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SPECIAL FEATURE

SUBTRADES

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William Conway, Progress Photography

Installation

Thin stone craftsmanship at the core of Exteriors In Motion

DAN O'REILLY
CORRESPONDENT

Not finding a position in your chosen field after graduating from university or college can be discouraging, if not demoralizing. For Arek Swito it was the first step to a career in construction.

The 47-year-old Georgetown, Ont. resident is the founder and co-owner of Exteriors In Motion, an installer of exterior thin stone on both commercial and residential buildings.

In its almost 15 years of existence the company has built up an inventory of long-time clients in this somewhat niche business. Some of those clients include Cara Foods, Moxie's Restaurants, and Marriott Hotels.

In 2017 Exteriors in Motion installed approximately 780 square metres of synthetic stone and another 139 metres of natural Muskoka Granite on the exterior of the Guild Inn as part of a major refurbishment of the east-end Toronto landmark facility.

It was invited to take on an interior project this year, but had to decline because of other jobs.

The road to that success, though, has been long and steep. Swito studied business management at Seneca College, but when he graduated in the early 1990s the country was locked in a deep recession and opportunities in that industry were very limited. So, he started a trucking company and drove

trucks for about eight years. "It was crazy," says Swito, in a reference to the long hours and uncertainties of long-haul trucking. Eventually he left the business.

"Thin stone is a challenging product which you have to know inside and out,"

Arek Swito
Exteriors In Motion

His entry into construction was through his father-in-law who owned a small contracting company.

"I helped him renovate a warehouse and one thing led to another."



DAN O'REILLY

Arek Swito of Exteriors In Motion examines a defective thin stone on a restaurant.

That included the creation of Exteriors in Motion

in 2004 with partner Bartek Syrek, a long-time associate. Their first big contract was the Lora Bay, a high end cottage development in Thornbury, Ont. The stone manufacturer actually provided the on-site instruction.

When asked if mastering the art of thin stone installation was a learning curve in those early days, Swito replies: "It's always a learning curve, even after all these years."

Thin stone installation is not a licensed trade and there is no definite name to distinguish it from other trades.

"It's not masonry — masons don't want to have anything to do with it."

Nevertheless, a considerable amount of knowledge and skill is required and there is a constant two-way flow of information between manufacturers and installers on technical innovations and what has been learned on the jobsite, he says.

"Thin stone is a challenging product which you have to know inside and out — especially in Canada where cold air is trying to get in (the building) and hot air is trying to get out which can lead to condensation."

Installing it successfully requires strictly following the manufacturer's instructions and careful on-site visits to evaluate projects and to conduct measurements in which to submit a successful bid, he says.

Like any other trade, thin (or decorative) stone contractors must wrestle with a litany of challenges including the weather, manpower availability, and timing — especially as they have to wait until the exterior walls have been prepared by other subcontractors.

"We're usually the last trade on site and then we have to meet the construction manager or general contractor's deadlines."

Meeting those deadlines requires working throughout most of the winter as long as temperatures don't deep below 0 C, which is the critical threshold for the cement to dry. With the exception of extremely frigid periods, such as the kind which slammed most of Canada last Christmas, that temperature level can usually be sustained by working under heated tarps.

"It can get warm enough you can work in a T-shirt," says Swito, noting workers shouldn't get careless and leave the enclosure without putting on a coat.

As is the situation on any construction site, safety is a major concern, notably the proper use of the heaters which must operate around the clock until the cement dries. There are two types of heaters, propane and diesel, and both have pros and cons.

"Propane heaters are flammable, loud, and not very friendly to use. But, they are more economical to rent than diesel ones."

Operators are required to hold a valid Record of Training certificate and Swito requires all his employees to take training courses which are available through manufacturers or rental firms. Also mandatory is working at heights training.

At any one time the company's workforce ranges from between five to 15 people, although four are long time employees.

Last fall the company branched out into new territory when it secured an agreement to be the exclusive North American dealer for a European stone manufacturer. It takes about six weeks from the time the stone is ordered until it can be delivered on site.

"European quality of products are much higher than in North America," says Swito, in explaining why he decided to offer the stone.

Economic Snapshot

After a pause early this year, Saskatchewan's prospects brighten heading into 2019



John Clinkard

After retreating by -1.0% in 2015 and by a further -0.5% in 2016, the Saskatchewan economy rebounded by +2.8% in 2017 largely on account of a price-driven increase in oil exports and a concomitant strengthening in exports of potash.

Despite this stronger pattern of growth, total employment in the province in 2017 was little changed with a gain in hiring of 5,200 jobs in the public sector almost offset by a 4,100 drop in private sector employment.

Given this very slight change in total employment, it is not surprising that, for 2017 as a whole, Saskatchewan's unemployment rate remained essentially unchanged at 6.3%.

As the picture of Saskatchewan's recent economic performance comes into focus, it is clear that after a strong showing in 2017, the Wheat Province lost a considerable amount of momentum during the first half of this year. Factors contributing to this slower pace of growth include a flattening of exports, no job growth, stalled consumer spending and a sharp drop in residential construction.

Turning first to exports, while year-to-date foreign sales of petroleum products (+11%) and potash (+8.5%) have been positive, these gains have been completely offset by price-induced declines in exports of canola (-19%), peas (-49%) and lentils (-47.3%).

During the first six months of the year, total employment in the province was essentially unchanged compared to the comparable period in 2017. Looking forward, two indicators suggest hiring plans have cooled recently. According to the Canadian Federation of Independent Business (CFIB), private sector hiring plans contracted in June. Furthermore, the CFIB's *Business Barometer Index* for the province has tumbled by 17.2 points since March to an 18-year low of 44.8.

Given the province's depressed job market, it is not surprising that Saskatchewan consumers appear to have pressed the pause button on their spending. Since the beginning of the year, retail sales in the province are down by just under 1% y/y largely due to a 2.3% y/y decline in spending on motor vehicles and parts.

The weak fundamentals that flattened consumer spending also appear to have depressed housing demand, causing year-to-date home sales to drop by 7.5%. Driven by this slowdown in sales, partially the result of the more restrictive mortgage lending regulation introduced by OSFI at the beginning of the year, average house prices are down by -2.8% year to date while the months' supply of homes for sale, at 10.3 in June, is just slightly below the 15-year high of 10.7 reached in May.

The effects of this slowdown in existing home sales has clearly depressed new residential construction in the province. Housing starts during the first half of this year are off (-23% ytd) compared to the first half of 2017. Given this weak first half, we expect housing starts for the year as a whole to total between 3,000 and 3,500 units compared to 4,800 and 4,900 in 2016 and 2017 respectively.

Despite a steady gradual firming in oil prices over the past two years, the value of total capital spending in Saskatchewan is projected to contract by 2.4% this year following a slightly larger 2.8% decline in 2016. According to Statistics Canada, this (the fourth consecutive) retreat in capital spending intentions is largely due to a 7.4% drop in mining, quarrying and oil and gas extraction, which now accounts for 37% of the province's total capital spending, down from 55% in 2013.

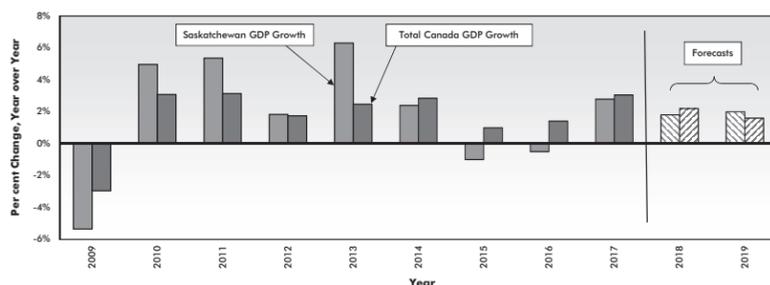
Industries planning to boost their capital spending this year include manufacturing (+62%) transportation and warehousing (+14.6%), public administration (+6%) and education services (+5.9%). This increase in manufacturing capex intentions appears consistent with the year-to-date gains in industrial and commercial building approvals which more than offset a drop in institutional project approvals.

Although the Saskatchewan economy continues to face significant challenges, a number of positives should help to underpin its growth during the remainder of this year and into 2019.

First, although the prospects for the province's agriculture industry are dependent on weather and market-determined crop prices, after a drought-depressed 2017, the most recent *Saskatchewan Crop Report* notes that the majority of crops are within their normal range of development. Having said this, weakening prices for most of the province's field crops temper the agricultural sector's prospects over the near term. Second, following a slow start, the province's manufacturing sector appears to be moving into a higher gear due to solid gains in sales of both non-durables (+33% y/y) and durables (+25% y/y). Finally, despite the uncertainty regarding the future of Canada/U.S. trade, Saskatchewan is, according to the Fraser Institute's 2017 *Annual Survey of Mining Companies*, the best place in Canada and the second best jurisdiction in the world for mining companies to make new investments.

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

Real* Gross Domestic Product (GDP) Growth — Saskatchewan vs Canada



* "Real" is after adjustment for inflation.

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

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Restoration

Iconoplast conserves the past as it carves its way into the future



ROBERTA GAL

Magali Furiere retools a frieze in the House of Commons' West Block.

DAN O'REILLY
CORRESPONDENT

Its studio in an industrial building in Toronto maybe small, but Iconoplast Designs has a large, impressive resume and very deep roots.

Now a fourth-generation family business, it is one of the few plaster conservation businesses still existing.

Founded by third generation master plasterer and a plaster conservator Jean-Francois Furiere, its long list of projects includes the Pantages Theatre, One King West and the Royal Ontario Museum—all in Toronto—and several in other parts of Canada and the United States.

And that's only a small sampling.

At one time it operated from a 5,000-square-foot facility and had two full-time crews for the production component of its business.

"More restoration is now being done in situ (on site) so we reduced our studio four years ago," says Furiere in explaining why he relocated the business to its present location in the city's east end.

As described by Furiere his trade is a very old one, although in the case of Iconoplast, one "infused with modern technologies and an intimate hands-on approach."

Its five main areas of expertise include restoration, preservation, conservation, plaster repair, and custom fabrication. Examples of the latter can range from ceiling mouldings for new home builders to one-of-a-kind pieces such as a wall frieze for fashion/fragrance designer Christian Dior's Miami and New York stores, a copy of which is kept in the studio.

Whatever the project, however, the same principles of chemistry and geometry apply and the process starts with creating a drawing and then making a mould. Old photographs, drawings, sketches or drafts and even blueprints can provide insight.

"The objective is to preserve and con-

serve 100 per cent of the original plaster," says Furiere, noting that's not always possible and some sections have to be recreated.

Iconoplast Designs has been operating since the mid-1980s but its origins go back more than 100 years. Furiere's grandfather, father, and uncle were sculptors in traditional plaster shops. In the early 1900s Furiere's grandfather, Dominique, planned to emigrate from his native Italy to United States with the dream of landing a position with a movie production company.

"Most of the film sets at that time were made from plaster."

Dominique only got as far as France where he got a position in the construction of a large hotel and where he settled and started a business. An heirloom from that era in the Toronto studio is a plaster cast of an address nameplate for a building on a street named after French author Victor Hugo. It would have been used as the prototype for a final version fabricated from either bronze or stone, says Furiere.

"But I don't know too much about it or what city it was used in."

Many of the business archives were lost when the family home in what-was-then French North Africa was destroyed by fire. Fortunately the cast was in a studio that was not part of the house and was part of the plaster family archives and family library which Furiere brought to Canada after founding Iconoplast in 1987.

Not unlike many young people whose fathers and grandfathers were in the same profession or trade before them, Furiere considered different career options including martial arts and was even short-listed to compete as a judo contestant in the 1980 Summer Olympics in Moscow.

Love and a sense of adventure changed those plans. His girlfriend and now wife, who he met in high school, wanted to return to Toronto where she was born.

In 1979 the couple immigrated to Cana-

da and the following year he started working as a production manager for a plaster production company.

As he recalls it, the 1980s was "a period of transition," because that was when the emphasis on building conservation and restoration in Toronto and throughout Canada was emerging. He still laments the fate of many of the city's older houses where the old-style plaster was ripped out and replaced with drywall during renovations.

"Plaster walls provide better acoustics," says Furiere.

Certainly in his case the 1980s was marked by series of seminal events. A year after starting Iconoplast he obtained his first "big break" when he was hired to construct 28 large capitals — the topmost members of columns — in Montreal's new Cinema Egyptien which closed in 2001.

Although the project didn't generate much publicity outside of Quebec, he subsequently received the award to restore the Pantages Theatre (now the Mirvish Theatre) in Toronto.

Capping the two-year-long undertaking, which included restoring the main lobby and nymphs on the main stage, was the 1989 opening of the Phantom of the Opera.

In the ensuing years a constant thread of projects followed including a recent one of national importance. Early in the new year Furiere, his daughter Magali and their assistant Jen Weber completed a five-month-long restoration in the House of Commons' West Block — actually one component of an multi-phase overall rehabilitation of the block.

"We restored 12 capitals, the whole frieze on the stair lobby on the outside wall of the PMO (Prime Minister's Office), and the whole cornice and friezes in the inside of the PMO, the wall ornamentations and the coats of arms."

"They were in very bad shape. We had



ROBERTA GAL

Magali and her father Jean-Francois Furiere in the House of Commons West Block.

to retool and carve the ornaments to their original intended design by hand. It took hundreds of hours and a lot of patience," says Magali.

The fourth generation of her family to embrace the craft, she resumed training and working with her father after graduating from a four-year historic restoration program at the School of Willowbank Arts in Niagara-on-the-Lake.

"My passion is plaster. I grew up with plaster," she says.

Asked what has been their most challenging or satisfying assignment, Furiere replies: "It's always the next one — it's true. Once a project is done you don't think of the problems."



ROBERTA GAL

Jean-Francois Furiere retooling the Coat of Arms in the Prime Minister's Office.



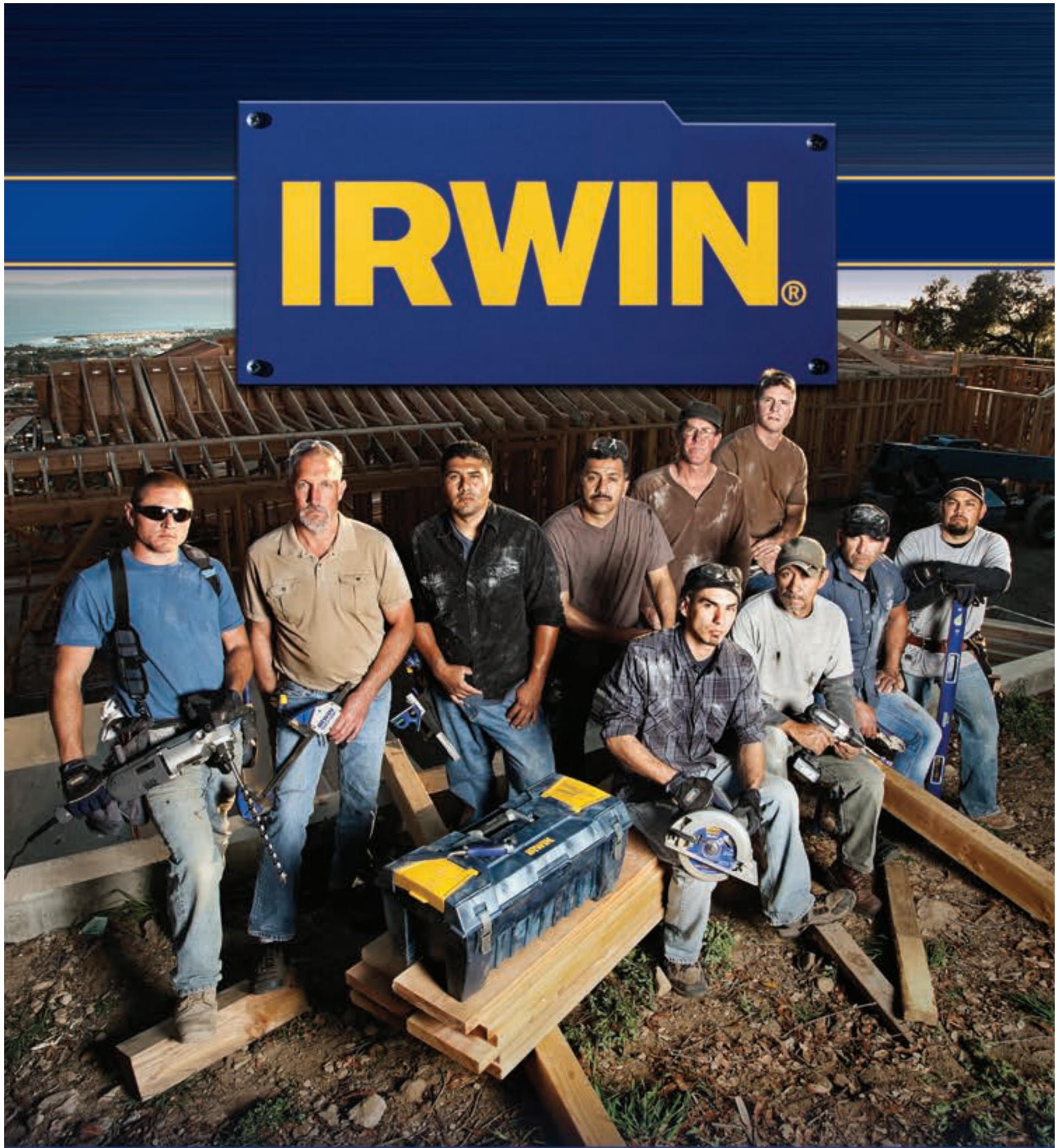
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Legal

When it comes to getting paid, read the contract closely

IAN HARVEY
CORRESPONDENT

When it comes to carrying out extra work subtrades are well advised to carefully check the wording of their contractual agreements or they could end up working for free.

Construction lawyer Robert Kennaley says it's one of the most commonly misunderstood factors in the relationship between general contractors and subtrades.

Being asked to add to the scope of the work agreed to isn't uncommon but sub-trades need to check the terms of their contract before doing anything, he says.

He says the case that comes top of mind in Ontario is Jessco Structural Limited v. Gottardo Construction Limited, 2016 ONSC 2189 involving a concrete forming sub working on two projects for the general contractor, Gottardo.

The contracts between Jessco and Gottardo were valued at \$1.4 million and \$140,000 each.

Over the course of the project, the site superintendent directed work outside the scope of agreement be performed. Jessco duly did the work but when they invoiced, Gottardo balked.

"The contract clearly said that any extra work was to be in writing and approved by head office,"

Robert Kennaley
Construction Lawyer

The matter ended up in court with Jessco claiming \$228,916 was unpaid from the two contracts plus \$32,330 for the extra work. Gottardo counterclaimed for \$662,000 alleging deficiencies.

In June 2015 a judge ruled that because the contract between the two parties explicitly required any change order or extra work to be in writing, the work Jessco did

at the direction of the site superintendent did not have to be paid for.

"It seems the site superintendent asked for all this work but didn't tell head office so that when they got the invoice they were shocked and surprised," says Kennaley. "They refused to pay it."

Jessco appealed that decision to the Superior Court of Justice where a panel split 2-1 in upholding the lower court decision in 2016.

The court found that poor soil condition in 2008 at the two job sites led to the site super asking Jessco to provide additional labour to another subtrade on site to speed up form work.

The site super also asked Jessco's workers to help his own crew keeping the site clear of snow and ice.

Work orders were duly drawn up, detailing the extra duties and the site super signed off, court heard, but the problem began when those orders were submitted for payment.

"The contract clearly said that any extra work was to be in writing and approved by head office," Kennaley says.

"It wasn't and while it might seem that they were following the site super's direction, the premise in law is that there was nothing to indicate either party had abandoned their rights as stated in the original contract.

"In the absence of that waiver the original contract stood."

Citing an earlier decision *Technicore Underground Inc. v. Toronto (City)*, 2012 ONCA 597 (CanLII) the court ruled the original decision should stand noting "the decision is consistent with the law of waiver. There must be "an unequivocal and conscious decision to abandon the right to rely on [the contract]."

One of the three judges on the appeal panel disagreed, however, noting there was a "pattern of behaviour" by Gottardo on the two sites which had the effect of varying the terms of the contract.

As such, Madam Justice Janet Wilson wrote, "in law Gottardo by its conduct waived the terms of the contract."

The prevailing judges, however, cited Howard Wise's

The Manual of Construction Law, loose-leaf (Toronto: Carswell, 1994).

"Because contractors and builders have always been prone to make claims for extras, the Courts have laid down certain requirements to be met before such claims may be allowed," the manual advises.

"You have to read it closely because these clauses aren't uncommon but they're not in the standing form contracts,"

Robert Kennaley
Construction Lawyer

"The ordinary law of contract does not find any place for extras, and unless the contract itself provides for it, a claim for any additional work must depend upon a new contract, either express or implied. An express contract may be either in writing or oral, but an experienced contractor will always endeavour to have the order in writing because the onus is upon him to prove it by a preponderance of evidence."

"There is a lesson to be learned," says Kennaley noting the first question a lawyer will ask when approached for advice in these issues, is "what does the contract say?"

The best way to avoid trouble is to simply follow the contract, he says. If asked to perform extra work, consult the contract and if it stipulates any additional work must be approved in writing in advance, then to follow that requirement.

"There has to be evidence that the parties are waving their rights under the contract or they just have to continue to follow the contract," he says.

"You have to read it closely because these clauses aren't uncommon but they're not in the standing form contracts. You really have to dot your 'I's' and cross your 'T's."

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Workforce

How is construction responding to growing employment demand?

IAN HARVEY
CORRESPONDENT

The long-predicted exodus of baby boomers from the construction trades is well underway and there's an ever growing demand for skilled workers to fill their boots.

According to the Pre-Apprenticeship Training Institute (a CLAC Union, Merit Ontario, Ontario Electrical League and Progressive Contractors Association training organization with campuses in Toronto and Cambridge, Ont.) there are five key areas where apprentices are needed:

- construction and maintenance electrician
- HVAC mechanic
- plumber
- carpenter
- construction office manager

However, the prognosis in recruiting apprentices isn't rosy with Statistics Canada reporting 417,300 people were registered for apprenticeship programs in Canada in 2016, down from 455,900 in 2015. Of these, 72,000 registrations in 2016 were new, while 337,450 were previously registered in an apprenticeship program before 2016.

In some provinces like Alberta and Newfoundland, the drop in oil prices and the slowdown in the energy patch is directly linked to the drop in new apprenticeship registration.

There are signs, however, that the trend is shifting to a more positive flow.

The Ontario College of Trades says since it opened its doors in April 2013 their top trades are the same, with the exception of sheet metal worker being their fifth since they don't certify construction management.

However, for every entrant in HVAC or sheet metal, two enter into plumbing, three as carpenters and four as electricians.

Every skilled trade and industry associations and organizations are prioritizing recruitment to stream people into specific training programs, either through the colleges and other training centres or through a unions own training centre.

"Remember all those demographic studies we did 20 years ago about massive retirements in specific demographics?" says Cristina Selva, executive director, Carpenters' Local 27 Training Centre. "It's happening."

"There's no pool of candidates waiting, it's just constant recruitment,"

Cristina Selva
Carpenters' Local 27 Training Centre

She says of Local 27's 7,000 or so members, about 40 per cent are apprentices and that's up from 17 per cent from just a couple of years ago.

"And we're still recruiting like crazy," she says. "There are going to be continuing retirements over the next few years. There's no pool of candidates waiting, it's just constant recruitment."

Her colleague, Paul Daly, vice-president of Local 27, says the push is to convince young people that becoming a carpenter is a career path that goes beyond swinging a hammer for the rest of their working life.

"I look at the people I came through with



years ago and they are site superintendents and managers," he says noting the average age of a member is now about 47 compared to 60 in other trades. "And so young people are moving up quickly too."

The Carpenters, like all construction trade unions, are working at the high school level to attract candidate and through other government programs such as the Ontario Youth Employment Program.

"We want the right people because it's not just about showing up on the job, you have to have the right attitude," he says. "If they get three lates in training, they're kicked out of the program. It's about developing a culture and instilling the right attitude."

It's important because most of the employers are private contractors and they work on tight margins, says Daley. As a result, productivity is key and those workers with poor attitudes, who show up late or take long breaks, cut into the profit and, ultimately, the viability of the company and that hurts members when jobs are cut.

He says the attraction of being a Local 27 carpenter is almost full employment year around.

"We're at 1.8 per cent unemployed in the local," he says. "And then there are the pension and benefits. So we also need to bring more members to support the existing members when they retire."

Richard Lyall, president of the Residential Construction Council of Ontario (RESCON) has already been actively working to fill demand for construction supervisors, site supervisors and project managers.

"Technology is driving all this and we've partnered with George Brown College to focus on estimating and construction supers where there's a demand for qualified people," he says. "This is the construction management program and there's an architectural element to it as well."

He says the industry will lose about one-third of experienced construction managers in the next five to 10 years as well as one-third of the municipal building officials.

"That's a massive amount of experience going by the wayside," he says. "I'm sure they've got replacements coming but looking at other data in other jurisdictions, such as the U.S., it is clear those people who run construction jobs are going to be in short supply."

He says both George Brown and Durham College have set up programs to meet the need for training and RESCON is working with them.

It's important to get the training programs in place and move candidates through, he says, because technology is starting to play a much stronger role in construction. Building Information Modeling will be here in the not to distance future as

a standard, he says, and those running the show will be depending on their technology to stay on top of the details, especially with tall building design where RESCON is working with the University of Toronto.

RESCON is looking to get ahead of the curve because "we just can't wait for the system to respond."

"We're doing the research ourselves," he says. "There are two elements. There's a four-year degree program in construction management, there's a three years diploma program. With the three-year program they can apply for a bursary and then go into our special high-rise or low-rise program where they are guaranteed a paid placement for four months, which can lead to full time employment and there's a 95 per cent success rate"

Kevin Baker, dean and principal of Durham College's Whitby campus says interest in trades education is booming

"We offer 12 different trades and the demand has increase significantly to the point we filled all the programs last year for the first time," he says. "That's about 800 students across the board. We had a small intake in January and again, that was also filled."

The subtrade most in demand program is elevating devices since they are the only school in Canada offering the program, he says, but there's also demand for millwright training and welding is also creeping up.

The one area where there are issues is attracting more women to the programs and other under represented groups such as indigenous students.

"Trades are still male dominated," he says. "It's starting to change but still not enough. More women are going into automotive, for example, but it's still small."

The college is also working with groups such as OPG which has a big footprint in Durham and the Weston Foundation to encourage more women to look at the skilled trades as are organizations like OCOT.

One of the barriers, he says, is mobility for women.

"Some of the trades require they have to travel to job and be away from home longer and in traditional families with children, women are the anchor," he says. "And that may be one of the big issues. Really, there's a knowledge gap, and we don't know why women are not coming into the trades more."

Another reason may be that most trades require math and science skills out of high school and that's traditionally been an area women shy away from.

"Those women who are strong in STEM subjects tend to get snapped up by engineering schools, so we're competing against them in a way," he says.

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