals they met on previous tours.

"I steer where we go (in the conversation) to cover our course content and the host will comment on site specific challenges and other issues and problems."

Touching on the safety precautions, he says there is a strong emphasis on staying together and wearing full personal protection equipment. Some builders also require clearance forms to be signed.

"I discuss with the students the need to be attentive, mindful, and aware at all times."

Following the tours there is an equally intense classroom conversation where the students discuss what they observed and learned. Judged by the feedback he receives in those sessions, which often last 90 minutes, it is comprehensive list.

"They notice the necessity of the labourers and their numerous tasks, something

that has typically not been covered in the curriculum. They notice the importance of courtesy, teamwork, and effective verbal communication skills and get to see first-

hand the tight constraints for space and the traffic challenges."

A considerable of effort, planning, and lead time notice is required, says Hawryschuk, who usually calls the project host representative four weeks in advance.

"Then we set the actual date closer to the site visit to allow for flexibility in moving the date a day or two in case they have a very busy day or there is bad weather."

An entry into arranging the excursions are the contacts he established in his previous career as a site inspector and site superintendent for a number of home builders and later for Genivar (now WSP).

Some of the projects visited have included several Toronto condominiums, plus new home subdivisions in areas such as Brampton, Whitby, Oshawa, and Orangeville.

Due to concerns generated by COVID-19, the out-of-town visits have been replaced with transit-oriented ones and the program was temporarily halted at the end of September for a review and update of safety protocols.

"There are 16 students, so it may be a case of having eight visiting a site one time, and then the other eight a few hours later," says Hawryschuk on the measures being considered.

He established the tour program shortly after joining the college in 2013 with the assistance of assistance of colleague Bill Nichols and estimates he has conducted approximately 35 to 40 visits since then.




GEORGE BROWN COLLEGE

**Site visit participants also attended an Arista Homes sales office.**



GEORGE BROWN COLLEGE

**Students had the opportunity to observe the forming and rebar work at the Daniels Corporation's Waterfront project in Toronto.**



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# OAA moves fast to ensure continuing education during COVID-19

DAN O'REILLY  
CORRESPONDENT

In the fallout created by COVID-19, the Ontario Association of Architects (OAA) had to take decisive action to maintain its continuing education program.

Like many other professional, trade, and industry associations, as well as private businesses, the OAA has been offering webinars and conducting online presentations instead of in-person meetings and conferences.

Transitioning its continuing education program to a virtual format, however, was more than simply providing a value-added service for its members.

In keeping with its mandate to ensure the protection of the public, the continuing education program is mandatory and architects are required to attain 70 hours in 'structured' and 'unstructured' learning categories within a two-year cycle which runs from July 1 to June 30.

Non-practicing architects need to obtain 35 hours, with no structured minimum requirements. Licensed technologists must also log 35 hours, of which a minimum of 12 must be structured learning.

In the case of sessions led by third parties, members are responsible for recording their hours on their transcript (on the association's web page). For OAA-sponsored events, including the webinar series, the association records those hours on their behalf.

Failure to complete their hours can result in fines and the possibility of disciplinary action.

While it might be an exaggeration to suggest COVID-19 threw a monkeywrench into the continuing education program and the two-year education cycle, the OAA had to make some fast-moving adjustments.

One of the consequences of the pandemic was the cancellation of its annual conference which had been scheduled for last May in Toronto, says the association's first vice-president of education, Agata Mancini.

"The conference includes a good portion of continuing education seminars and events, and many members rely on it to fulfil their ConEd requirements."

Attendees can obtain up to 17 continuing hours by participating in events, tours, and other sessions, she explains.

"Cancelling this year's conference was definitely not the

way I expected to begin my role as VP", says Mancini, who just assumed the newly created role in January.

Once it became obvious this year's event wasn't going to happen, the OAA Council (the association's governing body), its comprehensive education committee, and staff worked quickly to find an alternative method to deliver education to members, she says.

Those efforts led to the creation of a webinar series, which includes biweekly 1.5-hour webinars, held over Zoom, comprised of sessions adapted from the cancelled conference as well as seminars delivered by other speakers.

The webinars are intended to ensure members can access high-quality education from "world-class" speakers, as well as meeting their continuing education requirements, she says.

But the changeover wasn't entirely an easy process. "Finding the right people to provide the expected high-quality educational experience over distance learning was the big, overriding challenge."

Out of the 70 presenters scheduled for the terminated conference, only about 30 were on board for adapting their lesson digitally. Another challenge was to obtain the right presenters who could deliver the expected learning experience to members, she says.

That objective was achieved by issuing a call to the OAA's own members and through social media. Another challenge was quickly mastering videoconferencing technology like Zoom and working with the approved speakers to adapt their presentations.

Some of the sessions held to date include low-energy heritage building retrofits, handling workplace discrimination and harassment, and a case study of a retrofitted Toronto building.

Participation was a little slow at the beginning of summer. But that rate has been increasing and a seminar on energy code basics at the beginning of November attracted more than 160 viewers, she says.

In tandem with the conversion to an online learning program was the decision to extend the current two-year cycle—which normally would have ended at the end of June—to the end of this year to give members time to earn their credits.

At the same time, the next education cycle will be shortened to 18 months. It commences Jan.1 2021 and will con-

clude on June 30, 2022. This is intended to harmonize with provincial/territorial regulators who will also be seeking to return to the original July 1-June 30 cycle.

Regular email notices and social media posts about the condensed period are regularly sent to members. To accommodate that condensed period, members can start earning credits now, she says.

Asked about what changes or evolution in the OAA's continuing education program can be expected, Mancini says that "some exciting things are in store".

Digital education has helped "level the playing field" in terms of accessibility and the association continues to expand this model in the future, she says.

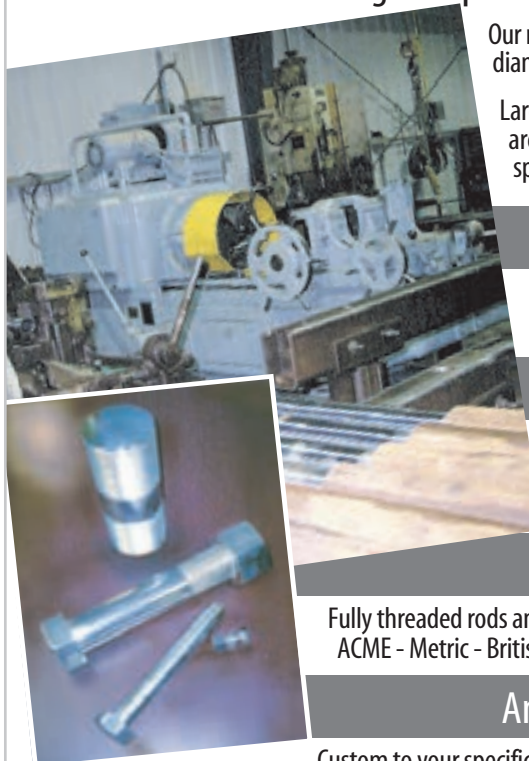


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**Agata Mancini, an architect and the OAA's first vice-president of education, says digital education has helped level the playing field in terms of accessibility.**

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## ORBA Road Building Academy set to roll

DAN O'REILLY  
CORRESPONDENT

Although COVID-19 is necessitating a number of changes from previous events, the Ontario Road Builders' Association (ORBA) is proceeding with its premier learning forum early next year.

**"We do have a contingency plan in place to provide a virtual program,"**

Abigail Wright Pereira  
ORBA

The 14<sup>th</sup> annual ORBA Road Building Academy is set to take place in person at the BMO Institute for Learning in Toronto from Feb. 22 to 26.

"We do have a contingency plan in place to provide a virtual program in the event that the BMO Institute is required to close due to the pandemic," says ORBA's marketing and communications director, Abigail Wright Pereira.

All health and safety protocols will be in place including reduced class sizes to ensure physical distancing. ORBA is allowed 48 participants per day, a 60 per cent reduced capacity, which is why the association is encouraging early registration, she says.

First launched in 2007 with 10 courses, the 2021 academy will feature 20 in-person classes and 10 online ones, which will be available all year round. Fourteen of those courses are new, including a University of Waterloo Project Management Certificate.

Targeted to industry members aiming to become project management specialists or simply to develop the necessary skills to deliver projects on time and budget, it will consist

of a first five-day module and subsequent five-day module at the 2021 academy.

A senior partner with World Class Productivity Inc., Carl Sergeant will be one of the instructors, along with Kristine Hatfield and Kiron Bondale who are senior consultants with same firm.

After each year's Academy the association sends a survey to participants asking what courses they would like to have offered again. Those responses, along with the pressing challenges the industry faces, are evaluated by ORBA's education committee which meets early each spring to develop the program for the following year. Member feedback was the catalyst for offering the project management certificate, says Wright Pereira.

Other new courses include Effectively Managing Remote Teams, Path to Digitation, Being Crisis Prepared, and Stop Running Past Diversity.

The program brochure describes that course as a "comprehensive training workshop designed to help companies create a diverse, multi-generational workplace culture.

"Diversity and inclusion is not new in our industry," says Wright Pereira, when asked if the seminar is in direct response to movements such as Black Lives Matter. A three-part webinar series on racial, gender, and generational diversity was presented by ORBA in October.

The Academy is divided into four different categories: Management and Leadership; Business and Professional; Technical and Safety; and Law and Legal Matters. But there are no restrictions or prerequisites and attendees can sign up for whatever course interests them.

Over the past couple of years ORBA has brought courses that were once available only in the U.S., such as the Asphalt Institute's Paving Inspector Course, to the Academy, says Wright Pereira.